

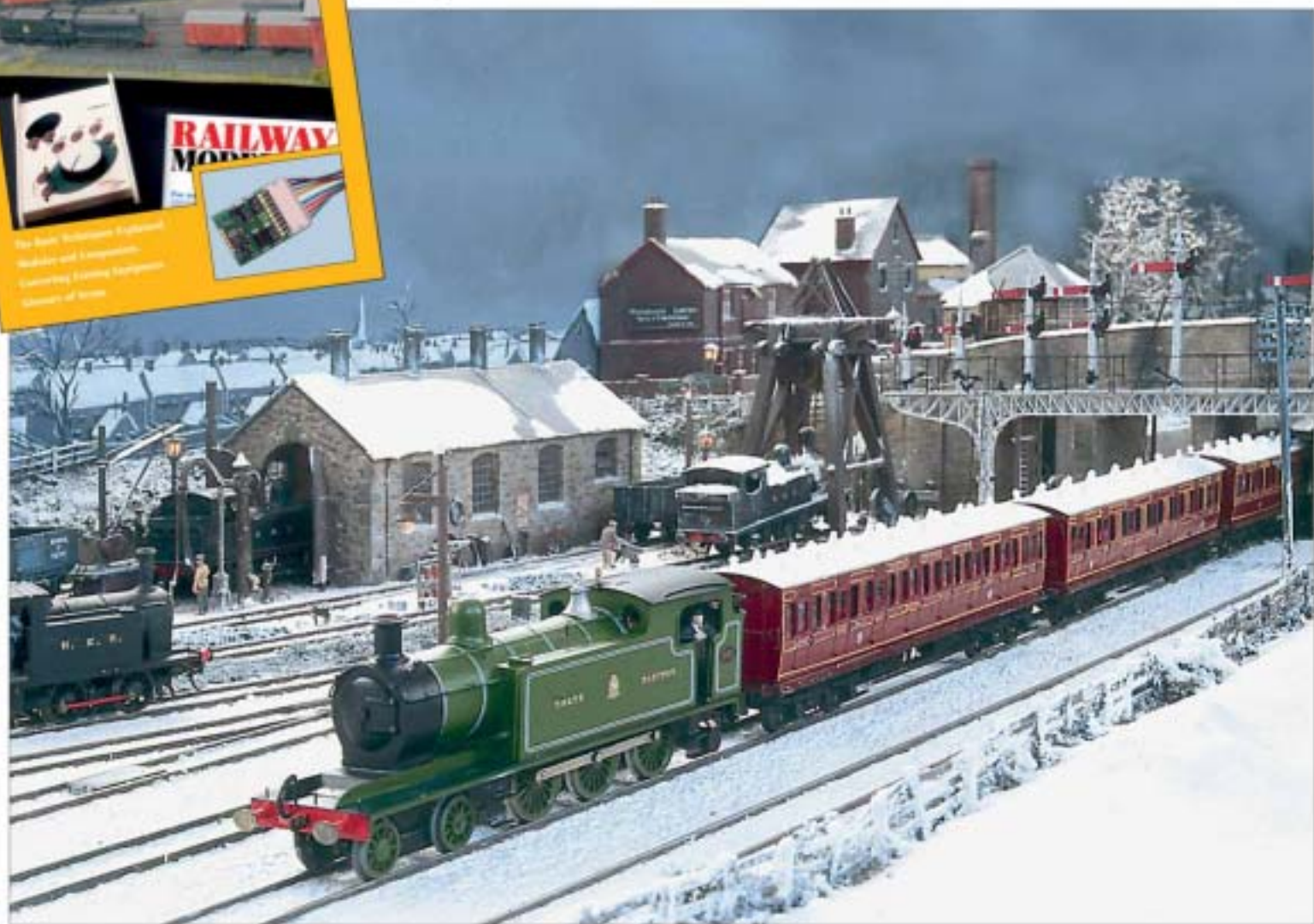
RAILWAY MODELLER

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JANUARY 2004

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**INSIDE
THIS
MONTH...**

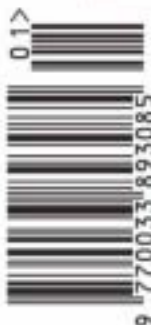
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FOWLER 2-6-4T – Scale drawings

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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

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Shows you how – every month

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COVER: a suitably seasonal scene on Hudson Road by Jon Grant, showing a scratchbuilt Whitby Tank hauling a 'Sunderland set' towards West Hartlepool. Photograph: Steve Flint, Peco Studio.

RAILWAY MODELLER

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CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.

JANUARY 2004

Happy New Year!

Despite this issue being published before Old Father Time performs his annual change-over act, we would like to take the early opportunity to wish everyone the best for 2004. Looking back over the twelve issues of RM for 2003 reminds us of the wealth of new models that have been released: we wonder what 2004 has in store!

Whatever is at the top of your wish list, we hope that modellers, retailers and manufacturers have a great year ahead!

Changes afoot

We have made a couple of subtle alterations to the magazine with and from this issue, which we trust will be appreciated by readers. The main feature article body copy font has changed: Rockwell Light, having done a sterling job since it made its appearance in 1994 has now handed over to Cheltenham Light (and this is what it looks like!). This is the same font as is used in our 'new look' CONTINENTAL MODELLER, which appears to be popular. We certainly find it easier on the Mk 1 eyeballs, both when subediting articles and reading the finished result!

Photo competition winners

The first ever RAILWAY MODELLER photo competition exceeded all expectations both in the number of entrants and the high standard of the entries.

From all over the UK came pictures of prototypes and models, black and white and colour, traditional film and digital.

Judging was difficult and it was a very close thing between the final few, but we did have to make some choices in the end. In reverse order the names out of the editorial hat were: highly commended, Kevin Mayfield of Kendal, Cumbria; third prize was awarded to Rupert Hatch of Midhurst, West Sussex; and second prize was awarded to Alistair Grieve of Wedley Castle, Birmingham.

First prize of two First Class return tickets to a destination on the Virgin Trains network, with a night's hotel accommodation, the winning photograph framed and a family ticket to the Warley National Model Railway Exhibition 2003 was won by Michael Mutimer of Burton-on-Trent, Staffs.

Congratulations to you all! The pictures will be published in the near future and could just be the inspiration you need to dust off your camera and enter our next competition!

De-Dum, De-Dum, De-Dum, De-Dum...

As the days of 'traditional' freight trains recede ever further – and the noise those trains made on jointed track becomes harder to recall (hence this crosshead!) – we are indebted to our contributor Barrie Walls for his piece on the topic in this issue. Hopefully reminding us oldsters – and you don't have to be a steam man to remember the animal in question – and informing those new to this subject, Barrie has studied closely the workings of the freight railway in those days. Note in passing how such differing classes of train were marshalled and 'margin'd' between passenger trains, and how long were the periods of time that some freights spent in loops!

Rigid adherence to working timetables may not be everyone's scene, of course, and there's no shame in running your railway as you want. Nevertheless, the sight of a locomotive carrying the right lamps/headcode blinds with a consist marshalled according to the book trailing obediently behind, helps to reinforce the idea that the modeller is running a real railway, one simply reduced in size from that which the Big Four relinquished to British Railways this month 56 years ago.

Cup Competition 2003

Now is the time to start thinking about compiling your entry for the RAILWAY MODELLER Cup Competition for 2003. Full details and the entry form are on page 53: don't forget the competition to find the favourite 'Right Away' article. Our sister magazine CONTINENTAL MODELLER is as usual running a parallel competition.



Railway of the month

Hudson Road NER

The North Eastern Railway in winter in 4mm scale

The full story of John Grant's two page seasonal sampler we published in November.

Hudson Road NER is a development of my previous layout *Hudson Lane*. That was a 14' snow covered goods-only terminus to fiddle yard project constructed over six months in 1992 and was my first foray into layout building. I extended the layout somewhat haphazardly into an end-to-end scheme over the intervening six years. No two of the six baseboard modules were the same size as each other, making it all a transportation nightmare.

After attending over twenty-five exhibitions, the layout finally gave up the ghost following the New Lanark show in 1998, when three rails on the double slip came away.

Six years of exhibiting the layout had changed my modelling expectations as well as improved my skills. I now wanted point motors instead of wire-in-tube, electrical joints that did not come loose every time a mouse sneezed, and more operating potential than before.

Hudson Lane only had six main sidings and the three loops all used part of the main running line. Consequently, a shunting manoeuvre blocked any through traffic, limiting the con-

tinuous movement that an exhibition layout needs. Furthermore, the modelling on the oldest parts of the layout did not stand up to close scrutiny, so I made the decision to scrap the original masters and start afresh, rather than try to repair the damage.

Theme

I chose to retain the North Eastern Railway as my prototype. Whilst not old enough to be a War-child, and just missing out as a 'baby-boomer', I am nevertheless firmly living in the past. I grew up at the very end of steam in the North East, and still have vivid memories of NER-built locos hauling coal trains from Sunderland to Seaham in the 1960s. There are also many relics of the NER still found all over the North East.

I also decided to continue with the snow-based theme, set in North East England, which meant I did not have to 'un-weather' the snow-covered stock! It also enabled me to incorporate the last part of the *Hudson Lane* construction, a time-saver at the time, but a decision I now regret.

The decision to build *Hudson Road* enabled me to develop several themes and ideas, which the original creaky old layout was unable to accommodate. I wanted the benefit of having all the boards the same size, expand the yard area's operating potential with more sidings, include loops that did not foul the main running lines, improve on the electrics and include more snow-covered scenery. I also wanted to set the period firmly during the Great War, so as to include one of my other interests, military modelling.

I also chose to retain the overall appearance of the layout, with the goods yard centre stage, bordered by two bridges and the coal cells towards the front, thus making the layout recognisable as a progression of the same basic idea as *Hudson Lane*. This has proven to be a somewhat double-edged sword, as some modellers, and even a few exhibition managers were unaware they were looking at a different layout. One even asked if I had seen the other layout before!

Since *Hudson Road* is more of a development, rather than a completely new layout, I

Left: Class R1 4-4-0 No.1239 of York speeds through Hudson Road at 50 miles per hour, on a diverted troop train.

Right: a busy scene, with no fewer than eight locos in shot. BTP Class No.87 hustles by with an early MU (multiple unit), or push-pull.

Centre right: a Middlesborough-Sunderland local passenger, pulled by NER Class R No.1235 of Gateshead, crosses Thornholme Road Bridge.

Below right: Class C 0-6-0 No.878 of Sunderland South Dock heads a through freight towards Ferryhill, while H2 0-6-0T No.1787 shunts a busy yard.

Photographs by Steve Flint, Peco Studio.

also decided to retain the name in some form. Other North Eastern Railway-based layouts have incorporated the name of somebody synonymous with the NER – Raven as in *Ravensbeck* (0 gauge), Worsdell as in *Worsdell Park Road* (2mm) – and I had George Hudson, the Railway King, in addition to the fact that I lived near Hudson Road in Sunderland for over seven years. Therefore, 'Road' would maybe reflect that the layout was a larger version of *Hudson Lane*.

Just to add a bit of tension to the project, I accepted an invitation to take the layout to the Shildon show in October 1999, giving me just sixteen months to get something up to exhibition standards. I may seem to be as thick as a brick for doing this, but I find that you never get so much modelling done as when there is a deadline.

Design considerations

The main design factors for the layout centred around a number of improvements to make the layout more exhibition-friendly and robust. I incorporated various time-saving ideas, suggested by my operating crew, into the layout to enable us to erect and dismantle the layout more easily at exhibitions. I also made improvements regarding the safe transportation of the layout, stock and all the other paraphernalia to and from exhibitions.

With respect to operating the layout, I wanted to upgrade each fiddle yard to allow for storage of up to ten long or twenty short trains. The two passing loops on the layout would be at least long enough to accommodate the longest trains, and the shunting loops would avoid the main running tracks entirely, so as not to disrupt through running. I wanted the goods yard to include much more wagon storage space, since a feature of pre-grouping railway yards was the vast amount of wagons stored in them. I also wanted a small locomotive facility and a passenger station, something I omitted from *Hudson Lane*, because I did not feel confident painting NER coach liveries at the time.

Baseboard construction

Before starting construction, I had to give some consideration to where the layout was going to spend most of its life – in my cellar, either stored away, packed away or set up to be worked on.





Left: an unidentified Class E1 shunts loco coal wagons. The North Eastern painted these light blue to differentiate them from revenue earning wagons.

My cellar is prone to dampness and no amount of moisture crystals can keep it at bay for very long. However I eventually rectified this with the purchase of a de-humidifier, which is one of the best purchases I have made in the last few years.

I decided upon 12mm marine plywood for the baseboard tops cut into three 4' x 2' sheets and one 2' x 1' sheet. The sides and ends were constructed first using 4" deep plywood, held together with 3" long, 1" x 1" softwood blocks as strengtheners. I also screwed more softwood blocks 12mm from the top of the sides, placed at regular intervals inside the frame. I dropped the baseboard top into the pre-formed sides, resting on the blocks, then glued and screwed it to the softwood blocks to create four very strong and rigid boxes. Finally I screwed a single cross-brace of 3mm plywood strip underneath each, a classic case of a belt and braces job.

With a view to the deadline, now twelve months away, I decided to keep the two newest

boards from *Hudson Lane*, a 4' board and the 1' long end-piece. This meant there was a total of four long boards and two short boards, giving an overall scenic length of 18'6". This is just large enough to put up in the cellar and leave a gap big enough to squeeze through without holding my ample tummy in too much. I do not have space to erect the two fiddle yards at home, so I can only ever run the layout as a test track or a shunting yard, which is great for unwinding after yet another day at the office.

In addition to the dampness in the cellar, *Hudson Lane* suffered from heat expansion when it went to exhibitions. To combat this I sealed the new boards with white undercoat, top and bottom. Not only did this help keep out the damp and thus reduce the expansion of the wood, it also had the added bonus that my electrical wizard, John Hargreaves, could write the wiring address directly under the board, greatly simplifying problem solving, but more of that later.

Having been on the exhibition circuit for

over six years with *Hudson Lane*, and listening to the continual complaints of my operators, the new layout was built for ease of transportation and the ability to be erected and dismantled more quickly at shows, allowing for more discussion time in the pub. To this end, I introduced a number of features to speed things up.

Each of the two 7' fiddle yards has a 6' sliding table set onto three heavy duty drawer runners. I chose this size because it allowed for longer trains and was the largest I could go to and still squeeze it into the cellar without removing walls and doors. The fascia boards fold down flat for transportation and the integral legs fold up, enabling me to erect each fiddle yard in less than five minutes.

The four main scenic boards also have a pair of integral foldaway legs with screw-in adjustable feet. These are essential for the uneven concrete floor in my cellar, as well as those perfectly 'level' exhibition halls. Once in position, the legs are held rigid using bolted-on aluminium bar as bracing.

All the baseboards are connected using slotted 6BA bolts and captive washers and nuts. These consist of small rectangles of 2mm thick mild steel plate with a threaded hole in the captive nut and a larger hole in the washer; these are screwed to the inside of the baseboard ends. They not only protect the wood from being damaged by the bolts, but speed up the build-up process and it means I can leave all the loose nuts at home. The baseboards are located accurately each time using two pattern-maker's dowels for each baseboard end.

For safe transportation, the six baseboards have been designed to fit together face-to-face in pairs, with end and side boards fitted to make a protective box, held together with bolts and captive nuts. Each end board has carrying handles made from heavy-duty plastic piping and nylon rope, although the jury is still out on the advantages of these.

At exhibitions, we erect the two fiddle yards first and leave them to one side as freestanding tables, which enables us to erect the scenic boards and check them for evenness. As well as the integral legs, the first board has a temporary set of legs fitted, and once erected, the other boards just piggyback on. We then just have to push the fiddle yards into place and attach them.

Trackwork

Once the scenic baseboards had been constructed and fastened together, I gave some thought to laying the track.

I had managed to salvage eight code 100 points when *Hudson Lane* was dismantled, and although I would have liked to try out the new code 75 track from Peco, the range did not include a double slip or a three-way point, at that time. With finances also at the back of my mind, I chose to stay with code 100, which,

Right: Class P2 leads a train of 'fulls' away from the colliery exchange sidings beyond the bridge. The local GWS (Glencross Wholesale Society) is in the background.

apart from having to replace a few tiebars with copper-clad, has not been a bad decision.

I glued cork tiles to the baseboard surface with white glue, roughly where the track would be laid, and the preliminary track plan was drawn on in marker pen. I design my track plans in time-honoured fashion, starting by scribbling on the back of a cigar packet ('Fag Rail' as opposed to 'Cad Rail!') and progressing onto graph paper. I tend to spend weeks trying out new ideas, sketching out hundreds of schemes, each one getting closer to my desired track plan. I found that by setting out and following some simple design principles at this stage, I avoided some major headaches later on.

Not wanting to repeat my mistake from *Hudson Lane's* trackwork, I used either medium or large radius Electrofrog points throughout for optimum electrical contact between the rails and the loco wheels. Furthermore, the points are now activated using SEEP point motors, rather than the wire-in-tube method, which gave me so many problems before.

I laid the tracks for the main line and loops in a large sweeping curve intentionally, so that none of the trackwork was parallel to the baseboard edges, which to me, is an important factor in creating the illusion of reality. The sidings were also laid with this principle in mind, so that when the track laying was finally complete, only about 4' of it was actually straight. I find that laying track parallel to the front of the baseboard diminishes realism with the regularity reinforcing a 'train-set' appearance.

One feature I chose to retain from the *Hudson Lane* experience was to widen the gap between the sleepers on all the Peco flexi track to give it a more prototypical appearance. I first got this idea from the book *Adding Realism to Your Model Railway* by Michael Andress. It is very time consuming but I just stuck on a little light music and got on with it. Overall, I am very pleased with the effect, even though most of it is hidden beneath a fresh fall of snow! The illusion must be working, as more than a few EM gauge modellers have asked to test run their locos up and down the layout!

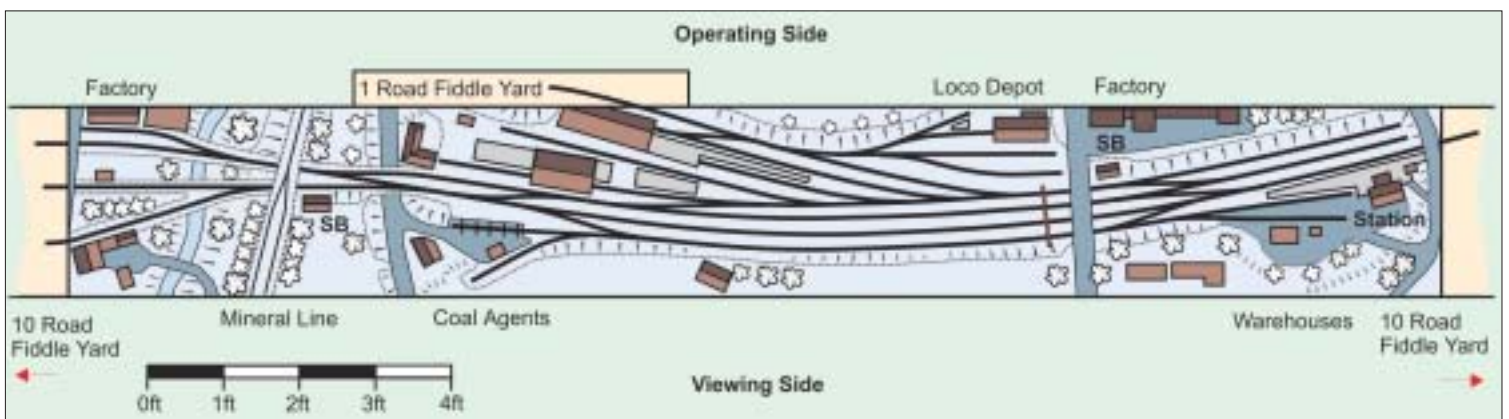
Before fixing the track, I gave some thought to point motors and uncoupling magnets. It is



so much easier to consider these at this stage, rather than when the tracks have been pinned and glued. I marked where the point tie-bars would be and drilled oval holes for the SEEP point motor actuating arms. I had already started using Kadee® knuckle couplings on my NER stock before *Hudson Lane* was started,

and I wanted to try out some under-track magnets. These are very difficult and messy to install after the trackwork is laid, so these were buried in the cork before the track was glued down.

When it eventually came to fixing the track down, I checked and re-checked to make sure





the baseboards were level, set the tracks into white glue and lightly pinned the sleepers. A useful tip for pinning sleepers is to drill a small hole in the plastic sleeper before inserting the pin, which prevents it from distorting and, in extreme cases, knocking the rails out of gauge.

Where the rails crossed from one baseboard to another, I stripped a couple of sleepers either side of the joint and marked the spots where the rails crossed. I then drilled a hole at each mark on both sides of the joint and inserted a small brass screw into each hole at just the right height for the rail to sit on. The rails were then checked for level and soldered to the screws. I have found that, in tandem with the pattern-makers dowels and the bolts, I get a near perfect alignment each time the layout goes up.

I waited until the glue had set completely before cutting the rails at the baseboard joints with an Exactoscale saw. I had broken four cutting discs before finding that the physical size of the mini drill prevented me from using a cutting disc at right angles to the rail. With hindsight, I could maybe have used a flexible extension.

I also laid the track in the fiddle yards, soldering the ends of the track to 1" wide copper-clad strips. I used brass tube soldered to the nearside rail of each track and inserted a moveable brass rod for alignment. The problem of expansion was accounted for by build-

ing in a floating inlet track, the height of which can be adjusted throughout an exhibition, as the wood of the slider expands and contracts with the humidity.

It took over a month to lay the track on the main boards, changing a few things as I went, and ripping up other parts which did not 'feel' right, which is not the best idea for someone with a deadline. I only had eight months left to the show. I had also been building the main structures for the layout: the two goods sheds, the station house, the new bridge and the engine shed, all of which needed specific track clearances.

Electrics

Before any ballasting or scenic work could be commenced, I decided to tackle the electrics. I had wired all the sections for *Hudson Lane* myself and was quite familiar with the ins and outs of layout electrification, but my good friend and fellow member of Sunderland and District Model Railway Society, John Hargreaves, offered to lend me his more advanced electronics skills. John drew up a track plan on 'Cad Rail', which was a vast improvement on my 'Fag Rail' and the electrical connections were digitally drawn on. Each connection was individually numbered and colour coded for each board.

At this point, I made a conscious decision not to skimp on the electrical components

Above: a train of Mark IV tanks rumbles through on the main line, at the start of its long journey to the Channel ports for onward shipment to France, behind a scratchbuilt Class 59 0-6-0.

and we drew up a list for all the connectors, rolls of wire, switches, point motors, LEDs, transformers, relays and a host of other bits and pieces which were required. After picking myself off the floor, I had to sell off my prized collection of EFE buses and lorries to pay for the electrical wizardry. After a month's hard slog we had knocked the bottom out of the wiring.

Now wiring is usually one of those jobs where you put a lot of effort in, but you get little or nothing visible to show for it; not on this occasion. With John's expertise, I had a control panel with tri-LEDs showing which controller is operating each section, illuminated directional indicators for each point, illuminated electro-uncouplers, of which there are six, and a transformer box with enough umph to power a 4mm version of the entire Tyne & Wear Metro and illuminate a model of the Stadium of Light at the same time!

The three Gaugemaster handheld controllers from *Hudson Lane* continue to give sterling service and I only had one conk out recently after twelve years. Each one has been adapted to include a push-button switch to



Above: NER Class K No.559 of Hull, on temporary loan to Thornholme Colliery, delivers another load of coal to the local agent. A Royal Artillery Battalion is waiting to embark with its horses in the background.

operate one of the electro-magnets. The controllers can be plugged either into the control panel or directly onto the baseboards, although operators have to keep returning to the control panel to change the points.

The freestanding control panel also includes two Tazma high-frequency track cleaners. The switch panel is attached to each of the eight boards using 37-way D-connectors attached to each end of an umbilical cord, in which the 37 strands of wire are held in a protective mesh sheath. These were the most costly part of the electrical outlay, but I will be able to re-use them for any future layouts I build.

The double slip and three-way point are controlled using diode-matrices. Relays have been added to each SEEP point motor to allow for the extra switch needed to power the control panel indications. The whole layout is sectioned for cab control and any one of two main line controllers can operate the through line, passing loops and fiddle yards. Any one of the three controllers can be used to operate the goods yard and engine facility.

The Alexander streetlamps, Eckon yard lamps and lights inside buildings are con-

stantly illuminated from a dedicated power source, which means they do not flicker or get dimmer when the points are changed. They are wired in pairs and protected by a resistor so that the bulbs do not overheat. In twelve years, I have only broken one bulb – when I accidentally dropped a hammer on it!

The whole layout is powered by five Gaugemaster 16volt transformers with a huge 'thing' of unknown origin for the lights. Each transformer is fused separately and the whole lot packed into a ventilated box. With everything on, including the overhead lighting gantry, the whole layout consumes only one amp of power, well within safety test tolerances.

All in all, the electrics were the most time-consuming and expensive aspect of the construction process, but I am pleased with the excellent performance both in the cellar and at the shows *Hudson Road* has attended.

Ballasting

Having tested and retested all the sections, point motors and circuitry on the main boards, I had three months left both to scenify and detail the layout; now I was starting to panic. I commenced with the ballasting.

Although the theme of the layout is a snow scene, I decided to repeat the technique I had used successfully on *Hudson Lane* and lay Woodland Scenics ash ballast again, rather

than plaster or some other medium between the sleepers. To help me, I fabricated two small shovels from scrap brass and tube, which enable me to put the ballast granules down accurately.

I laid the ballast dry in 2' sections and brushed it into the correct profile with a soft brush. I then wet the area with a mist of warm water, with a small amount of washing up liquid from a spray bottle (window cleaner, etc.). I then mixed PVA glue with warm water (50/50) and applied it with an eyedropper.

The moist ballast soaked up the glue straight away and any excess liquid was carefully removed with an absorbent kitchen towel which speeds up drying time. Particular care was taken around point blades and tie bars, although any mistakes can be rectified by spraying the affected area with the water spray. Where the ballast crossed the meeting point between two baseboards, I made sure the ballast was completely dry before splitting the baseboards again.

The ballast was left to dry naturally. Using a heater makes the glue and water solution form a surface crust on the ballast making it dry unevenly and causing bits to fall off at a later stage. After what seemed like an age, the ballasting was completed and the rails were cleaned up. It is important to clean off all the ballast granules from the inside rail surfaces to ensure smooth running.



Left: ex-NER class 964, now in colliery service, waiting in the loop above Thornholme Road with the colliery supply train. The 'Tardis' and 'Bessy' can be seen in the foreground.

Right: Class R 1235 is given clearance to return to West Hartlepool with a meat train.

Remembering the snow, I covered the whole lot in two coats of white oil-based undercoat. I had tried water-based emulsion, but the water content only loosened the ballast again. Once dry, I only then covered the undercoat with emulsion, this is necessary because the oils in the undercoat cause the paint to go yellow.

When all was dry, I cleaned up the rails again and applied an acrylic mixture of grey,

earth brown and brick red to simulate rust. The tops of the rails were then carefully cleaned and the layout tested thoroughly yet again.

Buildings

Before starting the scenery, I wanted to get the main buildings constructed and positioned in case any trackwork needed realigning. I also prefer to set my buildings permanently into

the sub-base, so that there are no tell-tale gaps underneath.

I find it easiest to construct all my structures off site, including the bases, so that I can detail them inside and out to my heart's content. I also like to model fully the backs of the buildings since I have to look at them whilst operating.

The main buildings, including the goods sheds, bridges, station, signal boxes, engine shed and factories have all been scratchbuilt and based on examples found in the North East on the Northern or Central Divisions of the NER.

The two goods sheds are based on those at Alnwick, the four-arch bridge and signal box are at Monkwearmouth in Sunderland, the other signal box was modelled from a photograph of one at Bishop Middleham, near Ferryhill. The wagon weigh house is from Hetton, the engine shed is based on a structure at Middleton in Teesdale and a couple of the smaller sheds from Hexham Station.

Over the years, I have settled on a common method of construction, which has so far prevented warping and too much damage. I start by measuring and drawing the building in 4mm scale, or where a drawing exists, reducing it to the correct size. I then transfer the measurements onto mounting card (available from artists' supply shops) and cut out the individual walls, including the windows and doors, with a sharp knife.

I then cut a second, or even a third layer of card to laminate behind the main walls, for both strength and thickness. The window apertures are cut larger, if necessary, to allow for fitting the window and door frames. Plasticard brick or stone sheet is glued to the outsides of the card walls and the window apertures cut out before the walls are assembled. Where possible I glue the walls onto a card base as soon as possible for maximum strength.

The outside of the building is then detailed and painted so the windows can be installed, followed by the interior details and lights. I tend to go overboard with this and model features which will never be seen by a viewer, but I know they are there!

Finally, the roof is fitted using either Wills roof tile sheets or from hand cut strips of 'luxury' writing paper. Chimneys and other roof fittings are added and, finally yet importantly, the snow is simulated with Das modelling clay. Each building is then glued in place on the layout ready for embedding into the scenery.

I also fitted retaining walls at this stage, made from thick card with strengtheners at the back and covered in brick plasticard.

Scenery

I was now down to six weeks before the show and still had to start the scenery. However, the layout was running well, all the buildings were

in place and everything was beginning to come together.

Since the two boards salvaged from *Hudson Lane* needed only minor scenic surgery, I started on them. The road underpass became a pit beck (stream) made by pouring satin varnish into a pre-painted plaster hollow. Trees, bushes and fencing were all applied in quick succession and painted with a much darker mix of brown-grey paint than would seem correct for a summer scene. This is because our minds play a trick of memory, thinking the wood is darker than it actually is against the white snow.

I cut scenic contour sheets for the front and back of each of the remaining boards and cut them to shape. I experimented with a tin of expanding foam for the scenic base but this started bursting out everywhere and I got into a complete mess.

Now, I am getting a little 'too old to rock-n-roll' so I went back to my old ways and cut the card from loads of cereal packets into one-inch wide strips and stapled one end of each piece to the contour board and the other end to a retaining wall or edge of the ballast. Once done, I interwove more card strips under-and-over the ones already fitted and stapled them down at each end, making a reasonably solid structure.

The whole lot was then coated in three layers of Mod-Roc and left to set. Being a snow-scene, this looked good enough in itself, but to finish it off, I applied a thin coat of sloppy plaster with my hands and left everything to dry naturally. Finally, I applied two coats of white oil-based undercoat to seal the plaster followed by a coat of emulsion to whiten it up. While all still wet I sprinkled on some Woodland Scenics snow powder. This was vacuumed off when it was dry and a second coat was applied where necessary.

Once all was dry, I applied patches of Woodland Scenics foliage and ground cover with UHU or white glue and also placed the Peco Flexible Fencing, walls and hedges. Once the foliage had set in position, I darkened the shade as before, and when dry, brushed on some emulsion to represent snow and frost.

Trees

There are over seventy trees on the layout and most are made by twisting wire strands together into a basic tree shape, covering it from roots to branches in Flexi Bark and glueing on pieces of Forest in a Box sea moss. Once sprayed brown-grey, I gave the upper surfaces a quick squirt of hairspray and sprinkled on some snow powder from above.

Backscenes

The removable back-scenes were undercoated in white and the basic form of the hills drawn on. I painted the sky various shades of acrylic grey, to simulate snow-laden clouds. The shapes of the hills were restricted to the bottom quarter of the back-scene to maintain the perspective, something I only learned at the second attempt. To draw in the fields, I halved the distance between the modelled scenery and the sky, then quartered it, etc..



The scenic work continued until 2am on the morning that *Hudson Road* was due to be taken to Shildon show, although a lot more has been done in the following four years. In 2001 an 18' long by 6" wide extension was built along the front to add more snow and trees to *Hudson Road*, since the layout as originally built, did not have that much scenery, as such. It also enabled me to add a thicket of trees in the foreground, to break up the layout into six 'framed' viewing areas.

Detailing, signals and lighting

Over the years, I accumulated various figures, signs and other assorted detailing parts from here, there and everywhere and have amassed a huge spares box to dip into, when required.

I prefer to use figures from Langley and Dapol and am prone to 'individualising' them by changing hats, adding overcoats, inserting pipes and altering postures, possibly a throw-back to my wargaming days. Horses are mainly metal Langley figures with blankets added from tin foil.

Signs are either etched brass from a number of companies, or plastic with separate letters attached, or from Tiny Signs. The Great War posters, which are dotted around the layout patriotically, are from a pack of playing cards bought at Past Times and reduced on the computer.

Other details, such as barrels, junk, sacks and a whole host of other clutter come from firms such as Slaters, Langley, Peco, Merit etc. I have

used Peco flexible fencing and Slaters diagonal station fencing throughout, as both are good representations of typical NER fencing.

Most of the signals are made from D&S etched brass and white metal parts representing NER prototypes, except for the ground signals which are MSE (Sprat & Winkle). I built all the signals to operate and it is eventually intended to have them all working, including illuminated lamps and correctly coloured spectacle glass, which on the NER was red and blue. The newest addition to the signalling is the eight-arm gantry, although I blew all the grain of rice bulbs in one go when I tested it on the layout!

However, since the NER were fond of providing a signal for every possible movement, I still have some way to go until I have the layout correctly signalled.

Hudson Road, like *Hudson Lane* before it, is designed to operate as a twilight scene. All the buildings are illuminated and the goods yard is lit with lamps from Eckon. Street and station lamps are from Alexander Models and there are over fifty around the layout. North East England did not know what a blackout was in 1917.

At exhibitions, the scenic part of the layout is draped in a large blue cloth in an attempt to cut out most exhibition-hall lighting. Blue spot lamps are used to create a moonlit winter's night, which also reflects off the glitter in the snow, giving a sparkling effect.

To be continued.

Goods Trains from the Steam Era

As operated on Barrie Walls' 0 gauge railway

Seeking information on specific wagon workings is an interesting subsection of the hobby.

The major modelling magazines have all run a series on how to construct a model railway, which is a fine idea but why abandon the beginner at this stage? With a railway completed, the vast majority has no idea how to operate it. If you merely like to see a locomotive and train on the move then you will find enough pleasure in just that, but some will find this plain boring. So why not run trains like the prototype, to a timetable with the object of moving people and goods safely from A to B.

When my layout *Wallsea* was started, the first timetable produced involved just twenty-four train movements. Over the decades, the movements have slowly increased with stock building, while in the last version I have enjoyed replicating a timetable based on Working Timetable of the period 1951/52. Train movements now number in the hundreds on my present railway which, like many others, is purely a flight of fancy. The geographical location, however, is definite, being set in the heart of the Cambridgeshire fens, based on the March area. This immediately dictates traffic flows which have been greatly increased to include ECML diverted from Peterborough through my locale to Ely and Cambridge, regaining the GN main line at Hitchin.

Nearly everyone loves Pacific-powered expresses, and parcels trains formed of various full brakes and vans from any of the Big Four companies, but freight in its various correct formations is to me one of the most fascinating aspects of model railway operation, sadly a neglected subject.

You can of course please yourself on the for-

Below: WTT 714, the 4.5pm Kings Cross Goods-York Dringhouses Class C with a varied collection of vans behind the tender of No.61 Pretty Polly, our veteran Class A3. Behind the tender are two horseboxes, then a GN 6-wheel full brake and GW 20T van. Note vehicles painted in BR bauxite brown vary in hue from the ex-works to well weathered.



mation but prototype formations vary with locales. Some wagons, for example covered vans, will pick up and put down goods all over the country. Others, such as coal wagons, will only carry a load in one direction, from mine to consumer, and for the return 50 percent of their mileage they will run empty. These were the most numerous of all freight in my area. Other open wagons carried bricks, imported timber from docks, pipes both steel and clay, sand, sugar beet during the season plus numerous other commodities in small loads.

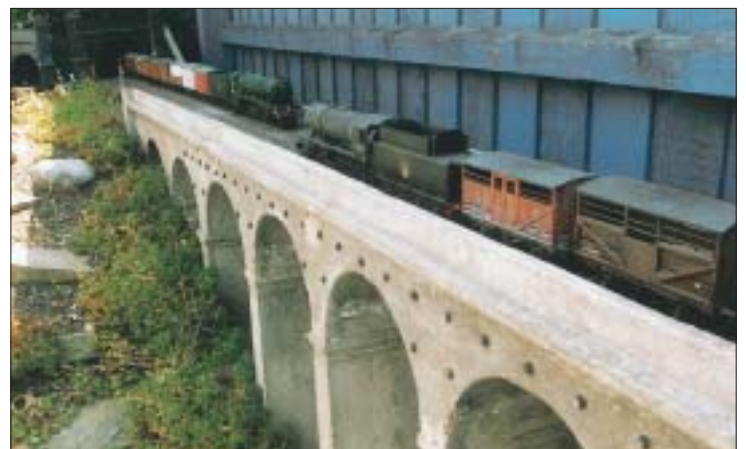
So how do we obtain basic details of goods trains and their operation? Some information is contained in the General Appendix to Working Timetables, a separate book to the actual Working Timetables. Some rules are

well known, eg 'All engines must carry head lamps or white discs as described in Diagrams A to K'. How many model railways do?

Other rules are less well known, eg coupling of engines to loose-coupled freight vehicles. When an engine is coupled to a loose-coupled wagon, the coupling of the vehicle must be used, not the screw coupling of the engine.

Other aspects of freight trains – for example loads – are best studied by research and viewing archive videos (frustrating; locomotives are always the focus), photographic albums

Below: emerging from the tunnel is No.60046 Diamond Jubilee with WTT 1224, the 6.20pm Kings Cross Goods-Leeds Class C or D. On the up line behind WD No.90023 is WTT 1017, a Colwick-Kings Cross goods.



Left: perhaps the best known of all the Class C goods workings, WTT No.266 Scotch Goods. WTT stands for Working Timetable. The 'No.' refers to the number found at the head of the column showing the timings in the 1952 WTT. Departure time from Kings Cross Goods was 3.0pm (the 24 hour clock was not used then), and arrival time at Niddrie was 3.45am. Booked departure from Peterborough Westwood Yard was 5.45pm. This was one of the workings Sir Nigel Gresley had in mind when he introduced the Class V2 locomotives. In later years Class A4 Pacifics could often be seen at the head. My observations showed No.60010 Dominion of Canada to be the most popular, but I have recorded all the Pacific types at the head of this train during my spotting days. No.60003 Andrew K. McCosh displays the Class C code as she speeds northward over Digswell viaduct with this train.



Right: a clearer view of WTT 1224. The fourth van in the train has been in the wagon works for attention to its sliding door which has been repainted. Just visible at the rear of the train is a van, ex-Doncaster wagon works, which has had its roof painted with white lead. Doncaster still turned out some vans painted in this style during the fifties. This photograph also shows well the various shades of bauxite brown.



and magazines. Caution: captions are not always accurate, especially in modern productions.

Railway employees who worked on freight are an excellent source of information. Here's a classic one from an ex-goods yard foreman at Cambridge and operator on the model railway who was asked why horseboxes were included in a particular Class C Goods. He replied 'Ah, they are loaded with donkeys which are being sent to Southend for use on the beach', an event he was recreating from the past. I would never have dreamt of that consignment!

So one is constantly learning and searching for missing information. Like the time I remember seeing a blue peaked roof salt wagon in Whitemoor yard, March, in the early fifties. I had not the interest at that time to look at the wagon label to identify its destination – if it was loaded, I do not know. A visit to the Salt Museum at Northwich, Cheshire, did not help. The curator, an ex-works employee only knew

Below: as 60046 continues its journey it passes another freight hauled by an elderly ex-Great Northern J4 0-6-0 with a complicated history. Its train is WTT 1115, Peterborough-Hitchin Class F.



Above: a Parkeston-March Class D rounds the sharp curve between Leasham Cross and Wallsea with class K2/1 No.61721 in charge. The cattle wagons next to the locomotive are vacuum brake fitted, denoted by a red painted standpipe. The next two are just provided with a through pipe, denoted by a white painted stand pipe. They are unfitted but can run in any position in the train, having the means to allow the vacuum created to continue through to other vacuum braked vehicles.

Below: two of the line's K3 2-6-0s pass each other at Kings Oak East. No.61804 is in charge of a Peterborough-Kings Cross train. This train ran as Class B Peterborough-Hitchin, stopping at all stations, then as a Class A to Kings Cross. The other K3, No.61948 has a Class D goods in tow. This means that at least one third of the vehicles must be vacuum fitted. In this train only one vehicle is unfitted and this of course must be next to the brake van, furthest from the locomotive.





of transport by rail to the docks for export. Salt I know was used at the time for preserving a variety of food products in the area but an 8-ton wagonload is a lot of salt. When I find the answer perhaps I will add a salt wagon to the goods fleet.

The information sought for specific wagon

loads is another of those interesting subsections of the hobby, so we'll leave it there and describe some of the freight trains that have worked, and do work on my railway, perhaps encouraging others to describe similar workings on their lines. Mine are best described by photographs with extended captions.

Top left: lamps on the centre iron above the coupling and over the left hand buffer (as viewed from the cab) denote a Class E train, which is an express freight with no fewer than four braked vehicles next to the engine and connected by the automatic brake pipes. In this train there are six vehicles connected to the engine, one of York's B16/1s No.61443 which occasionally ventured south.

Top right: WTT 1236, a Ferme Park-Peterborough Class F (empties) heads north behind Class J1 No.65013. Note the fitted head of 50T bogie brick wagons which would probably be piped up to the loco for increased braking power. I often observed this formation on the GN main line as a boy.

Above left: Class F code is displayed by Standard Class 9F No.92010 as it heads through Kings Oak East station. A Hitchin-Peterborough heads in the opposite direction, the engine also displaying a Class F code.

Above: WTT 1125, a Peterborough-Ferme Park Class F (bricks) takes the bend around Wallsea goods yard headed by Class K3 No.61804. This train could be a Class C as it is made up of all vacuum braked vehicles, but this is by chance. The train was reclassified H in the 1953 working timetable: it became slower as it was routed via Hertford North.

Left: a March-Ipswich Class E goods headed by Class J19 0-6-0 No.64641. Note that the engine carries one white disc and one lamp. In the yard, J67 No.68520 prepares to shunt another goods.



Photographs by the author.



Top left: the shortest train. Engine and brake come under Class G, which was also used for light engine or engine with not more than two brake vans movements. 3F No.43287 is working north on the 6.36am Spital Bridge-Stamford trip goods. Obviously nothing to send; only wagons to be worked back. This could mean that Wallsea yard is empty! Yes it happens. Someone sent thirty-five wagons out on the previous train.

Top right: the last WD 2-8-0, No.90732 Vulcan, heads for Leasham Cross Yard with a March-Temple Mills Class H loose-coupled goods.

Above left: down Class H (empties) plods around Wallsea Main avoiding line headed by Class O2 2-8-0 No.63940.

Above right: WTT 1249, a Class H goods, left Peterborough at 4.45pm. In order to illustrate the time it took to complete its journey, here are some of the timings: Hitchin Cambridge Junction (46 miles from Peterborough) arrive 6.52, depart 7.5. Fourteen miles on, Hatfield is passed at 7.55. At 8.24 the train is held in Greenwood loop, reaching New Barnet, eight miles from Hatfield, 2 hours 50 minutes later, with still another seven miles to go to reach its destination, Ferme Park (arrival 11.00pm).

Right: the shunter has marshalled three fitted cattle vans at the head of this Class J goods but the automatic brakes will not be used as Class J17 No.65576 is only fitted with steam brake on the locomotive and tender and so can only work unbraked goods trains. In East Anglia many trains conveyed cattle so these were a familiar sight at the head of loose-coupled trains. The positioning meant that they were less likely to be buffeted.





Above: the 5.45pm Whitemoor-Peterborough-Toton Class J (empties) crawls through Kings Oak East behind Black Five No.45379. The London Midland Region painted its lamps black so the lamp on the right hand iron is hard to see in this picture against the black footplate.



Left: a Class K (trip) goods approaches Leasham Cross marshalling yard behind a 'Gobbler' 2-4-2T No.67227. If the fireman can maintain a good head of steam the driver will have few problems as these F6 tanks were capable of hauling a good tonnage. It is doubtful if the automatic brakes on the fitted vans behind the locomotive are in use for a short trip working. The speed would rarely exceed twenty miles per hour.

Below: Class J52 No.68765 prepares to leave Wallsea yard with another Class K (trip) goods to Peterborough Westwood Yard. To the left of this train a Class J67 is preparing its train as a diverted express passes on the main line.

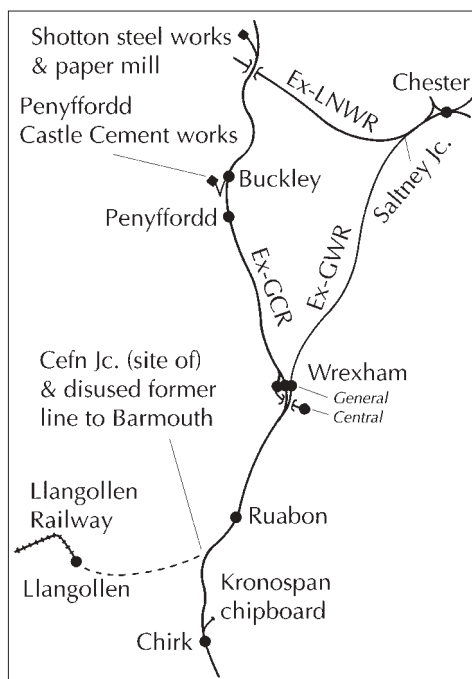


Plan of the month

Ruabon

Once an important GWR Junction

Gareth Jones introduces his N gauge exhibition layout, set in a Ruabon of the future, which will be described and illustrated fully next month.



Once an important junction on the main Great Western route from Paddington to Birkenhead, Ruabon is at present a shadow of its former self. A station once employing sixty people is now reduced to an unstaffed halt.

traffic. The station also lies on the route of the 'Welsh Marches Express' and occasionally sees diversion traffic, eg HSTs to Holyhead, when the normal Crewe to Chester lines are

out of action. Llangollen Railway traffic is normally preserved steam or diesel passenger, but the occasional demonstration freight or railtour is catered for.

The layout

My layout, to be described in next month's issue, depicts the station in the future, where the Llangollen Railway Society has reinstated the line from Corwen into the bay platform, and a connection has been re-established with the Railtrack network. A larger turntable has been placed in the original well and the former down goods yard has been developed as an MPD and carriage sidings.

The bulk of the traffic on the main line comprises steel coil to Shotton steel works and raw material and finished product from the Kronospan chipboard factory at Chirk. There is also occasional domestic coal to Shrewsbury and Gobowen.

Various types of Sprinter operated by Central Trains handle the main passenger

Heading: Ruabon station building. On the layout, this is the operator side. In the view at right, the platforms and footbridge are seen from the Pen-y-Cae road bridge.





Left: looking towards Wrexham. The bus shelter has been temporarily replaced by a Portakabin until a start is made on a replica of the original island platform building.

Below left: a view from and of the overbridge at the northern end of the platform which carries the B5097 road to Penycae. The length of the platform now in use has been halved since these photographs were taken.

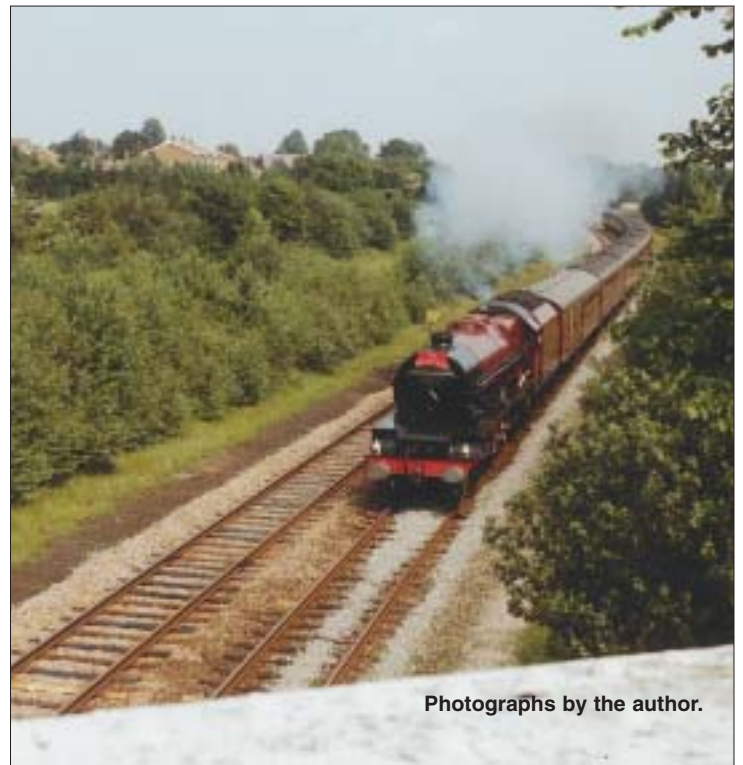
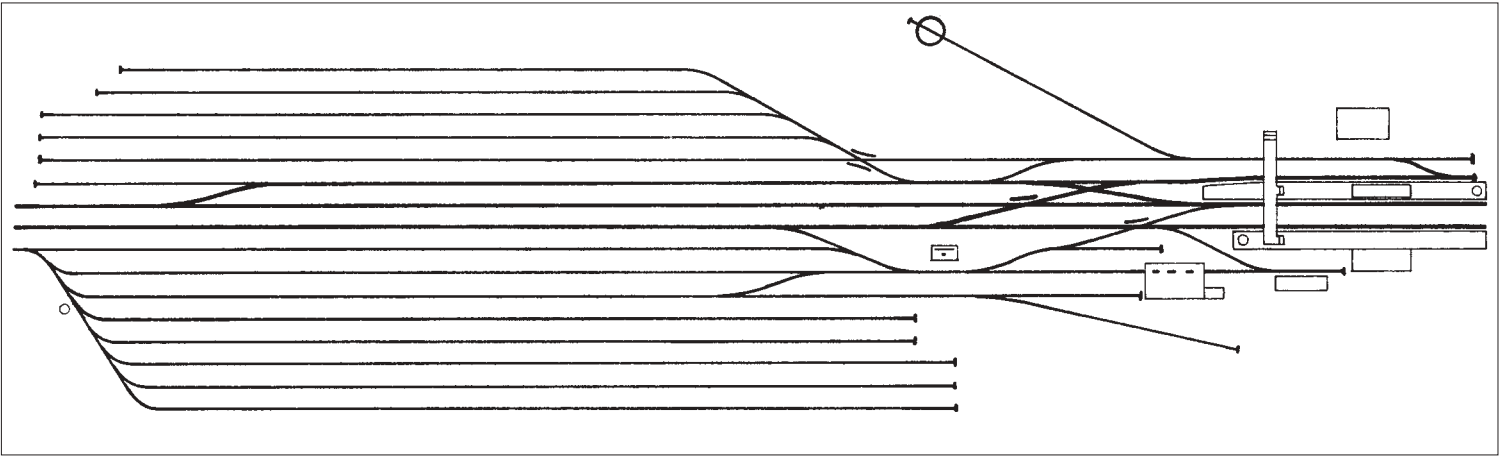
Far right: No.6203 Princess Margaret Rose on the 'Mid Day Scot' passes under the girder bridge south of Ruabon.

Right: a wintry scene at Ruabon with 150 127 heading towards Chester.

Below: the unusual bridge over the 'Nant' which is part stone, widened with engineers brick, with a girder carrying the platform.

Below right: a view of the road bridge carrying the A359 over the railway. The abutments on the down side are the original stone ones. Those on the up side were built of engineers brick when the formation was widened to four-track.





Photographs by the author.



Scale drawings

LMS Fowler Class 4P 2-6-4T

Purposeful passenger tanks, drawn and described by Jonathan Joseph

The introduction of the revamped Hornby model (see reviews pages last month) will doubtless spur on the extra-fine detailers: here is a selection of plans and photographs to assist.

When Derby Works built the first of these substantial machines in 1927, it put in place a basic type that was to be developed continuously for nearly 25 years, culminating in the final examples of the BR Standard 4MT type in 1957. All in all, exactly 800 locomotives – 645 to LMS design, and further 155 BR Standards – were built to successive evolutions credited to Sir Henry Fowler and succeeding Chief Mechanical Engineers.

Returning to the LMS of the 1920s however, the need for a new design of large passenger tank had been readily apparent, and steadily ever more pressing, since the grouping. After a brief dalliance with the massive Baltic version of his own LYR derived 4-cylinder 4-6-0, George Hughes' thoughts had turned to a tank version of the 'Crab' 2-6-0 then under detailed design. This apparently eminently logical course was discarded when he was succeeded by Henry Fowler – as an aside, serious attempts were made to 'Midlandise' the 'Crab' thoroughly itself, including substitution of a Midland standard boiler, but production plans were too far advanced, and in the end the tender was the only major item changed, Hughes' proposed standard type never seeing the light of day.

With Derby now in control, things took a somewhat more Midland turn. The only recent large MR passenger tank machinery had been the 40 0-6-4 tanks unfortunately dubbed 'flatirons', which, although they were of somewhat substantial appearance, had been rather less than a conspicuous success. Fortunately, perhaps, although 'flatirons' did form some of the basis for the new design, this did not extend to include too much of these engines' running gear. It may be that the 0-6-4Ts' notoriously poor riding also helped to reinforce the decision to fit the new type with carrying wheels at both ends. Fowler was, however, prepared to countenance a higher boiler pressure than the maximum of 180lb/sq.in that Hughes had allowed. This in turn permitted smaller cylinders, which did not need to be inclined so prominently as those of the 'Crabs'.

Consequently, for revised proposals, the 2-6-4T wheel arrangement was retained, with highly satisfactory results. In the main, standard Midland details were used – the boiler was the perfectly satisfactory G8AS superheated unit from the the 3P 4-4-0s, and the coupled wheel spacing was the required 8' + 8'6" centres to fit the Derby works setting jig. The tanks, cab and bunker did share something in common with those of the previous 0-6-4T, but this was prob-



Above: captured in the 'first flush of youth' is Fowler 2-6-4T No.2324, at Derby shed on 22 July 1928. Note lack of outside steampipes, and brakes on the pony and bogie wheels. Last of the first batch of 25 machines (as represented by the drawings), the locomotive was exactly a month old when photographed. Photo: W.G.Boyden, courtesy Frank Hornby.

ably more a matter of drawing office convenience than any particular determination to harmonise with those engines. This platework assembly was, incidentally, amongst the first (if actually not the first) substantial piece of locomotive design entrusted to the capabilities of one E.S.Cox, later to be the main instigator behind the BR Standard range (which included the last LMS-derived 2-6-4T, as mentioned above), and later still, a noted railway technical author.

One area where the tanks did differ from previous MR practice was the adoption of long-lap, long-travel valve gear, combined with a new and up to date cylinder design with straight ports, fed by adequately sized piston valves. As legend has it, this area of the machinery was originally to have been based on the unsatisfactory short-lap layout fitted to the MR-built S&DJR 7F 2-8-0s – according to the story, however, after Fowler had attended a reading of a paper on the design of valve gears, he had the gear redrawn in accordance with the paper's conclusions. The reality is almost certainly less of a single sharp event, and more simply that there was a gradual shift in LMS design practice at the time, presaged amongst other things by the US-inspired layout

of the 'Crab' valve gear. However, both versions of the 2-6-4T gear were drawn out, so there was apparently at least some indecision. Some mechanical commonality of parts with the 7Fs' robust motion remained, but the overall arrangement and the valve events it provided were a gigantic leap forward compared to the 7F or any other previous Derby design.

Some motion parts were also used on other contemporary LMS designs, partially with the object of standardisation, and at least partly (in the case of the 'Royal Scot' 4-6-0s), from lack of time. The bogie and cylinders/valve gear were carried over to the 'Scots' almost unchanged, while the connecting rod was common with the Beyer-Garratts. It seems reasonable to suggest that the original pattern fluted coupling rods were also common with the Garratts, but I have been unable to find any proof of this.

All the class survived into BR days, the first withdrawals coming in 1959, and the last (No.42410) in 1966 – none were preserved. It says something for these engines' basic fitness of purpose that they were withdrawn in parallel with rather than before the various later LMS- and BR-built large tanks – the author would argue quite cheerfully that they were by far the most satisfactory of the locomotives ascribed to the Derby régime (particularly as the original parallel boiler 'Scots' were very much a sub-contract job) even though many of the others (including such common elements of the LMS scene as the 2P and compound, 3F 'Jinty', 4F and 7F) surpassed them in number.

Prototype variations

Successive batches were turned out from December 1927, numbered chronologically upwards from 2300, the last 40 (from a total of 125) of which were ordered under Stanier's auspices in 1932-34. The final 30 of these Stanier machines appeared in a slightly modified form, the most notable feature of which was a revised cab, generally known as the 'limousine cab'. In this version, the simple side cut-out that had been a feature since Edwardian times was finally replaced with proper windows and a door on each side – while weather-proof, these ultimately proved to offer inadequate ventilation, and subsequent types of LMS large tank went for an intermediate arrangement.

These last Fowler/Stanier engines (2395-2424) were modified substantially in some other respects, as were contemporary batches of other Fowler classes at the same time. Apart from the revised cab, the significant visible alterations were Stanier pattern wheels, triangular section wheel rims with corresponding bolted on (rather than cast integrally) balance weights, and plain instead of fluted rods. The front pony truck and rear bogie were also exchanged for Stanier types (the later common with the 'Black Fives', and some members of the 'Jubilee' class).

Locomotives up until 2374 (i.e. those that were not only ordered during Fowler's tenure, but also completed during it) had their tanks and cabs assembled with flush rivets. These seem to have been anathema to Stanier, and 2375 and upwards used roundhead rivets throughout. As the plating of the older engines came to require major renewal, the replacement/rebuilt tanks were built up with roundhead rivets. However, I have been unable to find a pre-WW2 photograph of any of the first 75 machines with other than flush-riveted tanks, so the originals obviously wore well enough not to warrant replacement. A contributory factor may have been that the backs of the tanks were flat rather than made to conform to the shape of the boiler, and so when overhaul became due, it was probably possi-



Above: doyen of the breed, No.42300 is seen in lively fettle at St. Pancras on 15 February 1958. Turned out of Derby works in early December 1927, the locomotive was withdrawn week ending 26 November 1960; a career just shy of 33 years.

Photograph: Frank Hornby.

ble to remove either the boiler or tanks independent of the other – disassembly of the tanks should only have been necessary if the they required remedial work themselves.

The two batches of the 2375-2394 series exhibited progressive implementation of various Stanier fitments, for details of which see the summary table. Most noticeable was perhaps that the penultimate batch (2385-2394), while not being 'limousine cab' engines, did have the cab door cutout reduced in size to make the cab less draughty. This modification proved successful, and was extended to all the engines in the 2300-2384 series in the early thirties. The difference between the two patterns is readily visible in side view photographs, and this is probably the simplest way of determining which size a particular machine should be modelled with to be correct for the desired livery/date.

Other modifications consisted mainly of bringing earlier locomotives mechanically in line with their later fellows. Bogie and pony truck brakes were removed from those

engines that carried them originally, and in latter periods many locomotives could be found with either Fowler or Stanier pattern carrying wheels, though usually (perhaps only) in complete sets. Some frame alterations were required for the Stanier bogies carried by the final 30 engines, so bogie types were not exchanged between locomotives.

The other significant visual change was that, as replacement cylinders were required, a new cast steel pattern with outside steam pipes was fitted. The first examples were so equipped during the second world war, but the majority of the class waited until late LMS/early BR days to acquire outside steam pipes.

Summary of visible differences

Series	2300-2324	2325-2374	2375-2384	2385-2394	2395-2324
Cab style	Fowler, cab cutout reduced in size mid-1930s			Fowler, shorter cab cutout from new	Stanier 'limousine cab' engines
Tank style	Flush rivets at first, roundhead late-30s on		Roundhead from new		
Tank vents	Mushroom vents on bunker	Modified type from new			
Wheels coupled bogie/pony	Fowler, cast crescent balance weights (BW)				Stanier, bolted segmental BWs
	Fowler, braked. Brakes removed from mid-30s on			Fowler, unbraked	Stanier, unbraked
Coupling rods	Fluted, changed to plain pattern if replacement required			Plain	

Notes: carrying wheels were interchangeable, and any engine could appear with either type from the mid-1930s onwards. Fluted coupling rods were only swapped for plain ones if the originals actually required replacement; this was rarely the case. Unlike carrying wheels, they do not appear to have been exchanged between batches. Various machines were fitted with water pickup apparatus in different periods: consult sources mentioned in the bibliography. Nos.2300-11 and 2314-16 painted red until early 1930s; rest black. No.2313 named *The Prince* until 1933.



The class was designed to carry bi-directional water pickup gear – this was fitted or not according to the duties likely to be required of a particular engine, seemingly more or less at random throughout the numbering sequence. In addition, some locomotives had the gear removed and/or added during their careers – full details can be found in *LMS Locomotive Profiles No.3* (See bibliography).

Sundry other modifications were made: the first 25 engines had short side tank air vents as shown, but later machines were fitted with a taller (1'2") version which was retrofitted to the first batch. Later, to move the tops out of the line of the crew's vision, a joggle was introduced into these pipes from 1942 on. However the last engine was not converted until the mid-fifties, and the majority seem to have retained the straight originals until early BR days.

Similarly, only the first 25 locomotives had mushroom vents in the bunker as shown. These proved subject to damage from coaling, and were replaced on 2325 upwards by 2 pipes running up the rear wall of the cab – in this case the earlier machines were altered rapidly to conform. Similar problems with falling coal resulted in vacuum pipe shields being fitted to the rear of the bunkers from 1937. Finally, the buffer packing blocks were changed from 1" (used on the first 75 engines) to 2½", increasing the overall length by 3". Various detail alterations were also made in the mounting of the front vacuum pipes according to date and batch, generally, but not always, at the same time as the buffer packing was altered.

Liveries

Initially the class was intended to be painted red, and 2300-2311 and 2314-2316 emerged as such, the remainder being painted black. As the red machines were shopped, they were repainted black if their condition warranted it – the last red survivor lasted until at least 1933. Thereafter the class remained black (with one

exception in BR days, below) and examples carried various versions of contemporary LMS and BR liveries, including both kinds of lion emblem. (BR also renumbered the class from 42300 upwards, without changing the order in any way.)

The one exception to overall black was 42394, the last of the non-'limousine cab' engines, which managed to get itself painted in unlined BR green, complete with the later style BR totem, for an unknown period around 1964. It seems reasonable to suggest that it was still carrying this livery at withdrawal – how far 42394 wandered across the network I am unable to say, but I believe it was shedded at

Swansea in 1964, and was certainly photographed at Leeds in this condition – if its presence can be justified this attractive livery would certainly add a splash of colour to a mid-sixties BR layout. Being unlined, it is also a comparatively simple repaint...

Only one member of the class was named, No.2313, which bore *The Prince* painted in 6" letters on its side tanks (in connection with a 1928 visit to Derby works by the then Prince of Wales) from outshopping until 1933. Despite the name being (presumably) sanctioned officially, cast plates were never provided.

Notes on the drawings

These show a 'pure' Fowler 2-6-4T in the original 2300-2324 series as built with flush rivetted tanks and brakes on the carrying wheels. The rods are somewhat 'up' to show the balance weights' shape and position better, since they would otherwise be obscured by the side tanks. Water pick up gear is also shown, though this was not fitted to all the original series.

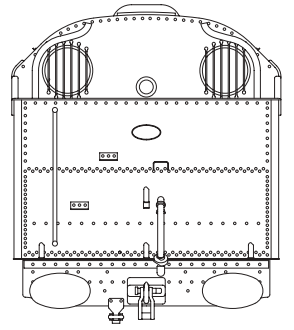
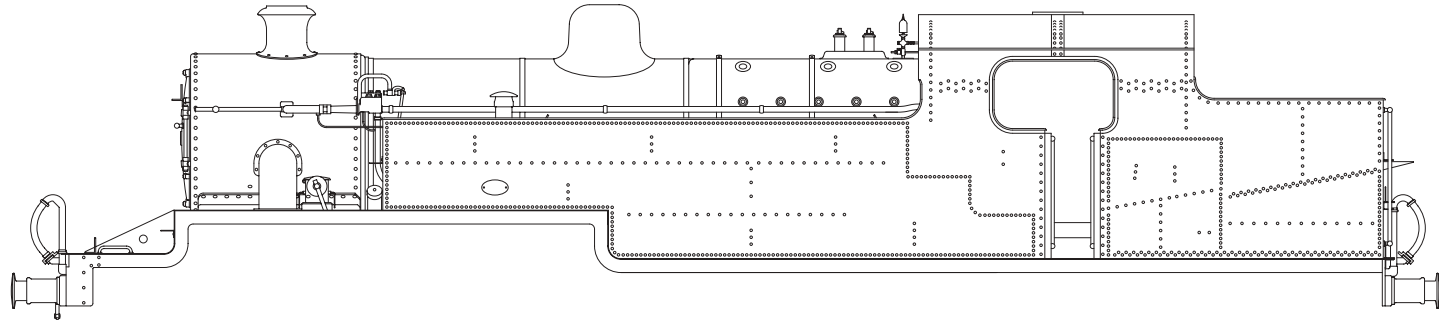
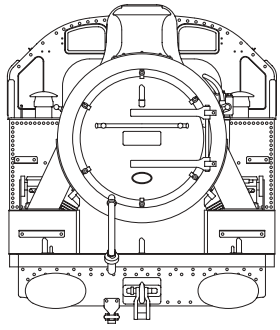
With sundry alterations and interpretations to suit batch and the period modelled, and barring the presence of roundhead rivets on

Above: No.42359 stands in light steam on Neasden shed on 7 September 1958: regional boundary changes enacted that year brought the former Great Central into London Midland Region territory.

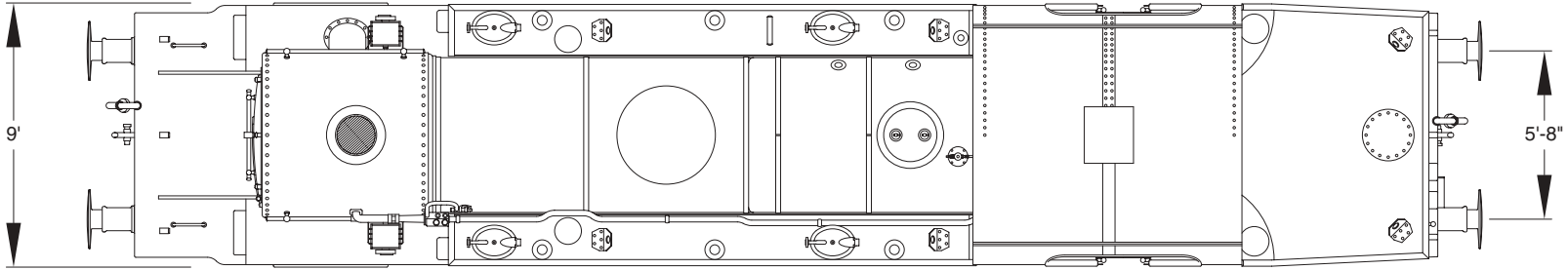
Below: posed on Swansea Paxton Street shed – at the southern extremity of the ex-London & North Western line through central Wales – No.42307 is seen with an 8F buffered up to its bunker. Lurking in the left background is ex-GW pannier No.7403.

Photographs: Frank Hornby.

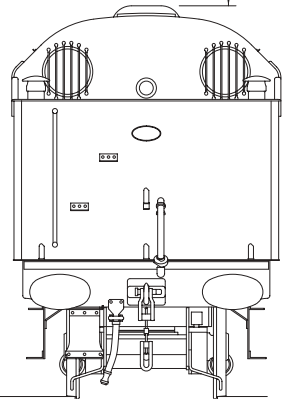
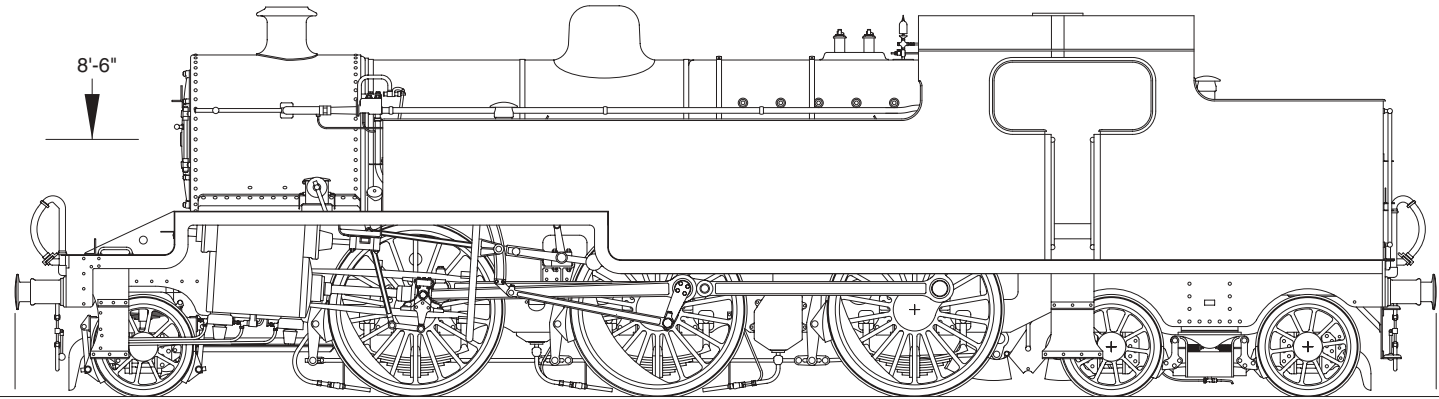
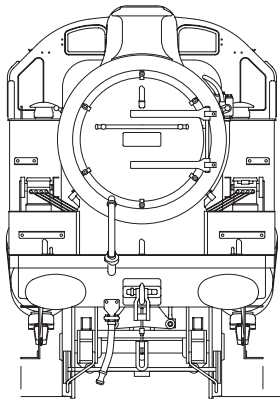




Note : Outside steam pipe, firebox shoulder washout doors and cab roof rivets shown this side of top view only



J. Joseph 2004



8' 8'-6" 4'-27/8" 9' 8' 8'-6" 6'-6" 6'-6" 4'-27/8"

Wheels 18 Spoke, 5'9" Diameter



12'-11"

5'-8"

9'

8'-6"



the side tanks, they are suitable to model the first 95 engines (ie all the non-'limousine cab' variant) throughout their working lives.

The scrap views shows the revised cab cutouts, the coal shield for the rear vacuum pipe, smokebox with outside steam pipes, and most obviously, the roundheaded version of the side tank riveting. Note also that the free-standing bunker tank vents have been replaced by pipes against the rear wall of the cab (as fitted new to all locomotives from 2325 up).

Notes for modellers

In last month's issue (p.761) there was a review of the updated 00 gauge Hornby Fowler Tank (*below*).

Here I will restrict my comments generally to the original version, since at time of writing the super detailed version is to me an unknown quantity. As offered originally, the Hornby model represents more or less the appearance of the 'pure' Fowler locomotives, complete with flush rivetted side tanks and inside steam pipes – consequently it is probably only correct for the 2300-2374 series in the earlier part of their lives, unless any managed to reach BR livery without receiving round-head rivets or outside steam pipes. The cab cutout is also of the original, larger, pattern.

Replacement etched chassis components

Above: for completeness' sake, here is an example of the Stanier-period Fowlers with the 'limousine cabs'. No.42404, built in September 1933, had reached the end of the road when photographed in Derby Works yard on 26 November 1961, a few weeks after its official withdrawal date of 21 October.

Photograph: Frank Hornby.

for 00/EM/P4/S4 etc. are available from the usual suppliers to suit the Hornby bodyshell, but apart from these, there appears to be a dearth of 4mm scale kits for the 2300s. I have been unable to find even any conversion parts for either rivetted tanks, or the 'limousine cab' version though a DIY conversion should be feasible, perhaps with rivetted overlays for the existing tanks.

From information available at the time of writing, it appears that the revamped model will feature the option of plain or rivetted side tanks for suitable number/livery combinations, but probably not the 'limousine cab'.

A useful article on detailing the original version of the Hornby engine (still available secondhand) can be found in the March 1985 edition of RM.

There don't seem to be any models of the type available in N, though I believe there may have been a cast whitmetal bodyshell kit offered by Sky-trex at one stage. If so, it doesn't seem to be available now, even secondhand.

The Bachmann/Graham Farish 'Crab' shares the dimensions of its coupled wheelbase with the 2-6-4T, and might be used as the basis for a model, though the drivers would be slightly undersize. The boilers were different, so the bodyshell would probably have to be scratch-built.

In 0 gauge JM Kits offer two different kits to cover the original and 'limousine cab' versions of the design. The former has smooth side tanks so some conversion work – perhaps a mix of parts from the two kits – would be appear to be required to produce a Fowler cab machine with rivetted side tanks.

A live steam, 0 gauge facsimile might be made by conversion of the Bassett-Lowke 'Stanier mogul', though this would only be an impression rather than an accurate model, and might also be regarded as sacrilege.

For gauge 1, unfortunately no kits seem to be available. However, Slaters does make Stanier pattern wheels in the required diameters – these are intended for use with a kit version of the later taper boiler Stanier machines, but are of course also correct for the 'limousine cab' parallel boiler engines. These wheels are plain, with balance weights to be added by the modeller, so at a pinch they might also be able to see duty under the earlier Fowler machines as well. The rest of the model would have to be fabricated from scratch, but this should be comparatively simple given its flat platemwork and parallel boiler.

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An Illustrated History of LMS Locomotives – Volume 5, The Post Grouping Standard Designs by Bob Essery and David Jenkinson (Silver Link, ISBN 0 947971 39 4)

Locomotive Panorama Vols.1 & 2 by E S Cox (Ian Allan)

RAILWAY MODELLER March 1985, p98-99.



Building a baseboard

For the Farnham & District MRC's 0 gauge layout *Pilot Bridge*

This lightweight board was a prototype which has met with group approval. By Robin Baker.



evolved, light enough to be moved around the clubroom by one person without the hernias popping, so it could be carried by two in comfort, with electrical and mechanical connections not requiring us to grovel on the floor. The size was to be not more than 4' long and 3' deep. Boards more than 4' long become interesting to manoeuvre through doorways, and more than 3' deep makes access to the rear of the board difficult.

The support legs were to be fitted to the board with hinges. The more that is fastened to the board the less there is to leave behind. The electrical connections for the layout are 25-way D-type sockets set in aluminium panels recessed in the back of the baseboard. 25-way plug cables are available from electronic stores, which saves us doing fifty soldered joints per cable! The cables were to be universal and spares would be carried, so if a pin bends in the cable plug, use the spare cable. The mechanical joining would be with Red Dog over-centre clips. No more grovelling under the boards!

The design

Baseboards built of 2" x 1" framework covered in whatever has never appealed to me, because they twist and bend too easily. I am aware that doubling the depth of the support members quadruples the strength, and halving the thickness halves the strength, so 4" x 1/2" is twice the strength for the same weight.

The design was set at 4' x 2'6" using 3/8" plywood with 3/4" square strengtheners in the corners with 1/2" plywood at the ends to absorb the alignment pins. So, one Sunday morning we commenced construction. By 1400 that afternoon a baseboard had been produced,



The 0 gauge group within Farnham MRC (all three of us) were discussing the baseboards for the new layout, the replacement for *Pilot Bridge* (RM October 2001), when we realised that we had been involved in the design and/or building of fifteen exhibition layouts of various scales and gauges. We agreed that with age (ours!) baseboards got heavier, and our increasing loss in flexibility made crawling under to carry out the electrical and mechanical connections a pain! The boards had to be strong enough to withstand being loaded in a van and transported as much as 300 miles to an exhibition. The layout would have to work when assembled, and still work when returned to the clubroom, not once but one hopes at least 20 times.

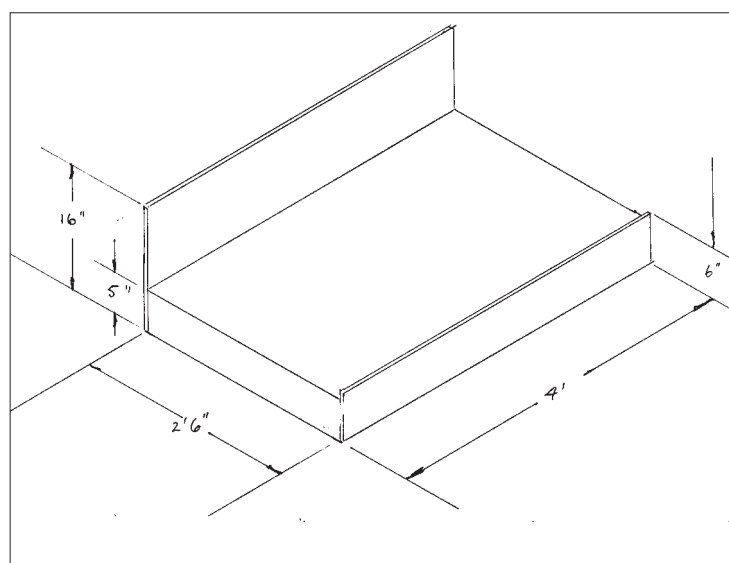
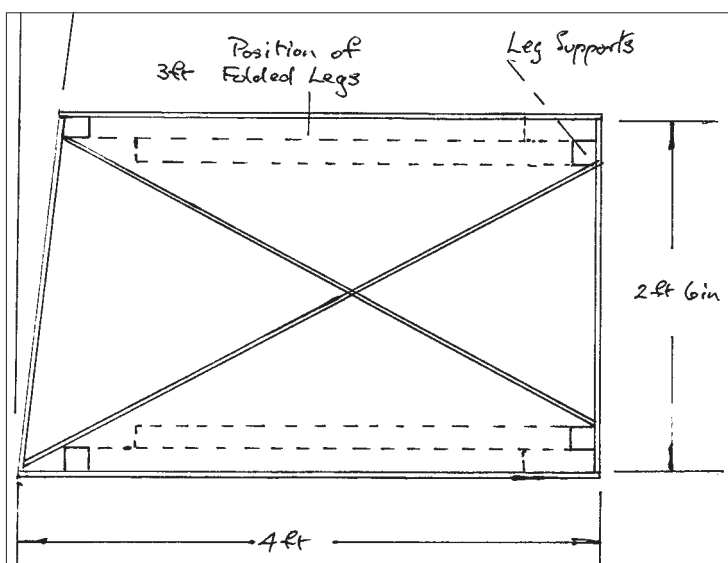
The specification for a baseboard then

quite rigid, and capable of being moved by one person. As this prototype board would be used if successful, considerable time was consumed in producing the angle to attach the turntable fiddle yard.

The next weekend was used to locate the leg supports and fit the legs and the diagonal braces, see drawing. The board was not only rigid, it no longer twisted. Success!

The diagonal braces were drilled with large holes to accept the wiring. This board will be the Master Board. The remaining five will extend from it, requiring only one pair of legs each.

The prototype has met with group approval, so over the next few weeks the remaining five boards will be produced, then covered with cork so track laying can commence.



LNER Push-pull Driving Trailer

Building the D&S Models kit in 7mm scale

*A Diagram 162 ex-NER Auto Coach modelled in late LNER/BR condition by **Charlie King**.*

In common with many other pre grouping companies, the North Eastern ran several auto train services throughout their system and the D&S kit of the Diagram 162 driving trailer is representative of a vehicle in its original condition. Rather than build specialist vehicles, the NER converted ordinary brake composite coaches, the modifications being to build a driving compartment into the outer end of the brake compartment, cut 'portholes' windows in the end and add the driving equipment.

Many of these auto coaches reverted to ordinary use when the LNER introduced steam railcars in the 1930s. That experiment was not a resounding success and by 1938 locomotives and stock were being reconvered to auto train use. This model was built as part of a full auto train to run with the G5 tank engine that was the subject of a previous article (see RAILWAY MODELLER August 03) and is modified to take account of the changes implemented by the LNER at reconversion. This involves replacing the Westinghouse brakes with vacuum equipment, adding two horns to the driver's end instead of a whistle and adding the various pipes and connectors of the vacuum operated auto train equipment to the ends.

The D&S kit comprises brass etches for all of the main parts. The level of detail and accuracy in these etches is very good indeed with parts fitting together with little or no fettling other than cleaning up where the part has been attached to the fret. White metal castings are provided for all of the details and again these are to a very high standard. D&S usually provides a wood moulding for the roof but as this model was made up into a kit for me from spare etchings I made my own wood roof.

D&S kits have gained a justified reputation for quality but have been criticised for their instructions. I would suggest that whilst these are not up to the current standard of presentation set by some other manufacturers, the instructions describe concisely and adequately the main steps of construction using notes and drawings. A bit of head scratching is required now and again but there is logic to the design of the kit that will soon become apparent. Some research has to be undertaken to check up on the finer details but this for me is part of the pleasure of modelling and one gains knowledge of the prototype that in turn usually translates to a better model. If you do get stuck, the ever helpful Dan Pinnock is on the other end of the phone.

The kit is designed to break down into three main parts or four if you count the roof as being a separate part, which makes finishing



Above: this is a general view of the finished carriage from the driving end showing both vacuum pipes and the distinctive 'portholes' that were a feature of these auto trailers. Picking out the various grab and door handles sets off the uninspiring 'teak' livery that adorned these coaches until withdrawal in 1958/9. The finished carriage is waiting to be weathered. I will do this when I have completed the remaining two coaches of the auto train to achieve an even effect throughout as they ran as a fixed formation. The completed model, including the locomotive, will represent the auto-train set used on the South Blyth to Monkwearmouth service in its final years by which time this carriage would have been nearly fifty years old and was in a quite run down condition.

and painting much easier. When each of these assemblies is complete they are designed simply to screw together.

I started with the bogies which are a superb kit of parts in their own right and with a little care make up into very free running units. The instructions say that they can be sprung but if you want to indulge in this you are on your own. I used Slaters wheels and found that the square based bearings that are supplied needed to have the depth of the base thinned down quite a bit to accommodate these. The bearings supplied have to be used because others don't fit. The way that I did this was to solder the bearing in place before folding up the bogie sides, carefully filing down the bearing face and taking an equal amount off both bearings to achieve a comfortable fit that gave free running but no side play in the wheel sets. The bogie etches will stand a bit of careful folding and unfolding to test for fit. The instructions tell you to fold the bogie chassis up and solder it together first but if you do so, carrying out the above operation is much more awkward. If you use wheelsets other than Slaters, the adjustment required may be different.

One bogie is designed to be made up 'rigid', the other is compensated. The NER used Fox

pattern bogies as did the GNR and the kit contains detail parts for both so be alert to using the correct ones. When all the detail is added the bogies are quite heavy which is just what is required for a stable smooth riding vehicle.

The underframe folds up into a flat 'U' section with solebar detail added on as a half-etched overlay. I used some scrap etch to thicken up the headstocks, which on the real thing were a substantial plank of wood, to give a more prototypical appearance. The distinctive NER York pattern truss rods are made up from the etched queen posts and 0.9mm wire and these were fitted before the footboard which helps access for cleaning up any excess solder. I found that the locating tabs on the footboard that runs the length of the solebar were a little out of register with the slots. This was remedied by elongating the slots by using the flutes of a fine drill run at speed to act like a milling cutter.

Two battery boxes are slung from the underframe and these were additionally detailed using lengths of scrap etch soldered in place to represent the planking. The small battery box goes at the driving end on the left looking from underneath, the large one at the opposite end and on the other side. The dynamo works off the bogie at the passenger end and the vacuum brake cylinder and brackets are positioned across the centre of the carriage. This part came from ABS Models and is not in the kit. Apart from simulating the drive belt to the dynamo with a bit of thin scrap brass, I added no further detail underneath.

The tumblehome on the bodyside was formed by rolling a length of broomstick across the lower part of the etching on the carpet. This produces the right amount of curvature. The sides require folding along the top and bottom to stiffen them. This is best done using folding bars but two strips of wood with the work in between and clamped with a couple of G-cramps is a good substitute. I have

Right: with the roof off it is possible to see the level of interior detail. I might add some pictures above the seats as these would just be seen through the windows. The bars over the guard's compartment windows were made up from 0.4mm wire soldered to 1mm thick brass made up by laminating scrap etch together. This sets the bars back from the window in prototype fashion and enables the glazing to be slid into place after painting.

Photographs by Trevor Cousins.

taken to running a blunt Stanley knife along half etched fold lines as I find this eases the process and gives a neater folded edge.

Open up the holes for and fit the body side and end details before assembling the body shell. These comprise grab handles and handrails made up from 0.7mm wire and door handles in lost wax brass that I bought from the 'Shedmaster' range of detailing components. The ends require various steps and rails all of which are shown in the instructions. As I was modelling the carriage in its later form, I did not fit the whistle but substituted a pair of horns made up from 3mm diameter brass tube covered with fine brass mesh. The positions are shown in the instructions.

The body shell could not be easier to construct. Once together solder the two members that fit across the floor to allow the body to be screwed to the underframe. The kit contains parts for four compartment partitions which is not enough. I made the others out of sheet brass using one of the partitions from the kit as a template. Once the compartments are in place you have a rigid and strong body shell.

Once the body shell is together, add the rest of the end details. I replaced the vac pipes in the kit with some tall wagon vac pipes from ABS Models. The heating pipes came from the same source. Buffers are from the Haywood



Railway range. There are no lamp irons in the kit so these were made from scraps of etch.

I made up a roof by gluing four strips of softwood together to form a rectangle the required length and width. When the glue is set, clean up the side that is to be the bottom to make sure that it is flat and square. Fix a piece of scrap wood to this side so that the roof can be held in a vice. Make a template from plasticard of the shape of the roof by using the profile of the coach end to draw round. Plane the wood roof to the required profile, using your template to check the shape as you go along.

When you have the shape you need, glue a strip of 10 thou plasticard to the underside of the roof. Use a 'contact' glue for this but apply it sparingly because it will melt your plasticard if you are too generous. When all has set, make the gutter strip from 40 x 40 thou plasticard strip. I use the Evergreen range of strips and profiles because they are cut truly square.

In order to finish off your roof, cover the top side with drawing paper or lining paper which gives a good representation of canvas. This is glued down with PVA wood glue thinned with just enough water to allow it to be brushed on. I cut the paper to the length I need but trim up the side after the glue has had time to set properly, ie next day. Don't worry if the paper wrinkles a bit, the canvas on real roofs did. Finish off with the ventilators and other fittings.

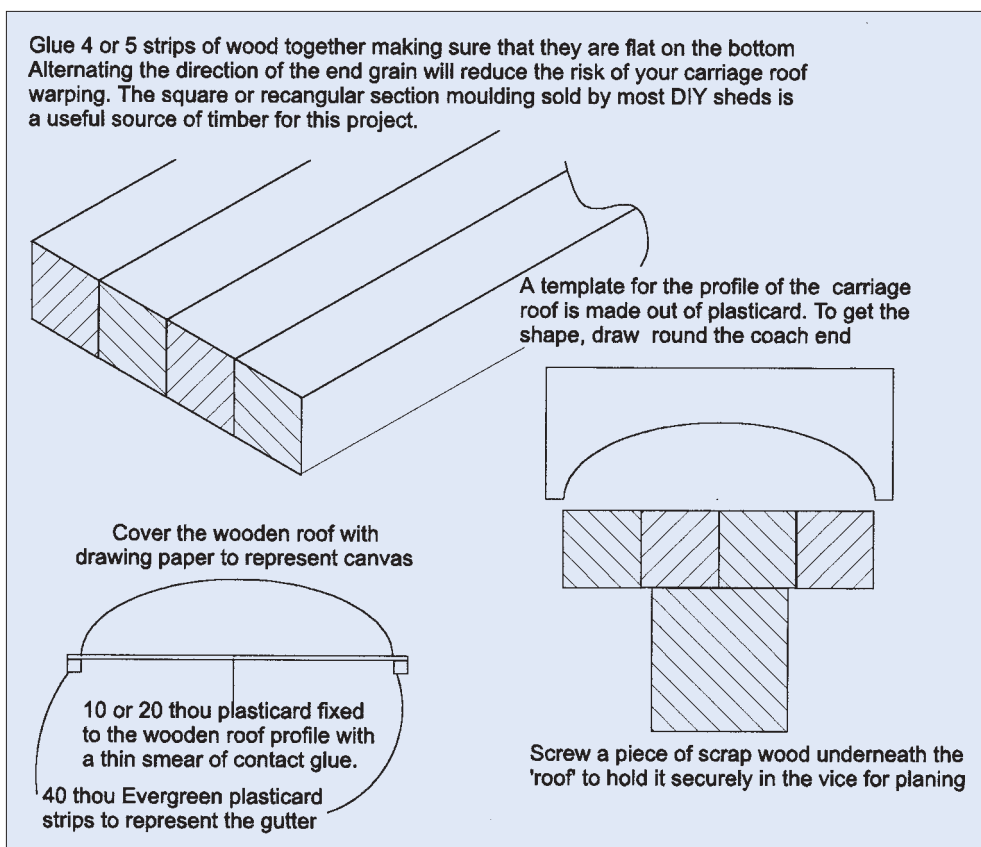
All the parts were primed in grey. The bogies, underframe and ends were finished with Halfords Satin Black. Sides and interior are in Precision Paints LNER teak with details picked out in 'gold' to represent brass and black. Transfers are from Fox. I have a couple of colour photos of pre-grouping coaches in late 1950s condition and they clearly show the uninspiring ex-LNER 'teak paint' livery with lettering in cream.

Glazing is thin clear styrene fixed in place with Micro Sol Kristal Kleer which you will have guessed from the spelling is an American product. This is a PVA based adhesive which, as its name implies, dries absolutely clear and can be recommended.

Interior details are fairly basic representing what I could expect to see through the windows at normal viewing distance. Seats are from Colin Ashby although similar ones can be bought elsewhere. I made a simple jig to cut these to the correct length as they come in a strip long enough to provide three seats. I raised the height of the seat by fixing a length of 60 thou square plasticard strip along the bottom of the moulding because I believe that these were designed for the Ian Kirk carriage kits which have higher floors.

Passengers are Slaters. These may not compare with some of the figures produced by more specialist manufactures for the 7mm market but they are perfect for this job being lightweight and inexpensive. I painted the seats first, added pre-painted passengers and then used Evo-Stik to fix the seats in place as the last job.

The completed model is free running and well balanced. I would recommend this range of kits to the modeller who is prepared for a bit of a challenge and looking for something different to add variety to their rolling stock. D&S Models, 46 The Street, Wallington, Nr. Baldock, Herts. SG7 6SW. 01763 288353.





Wood End

An unusual U-shaped OO9 layout

Chris Ford and **Nigel Hill** combined their skills to create a portable narrow gauge scene in three sections with a Shropshire feel, following well-defined design objectives.

This all started in 1998, with a visit to the Uckfield show. The conversation that followed formed the seeds of *Wood End*. This now famed discussion asked which were the best and worst scale/gauge combinations for reliable running? The worst by a country mile was OO9. Whilst scenically it gave more scope than most, having a small scale and less real estate taken by trackwork, the combination of small wheels, top-heavy bodies, and slow operating speeds gave it the first prize. It was therefore decided to build a small layout to see if it was possible to overcome these problems, as well as taking full advantage of the plus sides.

Both of us had worked in the scale before. I was (and still am) a paid-up member of the OO9 Society, but Nigel had wandered off to concentrate on Scandinavian railways some time ago, but we had made the mistakes and knew the pitfalls – or so we thought.

This being the autumn, we generated a loose target of July, specifically the Amberley Museum rail weekend to which I have a semi-regular invitation with whatever I am building at the time. This became the cut-off point. We would design and build a section of layout for this date. If one or both of us were not happy with it after its exhibition debut, it would be burnt! No questions asked. Callous? Well, possibly, but with a budget of a couple of pounds each a week over the period, we thought we would have easily had our money's-worth during the fun and frustrations of building.

Above: a passenger train arrives at Wood End. The loco is a Peco 'Jeanette' – it is one of the original production, and runs on an elderly Arnold 0-6-0 chassis.

Right: an overall view of Wood End, with a full range of Bagnall wagon variants and the Kerr, Stuart diesel. The area top right was scened with mainly sea moss.

Below: we wanted to keep the baseboards as 'open' as possible, and not cram too much in – this scene is less than a foot wide. The Peco 'crazy' track is ballasted with magnesium chippings mixed with wood ash.

Below right: Wood End station building is based on a drawing by Bruce Fall of Aberllefenni on the Corris Railway – its narrow footprint suited this site perfectly, though our model could do with some more details.



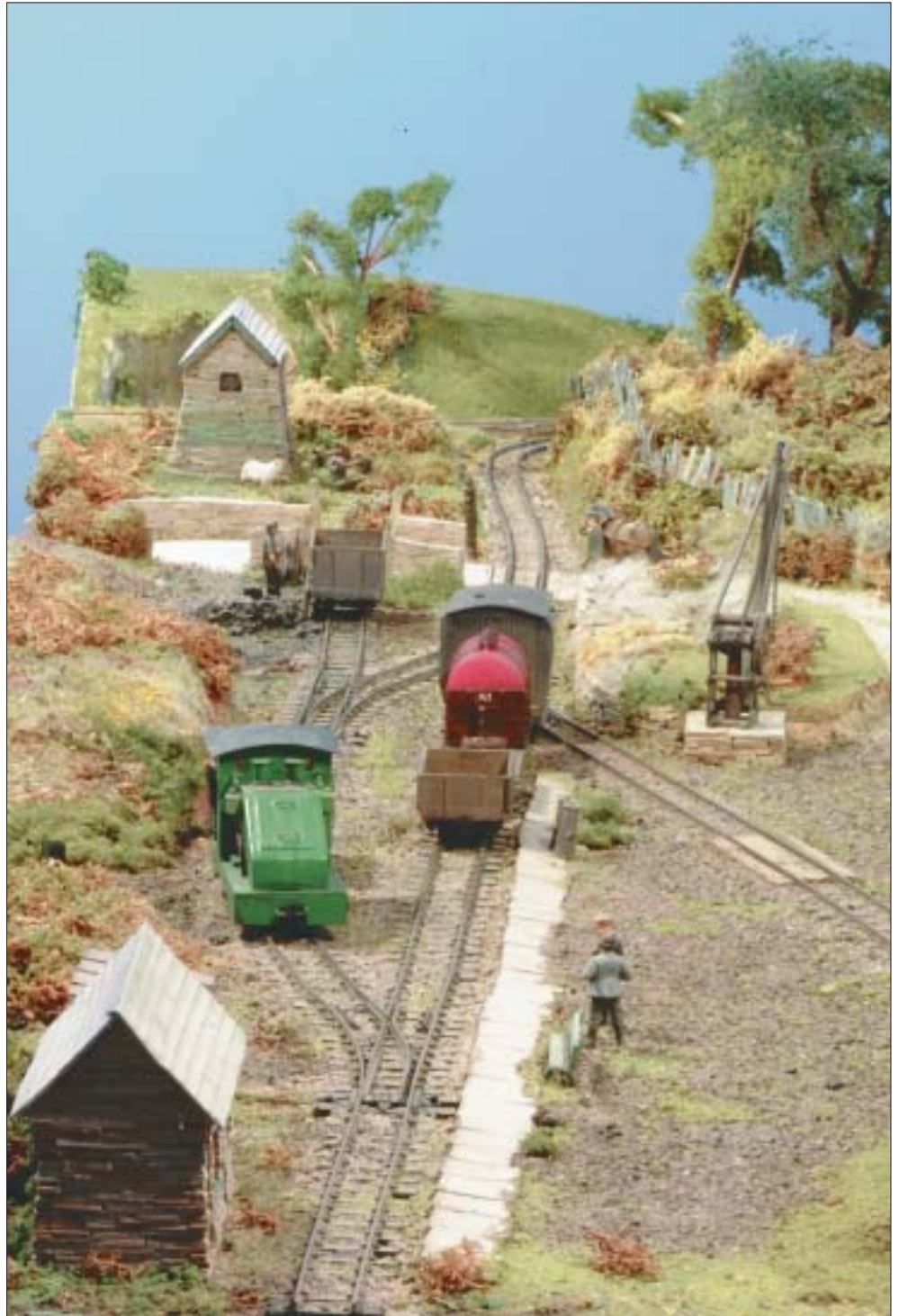
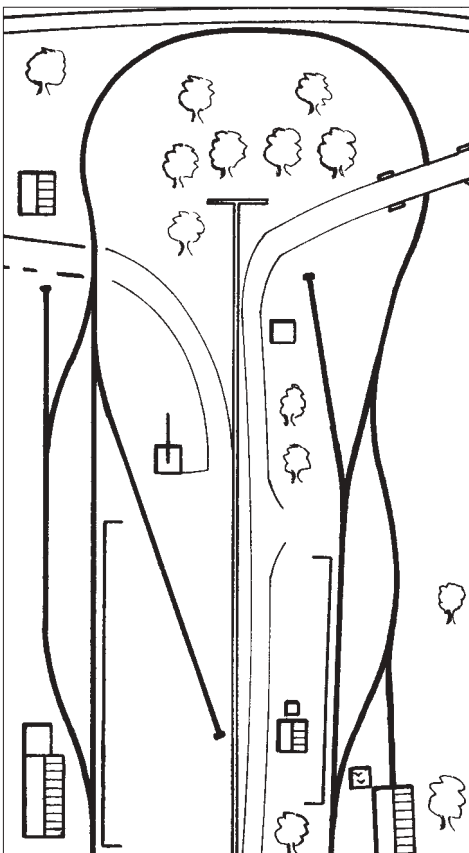
So the design brief ran as follows:

- 1) To run as well as possible;
- 2) To use traditional materials i.e. plastic, card, and whitmetal kits, easily available items from the trade;
- 3) Fairly strict budget;
- 4) Open-ended design in order to allow for expansion;
- 5) As much feeling of 'space' as possible;
- 6) Boards no longer than 45", as they had to fit a small car.

The planning now began in earnest. We must have gone through thousands of ideas. I wanted bridges, Nigel found every possible reason for not having them. The same went for a trio of cottages that I had set my heart on; and so it went on. But finally we had paper plans for the first board. First board? Yes, first of three!

Quite early on in the process, it was decided that the end result would be a U-shaped run, with no fiddle yards. Although there have been times when we had wished we had built one into the design, the benefits of not having to build any storage sidings have been huge, not least in that it provides a talking point at exhibitions.

Thanks possibly more to Cyril Freezer than anyone else, the fiddle yard seems to have sunk deep into the consciousness. That we are met with what borders on amazement because we do not use one never fails to amuse. The reason, in a prototype sense, that we can explain it, is that most narrow gauge lines in this country were self-contained, going from A to B with perhaps an interchange with the standard gauge at one end, the Talylyn being a well known example. Therefore that is what was built: it goes from A to B, and nowhere else.





Top: a Beyer Peacock tram loco leaving Wood End. The slate slab fencing is made using card and cotton – a technique described by Dick Wyatt in RM way back in the late 1970s. Nigel Hill's dumpy brake van, built from coach kit left-overs, brings up the rear.

Above: the Kerr,Stuart diesel enters Wood End with a short train of coal wagons. A Bagnall wagon is being unloaded in the coal siding.

Below: the Kerr,Stuart diesel runs over the ungated crossing into Wood End.



The U-shape really goes back to a layout that Nigel co-built in the late 1980s called *Yarmouth Quay* (RM Plan of the Month June 1988). This used a 'U' in OO on a 4' x 2' board. We knew this style of operation worked as it had been thoroughly tested with *Yarmouth*. Two operators pass trains back and forth and shunt at either end, giving the other time to talk to the public, and so on, though with two people opposite each other, this style of working can turn into a comedy double act if you are not careful!

So *Wood End* was to be the first of three boards. The second would be a corner section. The third became *Brookside*. The two long boards are 45" x 11 1/2" and the corner section 30" x 12". This gives a gap in between the long boards in which to put a pole with six small spotlights.

Then where was it to be set? Creating the right 'feel' was important. A consistent use of things like building materials (brick or stone) helps to give a feeling of reality, even on a free-lance layout. We looked at all parts of this country, and even across to France, but settled on a loose area of Shropshire and the Welsh borders, with rolling sheep pastures and stone walls, partly as we both were inspired by a photo of the Glyn Valley Tramway, where the train is running alongside the road, but several feet above it on a retaining wall. We wanted to include a similar scene.

Board one was to include a station building, a disused winding house, a level crossing (ungated), a loop, two sidings, and a falling front edge (very important).

This possibly disproportionate amount of planning was, we felt, worth the effort and avoided a jumble of ideas and a 'designed by committee' look.

Wood End was thus constructed. Labour was divided thus: boards, track and scenics, yours truly; rolling stock and wiring, Nigel.

6mm MDF reinforced with softwood blocks at corner joints was used throughout this first section, with Peco OO9 track, which brings me to the other item that causes apoplexy amongst exhibition visitors. The points are wired via small double pole double throw slide switches giving good current flow and an operating handle in one. All standard stuff, but this being effectively a front-operated layout, they are mounted at the front, on top of the board. Surprisingly, they become virtually invisible, as the eye, at normal viewing angles, tends to travel over them to the moving rolling stock.

This first section was taken to the Amberley rail weekend – with a temporary fiddle yard! But despite this early lapse, it was felt to be successful, and was not burned. We paused for breath and moved on to the corner section.

At 30" x 12" with one piece of curved track, you would not think there would be much in it, but this section took ages. The basic shape was drawn out with the idea of making it semi open frame, with a track radius of around 8" or 9". Simple enough...no! It was found that we had enough plywood for this bit in Nigel's garage, so one Saturday afternoon we set to with the jig-saw and the Workmate™ on the



patio and cut all the required bits. These were then glued together using the kitchen worktop as a flat surface to work on.

What we had not allowed for, on that pleasant autumn day, was the temperature difference between garage and kitchen. Within an hour the squarely built board had twisted and raised an inch on one corner, at which point I was ready with matches! Nigel persisted, however, and with some bracing and screws had it

Above: one of the Beyer Peacock tram locos running onto the corner section from Brookside. Rolling stock excepted, most of what is seen here is made from card.

Above right: the second of the Glyn Valley Beyer Peacocks heads the shortened Vale of Rheidol coaches away from Wood End, with the disused winding house in the background.

Below: activity in the yard at Wood End. The crane is a standard Wills product. The brake van is an early Parkside Dundas model, and features only on rare occasions.



back into shape again. It is however still a bit temperature-sensitive at some shows.

A year later, having tested out the two sections, plus the fiddle yard again(!) at a couple of shows, we bit the bullet and constructed the third of the trio – *Brookside*. This time it was back to the 6mm MDF. The track layout, while another four point plan, was designed to give a slightly different shunting problem from that of *Wood End*, also using ideas that had been left off of the first section, like the engine shed.

Scenery

The scenery work, as originally stated, was to be fairly traditional, using materials that were not only low cost but readily available. Therefore a lot of items are adapted Wills kits: bridge handrails from the occupation bridge, the two cranes, the petrol station is a rather butchered greenhouse, and the water tank is bits of vari-girder mounted on a tower of matches.

Green bits are from all the 'packets of flock' merchants, mainly Woodland Scenics and

Green Scene. There is, however, quite a high percentage of 'home grown' ingredients in the form of dried tea leaves (Red Label and Camomile) to represent fallen leaves and literally in the shape of Hebe twigs from the front garden for the tree trunks.

Buildings, particularly the stonework, was the longest job of all, but probably the most satisfying. I had read in an article a few years back about making building structures from card slabs to create rough stone walls. The author of this piece then painted the card in various shades of grey. With cost effectiveness to the fore, I used the card from the back of A4 refill pads to do the small retaining wall on *Wood End*, and realised that provided that the source of the card was varied, the different shades took care of themselves.

I then made a rod for my own back and decided to keep the same construction technique for nearly all the structures on the layout. This, as you can imagine, took forever and required no small amount of patience! The



Wood End is booked to appear at the Tonbridge show on 21 February, full details of which will be in next month's issue.



Left: the corner section with its massive card wall. The loco started off as a Chivers kit for Corris Railway No.3, but has been heavily rebuilt. It is not a good runner, and is only used as a back-up.

Below: the Bachmann switcher 'bash'. This tends to be used more as back-up power, but is a very sweet runner. The engine shed is all card apart from the plastic roof and Peco win-

dows. The water tower is a real mixture – balsa, plastic, matches, and whitemetal and brass piping. The eponymous brook runs in the foreground.



retaining wall on the corner section was mind-boggling. But it is this feature which draws the most comment at shows.

This technique does help to give a 'feel' factor and a family appearance to the model. While we have used commercial kits, the fact that in the main they have been butchered, or are not used in their intended setting, helps to avoid the 'out of the box' appearance. (Not that this is wrong – in fact one of our ideas for a future project turns the tables and would be built purely from commercial items.)

The other point to mention is that the card/stone buildings decrease in number as you view the layout. This is partially intentional to imply that more stone buildings were constructed at the top of the line near the quarry and fewer as the line came to the valley floor. So while there are stone walls on the third board, the station shelter is built from timber and corrugated iron (matches and plasticard) and the engine shed is almost all timber (more card).

The crane on the third board was built as if the jib had been removed, though people often ask why there is a mangle by the line!

Motive power and rolling stock

As mentioned earlier, we wanted to use fairly 'traditional' means of building the rolling stock. Etched brass kits are fine (a couple have crept in), but the softer lines of white metal kits and some of the earlier plastic kits were what we wanted. Therefore the mainstay of the line are two Peco Glyn Valley tram engines. These fit the area – the Glyn Valley Tramway is only just over the border and through common ownership, one of these Beyer Peacock locos was loaned to the Snailbeach line in Shropshire, so it is quite feasible.

The rest of the locos are more or less standard designs that could have been purchased by any narrow gauge line. A Chivers Falcon (based on the Corris example) and a Meridian Kerr, Stuart diesel beef up the stud.



There are of course outsiders. An ancient Peco *Jeanette* and a 'bash' by Nigel on a Bachmann chassis are used purely because they work reliably. An Armoured Simplex has also been used on occasion.

Passenger work is handled by two Parkside Dundas Vale of Rheidol coaches shortened and generally altered with a ducket or two and sagging, badly maintained roofs.

Wagons are nearly all from the Meridian/Greenwich 'Bagnall wagon' kit. Again we wanted an off-the-shelf type that was not going to stand out too much and that was easily altered. This is a lovely kit that can be built in many different guises by removing planks and brake gear, etc. Even the dumpy brake van, built by Nigel out of left-over coach sides and Roxey Mouldings duckets, sits on a 'Bagwag' chassis.

Conclusion

Has the project been a success? Well, we think so. The original criteria were more or less met, and after four years it still has not been burned! We have attended quite a number of shows and the reaction has nearly always been favourable. The highlight was definitely being awarded the first Reinier Hendriksen award (for freelance modelling with atmosphere) at Expo Narrow Gauge a couple of years ago – something of which we are very proud.

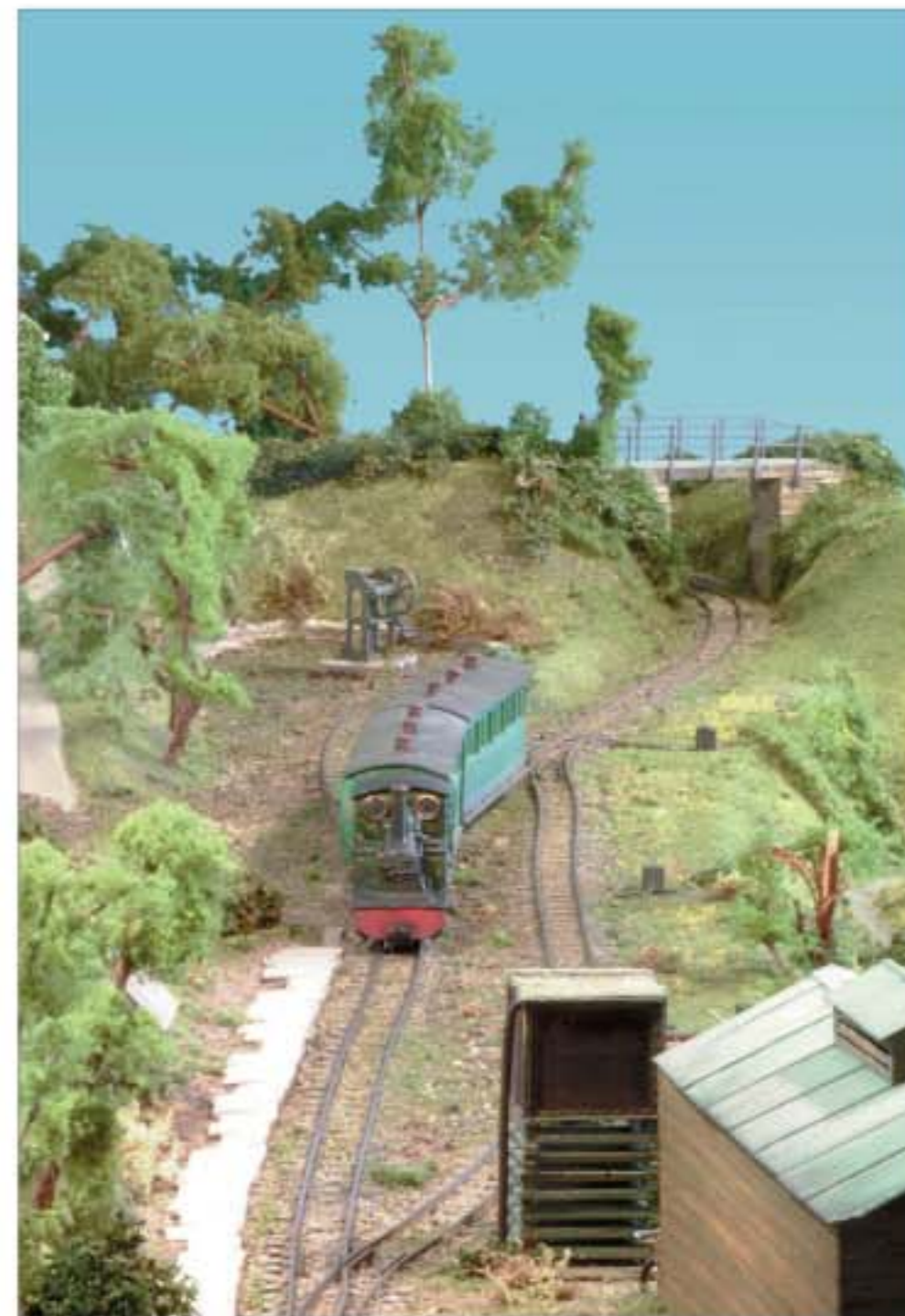
Thanks must go to Ted Polet, Christopher Payne, and Miles Bevan for their continued encouragement, and to Nigel's mum for the fruit cake.

Right: the Peco 'Jeanette' brings a passenger train into Brookside station on the third section. The point controls are quite unobtrusive.

Below right: the 'Flying Walnut' Armoured Simplex stands in the siding at Brookside with the works train. It is not a regular, as although it is a reliable runner, it does not fit visually. It was built about fifteen years ago from a Meridian kit and is powered by an even older Eggerbahn mechanism. The 'mangle' (a crane without a jib) is by Wills.

Below: the Kerr, Stuart diesel at Brookside with a string of altered Meridian 'Bagwags'.

Photographs by Len Weal, Peco Studio.



Tupdale – 1: Geology and Masonry

A Yorkshire Moors setting fitted into a room measuring 10' x 8'

*Pikes, Grykes, Clints and Scars are not a firm of solicitors, but granite features modelled using coal, as explained by **Andy McMillan** in the first installment of a three-part series.*

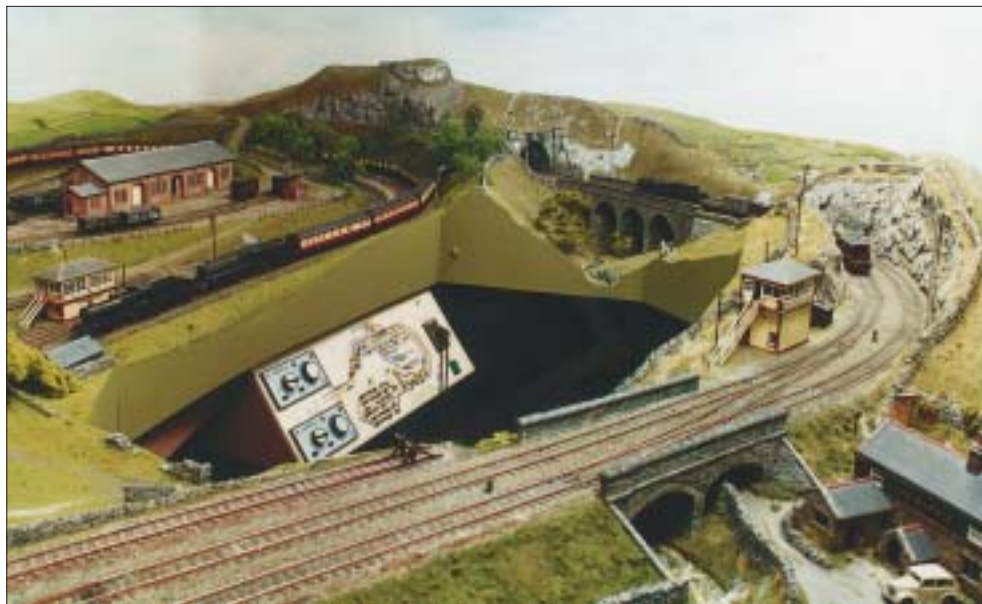
The design brief

What the customer originally said he wanted was a 00 layout to run his collection of old commercial trains on, and he was thinking in terms of an 8' x 4' board. Since the room he wanted it set up in was 8' x 10' I asked what he wanted to use the rest for. 'Just storage', he replied. We discussed it for a while and what it turned out he really wanted was a bit of the old LMS, set in the mid-1950s. I suggested he reverse his thinking, lay the railway around the room and have an operating well in the middle, the reason being it could be made to look more realistic and he could run longer trains. Could he then run ten coach expresses, he asked? We discussed the options and I went away to think about it.

Returning some days later, I suggested the Yorkshire Dales because the area was both dramatic and familiar. This idea was greeted with enthusiasm and so the model was begun. The layout soon refined itself to become a model specifically of the Settle & Carlisle because, as a test bed for engines from all regions, the line was ideal for a very varied loco stud. Even so, the basic problem remained; how to fit a recognisable bit of the S&C into an 8' x 10' room.

I played around with the idea for a while and, using logic revealed later, came up with the model that forms the subject of this article. Interestingly, an aunt of mine from Canada came to visit when it was nearly completed. On being shown the layout without introduction she remarked, 'That looks like North Yorkshire! We've just been up there for a week visiting family!' Naturally I was delighted because I had gone to considerable lengths to model the mountains and Dales of North Yorkshire with their limestone and granite-topped pikes, their scars, clints and grykes. There also are gorse-covered moors and the instantly recognisable traces of man; miles and miles of dry stone wall, an ancient clapper bridge, a 'bank barn' built into a hillside, so as to gain easy access to both floors, a design peculiar to North Yorkshire, and the odd vernacular building raised in the local stone of the area.

In fact it is this ancient limestone which is the underlying theme of this model; its creation thousands of years ago raised this, probably England's most dramatic landscape and, carved from the raw bones which pierce the landscape almost everywhere you look, it was this stone which was used for everything man could think of. It was burned in field kilns for lime; I have modelled an old derelict limekiln on the slopes approaching Tupdale Pike, and

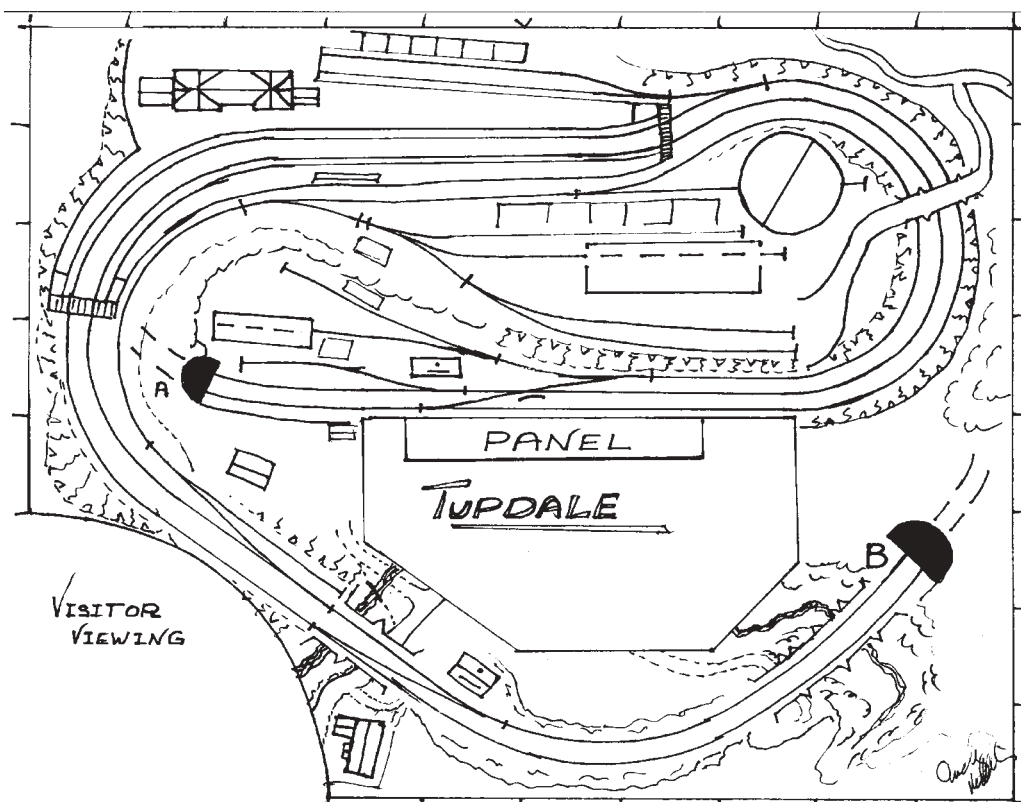


used in structures ancient and modern. Indeed, the Midland Railway used it for the bridges, tunnel mouths and viaducts it created when it forged the highest main line in the country over this lofty part of the Pennines. The railway reaches just beyond the 1,000' contour while the highest peaks in the area rise to well over 2,000'.

Materials

Funny things, rocks. We all know what they look like, or at least we think we do, but when it comes to modelling them, I have seen very few which are entirely convincing. Whether you think my own efforts are any better I can only guess but if so, here is how I did them.

In a word, coal. Now I know bagged coal is



not immediately inspiring as a model-making medium because it is filthy stuff to even pick up and put in the boot. On the plus side however, most of the corners have been knocked off during packing and handling and the bottom of the bag will contain all the dust and rubbish we could ever need for coal yard roads, engine sheds, wagon-loads etc. But first of all we want to model rock. Therefore, and naturally armed with ample photographs of the precise type of rocks we want to model, let us look at the alternatives currently available for creating model rocks.

Cork is clean but always looks like cork since it is round in overall shape, although it does come in handy for columnar strata; repainted in the proper colours, naturally. There are some very nice rock moulds available for making castings in plaster, but the defining feature of natural rocks is their infinite variety, and that no mould can ever provide. Small pieces of real rock can be handy but in general it is far too heavy for use on a model railway, in quantity at any rate, and is almost impossible to 'work' should it not be perfect as it is.

Washed gravel can be a source for stream beds, since the corners become slightly rounded in the washing process. But for natural rock outcrops we need large, solid, stratified, weathered shapes, and washed stone is far too smooth for these purposes.

I suppose the most common method over the years has been to provide a plaster coating over various lumps and bumps and then carve it into some sort of shape. The problem with this method is that plaster crumbles so easily that while it has its uses for fairly smooth faces, it has no strength to be carved deeply into to form the clefts and cracks which define almost every natural rock face.

One could try timber; I once made a fairly



successful quarry out of cheap plywood and broken chipboard, the former sawn into slab shapes and glued back together to form a variety of depth of faces and the latter 'heaped' over the top to represent the subsoil above the rock; but it still was not 'right'. So I thought I would try coal.

Method

So, let me begin with huge rock outcrops such as *Tupdale Pike*. Now this is not modelled in 4mm to the foot scale, but in perspective so that a mile or so of scenery can be implied in a model a few inches deep. The most important thing for distant rocks is a relatively smooth face featuring very close strata with small 'facets'. Therefore I selected lumps of coal with at least one good 'soft' face but with the other faces nearly flat so that they would sit together with the minimum gap between

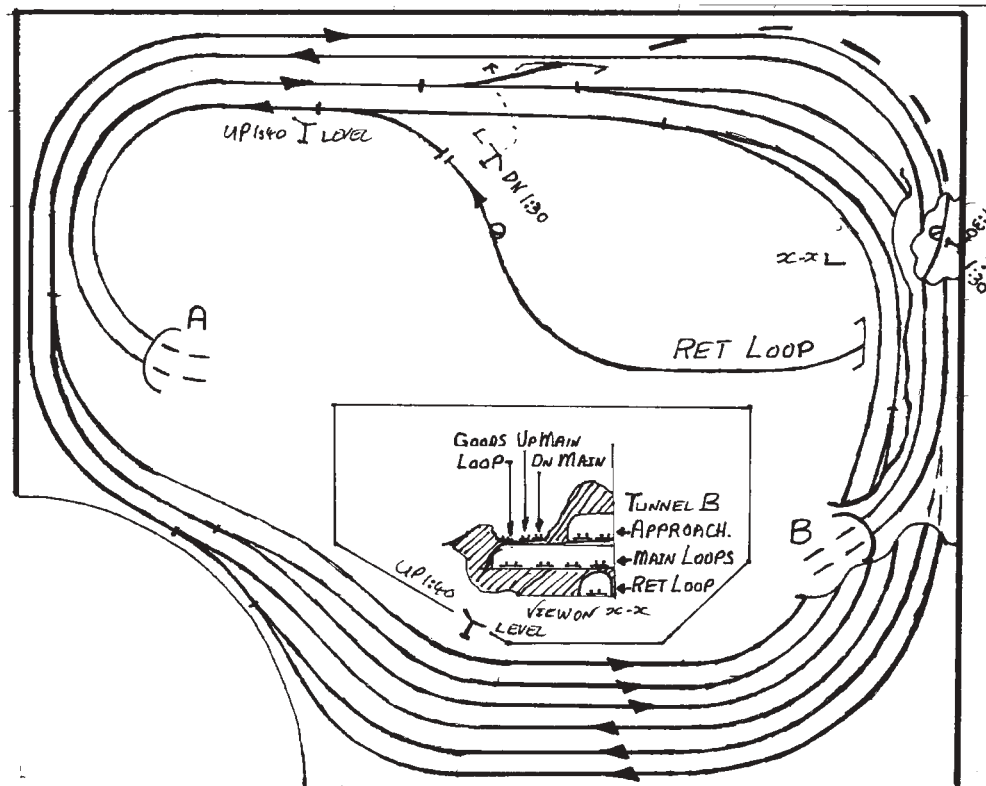
Opposite page: the layout is quite small. This shows the Up and Down controllers, a graphical arrangement of the track. On the right is the 'local' controller. The plans show the multi-level hidden track and the storage roads.

Above: the layout fits closely against the walls. nevertheless, the whole hill, pike, scree and rockface can be lifted out for access to the track for maintenance.

them. Select half a dozen likely pieces of coal and try to find some which almost seem to fit together. To facilitate this I find a ply base, let in perhaps 1" below the eventual rock face, is handy to place them on, as well as an ample supply of plasticine to form a temporary bed on which to rest them. Prop each piece into place one at a time using a rasp to make the poorer joints closer and a wood chisel to remove any awkward extremities. Keep selecting pieces until you have a shape and, more importantly, a texture with which you are happy. Then use paper correction fluid to number them in order and place to one side.

Before going any further, the plywood base will need a coat of watered-down wood glue both to lay any dust and to give a waterproof surface or it will absorb all the moisture from the filler and spoil the joints. Paint that on and leave to dry thoroughly. Now have a bowl of water handy and an old paintbrush. Dampen the coal just enough to lay any dust and set the largest piece into a bed of car body filler.

This excellent modelling medium costs relatively little, is easily spread and shaped with an off-cut of card, sets quickly and will grip just about anything. Continue by spreading fresh filler next to and along the joint with the next piece and fit that. Work quickly, before the filler goes off, and simply try to fix each piece firmly to the base and its neighbour. You will tidy up the joints later, but do use an old Stanley blade to smooth any filler which is squeezed out so as to continue the contours of one piece of rock right up to the next. When all the pieces are firmly in place, fill the remaining gaps with filler, one gap at a time, using the blade again, and apart from painting that is about all there is to it!





Left: all the paint is applied to the cutting and the boundary wall and a sprinkling of grass added to the top and sides.

Painting

Here I used black, white and burnt umber acrylics, first mixing a medium brownish grey and covering all the coal and filler to provide a base. It is now that you can first see whether what you have created will really 'cut the mustard', but it is always worth going a bit further before making changes as it is difficult to see the perceived scale of the rocks at this stage.

While the base is still damp, add some more white to the mixture and paint again over all the outer surfaces, leaving the original colour in the deeper cracks and crevices. Now add more white, and perhaps a touch more brown to warm the colour, and go over it again, this time with a drier brush so as to bring out the highlights of the strata only.

Using a dry brush with just a touch of pure white, and again while the previous coat is still damp, highlight again the upper surfaces upon which the sun is shining, working the paint so that it picks up the colour underneath, so deadening the white and giving a subtle, lighter colouring to those bits of rock reflecting the light.

Now let it all dry hard and then come back and look at it again and assess the colour. Is the colour right compared with photographs of the real thing? Is the colour the right depth for its supposed place in the landscape? Does the colour, and so the rock it represents, 'recede' towards the backscene of sky behind? Add a plaster domed top over the vertical rock faces and finally a scatter-material grass 'cap', which was all that was required to complete my very own Yorkshire Pike.

We have looked at one method of modelling huge rock outcrops. Unfortunately, few of us have the excuse, or the room, for any such features and smaller outcrops are far more likely to feature on the average model. Since it is these smaller examples of exposed rock which give the necessary scale to the pikes and hills on the backscene, a few of these out-

crops were as necessary on *Tupdale* as the grander features.

There are several places where rocks naturally stick out through the grass of moorland. There is a rawness, a seriousness about them which gives a severe tone to the landscape. Now the landscape between Settle and Carlisle was a cold and inhospitable place to have a railway and it was vital to reflect this in the model. So it was decided to model one of the rarer, but far more dramatic scars such as that under Ais Gill Viaduct.

Scars

For those not familiar with the landscape of North and West Yorkshire, a scar is a crack or steep fold in the hills where a fast-flowing river breaks through the hard rock of its riverbed and rapidly eats away a softer rock underneath. This change in rate at which the rock is eaten away, over thousands of years of weathering, produces a steep-sided cleft in the hills of such dramatic form that the harder rock is often left stuck out of the hillside like a broken bone.

Since the rapid rate of erosion in these scars post-dates the last ice age there has been no slow grinding of ice to smooth the sides so odd knobles of rock still stick out where the softer rocks both above and below have been dissolved away. These are nearly always smaller since they have been exposed for less time and the difference is therefore less pronounced.

Modelling outcrops

Outcrops can easily be reproduced by selecting suitably sized single lumps of coal and turning them around until the most suitable combination of faces is found. The cracks and features of the coal lump need to be rather better defined than in the pieces used for the pike since, while vastly smaller in the real world, they are similar in size on the model

owing to the laws of perspective. They therefore need to be rougher and with deeper fissures to be convincing. However, we are still looking for the generally rounded form of naturally weathered rock, so a piece with all its corners knocked off by bouncing around on the delivery lorry and being slung to the ground a few times is perfect.

Again, look at photographs of the real thing to gauge the scale of texture you are looking for as you select your lumps. To raise these lumps to their correct height, I fit a contour sheet of plywood cut to the finished shape of the hill and hold my selected lumps of coal against the side of it. I then draw the lower shape of the lump onto the plywood with a felt-tipped pen and cut that shape out with a jigsaw. Once all the holes for that one piece of ply are in place, I glue and screw it to the base with an offcut of 1" x 1" softwood and then use more car body filler to glue the coal to the ply. Any other ply supports for any further outcrops can then be added until all the lumps for that area of the model are in place.

By drilling a series of 1/8" holes along the top of each piece of ply, tinned copper wire can be used to tie chicken wire to it. This is then stapled to the base, or wired into the general flow of scenery support (I use chicken wire for almost all my work) and then coated with the usual plaster bandage. An outer coat of plaster over the bandage can then be added in the usual way and we are ready to paint the outcrops.

This was done much as was described for the pike except that rather more black is added to the first coat to produce darker shadows since, being supposedly nearer, they will be more prominent. I usually find that it is also worth surrounding the rock with a coat of pale brown paint (turning to a darker, damper brown beneath the rock), so as to represent the soil upon which the surrounding grass will grow since this will be thin and tend to show the soil through the grass immediately beside the outcrop, especially where the grass is clinging to a near vertical surface.

We have dealt with rocks exposed by nature and used a soft, bagged coal to represent it since this has had many of its corners rubbed off thus simulating natural weathering. We will now deal with rock faces exposed by man because in even the hundred years or more of exposure to the wild elements of this northern part of Yorkshire, wind and rain will have had precious little effect on the shape they left, merely on the colour. Therefore we need a different strategy to model this type of surface.

Quarry faces

Creating 'worked' surfaces is easier than it sounds since the nature of coal is such that it is easily worked with hand tools. It is also mined from carbon deposits of hugely varying quality and so you will often find a bag that has some much harder coal in it which has not been rubbed by its fellows into rounded

Right: the crew of the 4F receives some instructions from the signalman at Tupdale South box, at the edge of the cutting.

or weathered shapes. Since the trees or foliage which were compressed millions of years ago to form coal seams fell in layers, most coal does have a grain running through it. With a little practice and experiment, it is quite easy to find this inherent weakness and exploit it by giving the coal a sound clout in the right place with a bit of cold steel. This will generally split the coal in an unevenly fractured kind of way so providing us with what are quite literally, hewn faces.

One problem you will encounter is that while you may find many pieces that will lie together nicely side by side as you build up your rock face, it is almost impossible to trim these down to a nice flat surface to lie neatly on the baseboard. Again the answer is easy. Trim the edge of your quarry base to the required shape and add a further layer of plywood beyond and beneath this edge as a support for the coal. The bottom edges of your coal lumps are now below the level of the quarry floor so that most of the rounded face will be hidden. A little filler will hide the odd hole in the vertical surface while more, wiped in to the crack between coal and upper baseboard edge, can easily be smoothed off to the same level as the quarry floor.

Should you need more height in your quarry than I have used in mine, there are two simple answers:

- 1) start with longer lumps of coal or
- 2) run the quarry face back in layers or 'levels' as they were called.

Achieving a reasonably flat edge to the top of a 'level' is not easy, but the slitting disc and a hacksaw both come in handy while a rough file will also help if you have enough room behind to use one. One neat way of removing 'stone' from a lump you do not want to risk spoiling but which is too high as it is, would be to follow prototype practice. This involves drilling a line of holes along the piece you want to separate. A 1mm drill is both effective and cheaply replaced when broken. Split the unwanted piece off using short tapered lengths of brass or copper wire. Tap one taper into each hole gently, one after the other. Continue tapping one at a time and, as long as you keep the pressure even, it will eventually split.

One advantage of this technique is that one ends up with the proper markings on the remaining stone! If you find you do not need to adopt this slow but effective method, similar markings can be made in the top surface of the coal with a razor saw. There are instances of both in my quarry face.

As you will be aware, the floor of most quarries was anything but flat as hewn, but the chippings left after working the stone into useable shapes would have been spread around the floor of the quarry to provide road and trackbeds; a finish easily achieved with sieved coal or ballast. To add realism however, areas of unwanted stone can be modelled rising from the quarry floor towards the edges. A few



flat pieces laid horizontally in the odd corner here and there can be easily extended to the flat areas with filler, using the natural face of the coal to guide you. By now you will have plenty of small bits left over so just glue a few in place before painting.

A bit of geology

The geology of this part of Yorkshire is in fact incredibly complex and even the most general description of it would fill this magazine from cover to cover several times over.

Over the few millennia since the last ice age, newer rivers have both carved new valleys and captured the head waters of others, thus leaving certain valleys high and dry with a deep layer of silt across them, such as that at Ribbleshead. For the same reason, some rivers apparently change direction and, although starting as easily sloped waters heading East, have been captured by newer, more violent, faster eroding rivers heading down the steeper Western slope so that this water now ends up in the Irish Sea as opposed to the North Sea.

With all this layering, raising, folding and eroding going on, it is hardly surprising to find that even short cuttings can be composed of sharply defined layers of granite, shale, coal, limestone, slate and other rocks, layer upon layer, sometimes repeated precisely, sometimes not. I was therefore prepared to accept a simple layered effect of different scales and types of rock strata with differing colours, as long as they all ran in roughly the same directions in the same place.

The cutting

On the Settle & Carlisle, many cuttings were carved through loose material and had fairly shallow sides heavily covered with topsoil and foliage. As we have seen, any such cutting was likely to have been formed of different types of rock of varying degrees of hardness. Therefore, by adopting a cutting featuring many types of

rock we can have the best of both worlds by using plaster for the basic cutting sides and using chips of coal left over from our quarry face to represent the latter and give interest and character to our cutting.

To create further interest, one part of the cutting wall was made in a different way to represent a different type of rock. To suggest some softer, rather more crumbly material, a sheet of foil was creased into a number of folds, first one way and then at roughly 90° some more folds were added at a longer spacing, ending up with a sheet of foil roughly resembling a sort of haphazard grating! Some loose gravel was placed on the floor of an old baking tin and the folded foil pressed down around it gently so as to provide an uneven surface. A couple of pints of runny plaster were mixed up and poured into this 'mould' and allowed to set hard.

The separate pieces were now cracked out of the foil and arranged to form a long, low triangular shape rising at an angle about halfway through the cutting. I found the easiest way of attaching the dry pieces was to dampen both the moulded plaster and the plaster bandage I used as a base for the sides of the cutting and apply a slightly wet layer of plaster to the latter, pressing the mouldings in, one piece after another, gradually building up from the baseboard level to the required height. It was an easy matter to use a coarse file to bed the lower edge of each bottom piece flush with the baseboard before fitting. The upper edges were left as they came out of the mould.

While this area set hard, odd scraps of coal were glued to the bandage base of the rest of the cutting using more car body filler. When all was securely attached, the rest of the cutting face was made by spreading a fairly deep layer of plaster into the spaces with a spatula, working it up to the moulded 'stones' and all around the coal chips so that a realistic cutting face was obtained. Once this was firm but



Left: the first attempt to get the colour correct on the painted viaduct with vestigial scenery; the view opposite is of the finished structure. Photographs by the author.

while the surface was still workable (a few brushfulls of water help here), a 2" paintbrush was used to create strata lines on the surface and a sharp knife used to create spits and cracks in the rock surface. Both these features will later hold different colours from the final surface coat and so create interest and character in the finished face.

Painting

Painting follows much the same method as used on the natural rocks and again in artist's acrylic but, since we are here representing a variety of stone types rather than a single hard rock, a little extra colour can be useful.

On the quarry face, I mixed a little blue into the basic colour of some areas and a little ochre into that of others. Red could be added to suggest sandstone such as is found further North in the Eden Valley, but I wanted to make the quarry different again from the station area so I omitted it here having used it there.

Further variation was gained by using various proportions in the basic burnt umber, black and white mix on pieces of coal with a change in surface texture, so suggesting subtle differences of type as well as adding more white to create light and shade.

On the cutting face I simply added more brown to the basic colour of the harder stone and used less black for the moulded pieces. Once painted and completely dry, a thin black wash was run over these, which gives an entirely different effect to mixing it in wet and so suggests a different material.

Proportion

The opposite of the cutting is, correctly, the embankment and although they often contain a lot of stone they hardly count as masonry.

Viaducts however, are perhaps the pinnacles

of Victorian masonry. Others may cite churches and many even stations, but now that we are getting into taste whereas in engineering terms, viaducts are undoubtedly among the most impressive of all engineering structures.

Even the different materials the Victorians chose had their different aesthetic purposes; brick ones always looked neat and business-like, stone ones lumpy solid and stoic while the steel structures, made after the Tay Bridge disaster, always seemed to be on a far more massive scale than was strictly necessary, the Forth Bridge being the classic example.

Sizes of blocks

But of greater pertinence to us here is the Victorian eye for proportion in stonework. It seems to me that as a rule of thumb, the further one has to be away from a structure to see it in its entirety, the larger the lumps of stone that were used in its construction.

While I am not claiming that every viaduct was built using stones of a different size merely according to its length, photographic evidence has convinced me that viaducts use the largest stones, road overbridges use slightly smaller ones and the 'public' faces of road underbridges use the smallest. It must be said, however, that compared with the size of stone used in the usual rural or vernacular stone building, even these are pretty massive.

I feel the real reason is that the Victorians had to convince their customers that their bridges were sound and the reason for the use of such large stones was at least partly cosmetic since the average country person, used to their village church as being the largest structure they knew, had, in the early days of any railway, to be convinced that the structures would carry these new-fangled steaming, fire-breathing monsters safely.

Reproduction

In larger scales it would be necessary to produce one's own stone work sheets to work from, but fortunately in 4mm scale, those excellent Wills stone sheets have done much of the basic work for us. However, for this stonework to be believable on a viaduct one needs to select some of the smaller stones and cover them with a filler like Milliput to create a few random larger ones.

But since even a small viaduct is made up of a row of similar parts, I also wanted to take this a stage further and create moulds to enable me to make the model from a 'kit' of cast pieces. To keep the repetition on the finished model to a minimum, it was decided to leave this enlargement process until after the moulds had been produced so that different areas of stonework, on otherwise identical castings, could be enlarged thereby disguising the inherent repetition.

I decided to create a pair of half arches for two reasons; one, joining stonework 'invisibly' takes a lot of time and effort and there is much less to join at the top of an arch than at the 'spring' where the stonework is at its deepest. Secondly, by making a keystone on each half, one would have a choice during assembly, which would again disguise the repetition and as the viaduct was to be on a gentle curve, also allow enough 'meat' to lengthen the outside without having to fill in large gaps.

At this point, mention must be made of the two slightly triangular stones which the arches spring from for these are not semi-circular arches, only nearly so; this is both deliberate and prototypical. The foundation arches themselves were cut from 3mm ABS sheet, half-sawn into individual stones and contoured. Then sheets of Wills stonework were carved to fit the outside edge. 'Collar' stones were added at the base of each arch since most stone viaducts, and certainly S&C ones, had this projecting course at the top of their pillars.

At each end it was simply a matter of sawing off the unwanted arch, continuing with more Wills stonework and covering the join with a narrow vertical strip to portray the buttress. Like the Ais Gill prototype, there were two buttresses at one end.

A confession

My mouldings are not to 4mm scale but 2mm scale. This is because each S&C arch was in fact 45' or 180mm/7 1/2" from spring to spring. Had I modelled it to scale, I would have ended up with a two arch bridge!

Probably without any basis in fact, I have noticed that three or fewer arches are always called 'bridges' while four or more are usually referred to as 'viaducts'. My customer wanted a viaduct. Since the arches could only be seen from an angle, I was confident that I could get away with the deception through the foreshortened perspective.

First I roughed out and painted some full-height, half-width arches, but was not at all

convinced by the resulting ellipse. It made the arches too deep, they fitted into the landscape rather than onto it. So, with the exception of a full-height parapet (two separate mouldings; an inner and an outer one), the whole viaduct is to 2mm scale. I wonder if you noticed?

The pillars were made in two halves, each designed to mate with its opposite number. This was not entirely successful since the mould set with an interior angle of less than 90 degrees so that the outer faces of each moulding needed filling when joined to get a flat surface. However, this hand work at least assured that each pillar would look different and even if each inner face were from the same mould, various stones could be enlarged in different places during assembly to provide variety.

Thus with the dimensions established and the originals made as described above, the castings were moulded by my friendly local resin moulding company and assembled into the finished viaduct, again using car body filler.

To finish the arches, curved undersides were required, and these also had to be filed to suit the curve of the viaduct as well as having a slightly larger arch to mate to at the far side. No easy task. In fact, I was tempted to make these arch facings from brickwork since roughly half the undersides of S&C viaducts were faced with it. But since stone was the underlying theme to the whole model, I decided I

needed to use that for artistic reasons. However, it was no use using the standard Wills sheet since these arches were laid on wooden formers. This does tend to preclude deeply-worked stones from sticking out of the face! Several sheets were therefore abraded nearly flat with coarse (80 grit) oxide paper, before being divided into strips about 1/2" wide and added to the assembled pillars and sides.

The next step was to shape a 4mm sheet of ply to the final curve of the viaduct and glue it in place between the sides but over some card supports fixed above the arches. I am lying. I made this earlier and used it to form the gentle 10' curve of the viaduct as I assembled the sides. The ply sheet was made longer than necessary for the viaduct and it was this which was glued and screwed to the approaching trackbeds. Any necessary filling under each pillar was done after assembly with strips of cardboard or plywood as appropriate.

I did it this way since the whole viaduct is on a 1:40 gradient and, other than ensuring that the pillars would end up vertical, it was easier to make the trackbed fit the approaches and pack the supports rather than try and create a whole viaduct of precisely the right height and gradient. Once the track had been laid and wired, I could add the parapet formed of four different mouldings; an inner piece designed to fit over the trackbed, an outer piece designed to fit outside it and one each left- and right-hand buttress mouldings.

I like to run a wire to every single piece of rail since rail connectors are very susceptible to being insulated by paint owing to capillary action.

The viaduct was painted using my usual acrylics (black, white and burnt umber again), beginning with a coat of dark grey to cover the car filler joints, the Milliput of the large stones and the pale brown plastic of the plain Wills stonework. When this was completely dry and hard, the whole viaduct was painted using a fairly large flat artist's sable (about a number 9), using a dry brush technique and coat after coat, applied wet on wet, each a little lighter than the last. In this way some eight or nine coats were applied in an attempt to bring out every individual stone before the finish was acceptable, although the last two or three of these were added after the surrounding scenery was in place to achieve precisely the correct tone.

This final adjustment of the colour is vital when using pre-dyed scenic scatters so as to position the structure correctly within its surrounding landscape. Too dark a tone will make it seem too close to the viewer, too light and it will seem too far away. The subconscious spots the anomaly but knows not why it is wrong, just that it is wrong!

Therefore, I implore you always to go back to photographs of the original wherever possible; you'll make a better model!

To be continued.



All Change for Castle Quay

A scenic jigsaw in 4mm scale

A new house gave **John Wiscombe** an opportunity for the rearrangement of layout geography.

Readers of RM for the past twelve years or more may remember *Exeter Quay* (August 1989). The model of the quayside was designed to be built in sections so that all could be removed quickly to allow easy access to the tracks underneath for cleaning and maintenance. It occurred to me at the time that this would also allow a change of scenery to be made at some time in the future.

Retirement came along and the opportunity to move into a new house. The snag was that first I had to build the house. This took four years and the future of a rebuild to the layout seemed a long way away. There are some advantages however for a railway modeller in a DIY housebuilding project. You can at least keep a modelling room in mind while you are building.

The house is built on a sloping site and is split level. I thought that with a little planning the railway could pass through the bedroom walls and around the roof space.

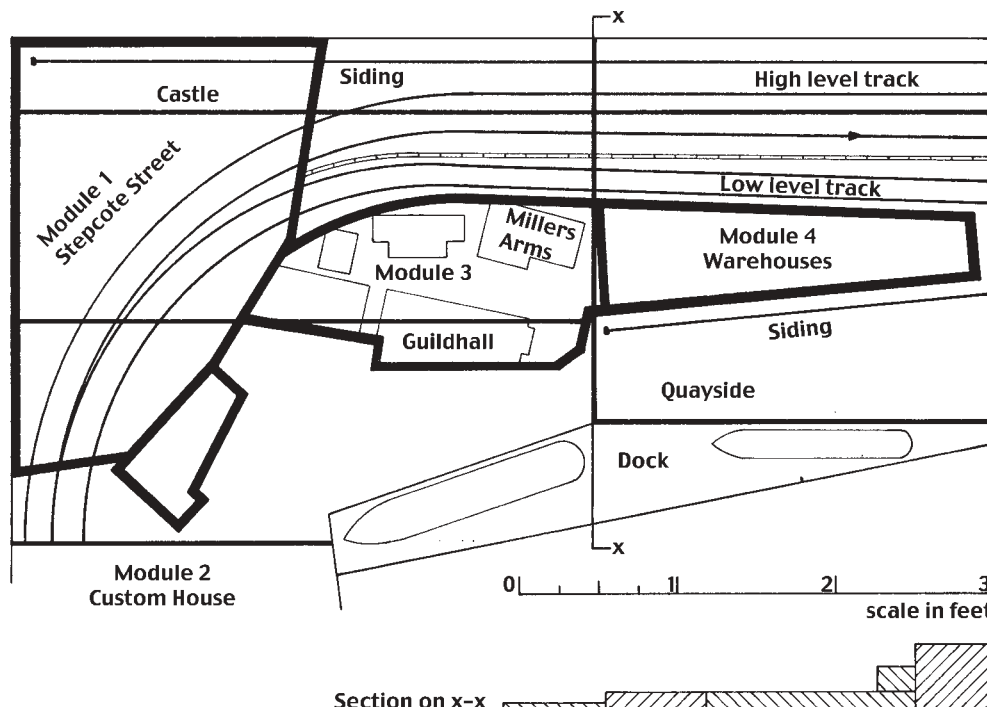
Soft blocks were accordingly built in where the walls would eventually be pierced. There are limits however and the position of the staircase dictated where the door would be. This meant that when the layout was eventually re-erected it had to be substantially rearranged and rebuilt to fit its new home. New sections were built and a high-level track installed.



When all was completed and operational again I realised that the original quayside buildings hid some 7' of track in a tunnel and I wanted to see more of the traffic. The original Quay is still in good condition but the decision had been made to re-develop the area.

Exeter Quay has been packed away safely

and the site cleared. It can however be re-erected in a matter of minutes because none of the ground work has been altered in any way. All the new pieces of the jigsaw are made to fit into the spaces where the originals located. This is facilitated by my earlier decision to set buildings or groups of them into the 'ground' so that the unrealistic black line could be avoided. I feel this spoils so many otherwise good models.



Notes.
Footprint of the scenic modules is outlined bold.
Modules cover the baseboard joins where possible.
Each module is built upon its own base of 4mm birch ply.

Redevelopment

Planning the new quayside was an interesting part of all this and I was searching for inspiration. I prefer when possible to model from 'life' rather than freelance. The end result is a combination of real and imaginary buildings. Geography has been seriously rearranged with models of buildings from several locations brought together.

Exeter is still represented with the Custom House building, the old Dutch fronted cottages and store house having been retained. Stepcott Hill was the inspiration for many other buildings. Like the real one, the model hill is very steep and the pavements are in fact steps.

This hill leads up to the Castle Gate and Castle which occupies the highest land in the corner of the layout. Like all good castles it is built to fit the site. I found it difficult to avoid making it look like a child's toy and the first effort was scrapped because I could not live with it. The subsequent castle occupies less space and includes only the castle gatehouse, keep and some curtain walls. I think it is more

convincing because you have to use your imagination for what is only suggested and not modelled.

The cluster of lovely old buildings clinging to the steep hillside has been a joy to model even though considerable modelling licence has been taken in order to fit the space available. I hope the essential atmosphere has been achieved.

Reference was made to *Old Exeter*, a collection of old photographs by Peter D. Thomas (pub. Webb & Bower, 1977, ISBN 0-906671-66-3) and also to Mike Gill's excellent article and photographs (RM Aug1984). Visits to the hill were also made.

A quayside needs warehouses and a new set of these was constructed to fit the space vacated by the originals. These are very different in character and include a mill with revolving water wheel.

Construction started seriously in August 2000. The basic corner unit was first made to hide the rather sharp curves of the four separate tracks. Two of these are at baseboard level, one at high level, and the fourth is partly on a gradient which links the other lines. Clearances were kept small but adequate. The unit is made from 4mm birch ply and is well braced to keep it rigid (see photograph). The shapes are rather complicated and do not provide a level playing field for the buildings to sit upon. Consequently each is made to fit its own site. The road surface for the steep hill was modelled next complete with stepped pavements and then the basic castle structure. The tower of the keep is made from a length of 110mm plastic drain pipe (left over from the house building) and stands upon an upturned plastic flower pot which it just happens to fit exactly. All the rest is from 4mm birch ply.

I would have liked to model the new quayside in an earlier period, say circa 1900, but the original layout is set firmly in the fifties and replacing all the locomotives, rolling stock, people in appropriate dress and a host of other period features was not really an affordable option.

Basic scenic groundwork

The castle stands upon rising ground. I have always disliked using wire netting mesh to model scenic groundwork because it is such nasty stuff to handle and fix.

The following method was developed years ago and I have used it ever since. Decide how you want the ground to look and cut supporting formers using corrugated cardboard from old grocery boxes. Arrange the corrugations vertically - the material is strongest in this direction. Glue these to your base with PVA adhesive at intervals of about 75mm and don't forget to support the edges. Use the same material to provide the surface cut to fit.

Do this in several pieces to ease the fitting and handling and overlap them about 20mm. Don't worry about small irregularities in the ground - these will be modelled later with the surface treatment. This consists of *papier mâché* mixed with enough Tetraon or Polyfilla to make a workable putty.



This sticks well to the card base and can be formed into all manner of shapes and textures. Use it fairly damp if you want smooth surfaces such as fields or embankments, or dryer and crumbly to model rock faces (study

the real thing first). It can be applied in thicknesses from about 5mm up to 50mm. The filler content sets in a few hours. This helps to fix the water content so that not too much is absorbed into the card base construction.



Depending on the thickness used, full drying takes from a couple of days to a week or so. When dry it is surprisingly strong and light. It is also cheap and made from readily available materials. When I introduced this to the fellow members of my model railway club they immediately christened it 'John's gunge' and so it has remained. I find it versatile and quite satisfying to use, especially when squeezing out the excess water from a good two hands full of the stuff. Try it for the ultimate modelling experience.

Making up the *papier mâché* need not be tedious. Tear up old newspaper into pieces about 50mm across. Fill a good strong plastic bucket – domestic ones are too thin so I use an old fire bucket.

Pour several kettles of boiling water on this and leave to soak for an hour. Break this down into a mash using a metal paint stirrer in an electric drill. (Note: place the head of the stirrer below the surface *before* turning on the drill or you will get an awful mess all round the room. Stop the drill before lifting it out for the same reason.)

This very wet mash keeps well. Surplus can be allowed to dry out and be reconstituted later with boiling water – another good reason for not using a domestic bucket.

Buildings

Basic carcasses are constructed from 4mm ply or 1.5mm card according to size (or taste).

All shells have floors added for rigidity and to keep things square. Glazing can be added from below or above before roofing. Don't use two floors if you want to gain access to the interior. All joints are butted and glued with PVA. No pins are used.

Finishes vary considerably. Some are plastered with Polyfilla and stone courses are scribed on when set. Embossed plasticard is



used where appropriate and wood, modelling clay and filler all have their place.

The water mill

Fascinating stuff, water. Reflections when still, or movement. For the modeller it poses problems:

- how to keep it where it is wanted;
- how to prevent nearby things being soaked;
- leaks;
- you cannot scale it down. It just goes on behaving like water, due to its surface tension mainly.

This latter is the most difficult problem to solve. When used to turn a water wheel the main problem is to get the wheel to turn realistically slowly. A scale 15' wheel spins madly with only a little water flowing over it. I overcame this problem in two ways.

Firstly, the wheel shaft carries on the inside of the mill building a large flywheel as big as the building will allow. This provides some inertia to overcome and smoothes the turning motion. Mine is turned from 6mm plastic sheet. It does not need to be excessively heavy for this puts extra load on the bearings, but the larger the diameter the better, within reason.

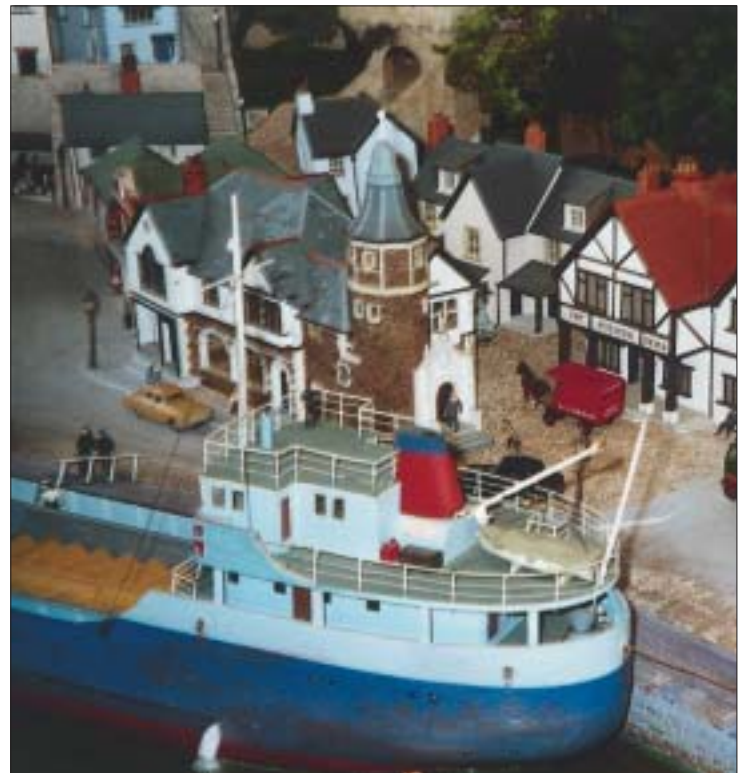
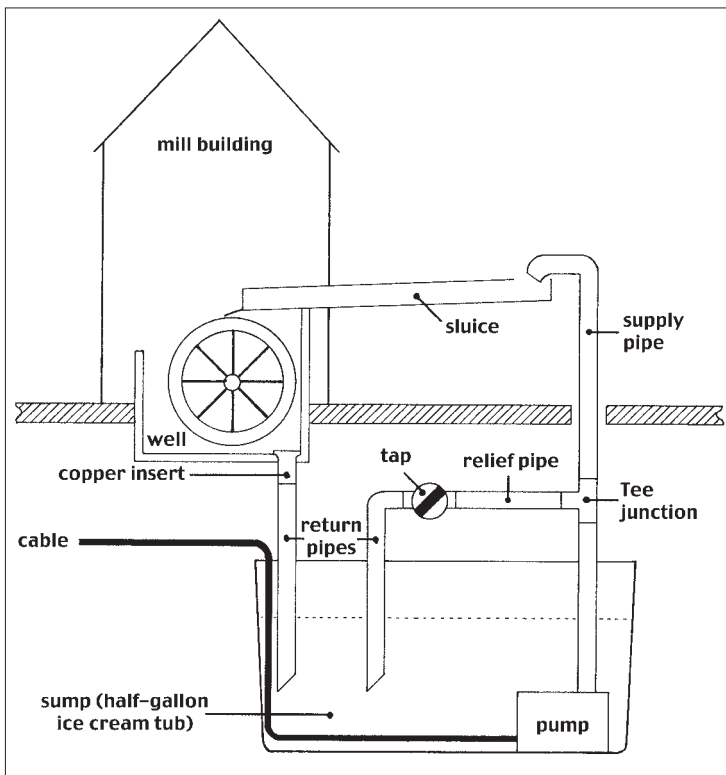
Secondly, a means of controlling the flow of water accurately is needed. Very small submersible pumps can be bought at garden centres. These are meant to power indoor water features (mine still does). The main problem is that the flow control cannot be reduced enough to allow the very small flow required. I tried restricting the pipe to the wheel but this was not kind to the pump and didn't really work anyway. The solution was to fit a relief pipe with a tap in it. The sketch, above right, will explain the system.

Controlling the flow through the relief pipe causes water to rise in the supply pipe and allows the pump to operate without too much back pressure.

Waterproofing

On this model the end wall of the mill building through which the wheel shaft passes, and also the inside and outside surfaces of the wheel well, are all plastered with car body filler. This is smoothed as it sets with a wet kitchen knife and textured by stippling with a stiff bristled brush. When set, the stone courses are scribed into this with a steel point. The filler is impervious to water, but just to make sure, the stonework is coloured using acrylic paints and then the inside surfaces of the well





are coated with 2-part epoxy resin. Araldited into the base of the well is a copper insert to accept the 1/2" plastic return pipe. These are normally used to prevent plastic water pipes collapsing when using a compression fitting to join them to fittings, etc. and are sold by plumbers' merchants. All the flexible plastic tubing used together with the Tee junction and control tap were purchased from a garden centre.

The smithy

In order to add extra interest the forge of the blacksmith's shed is fitted with a 12v red LED

This is powered by a 9v rechargeable battery housed in the smith's cottage next door. A push switch is also fitted in the cottage and is operated by pushing down on one of the cottage chimney pots. The red glow produced by the LED is quite convincing and the battery lasts for months before needing a recharge.

There is much stonework on this model especially on the castle. Years ago I made a set of casting resin embossing tools to produce various surface textures on modelling clay. Several types of stonework, granite setts and cobblestones can all be modelled this way and I am indebted to the late Bob Tedbury, a

fellow modeller from Tiverton MRC, who introduced me to this method of modelling. Making the tools was fully described in Bob's article *Llanio Vale* (RM Oct 1982). A great deal of attention has been given to modelling the ground surfaces because they are so obvious to a viewer of normal height.

Finishing off the model by dressing it with all the details which make it come alive is one of the most enjoyable aspects of the hobby for me. We are well served by the model trade which supplies us with such a wealth of these detail bits and pieces at least in 4mm scale.

Happy modelling.



...an exchange of railway modelling ideas for beginners of all ages

North Seaton Coal and Goods Wharf Padstow and Polzeath Light Railway

A 7mm scale 0 gauge bedroom layout measuring 6' x 1' by **Doug Vickers**.

I am a 76 year old pensioner and have enjoyed railway modelling for over 40 years but still regard myself as a novice with limited skills. When we moved nearly 4 years ago into an elderly persons' bungalow there appeared to be little room for railway modelling. However, a small 4mm layout was built which I enjoyed making, but found little satisfaction in operating, except for the occasions when our young grandson came to visit us.

That layout has now been made redundant and replaced with a goods and coal yard in 7mm. This is a simple layout which works very well at slow and realistic speeds, giving me a lot of enjoyment. I find shunting a few wagons on 0 gauge to be more realistic with its 3-link couplings and meaty size. I have made a shunting pole from a paper clip and with practice, coupling and uncoupling is no problem.

Construction

The layout is a chipboard base, glued and screwed on 2" x 1" softwood. One Peco point and three lengths of Peco track are quite sufficient. It fits quite well in our small bedroom, resting on a dressing table: the drawers are useful for storing modelling tools and materials.

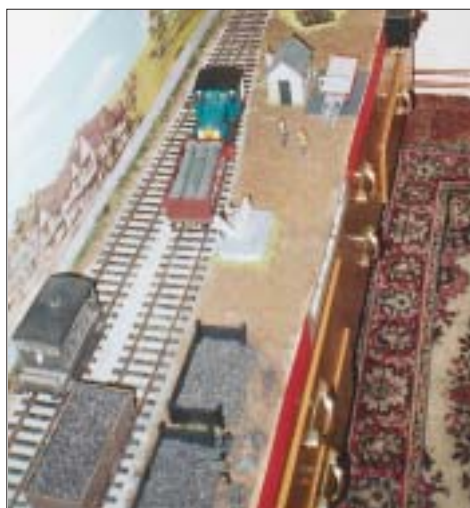


Scenery and figures

A yard crane has been made from a kit supplied by Home of 0 Gauge, and mounted on a plinth made with plasticard. The coal office is also made with plasticard.

A pile of old sleepers has been added to the layout, and a grounded van body made from a Slater's kit.

The field at the end of the layout is enclosed



with hedges made from lichen, and a 5-barred gate, posts from matchsticks and the rest from very thin balsa sheet.

The coal staithes are made from balsa wood and filled with real coal (unfortunately this is too small and will have to be rectified).

The Y7 has a footplate crew, the brake van a goods guard and a shunter is standing against the points.

I have tried to bring the layout to life with a few 7mm figures. In the coal staithes a workman is filling coal sacks. These have been made from balsa wood. The horse and cart is a Slater's kit: the man leading the horse is having a chat with the 'gaffer' from the coal office.

The cottage is from the Alphagraphix range. Outside the cottage a young couple dressed smartly in 1950s style is going to a party celebration (I must concentrate on my modelling and stop admiring this attractive young lady!).

Rolling stock

The rolling stock is made up of the following: An ex-MR 10T brake van, bought ready-made from a shop in Sheffield at a price not much more than the present price of the kit; three Lima mineral wagons fitted with 3-link couplings; the Clay Cross Ironworks wagon which needs transfers to show that it is now a non-pool wagon. The brake gear has been painted

rust colour, and a load of cast iron pipes placed in the wagon. These have been made from 1/2" dowel, and flanges from 3/32" balsa sheets. Another two wagons have coal loads and are painted rust colour; a small ex GW 4 plank wagon is made from a CooperCraft kit which has gone together quite well with wheels supplied by Alan Gibson.

Motive power consists of an Atlas switcher which a previous owner has anglicised by adding 3-link couplings and sprung buffers. It is painted blue with the later BR logo. It runs well but is rather noisy.

After studying the RAILWAY MODELLER advert, I went to Sheffield and bought a very well made North Eastern Railway Y7 0-4-0 shunting loco which runs smoothly and very quietly. This engine was a very reasonable price, made even more affordable by part-exchanging my 00 engines and rolling stock.

Future plans and conclusion

Now the layout is complete, I intend to build a collection of PO coal wagons, open goods wagons and vans, so that at each operating session different wagons can be used. I have also made it a 'golden rule' that engines and rolling stock are kept in storage and placed on the layout only when I feel the need to play trains.

My thanks go to all the model shops who have rendered a good service and finally, I thank my wife who not only tolerates my absence in the 'railway room' but takes an active interest and is always ready to offer constructive criticism and tea or coffee.

Clockwise from top: Diesel Shunter places wagon with pipes into good yard; overall view of layout; Y7 No.60406 departs.

Photographs by the author.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the letter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

SEATON BRANCH PLAN

Please can anybody provide a plan of the Seaton (Devon) branch showing all bridges, the SR bridge numbers, bridge names (if available) and their positions or mileages along the branch? Many thanks.

MARTIN JAMES,
18 Runnemeade Road, Egham, Surrey,
TW20 9DQ.

HELLIFIELD

I am building a layout of Hellifield (a layout based on this station is coming soon in RAILWAY MODELLER) either pre-nationalisation or the late BR steam/diesel period depending on the information that I can obtain.

I would welcome any information that readers could supply such as track plans, drawings, buildings and timetables – especially freight workings etc.

Any reasonable expense incurred will be reimbursed.

A. J. LAWRENCE,
147 Higher Road, Halewood,
Liverpool, L26 1UN.

RANNOCH

While reading Ian Futers' delightful piece *Rannoch* in the November issue of RAILWAY MODELLER, I looked again at the photo of the viaduct. 'Wait a minute', I said to myself, 'I have seen this before'.

Sure enough, it was there on my kitchen wall, the photograph for October 2003 in the Rail Photoprints Steam Traction calendar has a magnificent shot of the Rannoch viaduct. It is a beautiful photo of a Thompson B1 with a rake of maroon carriages, which shows the viaduct and the surrounding countryside to great advantage. It would probably be of great benefit to anyone wishing to model this.

Best regards, and thanks for a great magazine.

JOE FREESE

HUDSON ROAD

I am afraid I have to point out a small error in one of the photograph captions in the preview of Jon Grant's exquisite layout *Hudson Road* (November RM).

The locomotive shown at the head of a rake of NER hoppers on the left hand page is unfortunately not a T2 as described, but in fact one of the earlier William Worsdell 0-8-0s with a smaller boiler. These machines came in two varieties, class T with piston valves and T1 with the slide type (both later classified Q5 by the LNER), but unfortunately, the engine number in the photograph is not quite legible and so I am unable to advise which type it is.

If memory serves, Mr Grant's layout is set at some point during the 1914-1919 period, and this may help, since the 50 slide valve T1 engines were

loaned to the ROD and operated in France for some of this period.

Some T1s were re-boilered after the grouping with larger boilers from withdrawn Hull & Barnsley Railway 0-8-0s, but apart from these, the Q5 clan retained their distinctive small-boilered appearance until withdrawals commenced in the mid 40s.

JONATHAN JOSEPH
(Mr Joseph's drawings of the NER T/T1 class are scheduled to appear in RM in the near future – Ed).

CARMONT STATION & SIGNALBOX

I am looking for any information, including photos and diagrams on Carmont station and signalbox located in Aberdeenshire, Scotland.

The station closed in 1956 but the signalbox and level crossing are still operational and control the section of the East Coast main line south of Stonehaven.

Although a lonely spot, many photographers and spotters went there, I believe, in the 1960s to capture the swansong of the A4s on the famous 3 hour expresses between Glasgow and Aberdeen.

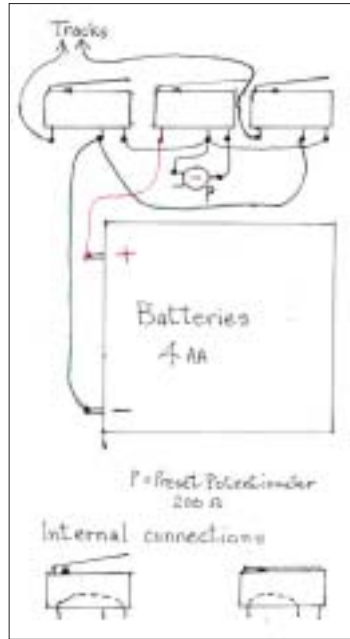
My grandfather was signalman there during the 1950s and 60s and I am undertaking the research for both railway modelling and family history projects. Thanks in advance.

R.J. IRVINE,
2 School Road, Arbroath, Angus,
DD11 2LT.

OVERHEAD WIRES WARNING SIGNS ON HORNBY LOCOS

Over the last couple of years I have purchased a large number of Hornby locos and I am frustrated by the presence of little white warning signs for live overhead electric wires.

My latest purchase was *Silver Fox* which has no fewer than eight – six on the loco and two on the tender. Would



it not be a better idea to leave it to the discretion of the buyer and issue a small selection of stickers so that the buyer could put the item on if they wanted?

I would be grateful to anyone who could advise me on how to remove these signs without damaging the models.

GEORGE MACLEOD

POWER & CONTROL UNIT FOR SMALL SHUNTING LAYOUT

Following on from my recent micro-switch diagram for gate control (*July and October issues – Ed*), I have devised an alternative PCU (Power & Control Unit) suitable for a small shunting layout. On such a layout only 3 speeds are called for – slow, dead slow and stop. I found by experiment that 6

volts (4 x AA batteries) was sufficient for slow. The locos would not start on much less, but once started speed could be reduced to dead slow. I therefore introduced a third micro-switch, wired as shown on the diagram. The preset potentiometer (200 ohm) is adjusted to give dead slow running.

Procedure is to press the chosen switch for left or right, and the central switch, then immediately release the central switch, and away she goes, dead slow. So there is my PCU. No bulky, heavy mains transformer, no bulky controller, no mains leads and no circuit breaker.

I have yet to find out how many hours of shunting I can get from my 4 x AA batteries. I prefer to use rechargeable Ni-Cads, as these give full power until nearly discharged. Anyway, a pocketful of spare AAs is no great hardship.

JOHN ALLISON

WELSH HIGHLAND – MORE INFO

Whilst the fact that I got my head stuck in a carriage window of a Welsh Highland Railway coach at Dinas Junction in 1936 does not necessarily make me an expert upon the subject, the fact that I lived at Waunfawr for considerable years does give me some local knowledge.

Because in my youth I cycled around the area, and I was well aware that at the bit of Waunfawr where we lived was at about 500', and overall it was higher at Rhyd-ddu, it was with some surprise that I noted that the note in 'Newsdesk' stated that Rhyd-ddu was about 200' above sea level.

Consulting the map, to confirm, Rhyd-ddu is really about 200 metres above sea level, and although where we lived at Waunfawr was shown as being on the 130m contour, the railway was rather lower at about 105m.

However, on a pedantic note, it is a little unlikely that Mr John Pritchard remembered the original railway being constructed, opening as the NWNGR to Rhyd-ddu in 1881, having opened in stages from Dinas Junction a few years previously. The Welsh Highland Railway itself took over the NWNGR, but the new, WHR, construction was from Rhyd-ddu to Beddgelert, Aberglaslyn and the junction with the Croesor Tramway and into Portmadoc, and this opened, in 1923. I must admit to being curious to know to which school Mr Pritchard travelled, presumably either Waunfawr, Rhyd-ddu or Beddgelert although the school at Betws Garmon (Salem) may have been still open then, but was certainly closed by the end of the 30s.

Whether I shall live long enough to see the whole line re-opened to Portmadoc is perhaps questionable, but in 1940 one would not have put any money on it after Cohens had lifted the track apart from the bit near Pitts Head which was used for gunnery practice.

R.M. REAR

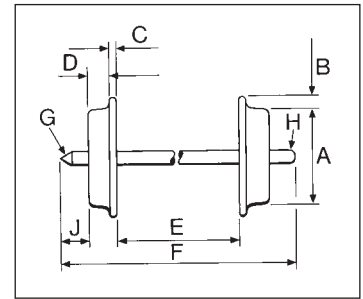
Left: a 'Silver' A4 – at the Cross on 31 March 1956 – prior to the widespread introduction of overhead warning flashes. 60014 Silver Link was captured in the process of joining its stock for its next journey northwards.



Photograph: the late Les Pickering, courtesy Bob Brown.

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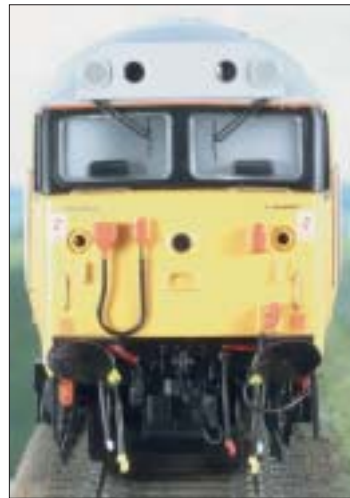


English Electric Class 50 in 4mm scale from Hornby



Ladies and gentlemen: the Ringfield motor is dead. Bachmann, Heljan and now Hornby, with the English Electric Class 50, have diesels with centred-motor flywheel drives. This development is one of the mileposts of 2003: finally the 'big three' in the UK market have quality mechanisms in their modern traction ranges. And what a mechanism, as we shall see, lies inside the 50.

The fifty 'Hoovers' – a nickname gained due to their characteristic sound – were leased to BR, initially, from their introduction in 1967, initially, from the famous Vulcan Foundry plant at Newton-le-Willows, Lancashire, the machines were allocated to a variety of duties on the London Midland Region. Acceleration of the West Coast timetable in 1970 saw regular rostering



in multiple on the heaviest trains: 5400hp was ample to maintain time during the enabling work for the extension of live wires to Glasgow.

When the 'Electric Scots' – Class 87s, and now relinquishing this role – took over on the WCML, the 50s were transferred to the Western where, seeing as they hastened the demise of the hydraulics, they proved less than popular. They underwent refurbishment at Doncaster during the early 1980s, and around the same time took over Waterloo-Exeter services from the sturdy Class 33s: the 50s once again spearheaded a timetable acceleration. With the onset of Class 159 units, however, the last express passenger diesels built for BR were not required, the final one being withdrawn in 1994. Several Class 50s remain in main line

working order, happily, working such off-the-old-patch duties as Welsh Valleys services.

Our office has seen the occasional review sample from the noted producer of American-outline models Lifelike. Its 'Proto 2000' range of diesels links fine detail, operating features such as poseable louvres and opening cab doors (held shut by adequate springing), and a first class mechanism. Our days of hoping to see a British model so attired have borne fruit with the Hornby Class 50. It is, we understand, produced in the same Chinese factory, so is able to employ the same louvres-and-cab-door trick as Lifelike. Whilst body and chassis were separated, we propped the door open to show the effect, hence the view of the louvres on the other side: ordinarily the well detailed cab rear bulkhead is visible through the door, complete with brake wheel. (Admittedly the louvres and door features are not to everyone's taste, but they're there.)



The bodyshell is moulded crisply, with much fine detail. Two of the three banks of louvres either side at the No.1 end are moveable via a metal rod, supplied in the packaging. This is also the implement used to open the doors. Signalling its step-change from previous Hornby models, the 50 is packaged in two separable foam linings, held together by plastic bands. The model itself is protected further by a plastic cover. Stand-proud metal handrails, fine steps, sprung buffers, highly detailed cab interiors, flush glazing, fine printing and suchlike are present: the multiple working cables are not moulded to the cab front, but hang free. Hands up those who remember occasions when the real things were twisted...

A series of pipes is included for the modeller to install – the holes are difficult to see against the shiny black metal chassis – and guidance is given both for placement of these and snowploughs, if the model is supplied with them. (Snowploughs were fitted to some if not all the 50s from 1986 onwards, so not all models are provided with these detail parts.) Slimline clip-in tension lock couplers on detachable mounts are also supplied, however the model is delivered with factory-fitted scale screwlink couplings that could, we believe, be used to tow stock. (They are certainly not simple



cosmetic rigid mouldings, but instead have some strength about them: we dangled a 250g-weight from one with no problem.) Mass-production ready-to-run locos with working scale couplings!

Incidentally, if you wish to use the tension lock couplers – body-mounted and able to swivel, by the way – it's best to leave off the pipe detail. If you want to avoid removing the scale coupler, its lower link must be looped up onto its hook. This task of sanity-sapping fiddliness makes one identify readily with the comment in the article on *Hungerford* – last month – regarding the suitability or otherwise of scale couplings on large exhibition layouts.



To the mechanism. Even those of us attuned to the Lifelike – and to be fair similar-specification diesels from other manufacturers – were impressed by the 50. Its controllability, from reasonable speed to a crawl, and then a crawl across a dead-frog diamond crossing, was most impressive. Then we placed it on the Pecorama loft layout, with its 1:36 gradient and curves of 3' radius in places: the 50 hauled 17 assorted coaches and bogie wagons before it stalled (a relief – we were running out of stock!). The noise, or lack of it, from the drive train was notable; we could hear every wheel click...

Suffice it to say that the heavy (670 grammes) model boasts a five-pole skew-wound can motor with cardan shafts and flywheels connecting to gear towers over the bogies. One of the flywheels has a belt drive to a shaft which rotates the neatly modelled radiator roof fan, which stands out against the very finely represented grille in the roof. Traction tyres are present on the outer axles of each bogie, on opposing sides, thus four per locomotive. The loco has directionally-controlled head and tail lighting, and the headlight each end is a bright white LED, though at slow speeds this extinguishes, pre-



sumably as it needs a higher voltage than the marker lights in the former headcode boxes. Digital command dual inline socket (NEM652) and blanking plug: use of this technology will allow the lighting to be of constant intensity all the time. The closeup of the electronics on the circuit board shows the blanking plug on the right-hand end of this component.

Our sample (ref.R2349) represents No.50 035 *Ark Royal* in large logo blue. Also available is No.50 018 *Resolution* in BR blue, and No.50 045 *Achilles* in Network SouthEast modified-stripe colours. The paint job has been applied very well, with crisp definition between shades. The commemorative crests above the nameplate, the real things of which were supplied by the crew of the carrier and unveiled on 17 January 1978, is not a flat printed representation, but is slightly proud of the bodyside. Doubtless others will follow, maybe including super-powered pairings representing the early years of these diesels.

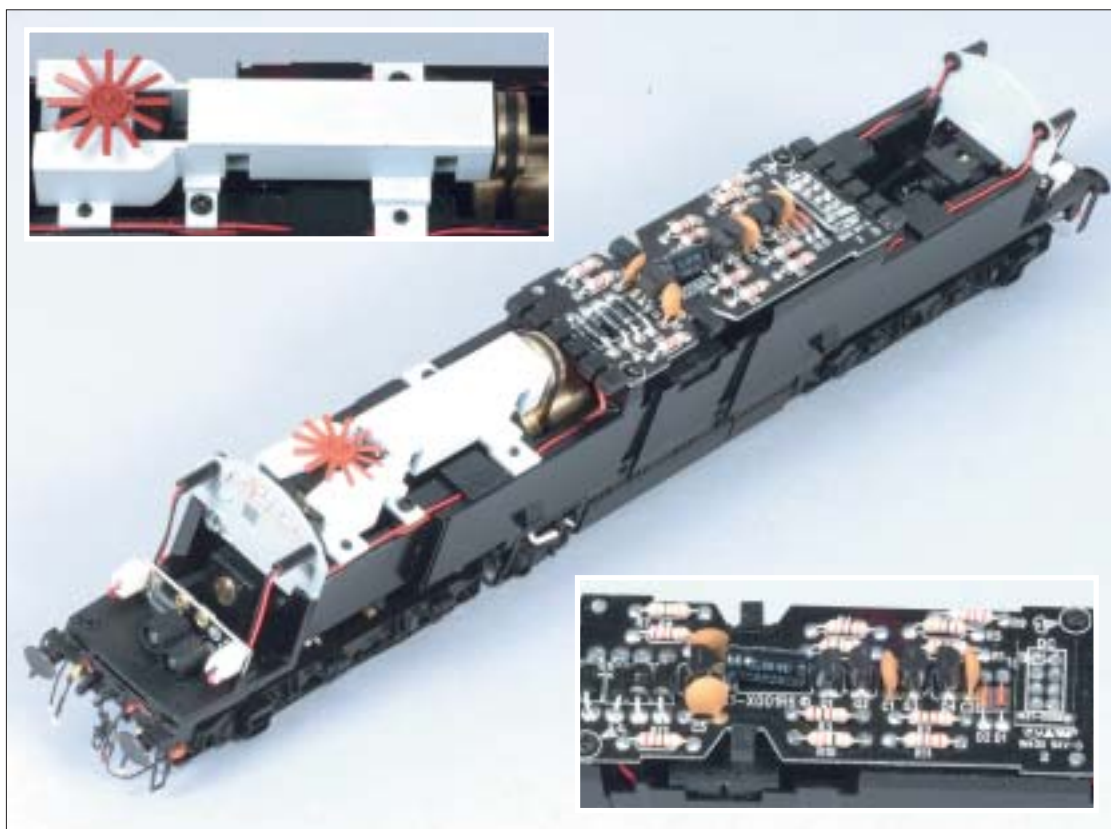
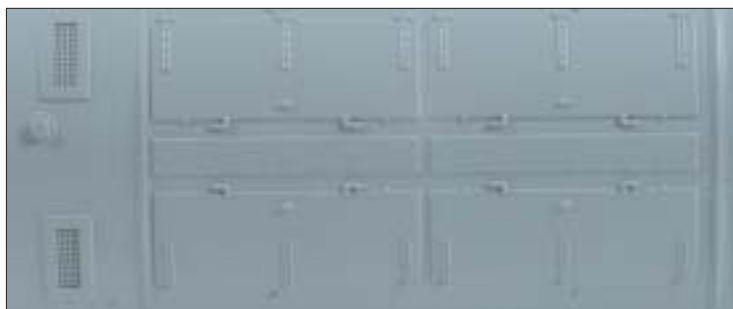
We are sure that Hornby will do well with this model. It packs a significant punch in terms of factory-fitted details, mechanism and quality of finish – at a competitive price – and this erstwhile 'Hoover-basher' for one is very, very pleased with the result. It's not perfect – *inter alia* the brake shoes are not in line with the wheels, the lifting brackets are a bit insubstantial and the seams across the buffers a bit noticeable – but it's still very much a wonderful model.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4 JX.

PRICE £70.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Bulleid Q1 0-6-0 new in OO from Hornby



Although we trainpotterers privileged to live in districts served by Southern Region saw nothing odd at all about the forty Q1s, most of us actually glimpsed one infrequently, your reviewer copping only ten percent of the total in about a decade. Like the Spamcans, the Charlies were a private thing that we did not expect outsiders

to understand, let alone enjoy. Even today, over forty years later, the newly released Hornby model, which *anyone* can buy, seems like letting out a well-kept secret or introducing an elderly auntie to Heavy Metal.

All built in 1942 at Ashford and Brighton, the Bulleid-designed austerity 0-6-0s were classified 5F. With a

tractive effort of 30,080lbs, pretty well twice that of say an Adams 0395 and similar machines, they had around 5,000 lbs more TE than an 'Arthur'.

Despite the F power classification, the Q1s proved their worth as mixed traffic machines. John Scott Morgan's new book on the class (see review on page 53) has several pictures of

Charlies on passenger workings although the running characteristics, by reputation, were noisy and rough at speeds of around 50 or 60mph.

The model is another member of the new generation of highly detailed scale replicas from the Hornby stable. This prototype, upon which practically nothing is hidden from view, has tested the designers, draughtsmen and toolmakers, from Margate to China, to the limit and they have not been found wanting. For example, the sideframes carry rivet detail and, through the lightening holes between the driving and trailing axles, the firebox sides are visible. Prominent under the smokebox door are the covers to the piston valves which, unusually outside Swindon, were driven by two sets of Stephenson link motion. It is possible that this was a late design change and that Bulleid had originally intended an oil bath set-up similar to that of the 'cans'.

The mechanical lubricator (which fed steamchests and cylinders) mounted adjacent to the front nearside sand-box has a working drive from an eccentric on the leading axle. This is exquisitely modelled and at a stroke renders all 4mm scale model steam engines which should have a similar working feature but have not, rather lacking in detail and sophistication.



Bachmann tilting 'Super Voyager' in 00



Bachmann has released its 00 model of the Bombardier Class 221 'Super Voyagers', the tilting DEMUs that form part of the Virgin Cross Country fleet.

The five-car units are similar in specification to the four-car non-tilting 'Voyagers' (which were reviewed in the February 2003 edition): superstructure and mechanism are identical. The bogies tilt the bodies using the same clever and simple design as is found on the Bachmann models of the Acela, the high-speed electric units employed on the North East Corridor in the USA. Ramped areas on the tops of the bogie frames come into contact with pins beneath the bodies as the bogie swings, thereby producing tilt.

In operation the unit is very effective. Like the real things the level of tilt is quite small – six degrees on the prototype – so the models will not act like racing motorcyclists on corners (or, come to that, the APT).

Helpfully, the instructions include a formation diagram, as the extra car is a duplicate standard class vehicle, but in a different number series. The first of the fleet to be modelled is 221 130 *Michael Palin*, named after the famous television presenter and circumnavigator (amongst other talents!).

Enthusiasts will have to wait until the timetable change in September this year to experience tilting trains in reality – the 'Pendolino' and these Class

221s – but with the introduction of the models, to add to the existing Dapol 'Pendolino' (see RM December 2001), West Coast layout operators in 4mm scale have a head start!

For 4mm scale

*SAMPLE SUPPLIED BY
Bachmann Europe plc, Moat Way,
Barwell, Leics. LE9 8EY*

*PRICE
ref.32-625, £119.95*

*WHEEL DATA
B. 0.8mm, C. 0.8mm, D. 2.4mm,
E. 14.2mm.*



Hornby Q1, continued

In the cab there are seats for the crew, screw reverser, white-faced gauges – with numbers – copper plumbing and the double ended tubular regulator handle which seemed to need shortening on our sample.

The tender is also highly detailed with cab doors, water fillers, shovel plate, fire iron tunnel, handbrake standard, lifting lugs and rear ladder. Pedantic people will probably question whether the tender should have both the two small water fillers in the cab and the one conventionally placed on the tank top behind the coal space. The sliding panels which form the sides of the tender cab are vulnerable to being knocked off if handling in this area is not extremely careful.

Both engine and tender have proper stand-proud metal lamp irons but the nicely modelled lamps provided do not have the necessary slots to allow them to be fitted.

The pack of extra details includes not only the aforementioned lamps but also the important SR white route-indicating discs, fire irons for the tender, and the front tension lock coupler.

Below the footplate, if this engine had such a thing, the BFB double-disc wheels are convincingly modelled, as are the jointed coupling rods, steam reverser (nearside), sanding gear and brakes. Bufferbeams have sprung buffers, vac pipe and, at the front, the scale, metal, working screw coupling as fitted to the Class 50 reviewed on the previous pages. The tender is fitted

with the new standard slimline Hornby tension lock auto coupler which can be detached from its pocket if desired.

The pipework associated with waterfeed, brakes etc is modelled in considerable detail and is particularly complex and interesting on the offside of the engine. It has a copper coloured finish which seems unlikely but is nonetheless attractive on a predominantly black model.

The ladder-like strip metal footsteps on loco and tender are finely modelled and inevitably vulnerable.

The plain black livery has the early large BR totem on the tender and the smokebox door carries the 73C shed-plate of Hither Green. According to John Scott Morgan's book, 33037 was resident at this South London depot from September 1952 until April 1954 and again from October 1954 until May 1959. Other liveries/identities proposed are C8 with Southern 'Sunshine' lettering, and 33009 with late crest. Although the 2003 catalogue lists 33037 as having the weathered finish it clearly isn't so in reality, so one assumes that '009 will have the dirty treatment.

The engine unit weighs about 230g, and there are no traction tyres: the loco could manage three of our test Mk 3s on the Pecorama loft layout's 1 in 36 climb – plus of course the tender, at over 100g not light in itself. Electrical pickup is from all wheels including those of the tender, and performance is smooth and controllable. An 8-pole



dual inline NEM 652 socket, protected by a blanking plug, is installed should you wish to fit a DCC decoder.

Summing up, it is pleasing to see Hornby designers applying their superdetail techniques to humble everyday locos as well as the top link

machines, Pacifics etc. In a remarkably short time, Hornby products have undergone a metamorphosis from robust toy trains to exquisite, highly detailed scale models. Everything has a downside however, and the Charlie and its contemporaries from Hornby should be handled with great care if minor damage to the many fragile details is to be avoided.

For 00

*SAMPLE SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4 JX.*

*PRICE
ref.R2355, £52.50*

*WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.*



Latest Dapol commissions in 4mm scale



The Middy Trading Company, the fund-raising arm of the Md-Suffolk Light Railway museum, has stocks of a 7-plank coal wagon in Great Eastern livery. The run has been limited to 200 examples: each bears the fleet number of a wagon awaiting restoration at the museum. The models are priced £6.99 when purchased from the museum or from the sales stand at local model railway exhibitions. By post the wagons are £8.00 each: please send a cheque (made payable to 'Middy Trading Company') to:
D.C. Chappell, 21 Legatt Drive, Bramford, Ipswich, Suffolk IP8 4EU.

Ballards' latest commission with a local theme is a 5-plank open with a



sandstone load, based on details in a photograph of a wagon in service to Bennett & Carter of Wrotham, a few miles north of Tunbridge Wells, on the former SECR. We understand that readers with more knowledge of this firm will be welcome to write to Ballards to flesh out the details. Price as usual is £7.50 each, plus 85p postage.

Ballards, 54 Grosvenor Road, Tunbridge Wells, Kent TN1 2AS.

Oliver Leetham has stocks of two new private owner wagons, one a very limited number of 77 in the livery of W.T. Goolden & Co. Each wagon carries an individual fleet number: they were printed without them by Dapol, and a unique running number was assigned later by dint of special transfers. We understand that customers are welcome to choose their favourites, but please give alternatives in case the

first-choice wagon has already gone. Also new is A.E. Griffiths Ltd., all 96 of which carry the same number.

These wagons are offered with the customer's choice of load, as follows:

Goolden: a) untreated (ie. standard Dapol plastic 'coal'); b) 'real' coal; c) 'real' iron flakes – as illustrated – d) 'crushed slag' (ie. brownish grey lumps); and e) iron minerals.

A.E.Griffiths: a) and b) as above; c) crushed 'real' red brick load; d) 'real' limestone; and e) crystalline 'salt' loads. All are based on Oliver's interpretations of the kinds of loads each wagon would have carried in real life.

Prices are £7.50 each for Goolden wagons, and £7.00 for Griffiths. Postage, irrespective of livery or load required, is £1.00 for one wagon, and £1.50 for two or more.

Oliver Leetham, 6 St. Catherine's Avenue, Balby, Doncaster, S.Yorks. DN4 8AJ.



To aid club funds, **The Astolat Model Railway Circle** has commissioned Dapol to produce 110 wagons based on a Guildford trader, A.T. Locke. Carefully researched, each wagon is priced £8.00 plus £1.00 postage. Contact the Astolat MRC Chairman at the address below.

Victor Langston, Fair View Cottage, Guildford Road, Normandy, Surrey GU3 2AS.

The Tutbury Jinny has commissioned Dapol to produce 200 7-plank wagons in the livery of Harecastle Collieries. Price is £7.50 plus 50p postage and packing.

The Tutbury Jinny, Tutbury Mill Mews, Tutbury, nr.Burton-on-Trent, DE13 9LS.

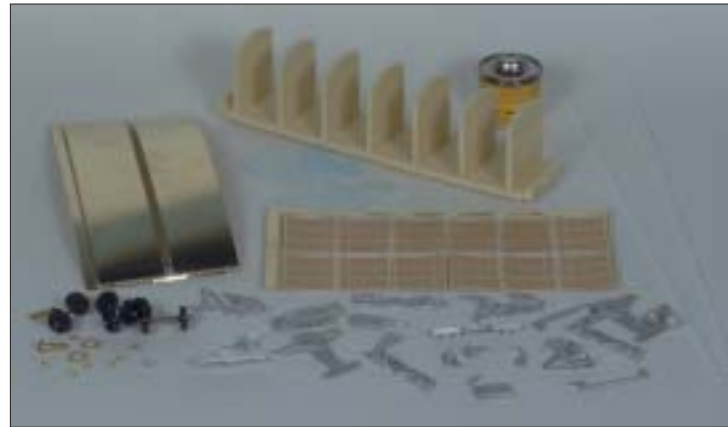


Bogie palletized fertiliser wagon in 4mm from Model Irish Railways

From Model Irish Railways comes this very complete 4mm scale kit for a CIE 40 ton bogie pallet fertilizer wagon.

Ninety vacuum braked wagons of this type were built in 1974 to transport palletized bags of fertilizer from the Shelton Abbey works of Nitrogen Éireann Teo near Arklow in County Wicklow to various locations around the country. The wagons usually worked together in a single formation, typically of eight vehicles. At present the fleet is mothballed.

The kit (WF3) comes complete with all parts except couplings, including even paint (by Precision) and transfers. The instructions are clear and concise and include a good exploded diagram of the vehicle and a Stephen Johnson livery diagram printed in colour. This latter gives precise details of the positioning of the inscriptions, logos etc. A checklist of contents is particularly valuable for familiarizing the builder with the parts.



The main body frame, looking rather like a toastrack with its two ends and five intermediate bulkheads, is cleanly cast in resin. Buffer beams and bogie mounts are integrally cast into this unit. The sides are in etched brass, and this

part of the assembly can be achieved using adhesives such as cyano acrylate or an epoxy resin type. Bogie and underframe parts are white metal castings which can be soldered together by experienced modellers with tem-

perature-controlled irons etc, or fixed by using adhesives as mentioned above.

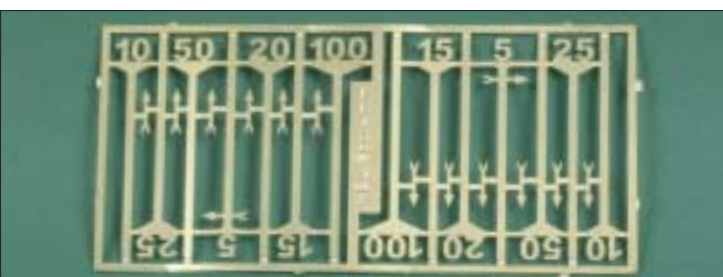
Insulated disc wheelsets on pinpoint axles are provided, complete with bearings. These are for 16.5mm gauge. Purists who require 21mm gauge to represent the Irish standard are recommended to consult Alan Gibson.

The bogies are designed to accept the older version of the Hornby tension lock coupling.

For 4mm scale 00 gauge

SAMPLE SUPPLIED BY
Model Irish Railways, 35 Kingsway Drive, Portadown, Co. Armagh, N. Ireland BT62 3DU.

PRICES
Single kit £30.00. Set of four £114.00. Plus 10% for UK postage, 20% for Ireland and rest of Europe.



That's your limit!

These 'traditional' type' metal speed limit signs are available in 4mm (illustrated) and N. 14 posts with varying limits are included on the fret, some with arrows indicating the running line concerned to avoid confusion, for use in advance of diverging routes.

They only need painting (bright yellow) and planting to complete.

For 4mm scale & N

SAMPLES SUPPLIED BY
N Brass Locomotives, 32 Crendon Road, Rowley Regis, West Midlands B65 8LE.

PRICES
4mm £2.45 per fret, N 75p.

Churchward 45xx in 00 from Bachmann

Given that once, to paraphrase Henry Ford, model railways were of 'any company you want so long as it's GWR' – or seemed so – it appears truly astounding that here is, we believe, the very first 4mm scale mass-production ready-to-run model of the Churchward 'Small Prairies', Nos.4500-74. Many moons ago Lima covered the 4575 variant – the Collett take on the type, with higher-capacity tanks with sloping tops – but according to our research the first 75 have always been sidelined. Until now.

Developed from the earlier 44xx, the 45s boasted taller coupled wheels (4'7½") and curved front footplate valance (4534 onwards). They were introduced as early as 1906-9 – the first batch of 20, erected at Wolverhampton – and the rest, from Swindon, emerged in five batches in all from 1909-24. Withdrawals began early too – 1950 – due to their advancing years, but Nos.4555, '61 and '66 survive, and are now approaching their centuries in pampered retirement on the Paignton & Dartmouth, West Somerset and Severn Valley railways respectively.

Even if in the dim and distant past there was a run of models of this type, this is positively the first 21st-century 45xx to land on the MODELLER'S editorial kitchen table/workbench. Three versions are offered: ref.32-127, No.4550 in GWR green; ref.32-126, No.4560 in BR plain black with early emblem; and ref.32-125, No.4566 in lined green with late BR crest. The model is proportioned excellently, and seems to us to capture the jaunty nature of the real



things. The main plastic bodyshell has a crispness all of its own, and the many rivets are formed neatly. Those on the front footplate, below the smokebox door, are especially good. All the small details that we take for granted on ready-to-run models these days are here: stand-proud handrails, lamp irons, stays and the outer of the two handles forming the smokebox door dart. A dummy scale coupling hook is fitted front and rear above the working 'Blue Riband' detachable slimline tension locks in their NEM pockets, and the detail parts bag holds just the rear brake pipe (the pipe on the front buffer beam is fixed by the factory) and carriage warming pipe. Buffers, naturally, are sprung.

A three-pole motor and drive train operates on the centre coupled axle. Pickup is obtained from all axles including the pony trucks. The model can be fitted with a digital command control decoder, but the procedure is not as straightforward as simply plugging one in: be sure to follow the wiring instructions correctly to avoid possibly damaging decoder or locomotive. There's plenty of space in the hollow boiler for a decoder: they are quite small things these days.

Performance is good, as we would expect. Trackholding is aided by the lightly sprung carrying wheels' frames: we suspect that the pickup contacts do this job as well as their primary function.

Painting and finishing are excellent, as is usual with Bachmann.

So in short, if this really is the straight-topped 45xx's debut in model form, it's a cracker. If it isn't, it's certainly the best around today.

For 4mm scale

*SAMPLES SUPPLIED BY
Bachmann Europe plc, Moat Way,
Barwell, Leics. LE9 8EY.*

*PRICES
All versions – £51.95*

*WHEEL DATA
B. 0.8mm, C. 0.8mm, D. 2.4mm,
E. 14.2mm.*



More motors from R. Parker



This range of 4mm scale white metal car kits is perfect for layouts set in the popular 'last days of BR steam' 1960s era. Fastidious modellers should bear in mind that these models would represent very new cars at this period, and that a significant proportion of vehicles in everyday use in 1955-65 were far from new and a number were prewar.

The white metal castings are clean and well detailed and the subtle shapes of bodywork, grilles etc have been well captured. Door shut lines are nicely marked, not too obtrusive nor too light, but just right. Interior details such as seats, dashboard tops and steering wheels are provided, together with moulded glazing units.

Illustrated here are the 1957-60 Vauxhall Cresta PA (VE09), known to your reviewer and his schoolboy con-

temporaries as 'pinkies' after a perceived popular colour for the type, its Ford equivalent the 1959-62 Zodiac Mk II (VE12), the eminently more sensible and technically advanced 1963-67 Austin 1100 (VE11), and its Rootes Group competitor the 1963-68 rear-engined Hillman Imp (VE10).

All the kits are priced at £8.50 which includes UK postage and packing.

Further information can be obtained by sending an SAE to the address below.

For 4mm scale

*SAMPLES SUPPLIED BY
R. Parker, 19 Oaklands, Malvern
Wells, Worcestershire WR14 4JE.*

PRICE in text.

Train set and 'Jinties' in N



This time of year is traditionally the time train sets seem to appear, and here's the latest from Graham Farish.

Three traditional goods wagons – two private owners and a Southern Railway-branded brake van – make up the train, and motive power is the old-style GF freelance 0-6-0T, simply but neatly finished in Southern green.

A circle of track requiring a space 18⁵/₈" square (474mm) is provided. The track is not the Peco Setrack as was included in GF sets from the Poole era, but is of Chinese origin. We have some doubts as to its durability, especially if used/handled robustly.

The controller is the standard 'train set' design from Bachmann, and is powered via a transformer. Wires are supplied, and connecting up the set should be simplicity itself.

The latest in the gradual re-introduction by Bachmann of the former Romany Works output is of a favourite locomotive for many.

Jinties were frequently used for banking duties and *inter alia* three at a time could sometimes be seen assisting expresses out of Euston to Camden which was an especially difficult haul. As diesel shunters and lower-powered main line diesels were used for empty stock working, the Jinties were taken out of stock, the last by 1967. Several survive in preservation.

Two BR versions of the Graham Farish 3F Jinty came into the office, one with the early emblem and one with the later crest, and numbered 47483 and 47338 respectively. The locos were cosseted in the now-familiar substantial foam protection inside a clear plastic box, itself within the GF black and yellow cardboard sleeve.

Detail in N gauge can be a challenge for the manufacturer, but com-

parison with photographs of the prototype reveals a good attention to detail by the Chinese factory. The logos and numbers are well printed: even the shed plates are legible. 47483 is based at 1D, Devons Road, and 47338 calls 6C, Birkenhead, home. The safety valves have been picked out neatly in brass. The coupling rods seem in good proportion, but the necessary copper current pick-up strips behind the wheelsets could benefit from some carefully applied matt black paint each side, between the wheels, just to draw the eye away from the shine.

Running was good and steady and at slow speed was quite smooth; some running-in may well improve this further.

Whether to weather is according to personal taste, but these workhorses were mainly used for shunting, station pilot duties and occasional branch working; they were not always kept shiny.

This is a realistic and worthy addition to an appropriate layout.

Good advice about the care of the locomotive is given in the guarantee card that comes with the model and there is an invitation to join the Collectors Club.

For N

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.

PRICES
Train set (ref.370-025) – £49.95
Jinties (either kind) – £44.95ea

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.

Book Reviews

An illustrated history of The East Suffolk Railway

John Brodribb
Oxford Publishing Co. Ian Allan
Publishing, Riverdene Business
Park, Hersham, Surrey KT12
4RG.
295mm x 220mm 256pp
Hardback £35.00
ISBN 0 86093 572 8

2004 marks the 150th anniversary of the opening of this important but often ignored line which fortunately continues to play an important role in this attractive part of East Anglia.

The author is well known as an historian of East Anglian railways, and in this book his detailed and painstaking researches are supported by some 450 illustrations including b/w photographs, OS map fragments, timetable facsimiles etc. The endpapers feature an attractive picture of a GER train crossing the Waveney from an original painting by Joe Crowfoot.

Rerieved from closure in the 1960s, the line became a testbed for various innovations, including radio signalling. The very readable text includes reminiscences from railwaymen who worked the line over the years.

Apart from the Ipswich to Yarmouth main line of the ESR, the branches to Framlingham, Snape, Aldburgh and Lowestoft are also well described and illustrated, providing no end of inspiration for modellers.

This is a very welcome new 'line monograph' which should be well received by all who value the railways of the Eastern counties, past and present.

The heyday of the Westerns

Derek Huntriss
Ian Allan Publishing, Riverdene
Business Park, Hersham,
Surrey KT12 4RG.
190mm x 240mm 80pp
Hardback £14.99
ISBN 0 7110 2981 4

Here we have around eighty colour pictures of the legendary WR diesel hydraulics taken by eminent photographers of modern traction during the 1960s and 1970s. Built to replace the 'Kings', the 2,700hp 'Westerns' were a product of the Western Region's stand-alone policy of using hydraulic rather than electric transmission for its diesel locomotives. The styling, particularly of the cabs was refined and distinctive and, despite poor performance in the early days, the locos gained an enthusiastic following. If there had ever been a 'Great Western diesel', this was it. Your reviewer well remembers the excitement of being a passenger on the first ever non-stop Paddington-Penzance train behind D1010 *Western Campaigner* on 7 May 1966.

Several experimental liveries

increased the locos' visual appeal still further, although they could get alarmingly scruffy in their last neglected days.

As always with locomotive pictures, the backgrounds of now vanished railway infrastructure are of equal interest to the subject. In this case, WR semaphore signals abound, together with unrationalized track formations and station and goods facilities.

As most railway photographers of this period reserved their film for steam survivors, colour pictures of early diesels are inevitably rare. This is a pleasing selection from that scarce resource and will awake nostalgia in many enthusiasts.

An illustrated history of Southern Wagons

Volume 2: LBSCR
and minor companies.

G. Bixley, A. Blackburn,
R.Chorley, M. King.
280mm x 215mm 106pp
Hardback £19.99
ISBN 0 86093 220 6

This is the second edition of this standard work which was first published in 1985. Few revisions have been found necessary, save for some details relating to LBSCR Single Bolster or Timber Wagons. The book remains a well presented and nicely produced reference for the Brighton company's wagons, together with those of some smaller SR constituents, namely the Isle of Wight companies, The Plymouth, Devonport & South Western Junction Railway, and the Lynton & Barnstaple Railway.

Many generously captioned archive photographs and dimensioned scale drawings combine to make the book of great use to modellers, and appendices give details of SR diagram and running numbers and standard LBSCR wagon dimensions in 1908.

This is a welcome reprint of a valuable reference work.

Branch Lines of West Wiltshire

Malmesbury, Calne,
Devizes and Melksham

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904474 12 8

This album provides a gentle tour along the four GWR routes listed in the sub-title. therefore we have here a feast of auto trains, panniers, Prairies pagodas and all those things which made up the GWR and later the Western Region.

Perhaps this particular selection of stations is not as 'GW idyllic' as some. Calne, for example, was overshadowed by C&T Harris's bacon factory and your reviewer's feelings about the transport of live animals to their doom were not helped by the knowledge that



on the Calne branch there could be more pigs than passengers in the train and that 120,000 of the former were killed in the town *per annum*. Not a subject for modelling, one would hope.

The Dauntsey (later Little Somerford) to Malmesbury branch had altogether more pleasant vibes and was possibly unique in being shortened and re-routed to a new junction (on the 1903 direct line between Swindon and South Wales) in 1933. At the terminus, the adjacent ruined abbey would make a most impressive backscene to a model of the station.

The Devizes and Melksham routes also embraced interesting stations at Chippenham, Holt Junction and Trowbridge. These are described in the traditional Middleton way with carefully chosen maps and captioned photographs.

British Railway Air Braked Stock Vol 2

Compiled by Tom Smith
Cheona Publications, The
Railway Study Centre, Tal Eithin
Isaf, Llanllyfni, Caernarfon,
Gwynedd LL54 6RT.
230mm x 170mm 64pp
Softback £9.95
ISBN 1 900298 22 8

This is the second volume in the publisher's *Modern Railways in Profile* series and deals with BR air braked Steel Carriers, Engineers' Stock, Timber Carriers and Powder Tanks. The excellent detailed photographs, mostly reproduced to full page width, are by Tom Smith. There are excellent closeups of bogies, underframes etc and, being in colour, these images are a very good guide for modellers intent on achieving realistic detailing and weathering. The captions are really informative, supplying dates of both building and photograph and often information about the wagon's working life, modifications etc.

This is a very useful series for modellers with an interest in modern BR wagonry. It is good news that further volumes are in preparation which will deal with China Clay Wagons, Oil/Chemical Tankers, Parcels Stock and further Engineers' Stock.

The story of the Q1s

John Scott Morgan
KRB Publications, 2 Denewulf
Close, Bishop's Waltham, Hants
SO32 1GZ
272mm x 210mm 72pp
Softback £12.95
ISBN 0954485912

This book is a detailed history of every member of this class of forty locomotives. Its appearance simultaneously with the Hornby model is certainly very timely.

The individual records of the locomotives include shed allocations, tender and boiler numbers, details, locations and dates of repairs and works visits, and mileages run between repairs. These esoteric statistics are

relieved by photographs of the individual engines concerned, accompanied by informative captions.

Other chapters cover the concept of this unique design, the locomotives 'on the road', construction and details, and conclusions.

A section of 1960s colour photographs of the locos at work in their last days, makes a nice contrast to the inevitably monochrome images which make up most of the book.

The book contains several railwaymen's reminiscences of working with Q1s and such narrative always makes a 'good read', apocryphal as it doubtless can sometimes be at this distance in time.

This is a pleasant and informative account of Oliver Bulleid's daring and innovative 0-6-0s. It is a shame that the too-frequent misspelling of his surname in the text will rob the book of the authority it might otherwise deserve.

British Railways Brake Vans & Ballast Ploughs

Eric Gent
HMRS Publications, 36 Harsley
Road, Hartburn, Stockton-on-
Tees TS18 5DJ.
273mm x 215mm 92pp
Softback £12.95 plus £2 P&P
ISBN 0 902835 16 5

The author has chronicled the history of the standard British Railways Brake Van design and the closely related Ballast Plough from their introduction in 1950 through to their demise, brought about by air braked freight trains, in the 1990s. He has combined his own notes, which span almost fifty years with information taken from the Rolling Stock Library at Derby.

The book is comprehensive and thorough, as you would expect from its publisher. Many of the more recent photographs are reproduced in colour and there are numerous drawings.

Subject headings include LMSR, LNER and GWR Designs, Mess Van Conversions, the BR Standard Design, Alterations, Livery and Lettering, Freightliners, Ballast Ploughs, Maintenance and Repairs, Oysters, Cockles, Sharks and Preservation.

This well researched record should find a place in the library of all who model the BR era.

Island Line

Ralph C. Humphries
Coachhouse Publications, The
Coach House, School Green
Road, Freshwater, Isle of Wight.
148mm x 210mm 68pp
Softback £6.95 plus £1 p&p
ISBN 1-899-392-254

Ralph C. Humphries has chosen a subject that is a little unusual, and for that reason it is very welcome. The sub-title of 'The Isle of Wight's Award Winning Electric Railway' sums up the contents of this compact and informative book.

There are no wasted words and the



Above: Charlie 18, in the scrap lines at Eastleigh shed on 11 September 1965. It was withdrawn on 14 July that year from Nine Elms.

Photograph: Frank Hornby.

time spent reading will prove fruitful. The majority of the pages are full-colour photographs with extended captions, giving bite-size pieces of information in a logical sequence.

Track plans and historical background text comprise Section 1 – Overview. The relationship between railway companies and the reasons for the evolution of the network are simply explained and help to put into context the following sections.

The routes, as described in Section 2, take us all around the island and give a good idea of why they went where they did.

Section 3 is especially absorbing and the provenance of the rolling stock is fascinating. Written in short paragraphs, each contains salient points that build up a picture that is easily understood. Some of the costs involved are a surprise and mention is made of unfortunate damage to rolling stock during unloading. The end of this section illustrates the locomotives that were also deployed on the island, stock details and the engineers' stock.

This leads us to the final sections on Ryde depot, the prevailing weather conditions and the closed IWR lines today, which complete a rounded picture of this self-contained network.

GWR Engineering Work 1928-1938

R. Tourret
Tourret Publishing, 5 Byron
Close, Abingdon, Oxon OX14
5PA.
300mm x 215mm 224pp
Hardback £28.95
ISBN 0-905878-08-6

Today, £8,000,000 is not much money in terms of civil and mechanical engineering, but in the depressed years of the 1930s the GWR achieved a vast amount with, what was then, a huge amount of money.

This publication from Mr. R. Tourret is something a little different from many railway books; it reviews the engineering works carried out on the GWR from

1928-1938 and an impressive catalogue of accomplishments it is.

The long Contents list gives an indication of the magnitude and variety of projects which the GWR tackled. The brief Introduction sets the scene in an appetizing way. Then follows a map of the GWR system and it is straight to business with the new goods facilities at Newport in 1928.

The consistency of style is immediately established using historic maps and photographs of the time. In addition, there are many engineering drawings of tunnels, bridges and buildings that support the text admirably. The photos, figures and maps are all numbered, but curiously these numbers are not used as references in the text. It is sometimes a little difficult, therefore, to relate one to the other; indeed there are occasions where the illustration is several pages away from the text to which it refers. In all instances, however, it is well worth the search.

It is obvious that an immense amount of research preceded the compilation of this book and the text is informative and direct. The photographs, which are of the era, do the job well. But maybe some discreet retouching would have improved the overall impression; not to alter the content in any way, but to enhance the definition and clarity where possible. It has to be said, however, that they do possess a charm of their own and are very atmospheric.

The chronological layout adopted in this book is the most sensible way to arrange it rather than by type of project, thus making it easier to understand the progress made by the GWR and its relationship to the commerce of the day and the approaching world war. It is paradoxical that in those austere years, relatively luxurious hotels, such as at Paddington were being constructed by workmen whose wages and conditions would not be tolerated today, particularly regarding safety.

This is an enlightening book, one that can be read from front to back or dipped into at random. There is plenty on offer to marvel at and think about. Many of the achievements would challenge the authorities and engineering companies of today. As for the sums of money involved, it is interesting to compare what GWR did for £8 million with what would be possible today.

This is a good, thought provoking book.

New product announcements for 2004

Judith Edge Kits

We are informed that the latest kits to have been produced are as follows:



NER 2-Co-2 No.13 in 4mm scale. This kit is etched mostly in nickel silver and includes parts and instructions to build working pantographs. Etched overlays are provided to reproduce the distinctive quill drive wheels. As usual with Judith Edge kits, the body is bolted to the footplate and is detachable for painting. The cost is £77.00 plus £1.50 postage and packing.



Yorkshire Engine Co. 0-8-0DH *Taurus* in 4mm scale. This represents the prototype 600hp loco built by Yorkshire and operated on BR for about four years. The cost is £48.00 plus £1.50 postage and packing.



Hunslet 80T 0-8-0DH in 4mm scale. This kit represents the locos built for the Ebbw Vale steelworks. The cost is £44.00 plus £1.50 postage and packing.



NBL/Paxman 0-4-0DH D2700-7. This is the 3mm scale version of the existing kit for the NBL/Paxman 0-4-0s. These are covered by two kits in 4mm

scale but in 3mm all the parts are provided to build either BR version or the original industrial locos. The cost is £38.00 plus £1.50 postage and packing.

Plans for 2004 include two more 3mm kits scaled from the existing 4mm range – Sentinel 0-6-0DH and Barclay 0-6-0DM D2400-9.

It is also hoped that the new year will see the six wheeled Sentinel in 7mm scale, along with the NER Quayside shunter (LNER ES1).

Entirely new kits which will be introduced, initially in 4mm scale, include the NER Shildon-Newport Bo+Bos (including the rebuilt 26510) and the Hunslet BR 05 0-6-0DM, which will also cover its industrial predecessors.

Judith Edge Kits, 5 Chapel Lane, Carlton, Barnsley, South Yorkshire S71 3LE. Tel: 01226 722309 Email: edgemd@aol.com



TM Rail Services

New Releases for 2004 are as follows: Welcome Wagons will introduce the BR12 ton pipe wagon brass etch kit in 0 gauge. The first version will be the 8-brakeshoe type, dia.462. The first 20 kits ordered now will be available at the special price of £20.00 plus £2.50 each P&P. The wagon will also be available built to order finished in grey primer and complete with wheels at £60.00 plus £2.50 each P&P. Following hard on the wheels of the pipe wagon, Welcome Wagons will also release its Lowmac 0 gauge wagon kit.



EMKDE is producing its most challenging 0 gauge kit yet, the Presflo hopper. This one is not for beginners! The kit makes the standard cement hoppers and will also convert into the Flyash wagon. TM Rail hopes to have these on show at the 0 gauge Spring Convention Exhibition at Chippenham in March. Later next year, EMKDE will introduce the HTV hopper. This is a

new companion to the LNER/BR 21 ton riveted and welded coal hoppers.

We are also told that Malbut Services hope to exhibit its new 0 gauge diesel drive chain kit at Chippenham.

The 'Device for a Vice' from Mustard Tools has been received well and will be readily available in 2004. This useful little modelling aid helps to fold those tricky parts in etched brass such as wagon solebars. In response to requests at Telford, Mustard Tools is currently developing a longer set for coaches. The standard DV is £10.00 plus £3.00 each P&P. The DVextra sells at £17.50 plus £5.00 each P&P.

TM Rail Services, 21 Darby's Lane, Oakdale, Poole, Dorset BH15 3ES.

Tel/Fax: 01202 386205, or email: malc@pendragon21.fsfile.co.uk

Townstreet

The latest 7mm stone engine shed was exhibited at Telford (see November RM for photograph) and should go into production in the near future. The demo model was built with production walls and gable ends and a pre-production roof made up from our standard roofing panels. The firm is currently working on fashioning these roofing panels into purpose-built roof and ventilator castings for this building and hopes to mould these and have all the components available by now. The standard length two road engine shed (14") is £99.50, and the walls and roofs (to add 8 1/2" to the length) are £40.00. Add £6.00 for P&P per order.

In addition, there is a new range of stone walling in 7mm, which should also be available now. It is plain stone walling (to match station and shed) with a rounded stone coping. It will be available in two heights to represent 'yard' walling of about 5'6" scale height and a lower 'see over' size. The 185mm long casting features a typical support buttress which saves the need to match individual stones at the joints allowing multiple lengths to be easily installed by the modeller. Prices have not yet been fixed but these are expected to be available in sets of six or twelve for approximately £2.50 per section or slightly less.

In 00 gauge, Townstreet is at exactly the same stage with a brick engine shed. The walls and gable are made and work continues on a roof and ventilator to fit when extended versions of the shed are built. The engine shed walls are specific to the engine shed with windows in each bay but as these components have been developed from the popular goods shed, they will have the same typical brick features of the earlier model and preserve the 'company' look if examples of each are used on a layout. Again, prices have not been fixed but this model will be introduced at £46.50 for the 7 1/2" long (or short) version and £69.95 for the

longer (about 12") version, these being current catalogue prices for an interim model using hand altered good shed components.

Plans for next year are to fill in a little gap in the range for smaller buildings and the wooden provender shed. The intention is to meet demands from customers for both brick and stone for the type of small buildings which would have served as weighbridge, coal yard or goods yard offices, but so far exact prototypes have not been decided.

Townstreet, The Old School, Carnbee by Anstruther, Fife KY10 2RU. Tel: 01333 720226.

Pretania Foundry

For 2004 this manufacturer of 16mm rolling stock, buildings and mine plant equipment will be adding several new items to its extensive range.

A new crane will be introduced in the form of an American style rail mounted steam shovel (railroad shovel) as used by at least two British ironstone mining companies. Available as a kit or RTR, the kit will cost about £45.00 complete in steel or wood for either 0 or 1 gauge. The RTR model will cost about £60.00 (no VAT). Insulated wheels will be an extra £5.00.

In the buildings range, an early style imitation stone blast furnace made from cement and wood will be offered. A kit, which includes pre-cast sections will be available for about £30.00 each plus £10.00 postage and packing due to the weight (no VAT). A ready-built model will also be offered, costing around £60.00 (only delivered in the South East, when in area but also available at some shows).

A later 1860 style tower in steel and stone will also be produced. The kit for this will be about £35.00 each plus £10.00 postage and packing. A ready-built furnace costing around £60.00 (delivered in the South East only, when in area but available at some shows).

Both of these models will be smaller than true scale, but will make useful lineside additions to industrial and other type garden or indoor railways.

There are also plans to introduce some new wagons costing from £15.00 plus P&P for kits, or £18.00 plus P&P for RTR.

Pretania Foundry, P.R. Stenning, 89 Barrington Road, Goring-by-Sea, West Sussex, BN12 4SB.



New for 2004 – continued

Britannia Pacific Models

The proprietor, Mr Hazleton informs us that there are plans to release six new models for the new year.

These include the Class 411 four-car EMU, a model of the refurbished Southern Region 4-CEP units now at the end of their service careers.

Britannia Pacific also plans to produce kits for the 57' Observation Saloon (BR designed saloon built in the 1950s and still in use today), and the 57' Track Recording Saloon which is a model of the test vehicle, based on the above observation saloon, as used by Serco today.

Other new models will be the Class 123 three and four car DMU which is a model of the Swindon-built Inter-City DMUs used on the Western and Eastern Regions.

Also planned are kits for the Class 421 and 422 four-car EMUs (the Southern Region 4-CIG and 4-BIG units).

The firm will also be releasing the Southern Region General Manager's Saloon. This is a model of the inspection vehicle, based on a Hastings unit buffet vehicle.

Britannia Pacific Models, 17 St. James's Road, Hastings, East Sussex TN34 3LH. Tel: 01424 442834.

Model Irish Railways

This specialist in Irish prototype models will be celebrating 25 years of business in 2004 and we are told by Ian McNally that the future is looking good. Following the recent greatly improved version of the 4-wheel bulk cement wagon, other new products are due to be released this year.

Expected in the first quarter of 2004 is a new kit for the 80 Class diesel multiple unit.

Around the same time there will also be a new diesel locomotive kit – the NIR Hunslet. The prototype of this was introduced in 1970 when Northern Ireland Railways decided to replace the DMUs which operated the Belfast to Dublin *Enterprise* expresses with trains of new loco-hauled stock. The new diesel locos were designed to work trains of up to 270 tons at a maximum speed of 80mph. The kit for this loco, of which only three were operated by NIR, has a resin body with metal details. It will be available in the original livery of maroon with small gold NIR logos and yellow chevrons and will also be available in the livery of light blue with NIR white logos and red dayglo warning panels.

Plans for the the second quarter of 2004 include a kit for the 47'6" bogie container flat wagon, used for transporting beer keg containers.

Model Irish Railways, 35 Kingsway Drive, Portadown, Co. Armagh, Northern Ireland, BT62 3DU. Tel: (028) 38 339336.

Miniatures by Aidan Campbell

Aidan Campbell informs us that following a successful trial period since his launch in February 2003, he feels that his range of 1:43 scale model figures has been very well received, with much positive feedback from the general railway modelling community. Consequently, he intends to continue this as a permanent venture. He is in the process of setting up a website

which he hopes will be of interest, and for those without a computer, a full price list can be supplied on receipt of a SAE, or a fully illustrated catalogue is available at £3.00.

The range of 1:43rd figure castings currently stands at 125 different figures covering both railway employees and civilians spanning the early Victorian period through to contemporary. This represents, over the last six months, an average release of two new figures a week and it is hoped that this rate of development can be maintained.



Mr Campbell invites suggestions from customers as to the sorts of new figure they would like to see added to the range. Currently in production are more loco crew covering a greater range of periods plus seated passengers and the occasional novelty character.

Most of the unpainted white metal figures castings are £1.35 each and painted figures can be supplied to order.

Future plans include starting a range of figures in 4mm scale. These will probably be priced at around 85p each.

Miniatures by Aidan Campbell, 22 Queens Road, Hoylake, Wirral CH47 2AH. www.aidan-campbell.co.uk

R. Parker

Following the release earlier this year of his first car kits in 4mm scale (and see also the reviews pages), Mr Parker informs us that a kit for building a 1957-59 Triumph Motorcycle and sidecar will soon be available.



Two kits for vans will also be released soon. These are a 1965-68 Commer Imp 5 cwt Van and a 1965-72 Reliant Regal Supervan.

A kit for a 1959-62 Ford Consul Mk II kit is also planned.

R. Parker, 19 Oaklands, Malvern Wells, Worcestershire WR14 4JE.

RAILWAY MODELLER Cup Competition 2003

We would like to remind you that now is the time to send in your entry for the 2003 RAILWAY MODELLER Cup Competitions.

Remember, we are looking for the articles – of whatever type, complete layout, single model, plan, or prototype – that you found most inspiring. The winning article will be awarded the prestigious RAILWAY MODELLER Cup. Additionally, the best-placed Right Away article will see its author invited to the Warley National Model Railway Exhibition at the NEC, to receive the Right Away Cup.

All valid entries will be entered in the prize draw, which again features valuable prizes. The lucky winner will receive £300, and there will also be prizes of £150 and £50 for the runners-up. To allow maximum flexibility, these prizes will be awarded in the form of £25 vouchers which can be 'spent' on model railway equipment with any of the retailers advertising in RM.

The entry form can be found alongside, but, should you not want to cut your copy of the magazine, we will also accept photocopies of the form, postcards, or plain paper, providing that the details requested on the entry form are provided. You can also e-mail us on tabadvice@btconnect.com

Please do not include any other correspondence on the same sheet as your competition entry.

When completing your entry, please

write the particular title of the article, and not the series heading.

Whilst we have no objection to authors or others encouraging as many people to vote as possible, multiple entries that are obviously from the same source will be deemed invalid, and may lead to the disqualification of the article concerned. Our 'forensic' department is well trained: you have been warned!

The closing date for the competition is January 31, and we hope to be able to announce the results in the April 2004 edition of RAILWAY MODELLER. Please cast your vote: we do find it very useful to learn which subjects have interested you most.

RULES

1. Readers will decide who is to win the Competition by selecting in order of merit the six best articles, and the favourite Right Away piece.
2. The RAILWAY MODELLER Cup and Right Away Cup for 2003 will be awarded to the authors of the most popular articles.
3. Employees of Peco and their families are not eligible to compete.
4. Illegible or garbled entries may be disqualified.
5. The Editor's decision is final on all matters relating to the competition, and no correspondence will be entered into. Entry to the competition implies acceptance of these rules.

RAILWAY MODELLER CUP

Entry Form

Articles in order of preference

Month

1
2
3
4
5
6

Right Away

Name

Address

.....

When you have completed your entry, send it to:

Peco Publications & Publicity Ltd.,
 Underleys, Beer, Seaton, Devon, EX12 3NA.
 email: tabadvice@btconnect.com

To arrive not later than 31 January.

David Lloyd Trophy presented

We were pleased to note that the David Lloyd Trophy, awarded to the layout that is effectively 'best in show' at Expo Narrow Gauge at the end of October, went this year to *Bryn Goch*, a Welsh village scene delightfully modelled in OO9 by Jaap Stuurman (and described in the November edition of RAILWAY MODELLER).

Appropriately, as successor to David Lloyd, the present Editor of CM, Andrew Burnham, was on hand to present the trophy (right).



More modelling courses

Hands-on 'learning by doing' courses for near beginners and beginners of all ages are again being offered by Dr. Michael Watts in 2004.

Courses are offered as extended weekends at Kidlington, near Oxford, at Bletchley, near Milton Keynes, and at Pecorama in Devon.

The popular courses, *Basics of Building and Design for Construction* are to be offered again at Kidlington and at Bletchley on the weekends commencing 6 February, 26 March, and 7 May.

Two newly developed courses, *Track & Control* and *Baseboards*, will be run at Pecorama later in the year.

A taster of the courses is included on the CD-ROM which was presented free with the December issues of RM and CM.

Details of the coming courses are now available from Michael Watts at Stardancer Ltd., 4 Chaundy Road, Tackley, Kidlington, OX5 3BJ. Telephone: 01869 331181 Fax: 01869 331182 email: michael@stardancer.org.uk

RAILWAY MODELLER bound volumes

Once again we are able to offer readers a choice of binding arrangements.

DIY binders. These are advertised in most issues of RM and CM.

Case binding. We can also arrange to have your copies stitched and bound into our standard case, complete with index. Such binding without covers and advertisements costs £27.00 plus £4.73 VAT (=£31.73). The price for binding with covers and advertisements is £32.00 plus £5.60

VAT (=£37.60). Please remove all staples, and any unwanted pages, before sending the volume to the editorial office.

Copies from earlier volumes can also be bound this way. The binding cases are in blue or red material, similarly lettered with the title, volume number and year blocked in gold.

The closing date for binding 2003 volumes is 6 February 2004: the address is as given on page 1.

RotaCraft rotary tool kits

A new RotaCraft range of high quality precision tools has been released for hobbyists and modellers. The 12 volt tool powers a range of heads to tackle a wide range of small-scale jobs such as drilling, grinding, routing etc.

The RotaCraft comes in two versions: the RC12 (£19.99), comprises a single speed rotary tool, a mini transformer and a selection of 44 accessories. Its larger stablemate is the RC18 (£29.99), a 12-18v rotary tool, a variable speed transformer with speed

control of 8,000-12,000rpm, and a selection of 60 accessories.

There is ample power to handle tasks of this scale and a two-year guarantee gives peace of mind.

RotaCraft kits are available from Maplin Electronics, Hobbycraft, RS Components or from the suppliers of this press release, Shesto.

Shesto Ltd., Unit 2, Sapcote Trading Centre, 374 High Road, Willesden, London NW10 2DH. Tel: 020 8451 6188.



SHOP NEWS

OPEN

Train Shop, Lichfield

After 25 years of trading, the Train Shop in Lichfield has gone from being tall and thin to shorter and fatter! It has made everything easier and more convenient for its customers by coming out of its top floors and expanding sideways into the adjacent part of the same listed building.

Several months of work has transformed the shop and Clive and Tricia Francetti will be pleased to offer you their friendly and authoritative advice.



Train Shop Lichfield, 32 Bird Street, Lichfield, Staffs. WS13 6PR. Tel: 01543 268725.

Pullman Products Polska

Pullman Products Polska, the Polish connection of The MDR Group, which includes Marlow Donkey Railways, Cookham, has now expanded its retail side at its premises, named the Hobby Studio, in Wroclaw.

It has become the agent/distributor for the full range of Bachmann products in Poland.

Hobby Studio, Galeria Italiana, ul. Wiezienna 21A, 50-118 Wroclaw, Poland. Tel: 0048 71 3410743.

Foot Plate, Kidderminster

About 300 yards from the Severn Valley Railway terminus in Kidderminster you will find Foot Plate, owned by Derek Barnett. He specialises in model railways here, while his already-established D.M.B. Models shop in Brierley Hill deals with more general modelling needs.

Since early June 2003 the new shop has sold all the top names, including Peco and Hornby, and has a display of 300 locos in glass cases to drool over.

Business has been very good, but Derek will always have time to dispense his knowledge with enthusiasm.



Foot Plate, 10B Comberton Hill, Kidderminster, Worcs. DY10 1QG. Tel: 01562 750076.

Harburn Hobbies, Edinburgh

Many years in business has proved how important customers are to Harburn Hobbies of Edinburgh, so everyone will benefit from the new treatment proprietors Bob and Gilly Baird have given to this well-established Scottish shop.

The expanding ranges are

housed in larger display areas, the glazed cabinets now having 25% more space.

Customers will also notice a difference with greater floor room to browse.

Harburn Hobbies Ltd., 67 Elm Row, Leith Walk, Edinburgh EH7 4AQ. Tel: 0131 556 3233.

R.A. Jones, Caernarfon

R.A. Jones of Caernarfon has reintroduced railways to this traditional toy shop. Peco track now accompanies the Hornby and Gaugemaster products – amongst other ranges – already gracing the shelves.

The firm did stock Peco previously during their 45 years in the family business, but demand keeps rising so Brian and Debbie Jones want to meet the growing needs of their clientele.



R.A. Jones & Son, 35-37 High Street, Caernarfon, Gwynedd LL55 1RH. Tel: 01286 673121.

London Model Engineering Exhibition

A date for the diary is 23-25 January 2004 at the Wembley Exhibition Centre. This is the date and venue for the London Model Engineering Exhibition.

Now in its eighth year, this has continued to grow to become one of model engineering's largest exhibitions.

Nearly 800 scale models of various sizes will be on display from representing various periods in history right up to the present day.

The model railway layouts in the exhibition hall will allow visitors to see and smell 'real' model steam locomotives: railway locos from 0 to 7¹/₄"

gauge, plus traction and stationary engines, a wide range of model boats from tugs to destroyers as well as cars and clocks.

Visit between 10:30 and 18:00 on the Friday and Saturday and 10:30 until 17:00 on the Sunday. Parking is free and admission is £8.50 for adults and £7.50 for senior citizens. The venue is well signposted from miles around. A courtesy coach will offer a frequent service from Wembley Park Station (served by Metropolitan and Jubilee lines).

Full details will be found in 'Societies & Clubs'.

Class 321/9 in 4mm from Bratchell

Bratchell Models of Watford has captured the Class 321/9 four-car EMU in 4mm detail.

This follows the recently released Class 320 three-car EMU. The high standard product is moulded from top-quality ABS plastic, has flush-fit glazing, bogies and Romford brass wheels and bearings.

It can be purchased as an easy-to-assemble kit (£122.00 excluding wheels, bearings, couplings and pantograph; £138.00 including these

parts) or, if you choose, the firm's ready-to-motorize (RTM) service is available at an extra £268.00. This means your model is built and painted with your choice of livery and number, ready to accept a motor on the bogie frame. For a limited period, a free pantograph kit will also be included with this kit.

There is also an EM and P4 gauge kit available.

Bratchell Models, PO Box 22, Watford, WD17 3WA.

Paul Lunn and entry-level designs

If you would like to chat to Paul Lunn about entry level designs, he will be holding one of his free design sessions at the Little Midland Railway Society's exhibition in Chesterfield on 17 and 18 January (*details in Societies & Clubs*).

If you cannot get to the show, Paul

together with Neil Ripley, Ken Gibbons, Jack Burnard and Steve Flint present their designs and thoughts in *The Model Railway Planning and Design Handbook*, and hopefully this book will be published in time for the Chesterfield show.

Classic Commercials mobile crane in 0

The new mobile crane kit from Classic Commercials is of the Ransomes & Rapier diesel-electric 'Super Mobile' crane, the first examples of which were built in 1933.

The prototype, made in Suffolk, was rated at 3¹/₂ to 5 tons. An internal combustion engine in the lower chassis provided power for the electric motors which did the work; two motors driving the mobility wheels plus separate motors to rotate and lift the jib and load.

The cranes worked extensively in railway yards, on wharfs and in industry and public service, several

machines being known to have operated into the 1970s.

The 1:43 scale model comprises high-quality pewter castings for the cast steel and riveted underparts, plus etched brass parts for the cab and jib. The etchings reflect the delicacy of the prototype jib – which was made from angle iron and rods – so the kit is really for the experienced modeller.

The kit is priced £58.50 plus £1.00 postage (Classic Commercials regrets that it cannot accept credit cards; cheque PO only please).

Classic Commercials, PO Box 800, West Wrating, Cambridge CB1 5NB.

Steamy stamps

Steam locomotives are celebrated as Royal Mail marks eighty years of special stamps. Six beautifully photographed locomotives, including a Bulleid Light Pacific and Great Central ROD are featured on the extra-wide 60 x 21mm format stamps which go on sale on January 13.

They continue the transport series that began with buses in 2001, airliners in May 2002 and 'Transports of Delight' in September 2003. It also marks the 200th anniversary of the first journey by a steam locomotive, Richard Trevithick's Penydarren locomotive, which took place in February 1804 in Merthyr Tydfil.

Mk 1 Pullmans from Comet in 4mm



In a change of emphasis, Comet Models is releasing kits for the five designs of BR Mk1 Pullman Cars, commencing with the *Hadrian Bar* and the kitchen first. The others will be released in the new year.

The coaches were built by Metro-Cammell in 1960, and were used extensively on the Eastern Region on prestige services such as the *Queen of Scots* and the *Tees Tyne Pullman*. Many of the 44 coaches built have been preserved.

Notable features include recessed end doors which, in the kit, come as sub-assemblies, underframe features of a fan-driven blower and trunking for the air-conditioning system together

with electrical control and propane gas storage boxes. Sides alone, and an ends pack will be offered to aid those converting ready-to-run coaches. The sides pack includes the underframe castings and etches.

The remaining Centenary, corridor composite and Pullman kitchen second have not been forgotten and will be available mid-January 2004.

Mk 1 Pullman bar car (P14)	£36.00
ditto kitchen first (P12)	£36.00
sides pack	£10.00
end pack	£4.50
Markits wheels & bearings	£3.95

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE. Tel: 0121 242 2233.

Mervyn 'Merv' Marsh

Mervyn 'Merv' Marsh of St. Dominic in Cornwall died unexpectedly on 29 September 2003.

He was a staunch supporter on the N Gauge Society and well known to many of its members. He was an expert in matters electronic, specialising in handheld controllers which produced decent slow running for shunters. He also incorporated sound

and lighting effects in his own N gauge layout. He gave freely of his knowledge and expertise and would always help out fellow enthusiasts.

He was a true modeller and good friend to us all. He leaves a married daughter to whom we extend our deepest sympathy.

We thank Trevor W. Oakey for the foregoing obituary – Ed.



Coming next month

Out on Thursday 15 January

RUABON

Gareth Jones' N gauge layout is set in the future, mixing steam and diesel.

TUPDALE – 2

More from Andy McMillan about an OO layout with a Yorkshire Moors setting.

MIDDLESBOROUGH

Neil Barron has modelled a convincing industrial scene in 4mm scale.

SIMPLE STRUCTURES

Tag Gorton discusses the provision of buildings for your garden railway.

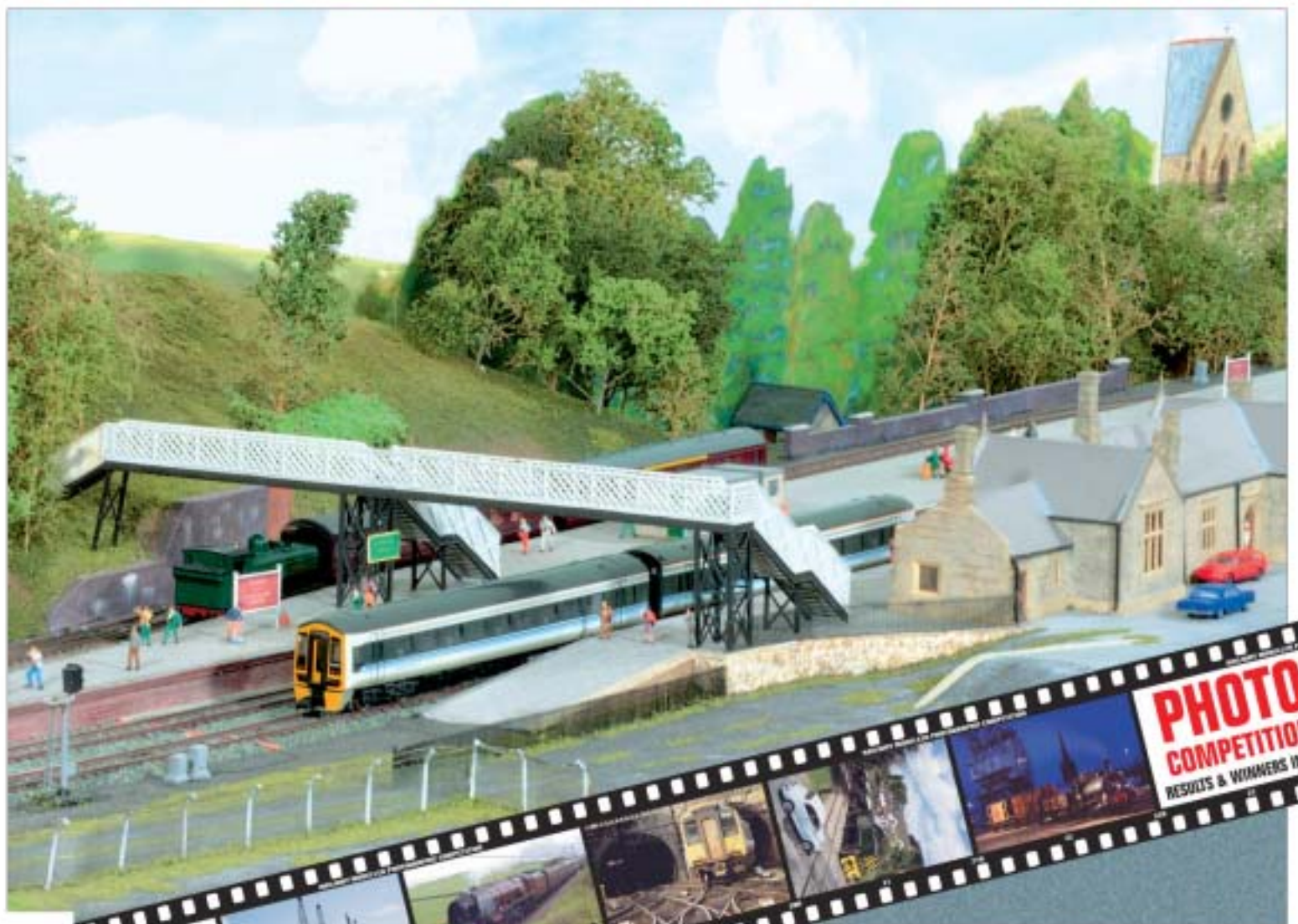


RAILWAY MODELLER

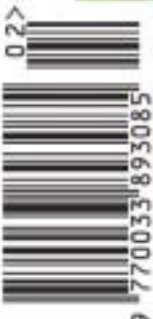
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SIMPLE GARDEN STRUCTURES – TAG GORTON DEMONSTRATES
MIDDLESBOROUGH – INDUSTRIAL SCENE INSPIRED BY MIDDLESBROUGH



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RUABON

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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

February 2004 · Volume 55 · Number 640

Shows you how – every month

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COVER: a 158 Sprinter departs Ruabon. More overleaf.
BELOW: centrepiece of Warley 2003, courtesy of the Bodmin & Wenford Railway, was a Beattie 2-4-0WT and a china clay wagon. Photos: Len Weal, Peco Studio.

RAILWAY MODELLER

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CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.
Published on the second Thursday
of the preceding month.

The crystal ball hobby

The 'Railway of the Month' in this issue is another of those occasions where railway modelling is such a fine crystal ball. Not only is the hobby an excellent way of allowing the past to be interpreted by modern eyes, but it is a fine fortune-teller too. (The future does not mean futuristic, as it applies in the sci-fi world – in Ruabon's future Class 37s will *still* be running!)

In many ways modelling the future is more challenging than modelling the past, and certainly more so than modelling the present. Recreating the past means the layout builder can fall back on published information, photographic evidence, Parliamentary plans and contract descriptions, Board of Trade inspectors' reports...and on, and on, but modelling the future means thinking out ways in which a railway could be reinserted into a landscape that has changed – possibly quite significantly – in the meantime.

The preservation movement will be instructive: examples such as the Northampton & Lamport, where a single track railway is being relaid on a former double-track formation, and sharing it with the cycle track that was installed following closure very effectively. So a wide trackbed in model form, a single line and some figures posed looking over (or, for safety reasons, more likely through) the dividing chain link fence will be very effective.

Rolling stock will be another issue. Slam-door stock may not be allowed, or have restrictions put on where it can be marshalled in the train: demonstration freights may have to be fitted with continuous brakes, so care will be needed with regard to the purchases a modeller makes to meet this imagined 'rule'. Coach liveries may be historic, or custom-designed. How about a sign on the shed walls indicating the presence of the Class 66 Restoration Fund!

Warley 2003

Our News pages this month are brim-full with just a selection of the new models announced or revealed at Warley. Following the show, we understand that the attendance, at 17,250, nearly equalled last year's record number, proving once again the show's pre-eminence in the exhibition calendar.

Well done to the members of Warley MRC, and to Exhibition Manager Paul Jones, for putting on another fine show. Thank you too to the many enthusiasts who popped by our stand for a chat. Rarely do we get a chance to receive direct feedback – weekends are for our own modelling projects, or train rides! – and your constructive opinions are appreciated.

Photographic competition results

On pages 90 and 91 are the four winning shots from our photographic competition: we would like to thank once again all who entered. We shall be running another one this year, so start thinking about your entry now!

Cup Competition 2003 reminder

There is still a couple of weeks' time in which to compile your entry for the RAILWAY MODELLER Cup Competition for 2003, full details and the entry form for which were printed last month. The closing date is 31 January: don't delay...



Railway of the month

Ruabon

Modelling the future in N

Gareth Jones has built the Llangollen Railway's intended re-connection with the national network.

Beginnings

My affliction with railway modelling was caught at an early age. I was lucky enough to be born within earshot of the restored Festiniog Railway, which made ex-LNER Chime whistles and the squeal of carriage wheels rounding the ultra sharp Tyler's Curve a familiar early memory. A popular family walk would take us up to Dduallt Station and along the disused track bed towards Tanygrisiau, monitoring the progress of the hardy deviationists as they inched towards Blaenau Ffestiniog, building the unique spiral.

Visits to grandparents in the neighbouring village of Talsarnau would bring me close to the Cambrian Coast Railway, watching grandfather speed off to work in a Wickham trolley returning with the inevitable railway yarns. All this inspiration meant that a Christmas gift of a Triang Jinty, Hornby Pannier tank and a few wagons one Christmas was manna from heaven. Unfortunately they were forbidden fruit, kept out of my reach in a tall cupboard and only brought out infrequently, under strict supervision! Later on, an 8' x 4' sheet of soft-board was bought; early empires were created directly onto that, never pinned down and always a bit precarious! After a brief dalliance with 009, interest waned, to be replaced by the inevitable teenage pursuits of motorbikes, beer and women, perhaps a familiar story to many.

The fire was re-kindled by, of all things, Shredded Wheat! Looking at the back of my girlfriend's (now wife) cereal packet one morning, I discovered there was a miniature train collection to be obtained. Something



that looked a bit like a Jinty, and some period coaches. This caused something of a problem, as I could never stand the stuff (Shredded Wheat that is!), and Melina did not eat many of a morning herself. Eventually a locomotive and a couple of carriages arrived. Being a

Above: 'Dutch' liveried Class 31, No.31 552 heads a northbound ballast train whilst a Black 5 is turned ready for its next duty.

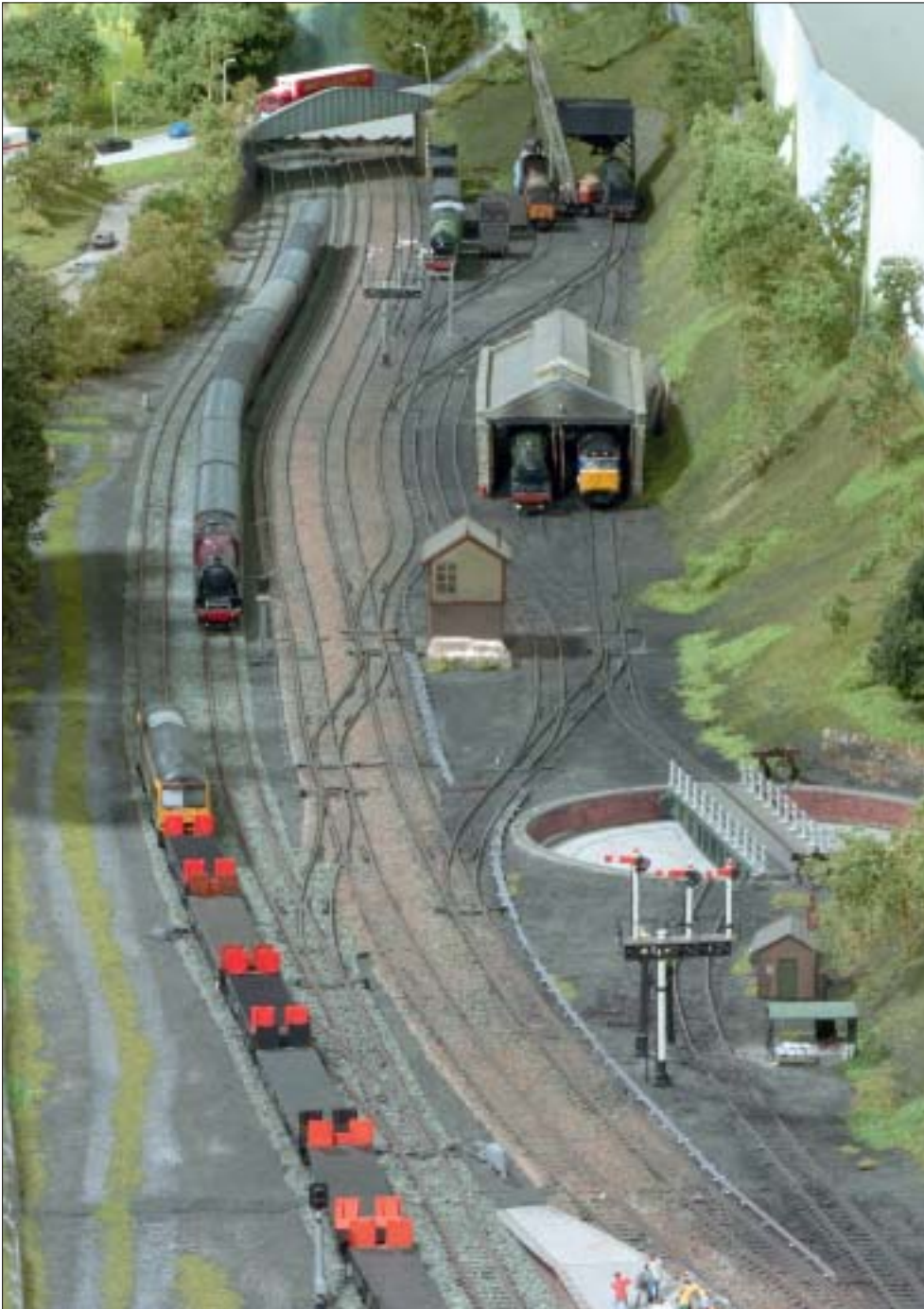
Photographs by Len Weal, Peco Studio.



Looking south at Ruabon yard and coaling stage. A3 No.4472 is a regular visitor, but BR Standard Pacific No.70000 Britannia is on its first visit.

The steam special on the main line is hauled by rebuilt 'Merchant Navy' Pacific No.35028 Clan Line.





Left: the waiting photographers take their stance as No.46229 Duchess of Hamilton fills their viewfinders on a Chester bound excursion. Meanwhile metals-liveried 60 037 Helvellyn rattles past un-noticed with the steel empties for South Wales.

Right: wood meets stone at Ruabon. 'Dutch' liveried Class 31 passes southbound Loadhaul liveried 56 on the log train.

mechanical engineering apprentice the next obvious question was 'could it be motorized?' The seeds had been re-sown. I began gathering a small collection of Graham Farish locomotives and stock with, at this stage, no real idea what I was going to do with them and no room at all in a particularly packed holiday flat in which we lived.

My first job took me back to North Wales, where house hunting began. Each house that I viewed was carefully inspected right up to the attic space. Prospective vendors must have thought me remarkably thorough, when I checked the section of the ceiling joists! We eventually settled on a three-bedroom semi near Wrexham. Grand plans were drawn up, and after making the loft area habitable, an extensive N gauge network was embarked upon. I think I had reached the track laying stage when I decided to join the N Gauge Society as a means of meeting fellow N gauge modellers. This brought me in contact with the

late Roy Stanley, a short and extremely explosive fellow who at this time had just stepped down as leader of the Chester Area Groups, but in whose house, meetings continued to be held. The easiest way of imagining Roy is to consider an ideal world where National Service still exists, not to learn how to kill and maim people, but to be taught compulsorily the skill of making model railways. In this world, Roy was the Commanding Officer of the training regiment; an individual who demanded, and got, high modelling standards. He was not the sort of person who would accept the excuse 'I could never build it to that standard', and he could not stand apathy. It is a shame that there are not more people like him around in this world, he is sorely missed.

I was volunteered into the sub-group who were modelling Midford on the Somerset & Dorset (RM January & March 1994). Roy Stanley was an S&D buff, who had a nearly complete model of Bath Green Park Station in

his spare bedroom. I was extremely impressed at the thoroughness of the research and design that had gone into the building of this layout. On returning home after this first contact, I decided that the loft layout was simply not good enough, offered too many compromises and had not been thought through properly; it was dismantled, broken up, and formed the last of a long series of bonfires.

I realised by this time that my interests were changing. I now lived at exactly the right distance away from the Wrexham-Bidston railway line, with an uninterrupted view across playing fields. Far enough away, not to have my foundations shaken, but close enough to make out the individual locomotives on the loaded steel trains as they powered up the bank towards Shotton.

These were mainly double-headed Class 37s, but also the then-new Class 60s were making an appearance; handsome beasts for diesels! Up to now all my Graham Farish locomotives were steam, green and had copper caps to their chimneys, but now there appeared locomotives in metals and coal livery in my stock box.

Midford had shown the virtues of a layout based on a real prototype, the watching public also showed their appreciation. Whilst operating at Nottingham MRE, I remember a gentleman watching captivated as the double-headed holiday expresses powered their way across the distinctive viaduct. 'Were you involved in the construction of this layout?' he asked me. I explained that I had mainly been involved with the scenery. 'Did you build that house there?' he quizzed, pointing at one of the large three-storey semi-detached houses situated at the end of the viaduct. 'As a matter of fact I did', I replied. 'That was my bedroom window', he informed me, 'the attic one, nearest the signal'. He went on to describe the distinctive sound of the signal wires jangling as the signal on the embankment was pulled off, then hearing the distant pounding of a freight train on its way down to the viaduct on a still frosty night. He finally left enthralled.

That sealed it; it had to be a prototype, but where? Not too far away, modern freight, a preserved line would be nice. Then I hit on the idea of Ruabon, with the Llangollen Railway returned to the overgrown bay platforms. Set in the future, I would not have to listen to the bores who say 'that didn't run on that line.' Only ten miles away; it was ideal. Quite a variety of stock would be appropriate as the line is used as a diversionary route to Chester on occasion and it is also visited by many steam specials such as the *Welsh Marches Express*. Normal passenger traffic is handled by the attractive 158s, originally in Regional Railways livery, but latterly in Central Trains green; also

the modern 175 units are making an appearance. On the freight side there are regular steel coil trains to Shotton, log trains to the chipboard factory at Chirk and household coal traffic to Gobowen. All this as well as the preserved Llangollen stock makes for a great deal of variety. Many trips were made with tape and clipboard. It was envisaged that the layout would be exhibitable, and knowing that I would need helpers in the future, I always made sure I took our young son Daniel in his pushchair, to give my wife a break you understand.

I am very fortunate to be blessed with one-foot feet; a massive help when pacing out accurately. I was anxious not to have to compromise on dimensions and it quickly became apparent that the layout would have to live in the garage. There are natural scenic breaks at both ends, the stone bridge carrying the minor road to Pen-YCae at the northern end whilst at the southern end, a skew girder bridge carries the main road to Llangollen.

Features that I planned to recreate were of course the station, largely still intact, the interesting little building contractor's yard and the footbridge. Further south is the water tower, one item for which I have only been able to find dim and distant photographs. Then comes the turntable; the brick supported pivot was still located in the undergrowth and proved a valuable datum when surveying the scene.

I have assumed that the Llangollen Railway of the future will require to turn longer engines than the original 65' GWR over girder type would allow, and made room for the Peco 75' item.

The next area south was designed purely with the future in mind. In days of old, there were five down sidings here next to the main lines. I drew in a two-road stone built engine shed and a coaling stage, both I think necessary items at the terminus of a busy preserved railway.

Construction

Having earned a bad back from dismantling layouts in the attic and carrying them to the bonfire, I decided to look into the possibility of a lighter construction than the obligatory 4' x 2' fibreboard on a 2" x 1" frame. A gentleman soldier from our platoon was an architect in Civvy Street, and extolled the virtues of thin plywood as the main baseboard material, with small section softwood as filleting.

This was the method I chose. Three sections of 4'6" x 2'6" were built, with 6mm MDF serving as the trackbed. These contained the scenic portion of the layout and the fiddle yard loops. The left-hand return loop and fiddle yard for the Llangollen line were built on a 2' x 2' board of similar construction. All boards are dowelled together using the shanks of 10mm dia. steel twist drills as dowels in short lengths of 10mm bore steel hydraulic tubing. The layout was nearly finished when I turned my attention to the northern return loops.

The original plan was that the whole shooting match would fit in the back of a Rover Montego estate car for transportation and it became obvious that, due to dimensions



being tight, a cunning plan was required to fit this final board in. The obstacle was the left-hand rear wheel-arch. The solution was to build a near-circular baseboard with a central access hole, which folded in half. But what to use as material? A week before the layout's first scheduled exhibition at Warrington, whilst tucking in to a marvellous Sunday roast seated at our oval, but not particularly attractive dining room table, I hit upon an idea. 'This table looks a bit tired and scratched,' I announced.

I do not remember the exact details of the campaign, merely that it was short and bloody. We now have a rectangular table in our dining room.

Track laying

Track is pinned directly to the MDF I chose Peco code 55 for the visible portion, and code 80, of which I had several yards lying around, for the sections not visible to the public. All the points are Peco live frog, mostly large radius.

I erected all the baseboards and levelled them carefully before commencing laying. There are sixteen parallel tracks across some of the baseboard joints. Here the plastic sleepers were removed and the rail soldered directly to strips of 3mm wide copper-clad board, epoxied to the MDF. It was only then that the tracks were cut with an abrasive rotary slitting saw. This method ensures excellent curvature across the joints. The eight parallel tracks in the fiddle yard were tackled in a similar fashion, but a single, heavier section of copper clad board was used. This was screwed down in elongated slots allowing adjustment of the track ends both vertically and side-to-side, in case of possible wood movement.

I used GEM track pins, which are extremely small, into pre-drilled holes, taking care to leave a very slight clearance and not distort the track base. The very last pin, which is in one of the hidden sidings, is made of polished brass, and I could not resist placing a small



commemorative plaque beside it. I asked my wife whether she would like to say a few words, but she desisted, in even fewer words!

Electrical

Before commencing the wiring, I built a sturdy frame to cradle the three-off 4'6" baseboards. This allowed them to be mounted on their sides enabling the top or bottom to be accessed with equal ease. I made extensive use of Cyril Freezer's book *Model Railway Wiring* and found it contained some excellent advice. Mistakes made on *Midford*, such as having electrical section joints on baseboard joints were not repeated.

I constructed my control panel out of an old drawer, turned upside-down. A new bottom, now top was made with white-faced hardboard, and the track diagram, with its thirteen sections, painted on in colour code. Each of these coloured sections corresponds to a five-position rotary switch, which isolates it, or selects any of the four Gaugemaster controllers.

The eight storage loops at each end are split down the middle to accommodate either two short trains or one long one. They have separate isolating switches, which have an LED on the panel to show which storage section is energised.

Point control is by a variety of Peco and SEEP point motors, each switching the frog via an accessory switch. They are powered by a capacitor discharge unit via a push button switch for each group of points, and a DPST switch (one without a centre off) to the relevant solenoid.

The advantage of this system over the simpler electric pencil is that the switch on the mimic diagram shows the direction that the point is set. Disadvantages are many more wires and more things to go wrong. The storage loops at the back enjoy that labour saving device, the diode matrix, to allow one button switching of a number of roads. This has proved simple and very reliable. Another feature, which has proved its worth is the automatic stop system in the Llangollen line fiddle yard return loops. This utilizes scrapped indus-

Above: Class 37 No.37 408 Loch Rannoch heads a diverted train of Regional Railways Mk 2s to Chester.

Right: a peaceful scene on shed. Visiting A4 No.60009 Union of South Africa and Class 50 No.50 002 Superb share their slumbers with the resident GWR pannier tank locomotive.

Below right: double Brush power. Class 60 meets 56, both nearing the end of their journeys. The steel coils are bound for Shotton. The loaded OTAs are but five miles from Chirk where their load will be turned into chipboard.

trial 12V infrared beam/receiver units; they are wired through relays and are mounted on a wooden gantry above the running lines.

Scenics

After painting the sides of the rails rust brown, probably the second most tedious operation on the whole project, I began ballasting, definitely the most tedious project.

As the layout has the initial appearance of four track main line, I needed to get across to the viewing public that there were in fact two sets of double track, one owned by Network Rail, and the other a preserved entity. This is why I have used two quite different shades of ballast. The light grey granite is actual graded stone from BH Enterprises. The reddish dirty coloured ballast is by Woodland Scenics. A dodge I devised here to retain an even chamfered edge to the ballast was to pin plastic drinking straws lightly to the trackbed approximately 2-3mm from the ends of the sleepers. If careful, I found you could create long lengths of drinking straw by pushing them into the ends of each other. This created an effect much like wooden poles beside a garden path. The usual dilute PVA solution was applied, and when hardened, the drinking straws could be pulled up and re-used (for ballasting that is).

Bushes are mainly by Woodland Scenics. Brambles are depicted with teased out old-fashioned 'hairy' carpet underlay dusted with light coloured green flock, and specks of pink paint blossom.

Trees are almost exclusively by Green Scene, from its 'Forest in a Box' range. The ten 90'+ tall Leylandii that border the Council Gritter Depot along the front of the layout were hand picked for me especially by Green Scene. One of the trees has been left without foliage deliberately as I think it has become a victim of the road salt.

Stone walls are modelled in cardboard covered with Das modelling clay. Most of the security type fences are by Scale Link, except for that portion which bounds the Council yard which is fine stainless steel mesh by Bernard Taylor, on posts made from 1mm square brass rod.

Buildings and railway structures

Starting from the southern end of the layout, we have the aforementioned girder bridge. This is quite interesting because the western piers are made of stone and those at the eastern end are blue engineer's brick. A similar feature appears on the bridge carrying the platforms over the stream. One-third of the arch is of stone, whilst the two-thirds under the island platform and bay are brick. This has come about after the station layout was remodelled early in the twentieth century, and a four-track formation was required.

The model bridge was made from plasticard resting on wooden pillars. The supporting stone pillars, in common with nearly all the stonework on the layout, started as a carcass made from mounting board on which was applied a sub layer of Copydex latex glue. A 2mm thickness of Das modelling clay was the next layer, which was scribed when wet. The finished stonework dry brushed with acrylic paints. The engineer's brickwork is modelled in Rivendell brick paper, with the leaching of lime painted on in streaks from the mortar layers.

The coaling hopper is entirely freelance, and is loaded from open wagons by a Langley kit-built Ruston Bucyrus excavator. Moving on north, the engine shed is from S&D Mouldings, and the working turntable is by Peco, motorised with the 3V motor from an old cassette player driving the table through a Meccano shaft and home-made gearbox.

Llangollen Railway semaphore signals are scratchbuilt, whilst the main line is protected by twin aspect working colour lights of unknown source. These utilise an AMR control unit, setting to green a few moments before a train enters the visible portion, and returning to red as the leading vehicle of a train passes.

The replica water tower is based on a Kestrel kit with a corrugated iron roof made from toothpaste tube material, scribed with a ballpoint pen.

The surviving footbridge has been bashed from two Langley white metal and two Kestrel plastic footbridge kits. The uprights are made from Peco Z gauge rail and scraps of brass sheet.

The station building, which is made principally from plasticard, was started early on in the project and was one of the items I was rushing to get finished for the first public outing eight years later. A stroke of luck occurred when planning what material to use to model



the front door, which is mainly glass, with advertisements posted on the inside. I laid a photograph of the station building under the cut out door aperture and found it to be exactly the right size! At the northern end there is a delightful little building contractor's yard, which I modelled as faithfully as possible, even to the half-painted door on one of the sheds.

At the extreme northern end, the Constitutional Chapel has a half relief front, again using Das on cardboard, with a wheel from a horse drawn wagon kit being modified to become the distinctive round window. The remainder of the chapel is painted directly on the back scene, as are the two terraces of houses. The carcass of the Pen-y-Cae overbridge was modelled in cardboard, with the obligatory Das covering.

Improvements for the future, which occur on any preserved railway, will be a more authentic island platform building to replace the temporary Portakabin, lighting towers in the MPD area, and lamp posts for the station platform.

Locomotives and multiple units

The main purpose of this layout was to run a wide variety of modern diesel, and preserved stock. I will not bore you with every last wagon, merely give you a taste of the main train formations.

Steel workings

This is the mainstay of the line from a freight point of view. Mainly the following locomotives handle these.

GM Class 66 No.66 003 in EWS colours is by CJM. It is the pride of the line and runs superbly. The prototype was the first of the class that I saw.

Brush Class 60 No.60 037 *Helvellyn* in Steel Sector livery was also the first of the type that I saw. This Taylor kit on a 'thinned' Farish Class 50 chassis, was built for me by Morays Models. It is quite a reliable runner, the hauling power of which has been increased by gluing fine lead shot in the dummy diesel tank moulding.

Brush Class 60 No.60 017 *British Steel*

Shotton Centenary has local connections and again, it is the Taylor kit on the 50 chassis. This was my first attempt at a diesel kit, all my previous attempts being steam prototypes, and I must say I am very pleased with it. As with '037 adhesion has been increased by the addition of lead shot in the dummy diesel tank.

A pair of Class 37s in Steel Sector livery by Graham Farish both currently carry the same number, but one is quite heavily weathered and as yet nobody from the viewing public has brought this to my attention. Pairs of these were a common and imposing sight in the early 1990s. Rolling stock for this traffic is a mixed rake of long and short bogie steel coil carriers for the empty workings. These are by John Grey and Ian Stoate respectively, often with a couple of long wheelbase open wagons full of trimmings from the steel coils being returned to be melted down tagged on the rear. This happened for a short while in the mid 1990s before purpose-built bogie scrap wagons with 'lids' made from redundant tank wagons began to appear.

The loaded stock heading north comprises BLA bogie coil carriers. These were converted from BBA stock and feature cradles to carry the steel coil. The coils are depicted by bushes machined from real steel. Also, I have several of the more modern wagons by Roco, which feature a three-piece telescopic sliding roof. The ones I have are in the light blue of the Swiss Federal Railways, which is a very similar shade to that employed by British Steel. In the future, I will re-spray them in the more correct dark blue of Tiphook, when transfers become available. I also have one bogie coil carrier of the Powell Duffryn type, which was scratch built very convincingly by Martyn Wilde of Prestatyn.

Wood traffic

The Kronospan Chipboard factory in Chirk uses mainly OTA wagons carrying logs, and has also seen modern Cargowaggon types. My OTAs were modelled by Martyn in plasticard on a long wheelbase chassis, and feature logs made from privet. Cargowaggons are by Roco. Motive power for this working is generally a Brush Class 56 in Loadhaul livery, again by CJM. This is superb runner.

Ballast traffic

A train made up of six N Gauge Society Seacow bogie ballast hoppers hauled by a Graham Farish Class 31 all in engineers' 'Dutch' livery makes a pleasant sight. A future addition to this train will be a pair of Shark brake vans made from the superb kit produced by the late Andy Calvert for the N Gauge Society.

Cement traffic

On my layout, the traffic of Castle Cement has resumed to Padeswood with a long rake of Peco cement tanks, beautifully weathered for me by Bill Brown of Ffestiniog. In reality, the plant only receives coal at its railhead. Rail-borne cement ceased in the early nineties. This train is usually Class 66 hauled.





Local coal

There are two local depots still taking domestic coal, at Gobowen and Shrewsbury.

This is handled in HEA wagons by Graham Farish and Taylor Precision Models. These are in a variety of liveries, there being a 'full' and an 'empty'. Motive power for these is usually a Farish Class 56 and 37, both finished in Coal Sector livery.

Welsh Marches Express

Invariably this was a long rake of maroon BR Mk 1s, with the obligatory support coach, in a contrasting livery, behind the engine.

I tend to use a locomotive relevant to the venue of the exhibition at which *Ruabon* is being shown. A recent outing to the York Show saw extensive use of my new Farish A4 *Union of South Africa*. The viewing public at Cardiff were treated to a 'King', whilst at Preston the train was pulled by long red locomotives!

Local passenger traffic

Chester-Shrewsbury services are handled by a fleet of Farish 158 DMUs in various colourful liveries, most common being the greens of Central Trains and the old Regional Railways colours.

Above: A3 Pacific 4472 Flying Scotsman blasts under the road bridge at the northern end of Ruabon Station.

Below: a view of Ruabon station that can only be enjoyed by the operators. Plans are being drawn up to replace the Portakabin with something bearing a better resemblance to the original island platform building.

Llangollen passenger traffic

Three rakes of BR Mk 1 coaches by Minitrix and Farish are hauled by a variety of locomotives. These are most commonly of a type to be found at Llangollen, or at least known to have visited. There is a green Farish Class 20 and 25, various pannier tank locomotives, a 'Large Prairie', and a 'Manor' by P&D Marsh; also a GEM 28xx goods locomotive.

Others are a Farish *Flying Scotsman*, a 'Hall', 'Castle', rebuilt 'Merchant Navy' and 'Britannia'. Most of these are to be seen loitering around the yard as there is only room for three trains in the Llangollen return loop style fiddle yard. This is not unique as suggested by a recent RAILWAY MODELLER article; mine has been around for fourteen years now.

The future

This is an unusual situation on a layout that was envisaged to have been set in the future when designed in the last millennium. The future has already overtaken the layout and some features are now in themselves historical. An example is the small concrete waiting shelter at the northern end of the station building; this has been knocked down recently and replaced by a true glass and steel bus shelter.





Above: Brush Class 60 No.60 017 Shotton Steelworks Centenary Year 1996 hauls a loaded steel coil train to its namesake rolling mills. In the yard Flying Scotsman is on only its third visit to the Llangollen Railway, although it has passed the spot many times.

Below: EWS 66 003 heads a long train of cement tanks bound for Padeswood.

Likewise the station buildings cannot currently be seen. A hideous temporary footbridge made from scaffolding masks them: the original footbridge is out of use and believed condemned. The platforms have been shortened effectively to approximately six coaches long, the remainder is cordoned off by barriers and in the process of being reclaimed by nature.

Likewise the roadside verges at the Ruabon end of the main road are now considerably overgrown with bushes. More importantly, some of the rolling stock that was current when the layout was planned and built has now met the cutting torch, for example the 'Dutch' liveried Class 31 and some of the 37s. I plan to develop the little building contractor's yard with a few more items of equipment and make the council gritting yard more obviously such by the addition of a gritter lorry.

Lessons learnt

Although *Ruabon* was designed to be used at home or at exhibition, it is sadly lacking as a 'play layout' in my garage. The maximum width of 2'6" makes it awkward to get at the fiddle yard from the front. Likewise the tall Leylandii trees, although prototypical, are particularly vulnerable as are the many fine

finals on station building and signal box. For exhibition I am revising arrangements continually for speed of setting up and taking down.

I will be wary of using MDF as a baseboard surface in the future. I had trouble with swelling and delamination when gluing the ballast down. Were I to use it again, I would seal the trackbed area, plus a generous safety margin with neat PVA prior to laying the track. Any future exhibition layout will have simpler wiring, perhaps using an electric pencil and stud contact for point operation. I would suggest to anyone to pick a prototype carefully rather than model somewhere fictitious, as it is

much less taxing on the imagination.

Building this layout has given me a great deal of pleasure and definitely raised the standard of my modelling. All my friends in the Chester area groups have been very supportive both in advice and encouragement during the building stage and with manning since I have started exhibiting. The garden has lain neglected these last few years, so my next enterprise will be in a much larger scale.

Thanks to Daniel for all his help at the exhibitions. *Ruabon* will, however, be for sale after its current commitments due to a change in circumstances.



34056 *Croydon*

Portraits of the new 7mm scale kit from Martin Finney and the life story of a Bulleid Light Pacific



On a recent visit to the Peco Studio Martin Finney had with him a superb example of his new Bulleid Light Pacific kit in 7mm scale, constructed and painted by Chris Wesson.

21C156/34056 *Croydon*

Croydon was a genuine Southern Railway locomotive, built at Brighton Works and introduced to traffic in February 1947 as No.21C156. An Eastern Section machine at this time, a notable early working for the locomotive was on the first *Night Ferry* to leave Victoria following restoration of the service after the second world war, on 15 December that year. The *Ferry* seems to have been a regular turn for 21C156, along with 21C157, contemporary observers noting that although coal and water consumption was high, performance on the steeply graded Chatham main line was excellent. The heaviest trains (those with three or more sleepers in the consist) saw Pacifics piloting L1 Class 4-4-0s, photographic evidence of the *Night Ferry* of 15 December 1947 bearing this out.

'Battle of Britain' No.21C164 was the first to enter service (in July 1947) with modified cab front windows: earlier machines were altered to suit, those on *Croydon* being treated in November 1947. It seems probable that at the same time the machine was named – after the famous aerodrome – as others in the class had been given plates honouring aircraft, air stations and service personnel around the same time that year.

21C156 was renumbered 34056 in May 1948, and about the same time lost its SR lined green for an experimental British Railways apple green, along with three other Light Pacifics: this was replaced by BR lined green after a short while.

Its first shed was Stewarts Lane, but by 1950 it had migrated across town to Nine Elms, the chief ex-LSWR depot in London. Its stay in the capital was short, however: by 1952 it had migrated west, to Exmouth Junction. The loco-

motive was based here still in 1959, so the model illustrated represents No.34056 during the early part of its Devon residence.

No.34056 was rebuilt in December 1960 (one of 21 that year), gaining by this process the cut-down tender side sheets, a programme which began with No.34043 in 1952.

During September 1962 regional boundary changes placed the ex-SR Salisbury-Exeter main line, its branches, and the 'withered arm' west of Exeter under Western Region control, and 34056 was one of 37 Light Pacifics that were handed over as well. The onset of dieselisation, and service reductions on the former SR, meant that several ended their careers on the Western's stock books, but 34056 returned to the Southern fold (by 1965), to spend its final years at Salisbury shed.



The locomotive was withdrawn in May 1967, just prior to the end of steam on the Southern, and having run just over 957,000 miles in its twenty-odd years.

No.34056 *Croydon* was scrapped at the Newport, Monmouthshire premises of John

Cashmore Ltd., one of 38 Bulleid Light Pacifics cut up at this famous yard.

Martin Finney, 1 Poolestown Cottages, Thornhill, Stalbridge, Dorset DT10 2SQ. Telephone: 01963 362400.



Plan of the month

Basingstoke

In the sixties, eighties and nineties

Ian Futers was here to record the scene and soak up the atmosphere.

Right: HST power car 43088 about to leave Basingstoke on the 1326 to Glasgow/Edinburgh on 28 August 2000.

Below left: D811 Daring at Basingstoke in the late 1960s. Note the SR platform lamps.

Below right: Hymek D7048 in the same era.

Photographs by the author.

I have been taking railway photographs for over forty years now: I never bothered to collect numbers, always photographs. My early cameras were very basic; no chance of 'stopping' locomotives. That is to say, the camera shutter was too basic to freeze the subject. So any photographs of trains had to be done as they stood still at a station or on shed. This problem affected early photographers too. The reason my first cameras were of a basic type was simply down to finance; I could not afford a better camera. Of course, eventually I purchased a 35mm one but things did not change very much, as I never could work out the 'f' stops and speeds! Cannot set a video machine either! So I continued to be an 'end of platform' photographer.

Actually, during a period in the late 1970s and early 1980s I did quite a bit of 'shed bashing', mainly in Scotland, but still it was photography and not number collecting. Those were the days when a group of us would leave Tyneside very early in the morning and be at Haymarket (Edinburgh) for 08.00, Eastfield (Glasgow) by mid-day and Carstairs Junction by teatime. In between we would have looked in at Grangemouth, Hamilton and other depots. The result is a vast, but now historic



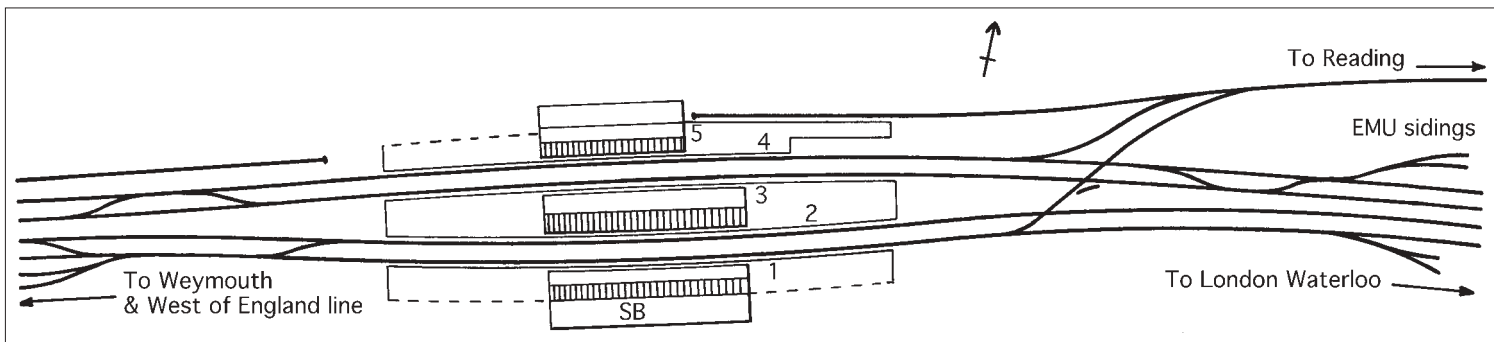
collection of mainly black and white material. I wish I had taken colour, but at the time it was a costly business, and if I remember correctly, the early colour print results were not too clever.

What has that all got to do with Basingstoke down on the Southern Region and many miles from Tyneside? Well, it was the other main interest in the teenage years – young ladies, and actually only one in particular. Her father obtained a job in Basingstoke so she moved down with her parents. As a result my first two main photographs were taken there

and all being well, will be published with this article. I always felt that Basingstoke would form the basis of an excellent model station. Four through tracks, associated pointwork from slow and fast lines, interesting signal gantries and lovely platform canopies. On top of that there were lots of interesting diesels about, of types which never came up north. This of course was way back in the mid 1960s, about 1964 I think.

As usual in life, things move on, not always in the way we expect, and the visits to Basingstoke ceased. I did meet up with that





Right: the station looking up from platform 1 on 22 August 2000.

Below left: 33 020, seen in October 1985.

Below right: 50 005 Collingwood with a west of England line train, also in October 1985.

young lady again, at an IMREX show of all places many years later, and we still keep in touch with the odd Christmas card.

I moved to the Midlands in the early 1980s and through the Leamington Spa Model Railway Club received an invitation to the Farnham Show in 1985. On the way there, I stopped off at Basingstoke again and took a few photographs. The Warships and Hymeks had all gone by then, but there were Class 33s and Class 50s to photograph. I will remember these locomotives passing the village in which I lived on their way to Leamington Spa and Birmingham. Many of them were on the Poole to York or Newcastle services.

Apart from one brief visit to exhibit at the Basingstoke show sometime in the 1980s I never returned to the magical station. That is until the year 2000. Anglia Railways introduced a service between East Anglia and Basingstoke utilising the Class 170 Turbostars. One service went from Norwich but for most other services you had to start at either Colchester or Ipswich.

So, one day in August, I booked two seats from Norwich to Basingstoke and looked forward to the day. Accompanying me that day was Ian Trivett, exhibition guru of the East Midlands show. At Norwich we caught a London bound electric hauled service, and were taken swiftly to Colchester where we would change to the Class 170.



I always find the run up to London fascinating. I love those four-track stations set in a cutting with the station building straddling the tracks at one end. The trouble was, the Class 170 was fairly stomping along and it was quite difficult to make out the station names. We finally stopped at Stratford and then the fun started. The route taken is basically the North London line, gliding over the rooftops in many places. Because the line curves around so much, a fairly leisurely pace is taken. Trivett and I tried to guess which lines we passed over, and I think the only one we got right was the West Coast Main Line. After quite a long journey we eventually popped onto the

Waterloo main line and had a very fast run into Basingstoke, arriving on time.

We were in platform 1 and straight away I was quite taken aback by how small the station was. I know it sounds strange to describe a five-platform station like Basingstoke as small, but somehow, through the passage of time, I imagined great long platforms. However, a quick observation of the scene found that little had changed over the years although outside the station was a totally different environment. But we had not come to Basingstoke to look outside, we were here to record the current motive power scene and soak up the atmosphere.





I decided to stay on platform 1 and photograph southbound material as it came into platform 2. I did cross over to the island platform to photograph northbound Virgin services and freight movements. The variety of services was quite exhausting. Slam-door Electrics, Wessex Electrics, Diesel Multiple Units heading all points south and west. I reckoned there was something coming into the station every five minutes. Lots to see and lots to photograph. I hope that some of the material will illustrate this article along with some of my heritage photographs of yesteryear.

After a short period I began to look at the track layout of the station. Southwards were crossovers between the fast and slow, up and down lines as well as a couple of defunct sidings. At the opposite end was a similar situation whilst in the distance there were stabling sidings for EMUs. Platform 5 was to be used by the Reading shuttle whilst a huge crossover allowed trains to run to and from Reading. Southbound services usually crossed right over the tracks to reach platform 1 or 2. In model form of course, this could all be simplified according to space available. However, Basingstoke would make a super club style tailchasing layout, probably in 4mm, as much of the motive power is now available in ready-to-run or kit form. Having said that, there is an N gauge layout on the exhibition circuit, although I think it is operated as a steam out-line layout.

The day we visited Basingstoke, a Tuesday in August, Trivett and I were the only enthusiasts on the station apart from one other chap who was taking video of the action. A sign of the times perhaps, indicating that fewer mortals

are taking up this innocent hobby of ours. I say innocent because most of the time enthusiasts simply sit down, take a few numbers or photographs and keep out of harms way. Yet one hears stories about railway officials not allowing the pursuit of our harmless hobby

As I stated earlier, I was quite amazed at the variety of workings through Basingstoke. As well as the suburban style services using the older EMUs to Fareham, Brighton and Portsmouth Harbour to name three destinations, there were the Wessex Electric services to Bournemouth and Poole. Diesel units ran to Salisbury, Exeter and Yeovil Junction. There was the Cross London service I used from East Anglia as well as a service to Milford Haven in Wales.

Class 47s and HSTs were operating the Virgin services such as the *Wessex Scot* or the *Pines Express*, and quite stunning they looked in their bright red livery. Freight was not as heavy through the day but we did see Freightliner 57s and EWS 66s. I would assume a night vigil at Basingstoke would see more freight. Much of the freight we did see actually went up the Reading line. I missed a classic photograph of a Virgin Class 47 on a Poole train in platform 2 with a Freightliner 57 slowly running through platform 1 on a freight train. I was changing films at the time!

The classic tail-chasing style of layout could be arranged, so that off scene, a bank of hidden sidings could hold a variety of trains. The addition of the electric third rail would mean some of the EMU stock would need to be constructed from kits. I have to admit defeat at all the abbreviated titles given to EMUs but I am sure there are some available either in plastic,

etched brass or pre-shaped body shells in aluminium. The third rail bits and pieces are available from Peco. If constructing such a layout, large radius points would look best, but the actual tracks leading to the Reading line do look quite a tight radius. Certainly from watching the stock move over and across the Reading line, speed restrictions seemed to be in place.

Operating colour light signals would certainly add to the overall scene, and adding station lighting and lights in the buildings could create quite an atmospheric layout. If locomotives, coaches and multiple units also had lighting, an operating session after dark would be quite fun. If you further added 'spark units' near to pointwork, the EMUs would look very realistic indeed. I once messed around with a sparking catenary post. It worked quite well, but played havoc with some rather expensive Roco pantographs!

An important element for any station set in the modern era is the correct use of station signs and adverts. A couple of manufacturers produces station signs, but if you really want typical signs for your chosen region or area, the best way is to take photographs of real signs. I have no special way of getting the cor-

Above left: for years the Weymouth line was operated in push-pull mode with 4-REP tractor units and unpowered 4-TCs. 1985.

Above right: 4-VEP in South West Trains colours, photographed in 2000.

Below left and right: the freight scene in August 2000, with EWS Class 66 and Freightliner Class 57 in action.





rect size, I simply take a number of photographs of a poster from a variety of distances. Film processing is still pretty cheap these days if you do not have access to a digital camera and a computer. There would appear to be a number of computer programmes which allow colour signage to be made. I have successfully made all the station name signs for my new layout on a computer using the Helevicta font. I even use the same system for making up destination boards for my DMUs. It's a small touch, but one which makes your layout just stand out from the rest.

Other areas to look out for include the making of prototypical platform edging and platform surfaces. Look at a typical station platform and you will see it is like a patchwork quilt. Different styles and textures of asphalt can be produced in a variety of ways. Fine scale 2mm granite chippings always look best even on a 7mm layout. Talcum powder is also a useful medium. When it comes to painting the platform surfaces, many varying hues can be used. A nice touch can be a couple of workmen digging up the platform. Quite an interesting cameo can be made with all the associated clutter of digging a hole, and many of the items you need can be fabricated from

odd bits of plastic or metal from the scrap box.

With the advent of Health and Safety legislation, station platforms are not as cluttered as they used to be. My old woodwork teacher used to say 'a place for everything and everything in its place'. That related to the tools we all used, but forty or fifty years on it appears to be the Health and Safety maxim. Nowadays at stations, trolleys and barrows are all placed in areas with painted warning lines around them. Other items of equipment, which would have been left casually around the station in days gone by, are now locked away safely in purpose-built cupboards. So in reality, stations can look quite plain. In order to add interest to a layout, why not concentrate on the figures? I well remember putting a figure on my *Newcastle Haymarket* layout speaking into a mobile telephone. Quite unique at the time I thought. It was amazing whilst at Basingstoke, and indeed at any other locations too, the number of people speaking on their mobile. So much so, even the conversations were quite interesting. They would always start with the words 'I'm at the train station'. Does anyone know where this terminology originated – *train station*? It seems to be quite standard when people talk about trains, very strange.

Referring back to the track layout, I have simplified it slightly but hope that it is still recognisable. I feel there should be the possibility of moving over between the fast and slow lines, so these turnouts have been kept in.

The Reading crossover is simplified slightly and I have left it up to the individual as to how many EMU storage sidings to the east of the station are left in place. These could be omitted really if you simply want to run the trains

round and round. As it happens, the Reading line runs straight into quite a deep cutting and the EMU storage sidings are well enclosed too. If running correct rakes of suburban stock, the EMU sidings would be useful, as I noticed some stopping services commenced and ended their services at Basingstoke. I must also point out that not all the Wessex Electric services stop here. I am not sure what the speed restriction through the station is, but it must be quite high. When the Wessex units were not stopping, an announcement warned passengers to keep away from the platform edge. Quite right too, they fairly sped through with horns hooting and sparks flying, very dramatic indeed.

As one who is more accustomed to describing Border Byways or West Highland Wanderings, writing this article and describing my most recent (2000) day out at Basingstoke, has been quite a revelation. No one- or two-coach trains here, no short pick-up freight train. This is full express service trains, eight-coach suburban services, and two- or three-coach multiple units on quite long distance services. Add to that the Freightliner and oil tank freights, along with car transporter duties and what do you have? You have an expression of today's scene. Colourful multiple units and locomotives, with many interesting destinations to describe. You have the opportunity to run your model trains at realistic high speeds. After my latest exploits in rustic Norfolk, visiting Basingstoke was like a breath of fresh air. I must get out more often!

Basingstoke, the *N* layout to which Ian refers, appeared in *RM* for Oct. and Nov. 1998 – Ed.

Above left: 159 013 on 1625 to Brighton on 22 August 2000.

Above right: 47 844 on the Bournemouth-bound Pines Express on the same day.

Below left: 'Wessex Electric' unit 2421 forming the 1201 to Southampton.

Below right: history now – 170 203, Aug. 2000.



Outwell Village Depot

A 4mm scale layout set in the 1950s

David Jennings modelled an impression of a country far removed from his experience of England.

I became fascinated by the Wisbech & Upwell some ten years ago, when someone bought me the Wild Swan book about the line. Like many people I expect, I looked at the black and white photographs within that book, and saw a country, and a locality, that seemed far removed from my experience of England. And this despite many of the pictures only being taken in the 1950s, some ten years before I was born.

The rural nature of the railway and its location between road and canal was unusual. It seemed almost an industrial railway in an agricultural setting. In the 1950s it was still well used but the pictures have such a different sense of time and the importance of time. The railway seems, in those pictures, as much a part of the landscape as the trees, canal and villages.

It was this sense of a place and a time now lost to the England of 2003 that I wanted to capture in my model.

First steps

Progress on the model has not been quick. A young family, career moves from West Yorkshire to Sussex to Tyne and Wear, and all the other demands of life, meant that the model has been completed 'as and when'.

The first thing I built was a model of the Depot Office. I used some plans in the *Model Railway Constructor Annual* for 1983, which also included some nice pictures of both steam and diesel trams. The Depot Office turned out quite well, and after a while I scratch built an 0-4-0 steam tram (Y6). Again

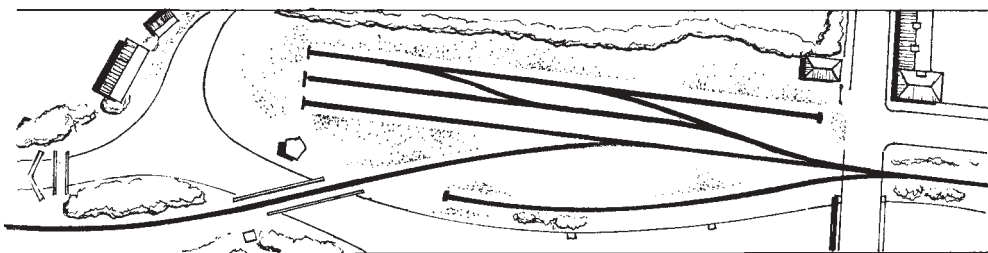


this turned out quite well, so I began to contemplate building a layout for these models. However, this was not before an interlude into ship modelling, and scratchbuilding the station building at Staintondale on the Scarborough & Whitby line. However, by 1992 I was drawn back to the W&U, and actually completed a set of baseboards for the layout. But I then stopped railway modelling altogether, and dumped the mark I version of the layout on the local Wakefield tip.

1994 found me living in Sussex, and this

time I began modelling the Depot in earnest. The mark II baseboards are of 3" x 1" timber, with ply topping and support, to give L-shaped girders. Because of the trackplan, and the number of points, I chose to have a long baseboard (some 6'), which means the layout is moveable rather than being truly portable. The advantage is that there are no track breaks near the various turnouts in the depot.

I wanted a continuous-run layout, so I could sit and watch the trains go by. The room in which the layout resides is a broad rectangle, so I had to alter the course of the line into the Depot from the (north) Wisbech end, and the track from the Depot (south) towards Upwell. The Depot itself I think is a fairly faithful recreation of the trackplan, although my sidings seem able to accommodate about one van fewer than the real trackplan could. The entrance and exit to the depot curve around the backscene, whereas in reality the environs of the line at Outwell were more or less





Left: the buffer stops at Outwell were situated perilously close to Well Creek.

Below far left: the Depot Office.

Below left: looking along Well Creek towards Upwell.

Above: the J70 sits at the end of the sidings adjacent to Well Creek.

Above right: a fruit Van awaits loading.

Below: Drewry loco 11101 about to cross on to the road for Upwell.

Below right: Drewry loco D2022 waits at the Depot entrance.

straight, with a dog-leg at Outwell Village Depot. The buildings at the south end include a model of the school that appears to have been in place until the mid 1950s, but do not include the houses beyond the school. At the northern end of the layout the chapel is missing, and I have included only some of the houses and other structures evident in the photos.

Track is by SMP, with points being made for me by Marcway. These did a great job, and have worked well ever since. Polarity is switched by miniature switches which sit behind one of the buildings, as do the switches for the point motors (SEEP). If I were to build another layout I am not sure I would use point motors again, as I have found them rather temperamental, and very sensitive to any movement out of alignment with the point tiebar. The added complication of their wiring makes me wonder if manual point rods aren't a better bet.

Track & scenery

The track was ballasted with woodglue and water, as is usual. I used a cork tile underlay to try and get quiet running, but once ballasted the running has been noisier than I would have hoped. Again, for next time, I think I would try and lay the track wet into Copydex, and ballast over it. Nonetheless, when painted and weathered I think the track looks pretty good, and belies its 16.5mm track gauge.

The scenery is polystyrene blocks and tiles carved to form canal banks etc. The rest of the topography is pretty flat. Canal banks and grass are dyed surgical lint, glued fluffy side down and then ripped from its backing when dry. This is then supplemented with dried moss, Woodland Scenics products, and twisted wire trees to form the basic landscape. The canal itself is lots and lots of coats of varnish over a brown and green paint basecoat. The dock sides in the Depot are wood strips (Obechi I think) which for me look a hundred times better than plastic painted to look like wood. Roads are woodglue and decorative filler mixtures, laid and smoothed, and then sanded when dry.

Backscene & buildings

Everything apart from the backscene is painted with enamel paints. I do find they can be a bit 'bright' and so I tend to weather just about everything on the layout that is painted with them. Locos, rolling stock, track, roads, and buildings all tend to be weathered with very dilute washes of black and olive green, which I think reduces this 'brightness' and makes the whole series of items within the model blend together.

The backscene is painted in watercolours, because I had them to hand, and because I felt the slightly less harsh format of watercolour would suit a backscene that I did not want to dominate what is quite a small model.

Buildings

These are all built from plasticard, with various laminations to make up the necessary thickness, and with brick-embossed plasticard as the predominant building facing. With care in painting this seems to represent brick reasonably well, and I certainly couldn't face building the structures with separately applied 'chads' for bricks. Having said that the roofs, where they are slate, are from strips of paper, slit every 5 millimetres to represent (slightly large) slates. Where roofs are pantiles I have used the Wills sheets, and with careful painting and weathering they look good.

Locos and rolling stock

The loco fleet (!) consists of a Y6, a J70, a Y10, and two 04s.

The Y6 is a scratchbuilt affair from plasticard, and in LNER livery. It runs on a Tenshodo motor bogie that is really too quick for the sort of running I want.

The J70 combines a scratchbuilt body and a Roco 0-6-0 German loco chassis. This is a bit of a pastiche, as I wanted a J70 on the layout with its side panels removed (as locos in such a state of undress did appear on the line in the 1950s). However, I am not good enough at loco building to scratchbuild such a chassis, especially with outside Walschaerts valve gear, and so had to opt for this chassis. It runs very slowly, but the gear train that makes it run thus also





makes the chassis some 10mm too long. I increased the height of the body slightly (by 2mm) to keep the overall look of the thing about right, and what I have ended up with is a J70 that is a bit too big, but looks the part reasonably well.

The Y10 is the 4mm Impetus kit, sitting on another Tenshodo bogie. It looks great, and was a dream to build, but similar comments about the mechanism apply as for the Y6.

The 04s are the Dapol kits, running on Mainline and now Bachmann chassis for 03 and 04. The first 04, D2022, was built in 1994. The footplate has slightly warped now, but somehow, to me at least, this befits what was a pretty tired looking machine by the time it got its yellow striped ends. The second 04 I built a couple of years ago. Both have scratchbuilt tram fittings (the Impetus kit for this was out of production), revised cab front and sides, a nickel silver roof and mesh inserts for the radiator (cut from a tea strainer). With separate handrails, revised buffers and lamps added, I am quite pleased with them.

Rolling stock is lots and lots and lots of vans! These are a mixture of proprietary (the Bachmann 'Blue Riband' Fruit Van is beautiful) and kit built (Parkside Dundas with a bit of extra detailing). I also run a line of coal wagons (BR 16 tonners) and these are again a mixture of Bachmann weathered and Parkside Dundas kitbashed. As I love the look of an 04 pulling a long line of vans and coal wagons round from behind the backscene, over the bridge and into the Depot, I will probably continue to add more vans and 16 tonners when I can. I also need a couple more brake vans.

If I can ever get an accurate model of a J70 I might seek to emulate some of the photos in the Wild Swan book, and the W&U Centenary Album, which shows a J70 pulling out of the Depot with what looks like an unfeasibly long line of empty vans.

What's left?

I have some detailing to complete (fruit boxes, vehicles, more reeds in the canal, the back gardens of the houses in Church Street) and I might try to scratchbuild that J70. What would I do differently? I'd plan better, rather than build the Depot and then work out afterwards that I want a continuous run, necessitating some sharp curves to compress the layout into the room I have for it. I'd try and do all the woodwork in one go, rather than build the main baseboard in 1994 and the two end-extensions in 1998, so that the standards were

Above left: close-up of houses at Wisbech end of the layout.

Above: D2022 ventures across the road.

Below: close-up of Fruit Van awaiting loading.

Below left: D2022 rumbles through the yard with a coal train for Upwell.

Below right: Y6 trundles past the village school in LNER days.

Photographs by the author.

a bit more compatible. I wouldn't use point motors again, and I wouldn't use glue and water to ballast the track.

Other than that, I am pleased with the layout. For me it does what I set out for it to do: give a colour recreation of the black and white pictures I have in so many books on the W&U.



A goods office for Elmgate

Versatile vernacular architecture in 4mm scale

Tim Sanderson combined a second-hand kit and some scratchbuilding to create this structure.

Following Steve Flint's article on Lineside Merchant's Stores (RAILWAY MODELLER Jan 2003) I note he states that no kit for a planked version is available. I believe that he has overlooked the Wills Goods Yard Store, SS63. This kit employs lapped planking and, although I am not qualified to comment on the standard gauge prototype scene, appears to be based on those found in the ex-Southern Railway area.

Regular readers will know that my field is narrow gauge, but I do have a few books on the SR. I have found similar wood-planked stores pictured on the Bude line, including a goods office on Bude platform looking just like the Wills version. Closer to home, the Bluebell Railway has a small store at Kingscote Station. This was moved from Horsted Keynes in 1998, where it had lived, probably from the building of the line, from the '50s accompanied by a typical BR concrete type.

The building of a new carriage repair shed at Horsted Keynes necessitated the move. Whilst totally of 21st century construction, the new shed is built 'in the vernacular' of Southern lineside stores. The photos show the Kingscote store, which has a flat roof (zinc covered).

I am engaged in the design and construction of a wooden building for my freelance narrow gauge layout. Sheds of this type were familiar on several narrow gauge railways, eg Welshpool & Llanfair.

I obtained a Wills kit second hand, complete with parts ready for extension in the modular form as described by Steve. I confess that the idea came from (I believe) Miles Bevan of the 009 Society. Having decided not to pursue the project himself, the parts were available at a Society event, and I snapped them up as suitable for my layout. The photograph shows progress so far.

The original kit has a length based on doorways each side, with equal width of wall each side. In order to extend the building, sections of lapped planking, also from Wills, have been used to create extensions to one end of both sides and thus the doors are opposite each other. The roof will require similar extension, or possibly new construction using either corrugated finish (I have some Wills transparent corrugated roofing available) or by making my own planked and felted version using soft tissue over plain plastic, and painted black.

The base supports, seen in the photo, will be used under the front and side of the base. In the time-honoured fashion, the rear (unseen by the public!) side will be finished by making a copy from plastic section. The end gables



with windows are straight from the kit. Having researched the Kingscote shed for this note, I may now adapt to a flat roof. As noted by Steve, to make a deeper shed, the ends would need to be constructed from new and the roof adapted or made from scratch.

Completion of this shed awaits the station section of my layout to be constructed. So far, I have laid the track, and commenced wiring; if I am to be ready for the next exhibition booking in March, I had better get on with it!

The prototype and the model of the goods office at Kingscote, Bluebell Railway.

Prototype photographs by the author, model photograph by Len Weal, Peco Studio.



Extending Etton – 3

Architectural drawings, scale sketches and inspiration

Peter Goss develops the drawings, explores the area and prepares to start modelling.

After the site survey

Having gathered all necessary information and had a lie down for a bit, it was then possible to firm up on the model building arrangements and study how they would fit and work together in a street scene. I had a space on the layout just 375mm wide but a massive 1500mm long in which to model. Buildings for the scene were thus chosen through both a choice of what was available to measure up in Etton village, and a necessity for longer and thinner types to suit the available space. In the end, I settled for a couple of long thin types for the back area and quality, characteristic full width structures to the front and flanks.

The street scene evolves

Any street scene begins with a road and Etton was no exception. The route of the road followed the original plan, as shown in part 1 of this series. At the rear of the road, the buildings would be hard up against the backboard screening the new fiddle yard, so, as no rear gardens are possible here, only three sides of these structures need be modelled. Perhaps a tree or two strategically placed would disguise the junction of building to sky backboard. Trees also have the advantage of bulking out building clusters. Distant pictures of villages in East Yorkshire show how trees are all bunched together around dwelling clusters highlighting the open fields around the village. This was even more evident when the fashion for local farmers of cutting roadside hedges to the floor resulted in almost barren environments roadside. Happily the hedges are being replanted these days and things look a lot better.

At the front of the layout, the model buildings would be facing inward to the road, so their rear elevations would become the focal points and therefore closest to the hopefully inquisitive audience. Odd doors would be left open for later internal detailing and certainly the odd room or two ought to be illuminated and detailed internally.

The road would turn right at the end of the layout before it got to the last farmhouse. On its turn, it would sink into the sunken road detail with high banks and a dilapidated brick retaining wall attempting to hold back mother nature. The main feature at the very end of the layout would be the massive sand/grey brick dwelling house of Townend Farm with its smart grassed lawn to the front flanked with mature hedges and trees. The overgrown trees in real life are ideally placed to cloak the building's flanks and give a cosy nestled feeling to the setting for this model.

Transforming survey notes into model dimensions

In preparation for making each model, we first need to convert all the survey information into actual model dimensions. The quickest way is probably to sketch out each elevation again on clean paper and write on all the actual required model dimensions one by one. To determine each model dimension in millimetres, divide the measured dimensions from your survey notes by 76 (for 4mm to the foot scale), or if you are using the counted brick course method, work out the full dimensions first, then divide by 76.

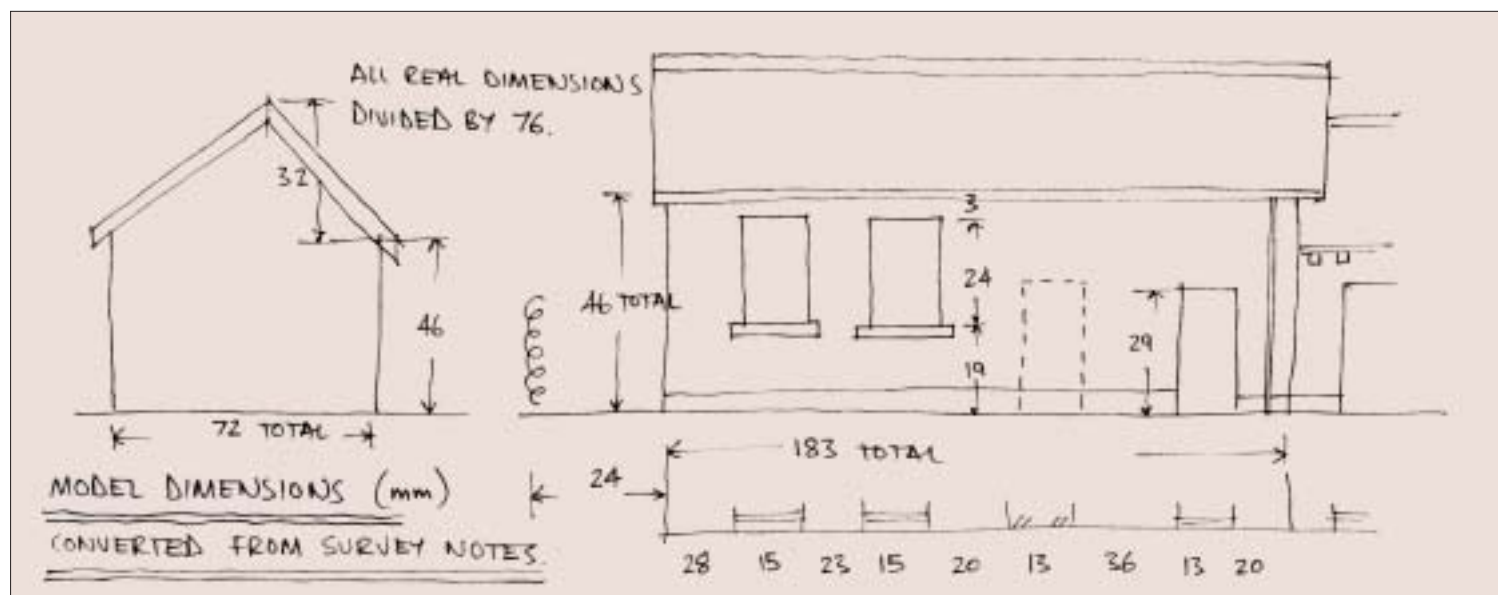
The drawing below illustrates this principle:

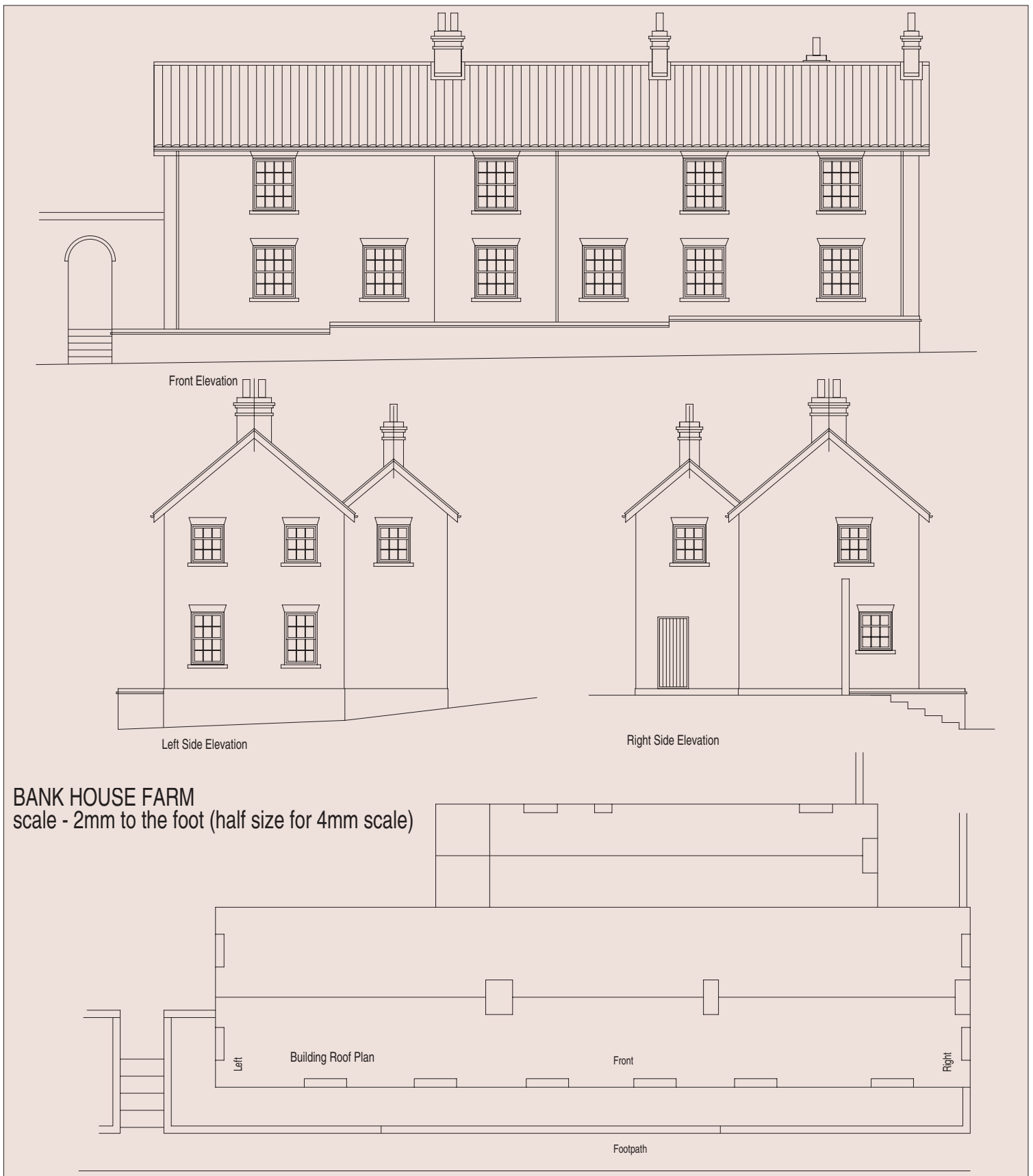
it is a copy sketch of fig. 1. (see part 2 of this series in RM October 2003) with the actual dimensions divided by 76 to give the model dimensions. The principle is applicable to all the modelling scales; for N gauge divide by 160, for TT scale divide by 101, for O gauge divide by 43 and so on.

At this point you can, if you wish, prepare scale working drawings, though it is not entirely necessary since you can work equally accurately from the elevation sketches annotated with the model dimensions. In fact, to save time, you could even work from the original survey sketches, working out the model dimensions as you go along, although this I think would create a greater chance of errors creeping in. Better to make fresh drawings, besides, preparing the drawings can be enjoyable too. As I have access to CAD software, I prepared scale working drawings before moving on and some of them are illustrated here should anyone wish to use them for their own layout. Note however that in order to fit the page size of the magazine they are reproduced in 2mm scale. Townend Farm House is not shown, but with the editor's permission I hope to include it in a later instalment.

Bank House Farm, Etton

Bank House farm, Etton was built in 1860 and has evidently been extended and modified several times during its life. It is now a two-storey house, long and thin and of single room width. Thanks were given to the owners for allowing the external survey work to be carried out while Sunday lunch carried on as normal. We had sandwiches later!





BANK HOUSE FARM
 scale - 2mm to the foot (half size for 4mm scale)

The elevations of interest to me were the front and two short ends as this model would be sat right up to the backboard on the layout. Photos reveal that a third of its length appeared to be an extension to the original, probably built pre-1960s and is revealed by the vertical brick joint in the front wall. Around the back, further alterations were evident which have been carried out more recently. Initially the owner thought I was selling architectural

models, but quickly realised the situation.

There are no entrance doors to the front or sides. Instead the main entrance door is around the back under a canopy facing into the farm internal courtyard. The front and two ends include windows only and gave the appearance to me initially of three much smaller cottages all joined together in a terrace, all with rear entrance doors. I originally thought the building was just that, given the

position of the three chimney stacks and the vertical brick line on the front.

Windows are all four panes split into two vertical white painted sliding timber sashes within a white window frame. Brickwork is a mixed red colour with cream mortar. Plenty of colour variation, ideal for modelling. Black rainwater gutters and down pipes and barge boards. Traditional orange roof pantiles and three brick chimney stacks, each with two or

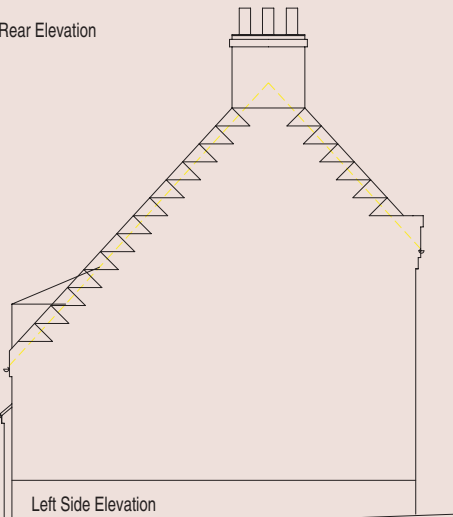
CHERRY CORNER AND BLACKSMITHS
scale - 2mm to the foot (half size for 4mm scale)



Front Elevation



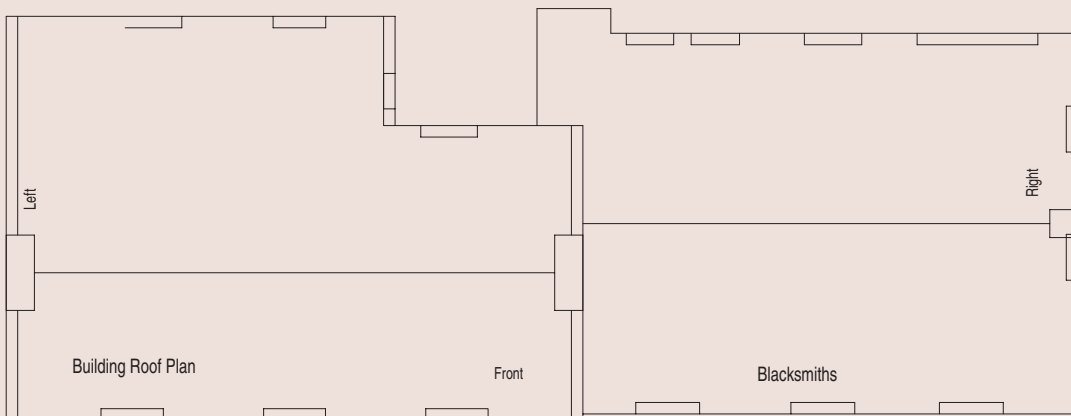
Rear Elevation



Left Side Elevation



Right Side Elevation





four large square stone colour pots sat on top. Wonderful.

At the front, the land falls dramatically down to the footpath and road level, and is held in place at the higher level by a long brick retaining wall to the back of the footpath which itself is stepped down along its length. I needed to reverse the wall's stepped length to suit my road levels on my model. But other than that, I would reproduce this building frontage as photographed. The retaining wall encloses a raised planted area and there is ivy growing up the wall in places on the house. All this can be copied using photographs. The scale drawing of this building shows the three elevations of interest plus a plan view.

Cherry Corner, Eton

One building was to be a key feature at the front of the layout. It would have its rear elevation facing the public and it was therefore important to choose a prototype that was interesting and detailed from this viewpoint. Cherry Corner proved to be the ideal and many thanks to the owners who allowed us access. They were very enthusiastic and got quite excited by all the fuss. All four elevations would be required here as the building would be viewed from all angles.

Built in 1869 it consists of a two-storey dwelling with an attached blacksmith's single-

storey workshop. Up until fairly recently the blacksmith's contained the original smithy equipment and the forge. The tools can now be found at the Beamish living history museum in County Durham. To the front of the property outside the garden fence line is a fantastic deep flower bed of white, red and yellow flowers, with a medium height hedge behind (see page 494 RM August 2003). This will certainly be included on the model and if there is space later on I will describe my construction of model flowers and the like.

The building walls are red brick and the roofs are orange coloured pantiles. The dwelling has vertical sliding sash windows, each sash having two panes. There is a six-panel blue front door with a little window over. Gable walls are extended up beyond roof tile level to give little sloping parapet walls complete with diagonal chevron brickwork details on the gable wall faces. The chimney stacks may have been rebuilt at some time.

The forge has horizontal sliding 'Yorkshire' sash windows with six-pane sashes to the front and side elevations and an odd assortment of fenestration to the rear. A single chimney stack and missing pot appear on the forge gable wall. The forge's main entrance is to the rear in the form of a sliding door. This is planned to be modelled open to reveal goodies inside.

Some cement rendering has been applied

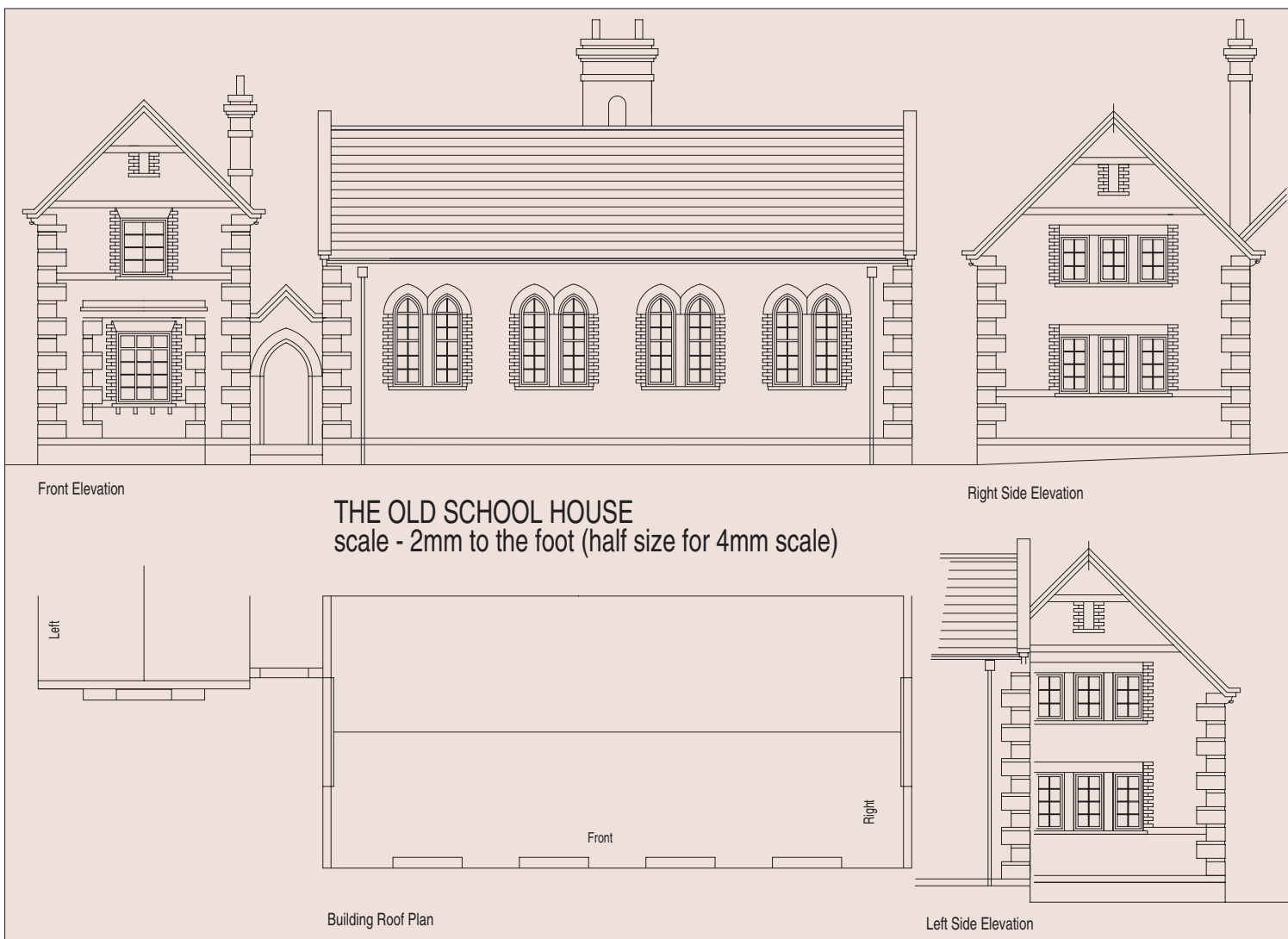
to presumably damaged or deteriorated walls and these areas are to be reproduced on the model. The rear elevation seems little altered from original and still retains character. This includes a tiny window and dormer over the kitchen window set very low on the roof. The roof itself is full two-storey at the front of the house and slopes right down at the rear to the downstairs window over the kitchen. The drawing shows all four elevations, all in all a delightful country cottage full of character and little altered from original.

The Old School House

This is the smallest of the building models, but with probably the most detailed brickwork. Built in 1825, it was originally Eton village school with the original school house standing to the left at right angles. Recent alterations have now joined the two buildings together providing a much larger residence in total with a central hall and front door at the junction. My model would depict pre-extension work and shows an arched gateway between the buildings.

The home owners were extremely helpful and even lent me old architects' plans to refer to. These drawings showed various alteration proposals and were very useful in understanding the building arrangement. The school room building has a grey slated roof with





stone capped gable raised parapet walls and a stone roof ridge. Brick walls are, in the main, red colour but with large sand coloured corner quoins on all wall corners with smaller equivalents to all window and door surrounds. Four pairs of arched head tall vertical sliding sash windows sit in the long wall facing the road. There are also sand single brick course horizontal bands in the walls at various levels. To the rear of the school room is a smaller single-storey structure attached (not modelled) and between this and the school room is a large twin chimney stack with lots of brick detail.

The school house building in similarly constructed and I have included one chimney stack on the short length of building modelled. The real building extends to the back considerably and is quite a large building in its own right. However on the model I have only included the front section. There is a nice ornamental garden in front of the school house, and a hedge and low brick wall sit on the boundary at the back of the footpath. In real life this site is next to the 'sunken road' detail.

No.39 and the Village Hall

The Village Hall is at the end of a row of white painted houses in real life. It is single-storey brick construction with all walls painted white. The roof features plain flat red tiles and

has black rain water gutters and down pipes. Tall, vertical sliding sash windows with two 6-pane sashes per window appear to the front and rear of the building. A previously bricked up door opening is at the front next to a six-panel timber door in red. Several notice boards surround the entrance door and there is a red letter box on a post nearby together with a good old red telephone box and a lone telegraph pole. A side gate gives access to the rear.

Between the Village Hall and No.39 appears a garage. This looks like a later addition particularly as cars were not around at the time of building. No.39 is some 200 years old according to the owner and I would not doubt it. The front of No.39 is white painted brickwork again.

Window reveals are very deep and contain three-pane windows in white and black painted stone cills. Upstairs windows are not very high at all and I would think they sit low in the rooms upstairs with perhaps sloping ceilings over. I did not ask to see inside as lunch was being cooked, but the owners were kind enough to allow us access to the rear. The building has orange pantiles on the roof.

Around the rear of No.39 a two-storey extension has been built at right angles to the main house. All walls are red unpainted brickwork to the sides and rear. There are several other additions and alterations apparent. I have

reduced these alterations at the rear of the model a little and tried to maintain a more original feel to the structure.

Three 2-pot chimney stacks appear on the roof ridge lines of the house and the brick gable walls continue above the tile level similar to Cherry Corner.

A nice long thin period building with a contrasting white painted frontage and different roof materials provide a good start to the model village street.

Nos.79 and 81 Main Street, Etton

These appear in the photograph on page 493 of RM August 2003. However, once construction of the other five buildings were well under way, I started to think a bit more about the arrangement of the buildings on the extension.

It became apparent that a sixth structure might be required to accompany Cherry Corner at the front. The size available equated to that of the Carpenters Arms public house building which is sited on the original layout. But, after further thought I decided not to cram the scene too much and dismissed this idea altogether. Nos.79 and 81 were therefore surveyed, planned and drawn up, but in the end, not modelled.

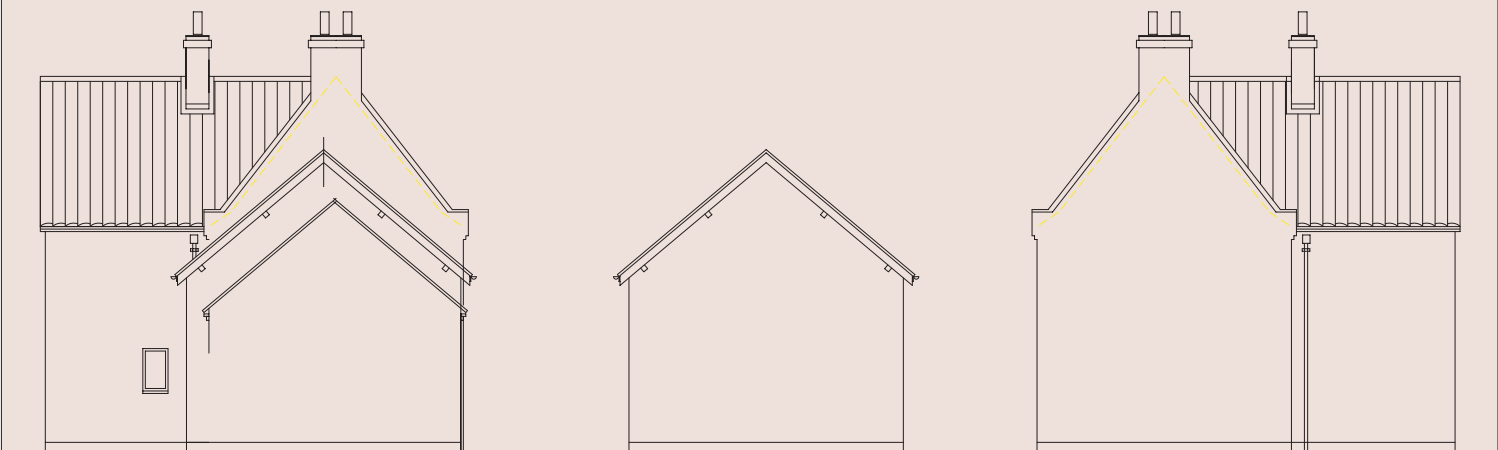
With all the scale drawings finished, it was time to move onto the actual construction, which will be detailed in the next instalment.



Front Elevation



Rear Elevation

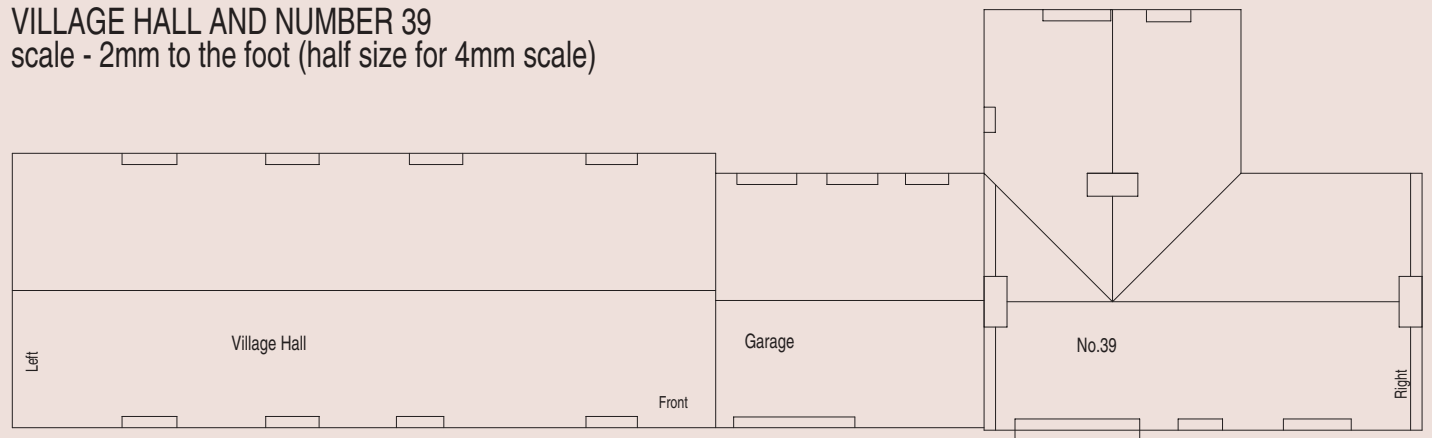


No 39 Left Side Elevation

Hall Left Side Elevation

Right Side Elevation

VILLAGE HALL AND NUMBER 39
 scale - 2mm to the foot (half size for 4mm scale)



Simple garden railway structures

Fences, roads, bridges, signals even

Tag Gorton signs off with more sound advice.

The glamour girls of garden railways are, for nearly everybody, the steam locomotives. For those who are particularly single-minded about this, or whose interests are entirely model engineering based, the permanent way infrastructure is, together with passenger and goods stock, often just the inconvenient necessity required for running our steam motive power. Traditional bare timber utilitarian construction is however, nowadays comparatively rare, perhaps because so many of us railway modellers have moved into the garden from the smaller scales or, indeed, undertake both! Whatever the reasons, most garden railfairers are nowadays perhaps rather less obsessed and the modern garden railway tends to be a rather more holistic operation running through living scenery and with structures and buildings providing a significant part of the railway atmosphere. Even those of us who run trains on comfortable waist-high baseboard construction do try and make our railway an attractive part of our outdoor living space rather than an ugly rough hewn intrusion into what may be a mature garden lovingly cared for by the non-railway minded component of one's family.

For those of us who wish to ensure that our garden railway is both an added attraction to the garden and one that provides railway atmosphere in spades, this can be a difficult path to tread and there seem to be two basic ways forward. One is to run our railway through what may be termed the 'twelve inches to the foot' scenery of a normal garden with trains passing nodding daffs and border plants. The other is gradually to develop scale living scenery, carefully combining chosen miniature conifers and shrubs with small leaved ground cover and suitable alpine plants.

I may say that both approaches are equally valid and attractive in their different ways. The modeller who chooses (or has negotiated) to run his/her (yes there *are* some lady garden railfarers) through an attractive mature suburban garden can quite rightly claim that this particular railway has been constructed through an existing landscape and is a real, albeit small, steam powered railway. The other method, perhaps more acceptable to unreconstructed railway modellers such as myself, is to produce a living 'scale' garden railway world. While I have my own preferences, I make no value judgements here.

A sense of place

Whatever approach is decided on by the newly minted garden railway enthusiast, and no matter how attractive the horticultural



environment, it will quickly be seen that a 'basic railway' such as this will lack both character and atmosphere. I am talking here about the man-made structures and fittings that provide a sense of time and place on the prototype, the careful provision of which will add a whole new dimension to one's endeavours. Now one of the first things that many people do is to purchase kits or completed model buildings and place them in close proximity to the lineside. There is, of course, nothing wrong with this approach at all. There are few railway modellers in any scale who decide to construct everything from scratch and, being naturally indolent, I am happy to purchase items that fit within the financial constraints of the *Longlands & Western Railway*. I would also say that our 16mm or G scale building kits (of which there are nowadays a wide range available) are, because of their comparatively large size, a joy to construct!

Now I would like to suggest another way to start. Instead of first constructing or purchasing the larger models such as station buildings, goods sheds, lineside housing etc, it may well be worth looking at the smaller items that are either cheap and easy to construct, or that are the basis of other models for later construction – such as platform areas at stations or roadways. After all, when one has just shelled out for all the materials and components required for permanent way construction there is a very natural desire to watch the

pennies for a bit! Do bear in mind as well, that most narrow gauge railways in this country offered fairly basic provision for passenger or goods traffic. Even the Isle of Man Railway, away from termini or junction stations, rarely provided platforms at intermediate stopping places and many station facilities were of the most basic kind. Perhaps it would be a good idea to start with one of the simplest yet legally essential of infrastructure items and the one that tends to be ignored by the great majority of railway modellers in the open air – and many who model indoors.

I would here ask you to take a look at the photograph of Steve Tucker's narrow gauge line in Cornwall. Setting aside the careful planting, the only commercial item in this photograph is the 'Sharp Curve' sign. OK, one could say that the old Hornby signal is a 'commercial item' but, as obtained, it was a cheap car boot sale acquisition and nowadays unobtainable. I therefore beg to be excused on this one.

Legally required fencing

In fact, the most atmospheric item in the photograph is one that is so often forgotten on garden railways – and that is the legally required fencing. All railways, other than tramways, should have fencing and this simple post & wire arrangement is, cheap, easy to do and very atmospheric don't you think? A further simple refinement is perhaps to add a board

Left: this building was the first to be constructed for the embryo Longlands & Western Railway and is now, looking suitably weathered, approaching the start of its third decade in the garden. This method of woodstrip, corrugated plastic and UHU construction works very well in the garden. The UHU glue never goes completely hard and therefore copes with the vagaries of climate. Superglue just falls to pieces after a hard winter!

Right: famous for building three garden railways in as many years, one would assume that Steve Tucker has it weighed off now! Certainly the infrastructure on this very new railway is looking good already and, given that the drooping signal is from a boot sale, there has not been a fortune spent on the lineside.

Below: the fencing kissing gate here is home-made from stainless steel arisings from a brewery. The commercial 'bits and pieces' combine with the fencing to provide railway atmosphere.

crossing with simple wooden stiles – which may be knocked up from the bits box or using timber stripwood from the racks in your local model shop. Other items that fall into the category of being both cheap to build and an atmospheric addition are telegraph poles – most railways, even on the narrow gauge, had a pole route did they not? Unfortunately, this feature is nowadays only found on some preserved lines, but a garden railway with both fencing and pole route will most certainly look right even if there are very few other man made structures on the line.

Another common lineside feature is the permanent way hut. All railways have this sort of building somewhere along the line and, while one may purchase a variety of comparatively inexpensive models that will do the trick, I would like to draw your attention to my own version. This was very cheaply constructed from corrugated plastic, wood-strip, dolls house windows and UHU glue. Built in the late eighties and sealed onto a concrete base with



external grade silicone, this was largely made with offcuts, cost next to nothing and is still doing sterling service. A recent 'improvement' was to coat it with 'instant rust' which ensures it fits in nicely with my general run down 1930s ambience. Actually, most of the railway company buildings may be constructed of this

material if wished. The later impecunious narrow gauge enterprises were careful to save money on constructional costs (or they would have built a standard gauge line in the first place) and corrugated iron was the new cheap and cheerful form of construction. In fact, it is just as cheap for us modellers because the plastic sheet itself is comparatively inexpensive and models constructed in this way are also very easy to make.



Fixed distant

Signalling of narrow gauge railways tends to be simple and I would again quote the Isle of Man railways where, despite having a large signal box at their impressive Victorian terminus at Douglas, trains were as like to be signalled away by the bobby waving his handkerchief out of the box window. It is my own contention that signalling on most garden railways is best left simple as per prototype and in accordance with this ethos, my own line uses only fixed distant signals as, in fact, do many modern 'basic railway' branch lines. Again, these may be purchased items or one may, in this large scale, make one's own simple signals with little effort.

At this point we have our neatly fenced linear railway line curving around the garden, suitably enhanced by the vertical component of signals and pole route and punctuated by the occasional linesman's hut! Already we have bags of railway atmosphere and have actually spent very little money.



Left: constructing railway company buildings from corrugated 'iron' gives something of a 'corporate image' to ones railway. The buildings beyond the railway fence are made by Handcrafted Pottery Models of Stockton-on-Tees, whose delightfully individualistic models are only available for collection from exhibitions. Note the excellent etch brass model of a Victorian 'Gents' made by Garden Railway Specialists. The ladies always peer over the top to see if it is occupied – I don't know why!

Below: note the concrete station platform and that the building 'grows' from it rather than just being plonked down. The structure itself is built using the cast Jigstones system and the bench seat reflects the fact that garden railfarers have the same problems with 'weathering' as the prototype. Photo: Keith Bucklitch.

Photographs by the author/as credited.

Railways, even in their early years, did not exist entirely in isolation. Roads were generally required to the station and rarely, particularly on peripheral branch and narrow gauge lines, were stations sited right in the middle of the village they purported to serve. It is not necessary to build a complicated system of roadways, merely to provide an indication of their presence. Obviously we would need a method of access to the station and perhaps, depending on the topography of your garden, a skew, or humped-back bridge over the line or maybe a level crossing constructed from the stripwood box in one's local model shop.

Construction of roadways is actually very similar to the civil engineering required for the construction of our permanent way and indeed, can use the left over materials from his work. Don't forget that any sort of 'paved' or metalled area is a prime place to stick one's feet when negotiating the area for line access and so will need to be fairly strong. I use whatever rubble I have to hand as a foundation, standard three quarter to dust concrete mix and a skim of cement mortar. To get a suitable asphalt colour, one can use an appropriate commercial cement colourant or just spray using an automotive aerosol. This last will just soak in to the cement and I use Rover storm grey for this job.

Holman F Stephens

While planning this particular basic construction, it is a good idea to consider the possible placing of buildings. You see, whether purchased or home made models, I don't like to just plonk them down, but to seal them on a hard surface using exterior grade silicone disguised with cement dust. The idea is that they 'grow' out of the ground, rather than have that awful black line between surface and model, too often seen on both indoor and garden layouts. One can 'open out' road areas to provide sites for buildings such as the *Commercial*

Hotel, Station Garage or any other structure commonly found at railway stations.

Platforms will depend on the relative importance of your station stop. Most narrow gauge lines only provided a metalled area and small shelter at intermediate points, but if the proposed station is rather more important, a simple low platform may be made by using shuttered cement construction, using stripwood as shuttering, over the top of the original concrete road/building base. It is probably a good idea to colour the station platform rather differently to that of the other cemented areas. If you want to get really clever and this particular interchange is a hive of garden scale activity, one could construct pavements using the same method!

It is at this particular point that one can settle down and look at exactly what sort of buildings one wishes to add to what is becoming a very atmospheric model. I have already



mentioned the light railway type of corrugated iron railway building used by, amongst others, the railway empire of Colonel Holman F Stephens, and this type of construction, using corrugated plastic, stripwood and UHU glue. Both suitable railway type windows and the corrugated plastic sheet are available from Brandbright and this cheap and simple construction provides a unified look for our company buildings and offices. Once these basic structures are completed, the addition of street and station furniture will transform the appearance of these buildings. Notices, station signs, vending machines, advertising, fencing, guttering, lamps, telephone kiosks – the list is as endless as that required for your indoor branch line, and just as essential to provide the appropriate degree of verisimilitude.

Most of these items are available from the usual suppliers such as Brandbright and Garden Railway Specialists, but it is also worth looking at suppliers such as Perfect World, who can often supply items just not available elsewhere. Again I am considering costs and looking at the gradual fitting out of our small-scale railway enterprise. It is a truism that a model railway is never really finished and one's garden railway, once the basic infrastructure is complete, will allow for many years of pleasurable development and I expect future articles to look rather more closely at constructional affairs beyond the railway fence.

Valedictory

At this point I have to say that my watch here has finally come to an end due to increasing commitments elsewhere in the modelling press. I have very much enjoyed escorting this bi-monthly visit to the world of garden railways within the pages of RAILWAY MODELLER, and would say that my fondness for this particular journal has continued since I was a child in the fifties. I shall, as ever, keep a weather eye on activities within these pages and will, with the permission of the Editor, provide occasional contributions about developments on my own *Longlands & Western Railway*.

The bi-monthly overview of garden railway matters will continue to be undertaken by Geoff Thompson, who is taking up his word processor to prepare the next article as I, write and whose contributions I am sure that you will enjoy. Do enjoy your modelling.

Scale drawings

NER 20ton well wagon

A little roaming from home territory can probably be justified

Drawn and described by **Jonathan Joseph.**

The subject of the drawings is a 1913 vintage well wagon. Unusually for a four-wheeled vehicle of this period, the load capacity is 20 tons, 10 or 15 tons being more common. The initial four (numbered, in suitably random NER fashion 5444, 22792, 68932 and 72948) appeared in 1913 as mentioned, followed by a further six before the grouping (for the record, 9224, 10294, 18084, 27807, 76804 and 78854). Post-grouping, the design was not duplicated by the LNER, which seemed to prefer GC-based designs, but the extant NER-built wagons had long and useful lives, being classified 'Mac L' by the LNER.

The vehicle should stand out a little, even if surrounded by ranks of RTR 'lowmacs'. Compared with more modern wagons of this

type, the end ramps are noticeably steeper. In addition, the vehicle tare is only 8 tons 13 cwt, so even fully laden, very few UK standard gauge lines would be out of bounds.

Connoisseur Models lists etched brass Mac L kits in 4mm and 7mm scales. 2'8" diameter wheels are available in most scales, as are castings etc. for various NER components.

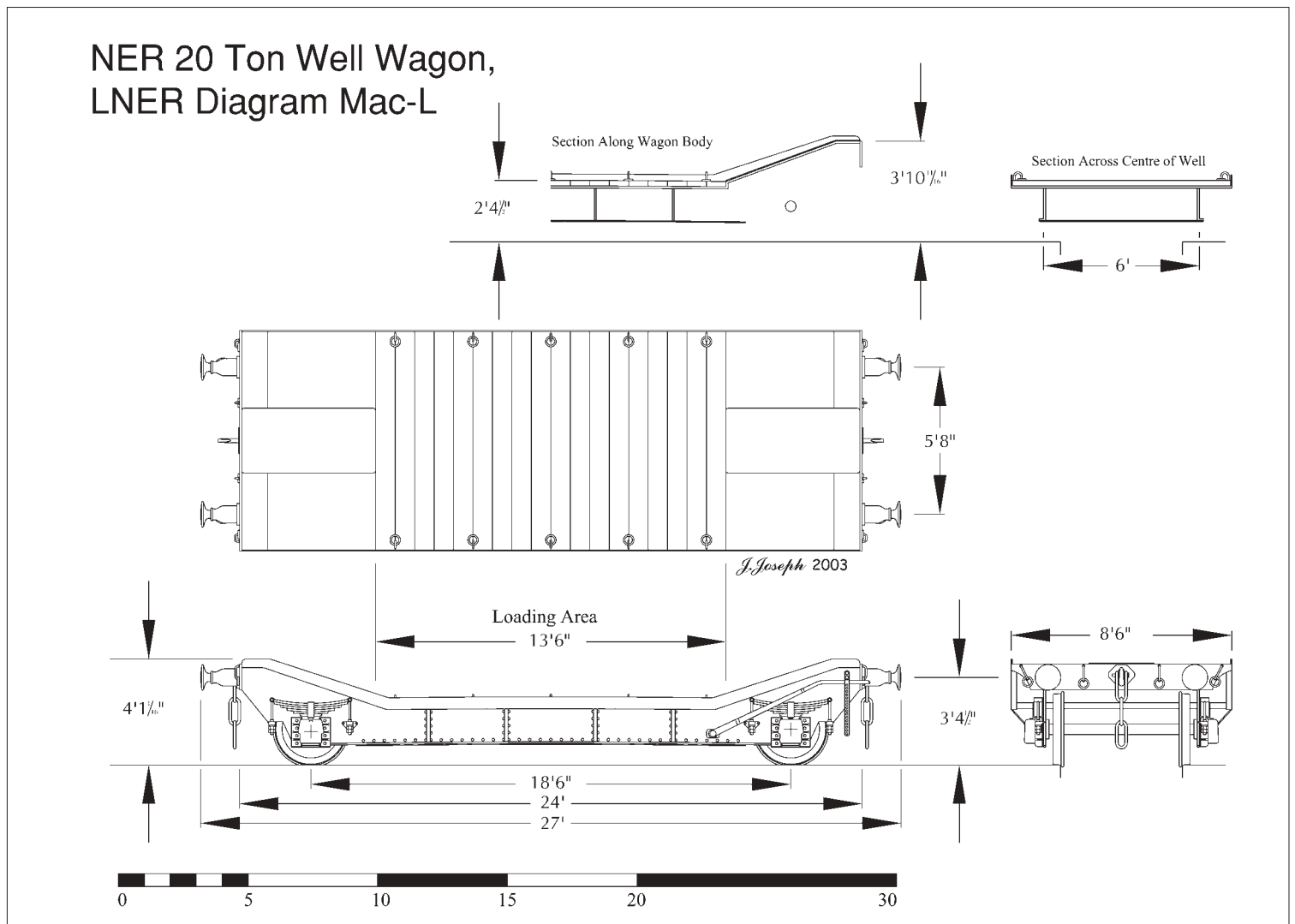
The drawings show the normal plan, end and side views. The scrap views show a cross-section through centre of the loading platform, and a longitudinal section through half the wagon's length. Of note, are the 'side' walls to the platform, which unusually are taller on the ramps than on the flat sections. Securing rings are shown, but not the many yards of chain that would have accompanied each

wagon to secure the load. Construction was steel, except the wooden deck.

One factor not particularly visible to the naked eye, but which will be apparent from suitably accurate measuring, is that the wagon bed, like any other bridge, bows upward when unladen; the ends of the 13'6" long loading platform stand 2'4" above the rail, the centre 1/2" higher. As the payload increased towards the maximum capacity, the centre of the wagon would drop and flatten out the curve slightly, returning to its original shape when unloaded.

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Photographic competition results

The winners: Michael Mutimer, Alistair Grieve, Rupert Hatch, Kevin Mayfield



We are delighted to report that our first photographic competition stimulated a considerable number of entries, some from already familiar contributors, others from names new to us. They encompassed a wide variety of interesting subjects, some contemporary or recent, others historic. Our thanks to all who took the trouble to enter.

Many of the submissions were more than competent technically, and some were very impressive, so it was soon apparent that we were looking for something a bit special, that little extra, to distinguish the winner.

Perhaps not surprisingly, prototype submissions outweighed model both in quantity and, it must be said, quality, which no doubt reflects the difficulty of taking photos of models.

The entries set our panel of judges, which included our own expert photographers Len Weal and Steve Flint as well as the editorial team, a difficult task: agreeing on a final verdict took much longer, and involved much more debate, than we had anticipated! It was difficult enough to agree on a short list of photographers, choosing just one of their three submissions proved even more problematic!

However, a result there must be and we are pleased to announce that the first place winner is Michael Mutimer of Burton-on-Trent, with a stunning night view of former L&Y 'Pug' No.51222 at Goole Docks. Mr Mutimer will be enjoying travelling First Class to anywhere on the Virgin Trains network plus overnight accommodation, with OO models by Dapol of the 'Pendolino', and by Bachmann of the 'Voyager' as souvenirs.



Second place goes to Alistair Grieve of Weoley Castle, Birmingham, with a branchline cameo of BR Class 14 0-6-0 diesel hydraulic D9555 at Parkend in the Dean Forest with a ballast train in April 2002 – a view full of detail for the modeller.

Third came Rupert Hatch of Midhurst for a dramatic view of a Class 317 EMU on a local service from Hertford North approaching its destination at Kings Cross early in April 1992.

Highly commended was Kevin Mayfield of Sedgwick near Kendal for a shot of preserved LMS Coronation Class No.6233 *Duchess of Sutherland* with the northbound *The Lord Bishop* passing Sedgwick on the West Coast Main Line three miles south of Oxenholme on 17 May 2003.

Our congratulations to the winners: to everyone else – thanks again for entering, and better luck next time!

Bonis Hall Farm

In 4mm scale

Ken Ball uses a combination of modern and traditional techniques successfully.

It is almost 30 years since I built the model of Butley Farm that featured on the *Butley Town* layout. In the mid 1970s the range of material finishes was very limited. Building papers, on the whole, were rather stereotyped, although Builder Plus produced a more realistic range with their printed papers, but the result gave an overall 'flat' finish. In those days the alternative was applying individual 'card bricks' (chads) which, when stained with wood dye produced a most realistic finish that captured the hand-made appearance of the prototype.

Modellers today are blessed with excellent ranges in etched brass, die-cast fittings and moulded plastic sheets covering virtually the whole range of building materials, as well as many finely moulded plastic accessories.

Therefore, when I agreed to build a model farm for Terry Smith's layout, I wondered whether I could combine the more modern building materials with some more traditional applications. Would they blend together well or would they be in conflict with each other? With some trepidation, I opted for the solution of not only very carefully choosing the most suitable building materials and finishes, but the overall style and shape of the structures, hoping that they would harmonise together.

I envisaged this farm to be one of several on the Bonis Hall Estate whose main output would be cereals and root crops as opposed to cattle rearing. Hence the small provision and facilities for livestock on the model.

The house

I based this on a drawing featured on the plans page of *The Model Railway Constructor* (issue not known) of the 'Bell Inn', by A. Razzell, based on drawings of the 'Cricketers Inn' at Meopham, Kent. I used artistic licence to make a few minor modifications to the original to render the building more in keeping with a farmhouse than a public house.

Slaters embossed stone was selected for the finish on the walls, with the majority of the windows and surrounds from the Wills accessory pack. 40 thou Plastikard was used for the basic shell with the stonework laminated onto this with double-sided tape.

Contrasting with the stonework, the chimney stacks were finished in brick with the colouring applied by using artists pencils (as described in the *Railway Modeller Explored* fact sheet 8.13). The high level water tank and supporting timber framework was featured on the original, so I decided to include it. Its purpose is a mystery to me, but it looks the part!

I gave walls a thin coat of Tamiya Deck Tan for the mortar colour. The stonework was then dry-brushed with Tamiya Olive Drab. When dry the whole surface was given a very thin wash of Deck Tan to produce a rather subtle weathered appearance. Strips of embossed slates were added to the 30 thou Plastikard roof formers. The cement fillets to the chimney stacks were formed from modelling clay, sealed with PVA glue, then painted and weathered. The

pots are from the Scale Link range and the gutters and downspouts are plastic rod.

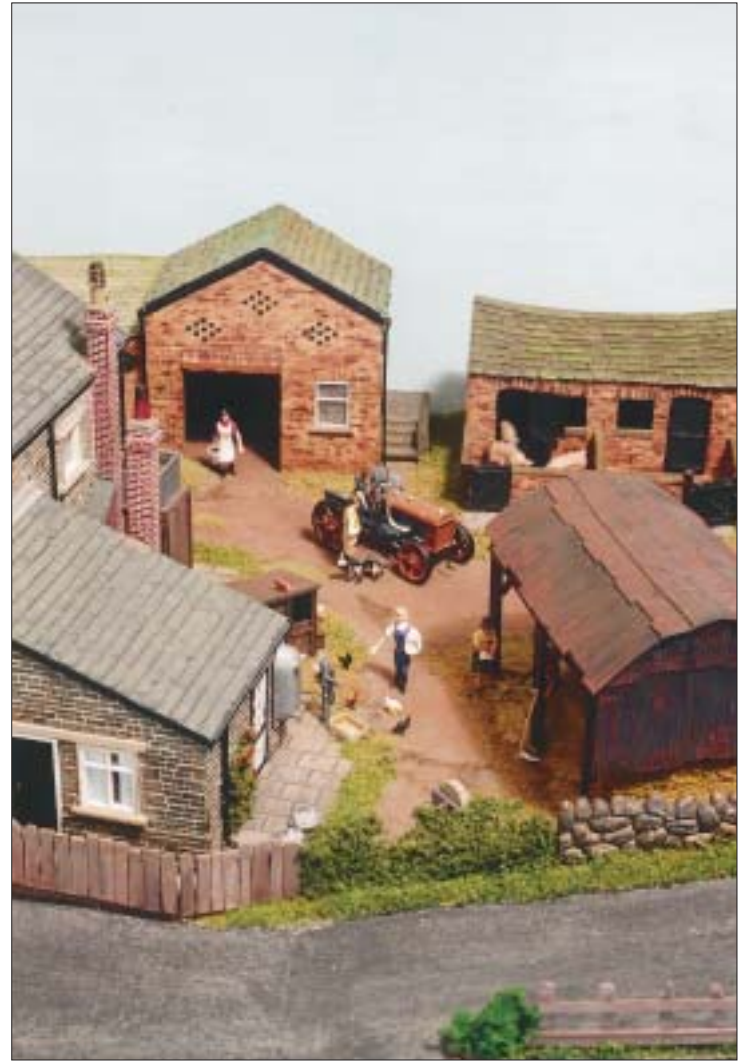
Dairy and pig sty

For these two buildings I had decided to use individual card bricks on the walls. This is where the clock was turned back in time! The bricks were applied to the walls before assembly. A little practice was required before I got into the swing of things, but it also gave me the opportunity to demonstrate the technique at exhibitions. Thirty years ago the idea was regarded as a breakthrough from the conventional brick papers. The comments nowadays are 'you need certifying' amongst others!

The characteristic 'bow' in the roof was formed prior to individual 'stone' slates being added. These heavy stone slates are a prominent feature in South East Cheshire, the material being readily available from the local quarries. The larger ones were placed at the bottom of the roof and they diminish in size towards the ridge. On the model, these were individually cut to size and shaped from 20 thou plastic off-cuts – and almost 400 of them! Tamiya Khaki Drab was the initial colour brushed all over then a diluted wash of Olive Drab was applied, before the light green moss effect was added by 'stippling' with the paint being dabbed on with the end of a finger.

I stained the card bricks with Colron Teak wood dye, with the colour variations being highlighted with Mahogany and Cedar tones.





The dutch barn

The rear and one end wall were cut from 30 thou Plastikard. Slaters corrugated plastic cut into 24 x 12mm sections was applied to the inside and outside surfaces using a solvent. Each corrugated sheet overlaps the previous one, as standard procedure. The front supporting girders were fabricated from Plastruct and made to form a complete unit. They were then attached to the inside face of the end wall. A shaped section was added to the open end to keep the structure reasonably square.

The curved roof shell was formed by securing a rectangle of 30 thou plastic around a jam jar, then placing it in a bowl of hot water for a few minutes, and finally immersing in cold water and allowing to harden. When dry, it was trimmed to size and secured to the walls. The corrugated sheets were attached with solvent.

Ratio vacuum-formed carriage shed roofs could be used to save time (and hassle!), but I didn't have any!

The barn was given an all-over coat of matt black, with Humbrol Rust dry-brushed on afterwards. The roof was then given a very thin wash of Olive Drab. The hay is yellow pan scourer, teased out and given a wash of Desert Yellow to tone it down.

Opposite page: This view illustrates the effective weathering of the stonework on the farmhouse and the subtle toning of the individual brick 'chads' on the walls of the dairy.

The storage barn

As this represents a slightly later addition to the farm complex, Wills planking and corrugated iron moulded sheets were chosen.

My reasoning for the barn was that it replaced an earlier structure, this one having a framework of steel girders in-filled with a stone plinth with walls constructed from ship-lapped planking attached to a wooden framework. The building size was governed by the length of the Wills sheeting – no vertical joints in the roof were required.

When the assembly was completed, the planked walls were given a coat of dark brown, the girders painted rust, and as the base colour for the moulded roof was in a pale grey, the desired finish for the roof was achieved by giving a couple of washes of rust colour. The walls and girders were given a weathering of Olive Drab for the subtle toning.

Detailing

The base for the diorama was constructed from laminations of foam-board and each individual building was mounted on its own base. The outlines of these were marked on the surface of the baseboard in readiness for forming the land contours. The base for the farmhouse for instance included the paving, fences and walling in addition to the front garden, thus disguising the telltale dark line which is so often seen at the base of model buildings.

Contours were formed from off-cuts of foam-board and stout card. These were covered in random layers of rough paper (the type used underneath vinyl flooring) to create the uneven texture found in farmyards.

The entrance has a gentle slope down from the lane to the centre of the yard, rising up again past the barn and implement shed and ultimately, to the fields beyond.

Once all the buildings were securely fixed in their slots, scenic scatters were added after the earth colour had been applied to the yard area. This disguises the joints in the bases.

The scene was completed by various items of farmyard 'clutter'. Farm workers go about their daily tasks and it seems the estate manager has paid a visit. He appears to be in deep discussion with the driver of the tractor.

Grateful thanks to Steve Flint for the superb photographs and also to Terry Smith for giving me the opportunity to use various constructional techniques spanning nearly 30 years.

Above left: the estate manager is in thoughtful discussion with the farmer on his tractor. The brick chimney stacks contrast well with the stone of the walls on the farmhouse.

Above: a busy scene in the farmyard, no doubt prompted by the visit of the estate manager! The heavy stone slates have caused the roof of the pigsty to develop a 'sag' so characteristic of prototype farm buildings.

Photographs by Steve Flint, Peco Studio.

Tupdale – 2

Modelling the Yorkshire Moors in 4mm scale

Andy McMillan continues his trilogy, part one of which appeared last month.

The bridge over the river. Why?

There are two railway bridges on *Tupdale* and the first of these is a two-arch structure over the *Tup*. This is based on a five-arched structure on the *Hawes* branch, even down to the dry-stone wall edged lane sneaking in tight to one side. It was also a most desirable feature in that having a river running under the railway would make most people think that there just was not room for any hidden sidings under it. However, by using steep but not insurmountable gradients, (1:40) it proved feasible. Note that unlike *Appersett*, my arches only have about 90° of arc, which gives more useable height in the corners. There are several examples of this form of construction on the *S&C* main line, most notably the one at *Helwith Bridge*.

Method 1

Made in much the same way as the viaduct there are just three new mouldings here; a side complete with both arches, a 'thick' pillar with three sides and a 'thin' side with just the face. Since it is impossible to see both sides of a bridge at the same time, the repetition of the side mouldings is impossible to spot. As for the pillars, these were made with proud string courses at both top and bottom and can thus be used either way up. Since they have two faces and can be turned around horizontally, it has been possible to make all four faces of the supports different which helps the deception.

The side walls supporting the embankment on either side are simply more *Wills* stonework with coping stones hand made and cast in 8" lengths. The parapets are more of the same mouldings as used on the viaduct. The pillars at the ends of these coping stones were made in one length by spreading car body filler around the four sides of a wooden rocket stick.

Local touches, taken from photographs in landscape books of the area, are the clapper-bridge and the sheep-proof gate across the footpath (the two flat, curved-edge stones between two dry-stone walls). The small tree was an afterthought, but it softens the stark lines of the masonry to advantage.

The road bridge

The second bridge is a brick road overbridge of which there were many examples on the *Settle & Carlisle*. Such a typical structure is not only desirable from the point of view of reinforcing the location but was included for a more basic reason. To fit the layout into such a small room, it was necessary to curve three tracks around a sharp 180° curve. Since this is



ridiculously toy-like it was vital to disguise it in various ways. I only know of two apart from placing it in a tunnel – and I had two of those already – hiding it behind something tall and distracting the eye by providing something more interesting for it to look at. I used both devices. This is a vital part of appearing to give the model 'space' and provides a crucial link between the trains and the landscape through which they run.

Method 2

The surface of this model was brick and would therefore be flat, so the model was made from 1.5mm card. Since the model was to fit over three tightly-curved tracks it was also important to get the clearances right. Once happy with the fit, not only across the tracks but into the surrounding hills as well, the model was removed from the layout and given a coat of brick paper. The outstanding stone courses were then added as well as the thickened buttresses at each end and both were covered with a row of card coping stones. At this point the arch over the *Up* line only was given a strong blast of black spray paint to represent soot and the rest weathered with watered-down acrylics.

It was important that the model should be substantial in construction since the bridge would be used as a handle to lift the whole area of scenery behind (which was attached to a hinge just below the top of *Tupdale Pike*), so the roadway, and some supporting arches beneath it, were made of plywood and glued and screwed to the framework supporting the scenery behind. The whole ensemble serves

Above: the bridge by 'The Summit' public house. Nowadays the road would have 'Low Bridge' warning signs, but probably not in the 1950s.

Photographs by the author.

its several purposes well and I am delighted with the result.

Tunnels abounded on the *Settle & Carlisle* like spots on a *Dalmatian*. There were fourteen in just sixty miles while even the short branch to *Hawes* sported one so I had absolutely no compunction about putting two tunnels on an *S&C* model. What wonderfully typical Victorian creations they were too; lofty, stylish and grand.

Any brief perusal of *S&C* tunnel mouths will show how very similar they all are but most are in fact quite unique to their location. Upon careful study, however, it becomes apparent that despite their uniqueness, there are two standard elements that link them all together and make them specifically *Settle & Carlisle* structures. These are the shapes of the tunnel mouths and the buttresses that frame them. All the other elements, such as building material, colour, the positioning of the buttresses and even the type and position of capping stones along the top vary widely but these two features remain consistent. They must therefore form the heart of any model.

Creating the moulds

To this end I drew an elliptical tunnel mouth shape on some paper. It can be flatter or narrower to begin with, but once the root is chosen, it remains a constant shape. The chosen

shape was lengthened until the tunnel mouth would clear trains on a curved double track of 18" and 20½" radii. Fortunately S&C tunnel mouths were not only generous in their clearances but very tall too.

The completed paper arch was cut out and mounted onto a 3mm sheet of ABS plastic and the line of the arch scored directly onto the face through the paper. The paper was then removed, as was the unwanted plastic from inside the ellipse. A second line was now carved some 8mm from the first to show the opposite edge of these dressed stones and the excess removed to leave just the mouth of the arch.

The individual stones were now carved into the ABS. Again I used the familiar Wills stone sheet as the basis of the stonework surrounding the mouth, merely changing some parts of it to represent the much larger stones found in the generally massive S&C masonry. I allowed a couple of rows of stonework above the key-stone and an inch or so either side of the arch. Two tapering buttresses were now created to the same height and the stonework taken around the edges to match, as far as possible, the stonework either side of the tunnel mouth. These would later be glued into position as per the chosen prototype.

Those tunnels which had extended retaining walls beyond these buttresses could now easily be represented with more of Wills stonework glued to the back of them, the joint being hidden by the buttresses themselves.

To complete the structure, two alternative caps were made for these buttresses and two different rows of capping stones to fit between them above the tunnel mouth. One was made from similar stone sheet with a protruding course beneath and capping stones above as per Blea Moor Tunnel. The other was made from wood representing heavy L-section stones of a deeper section but lower in height, as per Birkett Tunnel. All these bits were now glued into a casting box and sent to the local caster who produced from them a rubber mould from which he could cast copies in resin. It will be understood that these castings now form a basic kit of parts, which can be assembled in a variety of ways.

Two sets of this tunnel mouth 'kit' are needed for a single mouth since the two sets of upper parts thus obtained are designed to be placed back to back so that fully four-faced caps can easily be produced which will look as good from behind as from the front. By creating two different types in the same mould however, two pairs of different caps are obtained from those two sets of castings so that two complete, but slightly different tunnel mouths, can be made using just two 'kits'.

Further variations to represent other S&C tunnel mouths could be obtained by changing the upper masonry and capping stones, adding date panels, changing the distance between the buttresses and by the colour of stonework selected when painting the finished model. By this means, a wide variety of typical, but subtly different, S&C tunnel mouths can be produced from the same kit of parts.



Tupdale tunnel

The first of the two I modelled is Tupdale Tunnel (under Tupdale Pike) and here, where the tracks are all but straight, the original parts were cut down about ½" in height so as to make the mouth fit more sensibly into the slope of the hillside behind it.

Despite cropping, this is still an impressive tunnel mouth of considerable height, so that with the angle at which it was to be seen, I needed to put nearly 1' of stonework inside the mouth to make it appear lined! In such cases the lining would almost certainly have been in brick but, from the few photos I have seen of real S&C tunnel mouths, all the lining I could see was in stone. I suspect therefore, that the Midland Railway lined the inside of its tunnels in stone for at least some 20' or 30' so that it looked right through the carriage window upon entering.

The Midland seems to have been as thorough in its masonry standards as it was with everything else.

On this tunnel, the tapered buttresses are close to the mouth which made it necessary to keep everything as tight as possible. Supporting wing walls are required parallel to the track for a short distance and are made from more Wills stonework. These are again capped by my own coping mouldings, only this time of a rather flatter, less detailed type than that used on walls readily accessible to the public such as described in the section on bridges.

The entire arrangement was copied from Blea Moor Tunnel, although more in its detail than in its actual layout since that tunnel had a far lengthier approach than the one I have modelled.

Tupdale quarry tunnel

The other tunnel is the one by Tupdale Quarry Signal Box. This is the situation for which the tunnel mouth was designed. Here the full height of the moulding is used because of being on a tight curve. I needed as much room as I could get at carriage cantrail level

Above: the finished Tupdale tunnel mouth. The work has produced the desired result, the mouth fits the location perfectly.

because of the excessive overhang on the inside of the 18" radius curve, especially since I wanted to be able to run a twelve-wheel 65' dining carriage.

The biggest overhang on the outside of the curve was not the coaches, but the loco cabs, especially that of the Hornby 'Coronation' class. I know they were not used on the S&C in 1955, but the line has seen them in more recent years and, like all commercial engines, they might be run on the finished layout so clearances had to be arranged to suit.

Because width was not much of a problem, I could set the tapered buttresses much further apart and so I based the general layout on Shotlock Hill Tunnel, with the detail taken from the South end of Birkett Tunnel; the North end had different buttress cappings, at least on the Up side.

By using these prototypes as a basis for my model I have been able to produce two distinctive and realistic originals which nevertheless remain entirely faithful to S&C practice, much to the enhancement of the model.

Painting of both was precisely as described for the viaduct except that black was worked into the stonework directly over the running lines, especially on the side where trains would be working hard up the gradients, to represent the soot deposited there by thousands of belching chimneys.

Walls

Now I have to admit it; walls are pretty boring things and we tend to take them for granted, but for a model-maker to do so is in fact a mistake. Let us begin by looking at a wall which is unique on the S&C and is an integral part of another model already described.

The vernacular stone wall which supports the embankment at the right-hand end of Tupdale viaduct is a strong feature and, like the viaduct itself, is taken from the structure at



Left: this is the completed vernacular wall which shores up the embankment next to the viaduct.

Ais Gill. This wall supports the railway at a much steeper angle than an unsupported embankment could and is necessary to allow room for an ancient right of way which turns sharply under the first arch.

It was created by curving a length of 1mm card to fit roughly the gap between a specially-widened railway track bed and the basic plaster landscape. This was trimmed to fit precisely, glued in place and then roughly coated in car body filler. After 24 hours, it is perfectly hard and takes a knife very well. This was done with a scalpel, angled first one way and then the other, literally to carve a thin strip from the surface in a vaguely horizontal fashion. Several lines were done following any 'strata' created during the spreading of the filler and using these to provide several changes in surface depth.

These can occur over the years as the embankment settles. The areas between these lines were then carved into individual stones and within a few hours the whole feature was complete except for painting, which was done using the same techniques and mix of acrylics as mentioned earlier.

The whole area was finished by topping out with a dry stone wall, and given a coating of watered-down wood glue. The flat area between the two walls was given a few judiciously placed lumps of fallen stone before being coated with various grass colours, mainly Woodland Scenics 'Burnt Grass'. The area below the vernacular wall was given much the same treatment, albeit without the fallen stone, while rather more 'weeds' were added from a variety of darker colours.

Final detailing included a few taller grasses and the ubiquitous telegraph pole, the latter carefully modelled on one of several different styles used on the S&C.

Faces beneath the feet

The station platform faces, like the cattle dock platform walls, are made from sheets of Wills stone walling. Both have cardboard edging stones, cut and laid individually on the curves, most of them trimmed down from their original 3' x 2' size to account for the curve of the platform without leaving large tapering gaps. These edgings are carried right down to the

platform ends which end at rail height so that wooden walk-ways can connect the platforms. The Midland, it seems, expected few passengers at these very rural stations and could hardly have been surprised to find they were right.

Dents in the landscape

Mention has been made before to create the atmosphere of a typical Settle & Carlisle station by including as many memorable features of the line as practicable. Since any curve in the line needs a reason, what better than a decent sized hill to provide that reason. This gave me the opportunity to provide a fine stone supporting wall like the one at Dent.

I make no apology for including such a very familiar landmark but while my wall is deliberately similar, it suits the landscape it is supporting and has sufficient changes from that at Dent to suggest it is not a copy, merely an extension of a style already used on the line elsewhere. Nevertheless the style is a strong indicator of where we are and which line we are on.

It is produced from Wills walling again, this time without any added larger stones. It is capped by some mouldings of my own production made from 60thou plasticard cut to 4mm width, half-sawn into individual stones and then attacked mercilessly with the tip of a soldering iron before being sanded to its final rounded, pockmarked shape.

Larger, deeper square stones of a similar finish adorn the corner and end buttresses. Similar walls can be found alongside the line where an embankment has slipped (just beyond the platforms) and as retaining walls by bridge and tunnel mouths. All these are modelled from a variety of originals on the S&C and so appear convincing.

The one common feature of these walls is that they are all laid 'wet', or with mortar. There remains, of course, the most common wall of all on the Settle & Carlisle Railway, the dry stone wall.

Dry stone walls

With some 60' of actual face required, creating this by hand was never an option but then nobody produced a realistic, easily-worked

moulding that would do the job. I would have to produce my own!

Creating an original length of wall

I used a pair of electrical cutters to chip up odd pieces of fallen slate we had found in the garden; I live in an old Victorian house. I picked the best pieces and glued them, one layer at a time, into a plywood mould 6mm deep by 14mm high by 8" long. I started with two interlocking end pieces and once dry, these were separated and used to create two more interlocking ends, after which the middle sections were laboriously constructed to complete two 8" lengths of dry stone wall.

When thoroughly dry the interstices were filled with a layer of Milliput, which was then largely brushed out using water and an old toothbrush. This left a complete surface suitable for moulding; had I not filled it, the rubber would have filled the gaps instead and then been torn out leaving unrealistic shapes in the finished mould.

Assembling the castings

At this stage, the track had long been laid and the basic scenic shell completed in plaster. When it came to fitting the dry stone walls, a coarse square file was used to provide a narrow flat bed and the area coated with a layer of watered down wood glue to seal the plaster so it was not porous. As to using the mouldings themselves, assembly was simplicity itself.

Starting with the difficult section around the tunnel mouth beyond the viaduct, pieces were laid along the gentler slopes as they were, heating each piece on the edge of the Rayburn as necessary to curve it horizontally. Where the gradient changed, each piece was sawn vertically and a small wedge removed from top or bottom before gluing down allowing the wall to follow the contours. Where the gradient became steeper than about 1:5 I filed away the bottom edge so that the piece fitted into the hillside.

The next piece was then laid on top of the last, both ends sawn at an angle approximating to that of the slope the wall was climbing. By this means, layer upon layer, gradients up to 1 in 2 could be completed easily. The upper layers gradually became longer and with ends sawn at less of an angle until the point was reached at which complete sections could again be laid end to end.

All assembly was done using car filler, enough being mixed to fit just one piece at a time. Each piece was then left for a couple of minutes so that the filler had hardened but not gone off completely. At this stage a scalpel was used to flick off any excess which had squeezed out of the joint either between the two pieces or between the new piece and the ground. It was found that if two different sections of wall were worked on at the same time, by the time one piece had been fitted to one wall, the previous piece fitted to the other was solid and construction could continue turn

Right: a few hand-laid stones create a drainage channel prior to the moulded wall being laid over the top.

and turn about without wasting any time. By this means some two separate yards or so of wall were laid. By now the earlier sections had set completely and it was possible to fit the opposite side of the wall where they could be seen.

Once both sides had set thoroughly, perhaps an hour or so, it was possible to file the top edge to a roughly flat surface and lay the coping stones. These were moulded in two different 8" lengths and were of two different sizes, one a little larger than the other.

The first task was to sand the mould up and down on a piece of rough oxide paper to get rid of any moulding flash which had been left when pouring. As this was done, each length tended to disintegrate into pieces, which was fortunate since there were few sections of wall flat and straight enough to have fitted them as they were! Since all these odd bits got mixed up and turned round, variety was virtually guaranteed so no attempt was made to select different sections of the mould for contiguous sections of wall, just a bit of about the right length and width.

It was found that some sections of the wall had been moulded thicker than others and to save time, the thinner bits were used back to back where the wall could be seen from both sides thus saving sanding time; the thicker bits were used where only one side would be seen, thus giving a wider surface to which to glue the capping stones. Since these are mouldings, one side is flat and the other detailed, which meant that no undercuts could be incorporated; at least, not if the mould was to have any decent life-span.

While this lack of shape under the capping stones was not apparent at a distance, I felt it might look odd up close. To counteract this, each small section of capping was fitted with a genuine chip of left-over slate which, naturally enough, had sharp edges on all sides. By carefully selecting a variety of larger, squarer or longer bits, it became easy to create the impression that all the coping was hand-laid from individual stones whereas in fact I doubt if 1% was made from these individual pieces.

Features

In certain places, where I felt it necessary, a few individual features were created to add interest and to make some sections different from others. They include a 'step-over' made of long thin slabs which go right through the wall so that people can walk up the steps and over the wall.

In other places, long stones have been used to provide simple drainage channels. Carefully rounded corners have been made from individual chips of slate and sudden gullies have been bridged by gluing a few layers of slate beneath the wall, which can then continue in a straight line. In one section, where the wall of the lane hugs the side of the nascent Twp, three layers of walling have been used, one on top of the other, to support the road surface at a



useable level. (Note the three drains from the road issuing through the wall above the stream.) At other points, the wall has been allowed to fall into disrepair, but only by the farmer.

One final feature that just had to be modelled was the addition of a post and barbed wire extension to the walls to add a bit more height. Seen in almost every photograph of the S&C taken in the 50s and 60s, this fencing seems to have been added between the wars to certain sections. Either way, it had certainly become necessary to add height to the railway boundaries and these wires can be seen on almost every section. I made mine mainly from straightened-out furniture staples with the odd thin twig, filed down match or off-cut of wire as appropriate to suggest replacement of the occasional snapped timber.

The wire itself is cotton. Painting this was fun since if it matched what was behind it in tone it could not be seen while if it was too bright it looked like cotton painted light grey rather than a single strand of barbed wire. Therefore, some sections are pale grey to show up against dark backgrounds, some are a dark rust colour to show up against the grass while other bits are flecked here and there with a variety of colours; pale grey to suggest replacement pieces and reds and dark browns to suggest different levels of rust and ageing.

Painting

Painting of the walls themselves was again in acrylics. First the filler, where it showed at the joints, was carved into various lumps of stone and then painted a dark grey to match the stone mouldings. This would later give the necessary shadows.

A day or so later, so as to allow the paint to not only dry on the surface but to go quite hard as well, I mixed up some light brown and added just a touch of black to give a medium brown. This was dry-brushed over all the stonework for a foot or so and then a touch more white added. This was applied again over the same section but with lighter, more delicate strokes, thereby missing some of the stones and allowing some of the base colour to show through. Again more white was added thus adding a further colour, this time deliber-

ately flicking only a few of the more prominent stones.

Where it was felt sunlight would be reflecting, a touch of neat white was dragged over the upper surfaces, going over again with the same brush any pure white areas so as to pick up the paint underneath and tone the white down.

In some areas this was exaggerated by adding further coats to brighten or dull the stonework while in the station area, a little red was added to the basic mix to warm the colour. This was done partly to create variation, suggesting the train was passing stone from a different area and thus increasing the apparent distance travelled, and partly because I wanted to make the station buildings a warmer, more inviting colour to make it appear a friendly haven in an otherwise inhospitable environment. Naturally if this were not to look odd, the stonework of the platforms and surrounding walls would have to have hints of the same colour. It is subtle but I think it works.

Finally, a careful inspection of the walls showed up a few rather obvious joints. Where these could be easily corrected this was done and the area repainted, but where this was impracticable, it was simple to add a tuft of that strong, apparently inedible grass which appears in so many photographs of the Settle & Carlisle. I used carpet underlay and dog hair of the right colour.

I must admit I did wonder for a while why the railway used such time-consuming methods for its boundaries but, since it was obviously before the days of stainless steel wire and fence posts, the weather in these mountains would have made short work of traditional timber posts.

It seems sensible therefore that the Midland followed the tried and tested methods of farmers in the area and made its boundaries out of the same stone it was hewing from the ground to create the roadbed. In so doing, the railway was naturally following local tradition but there was an equally ancient traditional stonework in the area which also needed recreating if I was really to capture the feel of the area.

To be concluded.

Economy wagon construction – 2

Budget models in 16mm scale

John B. Harrison presents three more members of the fleet which was introduced in November 03.

Welsh Highland Railway brake van No.2

This next wagon was also out of the *Welsh Highland Railway* book of drawings.

This is constructed in a similar way to the Festiniog Rly No.2, except that the roof was glued in position and the glazing was cut out individually and glued in place.

There are two sliding doors (one each side) and these were made to slide; silicone grease helped here.

The running gear and wheels were scratch built, similar to Croesor wagon gear, brakes etc., and are built up as per the drawing, using scraps of different materials and the spare set of brakes from the wagon chassis kits used on the other wagons.

The chassis and floor are wood & plastic as those on my other models. The sides and ends are built up around this using 80thou plasticard, scribed to represent planking. Once glued together, strapping made from various thicknesses and widths of plasticard was glued on where necessary. Screw and rivet heads were represented with 1mm squares of 20thou plasticard, flooded with Mek-Pak plastic solvent.

Vacuum pipes were bent up from 1/8" diameter copper pipe with flexible plastic tube pushed and glued onto the ends of them. Two pipes were made, pushed through holes in the ends of the van, cut, and joined by wrapping a small strip of paper round the two ends and coating in superglue. Pipe fastening brackets were made from brass shim, cut to shape and punched from the rear to represent rivet heads. Coupling hooks and chains were made from copper wire for the chains, as the Croesor wagons, but steel hooks cut from tinplate. These can be coupled using a magnet on the end of a thin piece of dowel. Buffing strips were made from two brass strips with rivets embossed as before.

On the cover of a book by Don Boreham is a model of WHR Brake Van No.1. I am not sure if it is the right livery, but I have copied it anyway for my No.2. This is a pale matt red oxide colour on the body (I picked the nearest colour in the Humbrol range) with a matt black underframe and a dark grey roof. Brake pipes were picked out in matt black with grey flexible pipes. The lettering and numerals were modified Letraset rub-on transfers.

FR Cleminson six-wheel iron coal wagon

The next wagon was the hardest of all. On the FR this wagon is simply called the 'Cleminson' after the person who designed the six-wheeled flexible chassis. This is a one of a kind wagon (the prototype has recently been rebuilt) and as far as I know, there are no other



wagons of this type in existence.

The wagon is about 9" long and built up out of pieces of brass sheet, angle and channel soldered together. The floor is made up though of 1/8" plastic sheet with framing (down each side) of 1/8" square wooden strips. There are two brass doors at one end. These were also soldered with working brass hinges. The angle-iron frame around the top of the wagon was represented using 3mm brass angle soldered onto the top edge.

All the other strapping was superglued plasticard strip; this keeps the weight down. This had also been embossed with rivet detail beforehand as on other wagons.

Wheels and axles were made as earlier sets, only from mild steel, not brass. W-irons were folded up from brass sheet, with brass axleboxes soldered on. These were made from brass rod 3/8" x 1/4" x 1/2" long and drilled to take nylon bushes as before. The two end sets of W-irons had their frames drilled so that they could be bolted onto the wagon floor and pivot. Two pieces of 8mm x 3mm brass channel were soldered onto each end set and pivot arms with vertical pins, soldered on.

Before these were bolted in place, the centre wheelset had to be built up.

The W-irons for this set were soldered onto a plate that slid across from one side of the wagon to the other, in two pieces of 8mm x 3mm channel which were soldered to the chassis sides. The plate had two slots cut in it (along its centre line) in which the pins, from the pivot arms on each end wheelset, were

Above: 16mm scale Saltford Models Ruston 'Suki', Talylyn wagon, Festiniog slate wagon No 261 and ex-RAG wagon No.87, sitting on 7 1/4" gauge No.87.

Photographs by the author.

guided when the wagon went round curves. The design of this varies slightly from the original, but it works!

The wagon sides were drilled to take small fastening rings (for tying covers, etc, on), made in the same way as for the Croesor wagons, and glued in position with fuse wire in the same way. Sprung buffers were made in a similar way to FR brake van No.2, but were of the type that had the coupling chain fitted to the buffer heads, rather than the buffer stocks.

A dummy brake handle and ratchet was made up out of brass sheet and soldered and superglued in place.

Once tested, the whole wagon was sprayed in car primer and then Humbrol gloss black spray. When dry, the panels were picked out in a gloss dark tan colour, which I now know to be wrong, but it looks all right for now.

The wagon is a joy to watch on winding track; Mr. Cleminson's principle works as well in 16mm scale as it does on 304.8mm scale!

Festiniog Railway No.87

The real wagon was bought from RAF Arlweiss along with several other wagons of a similar type, and has two drop sides with a platform at one end through which the brake column operates.



Above: Welsh Highland brake van No.2.

Above right: Festiniog railway Cleminson 6-wheel open wagon. Brass body, wooden frame, plasticard floor, brass chassis, steel wheels and sprung buffers.

I measured this wagon up myself along with the chassis of Hudson bogie wagon No.71 in Minfordd yard a few years ago. Unfortunately, I only had an hour before the next train back to Porthmadog and did not have time to make a proper note of the brake gear arrangement. Even so, I drew the wagon up in 16mm scale and decided to build one. I have built another of these wagons since, in 7¹/₄" gauge; it was less trouble to build, being less fiddly!

I made up the floor and solebar sections in wood and plasticard. The ends were made next, from 60thou plasticard supported with two pieces of 8mm x 3mm brass channel, superglued in place.

Making the hinges from thin brass strip was a little tricky; these were tapped into shape round thin wire using a small hammer. Six sets of these had to be made, plus stocks and four latches. Once made, the rivet detail was punched in behind each strap and the hinge pins fitted. The hinges were then cut to size and superglued in place, onto the chassis sides. The latter were made out of 60thou plasticard.

The drop down doors were made from 30thou plasticard and glued onto the other halves of the hinges. Strapping for locking the doors shut, was made next from the same thickness brass strip as the hinges and superglued onto the doors. Door supports were then made from 3mm brass angle, one each side of each end. When these were dry, sections of 3mm angle were superglued all round the top edges. These, when dry, were then radiused on each corner, with a file. Door pins were then made out of bent wire and fixed onto each latch with fuse wire.

Wheels were supplied from an old Big Train ore wagon chassis (with the flanges ground down) and four pieces of brass square

bar drilled 'clearance' size to suit the axles, made the axleboxes. These were glued onto the chassis, then pieces of 20thou plasticard covered the outsides of these axleboxes, with about a 1mm overlap all round, to simulate the cast shape of the real axleboxes.

The bracket for the brake column was made from brass strip and drilled 1/16" to suit the column made from 1/16" silver steel. A handwheel was made using a wheel off an old plastic toy car.

Dumb buffers were made up from wooden blocks with radiused faces skinned in 20thou plasticard. Coupling pins were made from thick copper wire with shaped copper heads soldered on.

The whole wagon was sprayed in grey primer and hand painted in gloss mid-grey. Sky blue panels were painted each right-hand panel of each side, and each left-hand panel of each end. These were then numbered in Letraset rub-on transfers No.87. The whole wagon was then sprayed in Humbrol matt lacquer.

I think that some of the real wagons have been painted in these colours now, but at the

time I measured up No.87, it was rust, grease, and muck coloured!

These wagons were built over a two to three year period, along with nine locos, seven coaches and a 14' long station layout, all in the same scale. If I can build them, then anyone can!

Conclusion

Since I started in 16mm scale, many more fixtures and fittings have come on the market although these all add to the cost. No.87 only cost 60p to make as it was made from bits out of the scrapbox. There is great satisfaction from taking your time and making every little piece you can, yourself; especially when someone asks you 'is that a kit?' and you can say to them 'no, I built it all!'

Below: underside views of WHR No.2, FR No.2 (described November 03 issue) and FR Cleminson open. On the model Cleminson the chassis differs slightly as the end 'wheelset' guides are fixed on to the wheelset, not the solebars. This makes the model chassis more flexible again. The photo also shows the brake and pipe gear on the two brake vans.





Middlesbrough

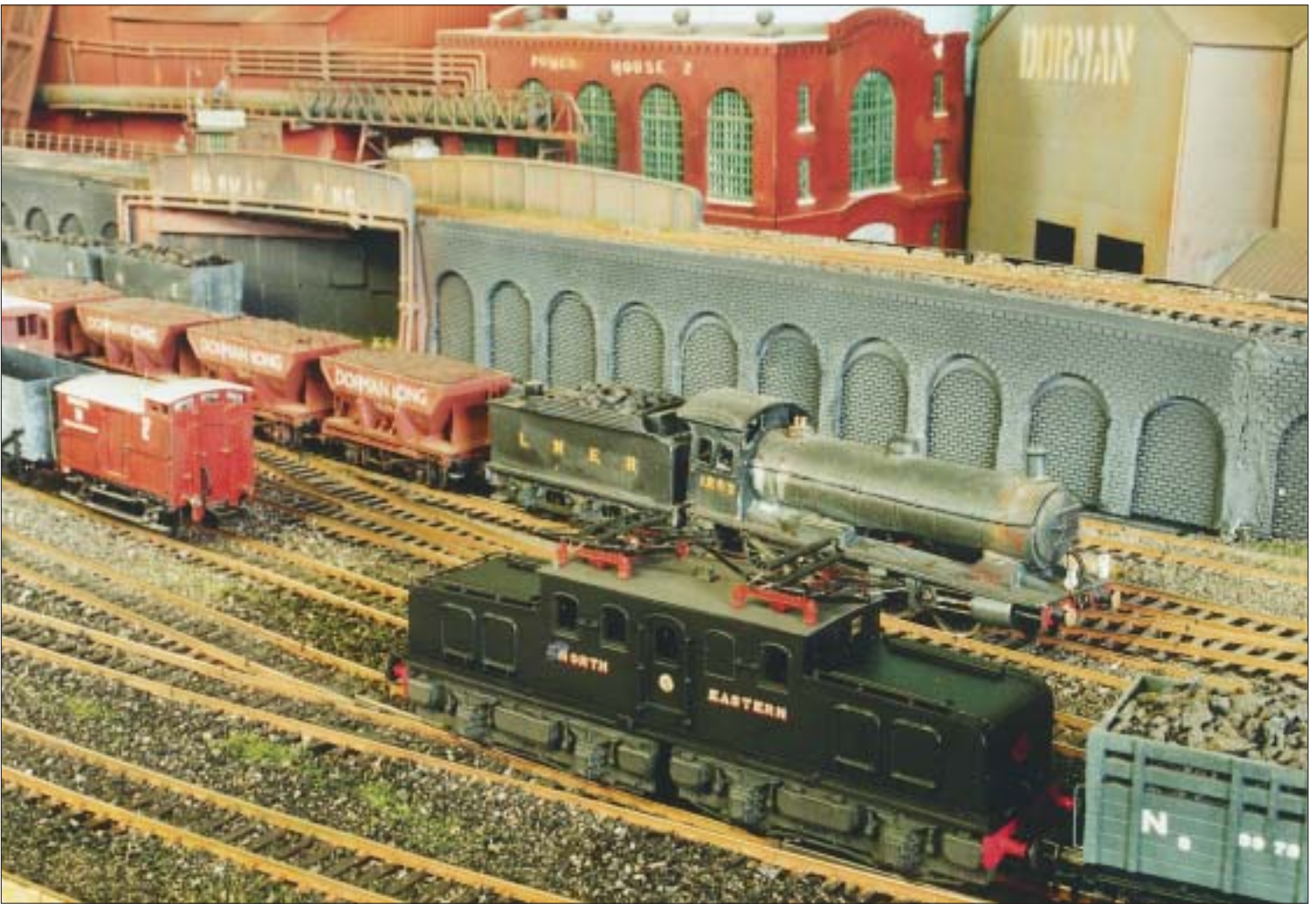
North East England layout in OO

*Not quite Middlesbrough, but **Neil Barron** captures the spirit of this industrial centre.*

Middlesbrough is a large industrial town in the North East of England on the banks of the river Tees. It was one of the largest centres for iron and exported coals to Europe through the port. Later it imported ironstone for the hungry furnaces. There are also chemical works, ship-building and many engineering firms around the centre such as Dorman Long & Co. who built the Sydney Harbour Bridge.

The town was served by the NER which later became the LNER. There is predominantly freight traffic constantly rumbling through the town to the furnaces and the port. In 1880 a bridge over the river Tees was proposed: the plan was opposed by the Tees Navigation Company, which wanted to have an easy path to Stockton. If the bridge had been built, the East Coast Main Line may well have gone from Newcastle through Hartlepool, Middlesbrough and then on to Darlington. So my Middlesbrough is on the main line, allowing A1 to A4s to pass through.





The *Middlesborough* layout is mainly composed of two sides: one is the station which is based on plans of the real one prior to WW2. There are some omissions to allow it to fit, hence the slight mis-spelling of the name to allow modeller's licence. The other side is Dorman Long iron works with three furnaces, also based on track plans although compressed to fit in the area I had available.

When my son was about three years old, we got a train set for him. Mum decided that it should be moved from the kitchen and ejected us to the garage. I then got interested in the LNER because my wife bought me the *Flying Scotsman* train set for Christmas and I come from the North East.

This is my second attempt at building a layout; the first was a 5' x 9' affair. I originally bought any loco in apple green with LNER on it, but after starting my collection of books, I learned a lot and a cull ended with only NE based locos. I found out that the majority were

black and only came in kit form, so I had a go at some kits with a little help. So ten years on this is where I am (son got interested in Nintendo and disappeared).

The track is Peco code 100 laid straight to the baseboards. I did not use cork underlay because there was no reason to raise the track

bed up with shoulders inside yards and walls.

The ballast consists of some samples from a quarry laboratory where the rock is ground down to fine particles. A friend of mine obtained a truck load of various colours, so I got the dark ones and mixed them together to a base that looked like blast furnace slag. I



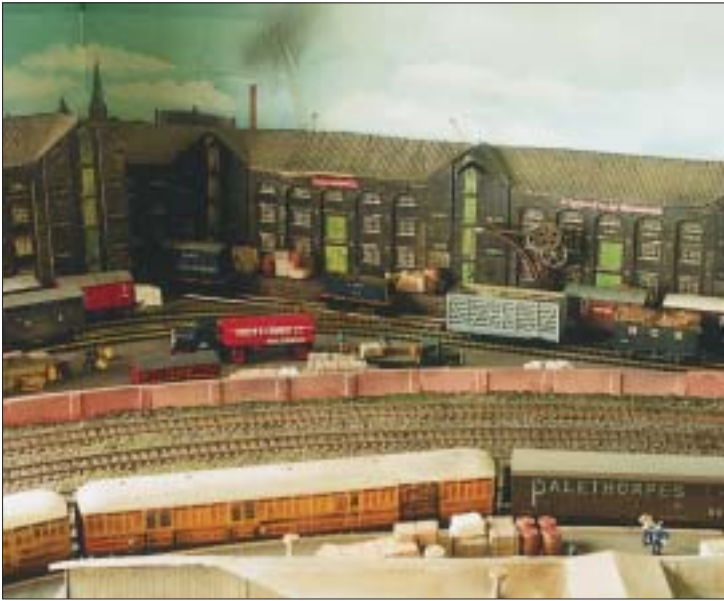
Above left: looking through Middlesborough station, the freight-avoiding lines are in the background. A G5 pulls into the station.

Left: looking at two of the blast furnaces.

Top right: EF1 pulls full coke wagons into a reception siding while a Q6 hauls iron ore.

Above right: a J72 shunts into the docks at Middlesborough.

Photographs by the author.



then made a 50/50 solution of PVA glue and water with a dash of dishwashing liquid to glue it into place. I then used a small syringe to drop the liquid into place then let it dry.

The sides of the track are painted rust to look like real track. This was a slow job with a small paint brush, but I think well worth it in the end.

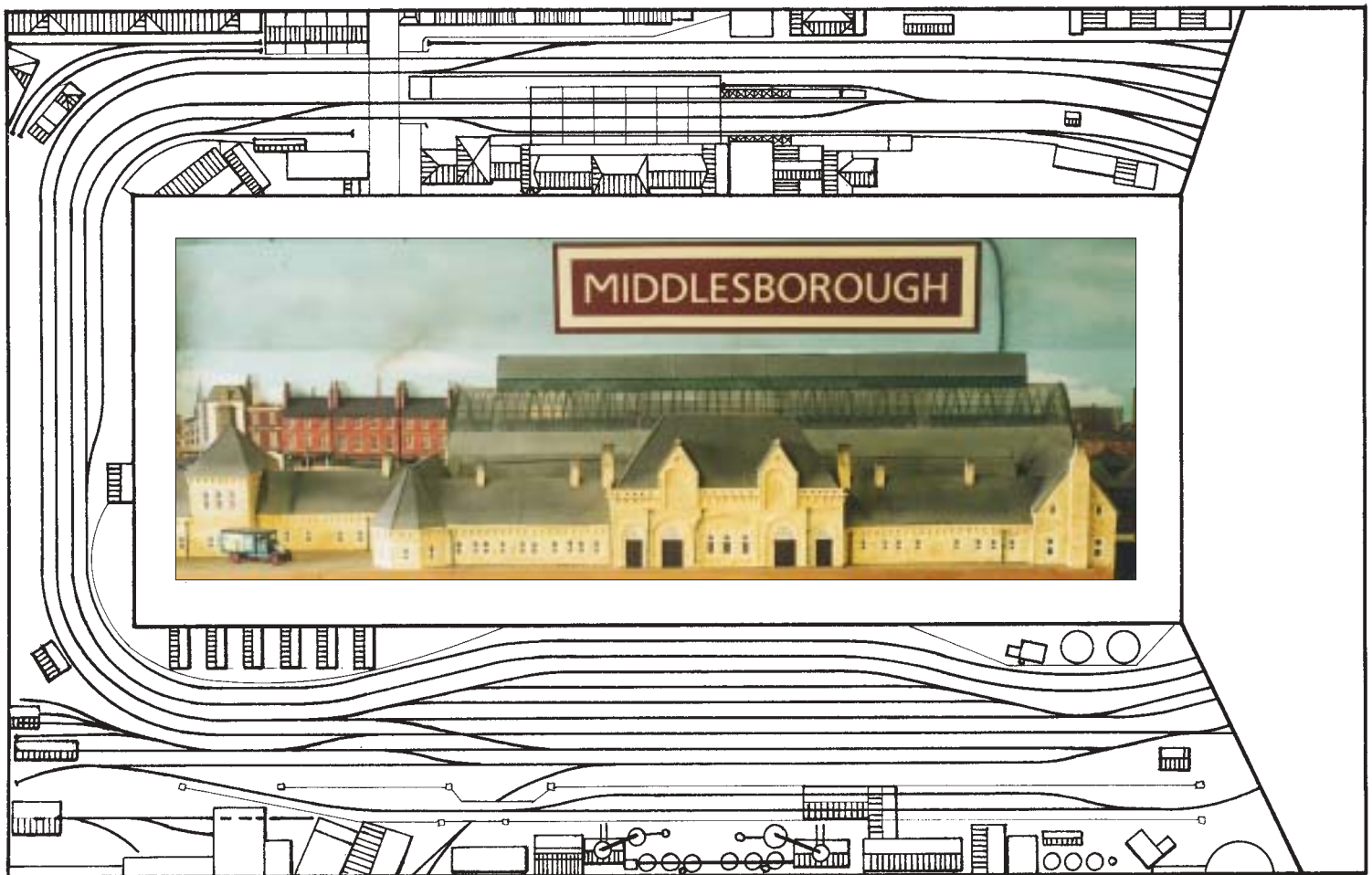
The points are operated via Tortoise slow-

motion motors mounted directly under the board which is 9mm five-ply marine grade. The frame is 4" x 2" pine mounted onto steel brackets that are bolted to the walls; this layout is not moving. The boards are 2'6" wide on both scenic walls, 4' wide at the back where the fiddle yard is and 1' wide to cross between both boards. The total size is 14' wide x 22' long. There are four controllers, one for each

line and there will be a fifth when I put the other control panel in. Controls are the hand-held type built by David Mortimer-Fox.

The layout runs on block control with sectional switches to isolate sections. Buildings are a mixture of some proprietary items such as from Metcalfe, Model Scene, Ratio and Walthers. The iron works is mostly made from Walthers' steel works kits, but I have modified





them to make each different using a plan of the old furnaces I obtained at work.

The station building is a scratchbuilt item by Warren Lake in card, again using plans and a few pictures in books.

As I live half-way around the world from the station, I could not get information easily. I built the train shed using gasket material covered with clear film used on overhead transparencies. *Dock Hill* station is a plastic card copy of the original, again copied from pictures in a book. Most of my information comes from books or plans and drawings sent to me from England. (Middlesbrough *resides in New South Wales – Ed.*)

The track plan is essentially four main lines: two are for freight which go around the back

Top left: looking across to the warehouses.

Top right: A2 City of Newcastle passing a local passenger train. In the yard are a Class O4 ROD 2-8-0 with steel beams destined for Sydney, Australia and a T1 shunting some chemical tankers while a Q6 pulls full iron ore wagons into the siding, A J21 waits patiently to get onto the line with a mixed freight.

Middle left: J79 propels some empty coke wagons off the high line.

Middle right: a Sentinel railcar crosses Sussex Street while a rake of teak coaches enters the station.

Bottom left: overview of the exchange sidings for Dorman Long.

Bottom right: J39 with steel plates coming around behind the workers' houses.

of the station and through the centre of the yard for the iron works. The passenger lines enter the station where they break into three lines; the centre track was used to reverse trains to Whitby which is a bay platform line coming off the down main. On the original there were two bay lines.

A parcels line off the up main allows trains to drop off wagons from the up, to be collected and taken to the up main. The main lines go through the city and then split. The passenger lines skirt around the yard, which is a transit area for coal and ironstone coming into the works. Steel plate, leaving the freight section, passes through the yard with reception sidings either side.

The high level is the stockhouse where the raw material is dumped through bottom-door hoppers into bins under the track where skip cars take it to the top of the furnaces. I have yet to set up the catenary for the EF1 to come into the freight yard. This will take some working out, so the loco runs with its pantographs down at the moment. Signals are the Ratio LNER lattice type, but I am in the process of replacing them with MSE NER slotted post signals.

Motive power is a mixture of RTR and kit-built. They are predominantly of NER origin. All locos, where possible, are actual ones that ran through the Middlesbrough area. There are a few exceptions such as *Robert the Devil* an A1 named after my son who spotted it in a book one day.

Rolling stock is essentially similar with many Slaters NER 20T hoppers, 51L & David Geen kits amongst them, not forgetting the

Parkside kits. I have a couple of coal trains and ironstone hoppers, various plate and flat wagons with steel plate, fish train and general freight going through to the docks. There are RTR Bachmann wagons, a few Hornby and Dapol, unfortunately nearly all wagons are NE because there were not many PO wagons in this area, the NER having a monopoly on the transport of goods in the area.

Carriages are a mix of Hornby and Ian Kirk kits with a couple of Comet kits in there, also a rake of *Coronation* stock by Mailcoach, and *Mallard* on its record breaking run complete with dynamometer car. All the freight stock has the new Bachmann small couplings and the original Hornby on passenger vehicles. Because my passenger stock mainly stays in fixed rakes, the brake ends have the coupling missing with a dummy buckeye in place. It is only a matter of changing a bogie with coupling on to return a coach to being able to be coupled both ends.

The passenger locos have no coupling on the front either with a dummy screw link instead. The freight locos have couplings at both ends to allow running in reverse. There are also some large wagons for transporting heavy engineering equipment, which were fabricated between the Tees and Tyne. I have tried to capture the feel of industrial North East which is what, as a kid, I remember. I like the beautiful branch line layouts, but wanted something a bit different. I hope you enjoy a glimpse of a past industrial might in North East England.

Thanks to all who have helped and advised, you know who you all are.

...an exchange of railway modelling ideas for beginners of all ages

Have a go at 4mm scale modelling

Warwick Billman admits to being an average modeller.

I have taken RAILWAY MODELLER since my middle teens and I'm now approaching sixty. I have always admired those marvellous scenic layouts with beautifully constructed locomotives and rolling stock that I have seen in its pages over the years. When I took up early retirement I thought that here was the chance for some serious modelling. I have achieved this with regard to the layout and rolling stock, but time and therefore experience has not allowed me to build some of my favourite locomotives. I help my father-in-law to maintain the hedges etc on his farm six mornings a week and I help as a volunteer in the class room at Dame Hannah Rogers' school for disabled young people five afternoons a week. I am also active in my local church, so how does one fast-track these things?

Well, how about building a locomotive mainly out of spare parts?

My first project was the Class 25 diesel locomotive illustrated on this page. I had in my spares box, two four-wheel motor bogies (Hornby), so I decided to use both. I sourced the body (unpainted), frame, cab interiors, glazing and indicator headlight replacement panels (all Hornby) from East Kent Models.

All were, in my opinion, very cheap. I added to this lot a Craftsman detailing kit and a set of Ultrascaple wheels. This last item was the most expensive, but well worth it for electrical contact and smooth running together with appearance. The locomotive was painted in the BR 'Blue Period' livery (Phoenix Precision Paints) and transfers were by HMRS (Pressfix).

The only real work was cutting the lugs



down by a few millimetres on the bogie outside frames to lower the locomotive to the correct height above rail level, cutting out the supporting bar on loco frame (this supports the non-powered trailing bogie), and removing the old wheels and fitting the Ultrascaple wheels. All of this took less than 10 minutes! Fitting the Craftsman detailing kit took a little longer.

Add to all this a Hornby weight (from the spares box) together with a fair bit of lead and there you have it. I forgot to add that this locomotive received some weathering. My first attempt at this and not too bad.

This leads me to my latest project which I have just completed, a GWR 28xx 2-8-0 freight locomotive. Again the locomotive body (Hornby) and the tender (r-r Swindon Standard 3500 gallon, from the Mainline/Bachmann stable) were sourced from East Kent Models. The Comet locomotive frame, pony truck frame and cylinders and motion, Romford wheels and axles, Mashima motor, gearbox and gears were purchased from the West Coast Kit Centre.

After reading all this, you can see that I don't like tender drive.

While on the subject of tenders, there was little to do on this. I had to lower and shorten the drawbar (I was able to shorten it as all my curves are scale and it looks better), paint the





wheel rims, add coal (fish tank charcoal, which I have had in a jar for many years and looks very realistic and the right scale) and add a set of fire-irons.

I now moved on to the locomotive body. I have always thought this good, only marred by the 'horrible lump' under the smokebox forward of the smokebox saddle, and the incorrect screw reverse in the cab.

To remove the 'horrible lump', I first cut away the footplate to the rear of the curve (figure 1) and then the 'lump'. For this, one needs a razor saw, Swiss needle files and riffler files (the rifflers are needed for filing under the smokebox). The gap in the footplate was filled with a piece of 2mm plasticard and filed to shape (figure 2). The footplate was then re-attached to the loco body (Plastic Weld or similar solvent) and this was strengthened with plasticard patches underneath.

The hole in the front of the smokebox saddle was then filled with Milliput (or similar) and filed to shape.

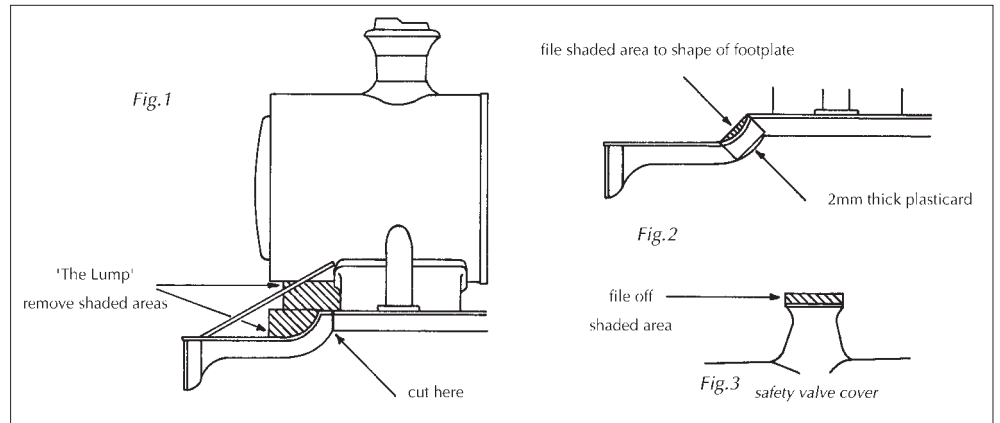
The next object for removal was the screw reverse. I did this with a fine curved scalpel. The cab was then detailed by first painting the pipework on the firebox backplate in copper colour and all gauges and dials aluminium. To this was added a detailing kit (Perseverance Engineering) consisting of an etched brass floor and fall plate, a (correct) white metal lever reverse and etched brass driver's and fireman's seats. Finally the crew were added (driver, Dart Castings/Monty's Models, fireman, Hornby). On the footplate I added the reversing rod (again, Perseverance Engineering etched brass), a bell top pony truck spring housing (upturned white metal bucket filed to shape!) and buffer beam support rods (brass wire from Slaters).

Work on the boiler, smokebox and firebox included brass smokebox door handles (Alan Gibson), filing the top of the safety valve cover to give a finer edge (figure 3) and adding brass whistles to the firebox, Cavendish if I remember correctly.

Finally, I added buffers and vac. pipe (Hornby), painted the body semi-matt black and affixed number plates (Jackson-Evans brass). Remember if you go for BR black, paint the number plate backgrounds red.

I did this all over and then gently rubbed off the numbers and rim with a Peco track rubber and then gave both a coat of varnish.

The tender was painted and transfers added (HMRS Pressfix). Why did I paint the locomo-



tive and tender when they were already black? The simple answer to this is that they were a different shade of black! And so ends my epistle on the loco body and tender.

Now for the hard bit. The frame, wheels, motion etc. The only soldering I have done is wiring and as I have said, I haven't time to learn to solder brass and do a 'proper job' so over to the expert. I believe in the old expression 'every man to his trade' and therefore put this work in the hands of the excellent David Temple who advertises in RAILWAY MODELLER. What a marvellous job he did in a very reasonable time and at a reasonable cost.

The motor is mounted vertically which means it is hidden in the forward half of the firebox which allowed me to fill the rear half and the whole of the boiler and smokebox with lead – excellent tractive effort! The locomotive moves at the touch of the controller and runs very sweetly and quietly and this is

all on my test track with an ancient Hammant & Morgan 'Clipper' controller which is over 30 years old.

Finally, thanks must go to these suppliers of parts for their help and I must not forget my family who have put up with my cursing and swearing at difficult times, and my son and daughter for typing this article. This reminds me that I have forgotten to mention the boiler handrails (the source of my lapses into bad language) and the vacuum pump bracket and step. This was replaced by a white metal casting from Nucas.

Footnote – I have lived near the Hemerdon Bank in South Devon for more than fifty years. In the days of steam (we lost it in 1964 not 1968), my sister Carolyn and I used to run up to the railway to see the trains go by. Although I admired the 'Kings', 'Castles', 'Halls' and 'Granges', it was always the hard-slogging 28xxs that really caught my imagination.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

MATTERS ARISING

When the December issue of RM dropped through my letterbox, two points of interest immediately leapt up from its pages.

Firstly, *Glen Lovat Light Railway* by John Simm, though fictional, may be nearer to the truth than he ever realised. To explain, I have the good fortune to live in an ex-Lovat croft house, overlooking the clan seat of Beaufort Castle, only a mile or so away. So, no need to search for the map to see where Beaully is as John suggests.

Anyway, rumour has it that there was a Lovat Light Railway built to carry timber from the woods south of Lovat Bridge to the then docks in Beaully. More than that I do not know, except that the coming of railway to the village in 1861 superseded the use of 50 ton boats into the Beaully Firth. Does anyone have more information?

Secondly, the article *Modelling with a computer* by Geoff Beecroft on the use of computers in modelling was of interest as I am currently experimenting in the use of photographs in backscenes. Specifically, views between low-relief buildings, looking into side streets. Progress so far indicates the use of a short telephoto lens (about 70mm) which enables the correct number of storeys to be included in the foreground (to ensure continuity of the 'building line') whilst minimising the white triangle of sky at the top. Pick a dull day and use print film to reduce contrast.

Images are then perspective corrected on Paint shop Pro and retouched on Adobe Photoshop to remove modern features, de-saturate colours etc. The image is finally resized to just less than scale size, matching the height to the low relief buildings.

In future, on quiet, dull Sunday mornings I may be seen skulking around Inverness photographing alleyways! If I escape arrest, hopefully I may be able to share the results with your readers.

PETER KOCH-OSBORNE

ADDISCOMBE

Browsing through the December issue of RM I was pleasantly surprised to see an article by Gerrard Futrall on my old home town station of Addiscombe.

It just so happens that I am building a layout based on this station so I have found the photographs very useful! Although it has been many years since I last saw Addiscombe, I remember it well and wish that Mr Futrall could have seen it when it really did look like a station, before time and modernisation took its relentless toll.

The boundary to the pavement was marked by a low, red brick wall surmounted with iron railings and a pair of iron gates at each end to give access

to a small forecourt. The wall and gates were supported by four red brick pillars capped with stone and crowned with ornate six sided Victorian gas lamps which must have been all of 2ft high! At the foot of each pillar was a large, dome shaped granite 'stump' to deter cart and carriage wheels from scraping and dislodging the pillars. The railings were covered with billboards advertising sporting events, mostly wrestling and boxing taking place near stations on the line.

Thank you Mr Futrall and RAILWAY MODELLER for making my day!

MRS JOYCE ROBINSON

4MM SCALE ROAD VEHICLES

Just a few thoughts inspired by Phil Parker's article in the December RM.

I admire and envy Phil's modelling skills. He is, however, perhaps a little unjust in deeming the Cararama ready-made vehicle range overscale. Yes of course they are, but a model of, say, a 14' long car at 1:76 is 56.8mm and at 1:72 is 60mm. Can anyone really see a difference of 3.2mm?

People like me who model modern image have a problem. I have no idea how many of us there are but there must be quite a lot. Somebody may write in with the membership total of DEMU, but it has to be many more than that since so many RTR locos and rolling stock are modern image.

I am not a historian – or should that be an antiquarian? I want to model what I see from the back window of my house. That means the setting for the layout has to have modern vehicles. As Phil so rightly says, the full roads of today are a recent phenomenon. Even a small layout will have a station with a fairly full car park.

I would be delighted to use true 4mm scale vehicles. Unfortunately kit makers cater for the nostalgia market. So Cararama admirably fills the gap, even if the car range is a little upmarket and they are around 5½ per cent longer than they should be.

GRAHAM LEECH

HORNBY CLASS 50

Last Wednesday evening saw a larger than usual crowd of members around the layout in the clubroom at Bassettlaw (North Notts) Railway Society as new acquisitions from the previous weekend visits to the Warley Exhibition were displayed.

It goes without saying that the major interest was in two examples of the new Hornby Class 50 (reviewed in the January RM) and members drooled over the smooth running, attention to detail and especially the rotating fans in the roof grille. As a pure steam outline modeller it almost made me wish I was 'modern image'.

However, whilst trying several running experiments, one very surprising

feature emerged, quite by accident. Someone suggested that we should simulate Shap Summit in the 1970s by coupling two six-coach rakes together and double-heading the train with both the Class 50s. Unfortunately, due to a hitch in coupling up, the pilot loco became detached from the train and set off about an inch in front of the train engine with its twelve-coach load. Amazingly the second loco and train kept pace with the 'light engine' in front of it and after about four laps of the 75' main line, the two locos were still no more than 3" apart! The train loco did not appear to have noticed that it was hauling a twelve-coach rake!

This feat is certainly a testament to the engineering of this model and puts Hornby now well in front of the opposition. They seem to have grasped the nettle and gone for quality in running and appearance, which can only be good for the modeller in particular and the trade generally.

JOHN HEASON

HELDFORD

As an ex-railwayman with service in both the S&T Department and the Operating Department, I was most interested in Neil Herd's article *Shunting Helford in Steam Days* (November issue of RM).

Neil certainly gives an excellent explanation of shunting in steam days, his description being just as I remember it from the footplate of 'No.5' on a GWR 57xx behind Small Heath North box just north of Tyseley.

There was a slight difference in that due to the confined area, the shunter could not be seen by the driver and instructions were given to the latter with regard to train movements by a series of coded signals through bells or gongs on the wall, at intervals along the head shunt.

With regard to *Helford* may I say with tongue in cheek that they were very fortunate indeed to have the services of a shunter. It was usually down to the guard to carry out the duties of the shunter at small stations such as this.

At a very large number of Great Western stations it was part of the 'job description' of a porter to carry out shunting duties where it was necessary to 'run round' passenger stock.

This was certainly the case at Henley-in-Arden on the North Warwickshire line and at Lapworth between Birmingham and Leamington to name but two. I would imagine this would apply at Helford if the auto-train working had failed and a B-Set had to be employed.

I would make a couple of further comments. May I suggest that 'fly-shunting' was not quite as Neil suggests? The propelling of uncoupled wagons over facing points and leaving them to either hit more wagons or be checked by the shunter with the use of the brake was very common. However, this was not fly-shunting. This was loose shunting. Fly-shunting was a different animal and required skill on the part of both the driver and shunter(s). Fly-shunting was undertaken where the engine was coupled to the head of the wagons to be shunted with the siding(s) in front of the engine.

The principle was that the driver would pull the wagons forward smartly, close the regulator and apply a whiff of brake which would buffer-up the following wagons. This allowed the guard or shunter to uncouple the slack coupling between the engine and wagons on the run then the driver would accelerate over the facing points which would be turned quickly with some slick timing by a second shunter. The following wagons would then run by the engine on an adjacent road. With this movement over, the engine would then set back over the points and then move forward on to the wagons which had just been shunted. Normal service would then be resumed!

Secondly, Neil refers to the 'RU' inscription on brake vans as meaning 'Return to Unit'. The 'RU' actually meant 'Restricted Use' thus confining the van to its home area.

Thirdly, just an observation – Neil quite rightly suggests that large trains were formed with vacuum fitted stock next to the engine with the brake pipe connected thereto to afford extra braking. It is worth noting that not all piped vehicles were fitted with brake gear. Some were fitted with a through pipe which allowed continuity of vacuum braking to the vehicles immediately adjacent. The pipes on these wagons were painted red to indicate to both guards and shunters that the vehicle was not braked.

Regardless of the foregoing, this was an excellent article and superb modelling. Neil's buildings are particularly outstanding, adding great realism to a most interesting layout.

GEORGE A. COOPER

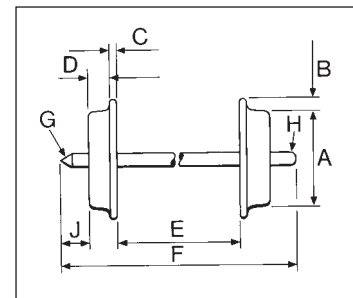
Below: this fine photo of West Bay, taken in August 1933, turned up in a trawl of the RM office one day. There's some shunting to be done!

Photograph: W. Hardin Osborne.



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BR Western Region Hymek in 00 from Heljan



The second 00 gauge British-outline ready to run diesel locomotive from the famous Danish manufacturer was released during the Warley show at the NEC in December.

The chosen prototype for the model was Western Region's 1961-65 version of a Type 3 mixed traffic steam replacement. The single power unit was a 16-cylinder Maybach MD870 and the transmission, naturally for the WR, a Mekydro K184U hydraulic system. Output was 1,740hp, weight 74tons and maximum speed 90mph. All the locos were built by Beyer Peacock at Gorton, Manchester. As ETH was not possible with this form of transmission, all Hymeks had provision for steam heating, by Stones in the initial batch of 45 and Spanner in the balance. Withdrawal from service started in 1971 and was completed by 1975. Four of the class have been preserved.

The version of the model illustrated here in BR blue livery carries the number D7042 from the first batch. It is



built to the same high standards as its predecessor from Heljan, the Class 47 (see RM October 01) and is powered by a centrally mounted five-pole motor mounted in a very heavy (500g) diecast chassis block and driving all four axles. Current collection is from all wheels which are chemically blackened and to RP25 profile.

The model is ready to be fitted for DCC. The printed circuit board mounted over the motor incorporates an

NEM652 eight-pin socket, protected by a dummy plug which is easily removed to allow the fitting of the owner's preferred decoder.

The locomotive body is nicely detailed with finely inscribed grilles, crisp rivet and bolthead detail, and the stylish bright surrounds to the body-side windows. The recessed wire cab door handrails are very neatly installed. Below the bodysides, the bogie sideframes are particularly well modelled including coil and leaf spring details, brake cylinders, equalizing beams and roller bearing axlebox covers. NEM coupler pockets are fitted and these incorporate representations of the quite prominent air tanks under the buffer beams.

The headcode screens are well replicated and directionally lighted. A selection of twelve printed paper train reporting numbers is included which can be fitted by popping out the glazed headcode panel.

The cabs are glazed and complete

with air horns and fitted interiors.

The roof features the correctly offset cooling fan which, although not 'see-through', looks realistic.

Additional detail parts include a three-piece snowplough which is neatly held in place by the stems of the buffer heads and by sliding into two recesses behind the bufferbeam. There are a number of locating holes in the latter for the parts which are supplied for fully detailing this area. These parts include steam heating pipe, vacuum brake pipe, brake reservoir pipes and dummy screw coupling. A diagram identifies the positions of the extra details. The buffers are not sprung.

Other livery/number combinations to be available include D7017 and D7039 in two-tone green and D7036 in blue with small yellow warning panels.

A running-in turn with eight bogies over the curved and severely graded Pecorama loft layout revealed that the performance was more than satisfactory.

For 00

SAMPLE SUPPLIED BY
Heljan (UK), PO Box 474,
Peterborough PE8 6FF.

PRICE
ref.3502, £79.00

WHEEL DATA
B. 0.8mm, C. 0.9mm, D. 1.9mm,
E. 14.4mm.



Dapol enters N gauge field with GW coaches & 'brown' stock

The entry of Dapol into the realm of manufacturing N gauge British-outline ready to run models will undoubtedly cause a ripple of expectation in this keen but not well served sector of our hobby. We illustrate here the Dapol 'toe

in the water', which takes the form of a GWR Brake Composite (two make a 'B Set') and Siphons G and H.

These models are the result of all new tooling and they will be finished at the new Dapol factory which should be

operational very soon. (Mindful of the interest that a review in RM generates, Dapol requested that we 'keep our powder dry' until this edition, to give it a chance to settle properly into its new home before the phones start ringing!)

The Siphons, which are outside framed wooden-bodied vehicles, have well detailed superstructures with finely inscribed plank lines, framing and other detail. Particularly impressive is the long row of louvred ventilators under the cantrail which is such a characteristic feature of these bogie vans. The Siphon G has the correct flat roof, rainstrips and vestibule connections, while the H displays the high elliptical roof and full height end-loading doors. The underframes of both feature very finely modelled channel solebars and footboards, with trusses, brake cylinders and vacuum tanks. The models run freely on insulated metal wheelsets and standard N gauge couplings are fitted.

The models are finished in BR red livery with nicely applied yellow inscriptions. A GWR livery option will follow for both types, with different numbers so that they can run together in a 1948-50 scenario. Mind you, people who are number-pedantic need to have good eyesight in this scale.

We have samples of the Brake Composites in BR red and GW chocolate and cream. In both cases the lining and lettering are accurately applied and very convincing. Door shut lines and roof panel joints seemed a little coarse to this observer, but the difficult change in body profile occasioned by the recessed guard's door has been caught to perfection. The subtly bowed ends carry moulded detail representing the emergency brake actuating gear and electric lighting jumpers.

Below the solebars, underframe trusses, brake cylinders and battery boxes are neatly replicated and the characteristic short wheelbase bogies are little models in their own right. They, too, run on insulated metal wheelsets and carry the usual N gauge couplers.

Unlike the Siphons, the coaches will be available with a choice of two numbers in each livery.

We understand that steam and diesel motive power will be offered in due course.

For N

*SAMPLES SUPPLIED BY
Dapol Ltd., Llangollen LL20 8RX.*

*PRICES
£TBA*

*WHEEL DATA
B. 0.5mm, C. 0.7mm, D. 1.3mm,
E. 7.4mm.*



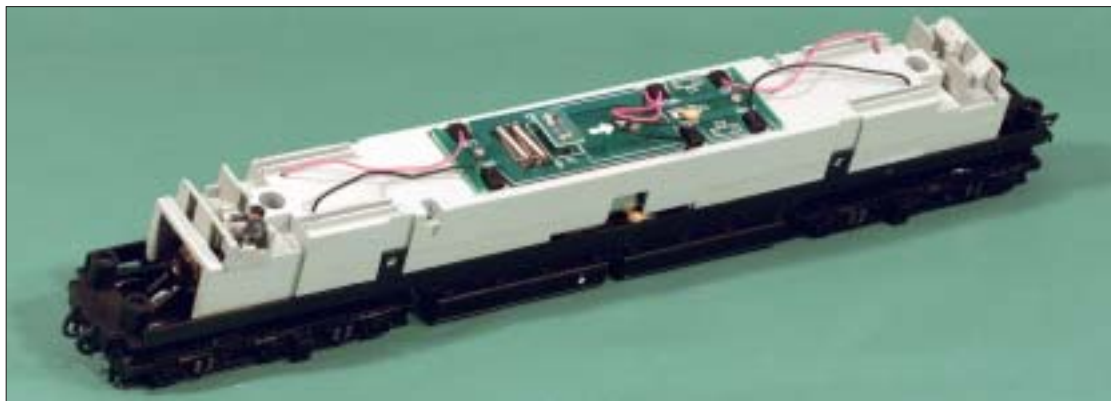
BR Class 55 'Deltic' in 00 from Bachmann



As it is now some twenty-two years since the last twin-engined 3,300hp 'Deltic' locomotive left service with BR Eastern Region, the hordes of acolytes who bade it farewell at Kings Cross on that memorable occasion will now be older, wider and inexorably middle-aged. Nevertheless, six preserved locomotives, five by private societies and one by the NRM, bear witness to the fact that enthusiasm for the Deltics was no short-term mania but a rather more substantial interest altogether. Several are main line certified, and have revisited their old haunts.

As far as model manufacturers and users are concerned, the locomotive's considerable length (69'6") has not made it a favourite subject nor, when attempted, a particularly popular one. The tall slabby sides of the design, particularly in the later (from 1967) BR blue livery, also did little to enhance the locos' aesthetic appeal in full-size or miniature, but here we have a brave new twenty-first century 00 gauge version from Bachmann. The moulded details present in the body conform to the firm's latest Blue Riband standards of sharpness and scale accuracy. This detailing is particularly evident in the area of the roof where the engine cooling fans are visible behind see-through wire grilles; they rotate when blown upon. Etched nickel silver *Nimbus* nameplates with red backgrounds are supplied separately, further to enhance the model's scale appearance.

The shallow and shapely twin windcreens are fitted with two wipers per screen as is correct and was no doubt necessary to keep the crew's view



clear while humming along the ECML at 100-odd mph. The characteristic curved cab side windows are nicely modelled, and interiors are fitted, although the cab doors themselves do not open. Our blue-liveried example carries the unplated-over indicator boxes which show twin white dots on a blank screen. There is no lighting, directional or otherwise. The sprung buffers are all plastic and on our sample were rather sticky in operation.

The bogies display very nicely moulded sideframes, notably with the coil springs modelled in two planes and finely moulded supply pipes to the brake cylinders. The outer pair of axles is shaft-driven from the centrally mounted motor in both cases. The inner axles are both idle and are provided with generous sideplay.

Power from the motor to the bogies appeared to be good: pulling 10 coaches would not be a problem, and what is more the operation on our sample was very smooth and quiet. We tested our Deltic on both Setrack and Streamline code 100 trackwork, but we found it important that the track must be well laid, with no humps or hollows. The leading wheelsets, as seen in our closeup illustration, have a narrower tread compared to the other wheelsets, and the back-to-back dimension has been reduced to

around 13.8mm. This could be considered unusual but we have been advised that it is a deliberate move, to prevent the wheels touching the body moulding on tight curves (radius 2 being the minimum).

The model is digital command control ready. Fitting a decoder will involve removing the body from the chassis block and removing the dummy plug which protects the 8-pole dual inline socket (NEM 652).

This is an impressive model of its much-loved and fondly-remembered prototype. For many purchasers it will allow a nostalgic trip into a locospotting past.

For 00

*SAMPLE SUPPLIED BY
Bachmann Industries Europe Ltd,
Moat Way, Barwell, Leics. LE9 8EY.*

*PRICE
ref.32-526, £62.50*

*WHEEL DATA
B. 0.95mm, C. 0.4-0.5mm,
D. 1.4mm outer axles,
1.8mm centre and inner axles,
E. 13.8mm outer axles,
14.6mm centre axles,
14.4mm inner axles.*



Latest version of Bachmann Peppercorn A1 Pacific in 00

Bachmann has recently issued its latest version of the A1 Pacific, representing No.60130 *Kestrel* in late BR condition. The model is of the first A1 built at Darlington – countersunk rivets and all – and mechanically is every bit as good as the blue stablemate, seen in our September 2003 edition.

Kestrel was a West Riding machine for most of its short career, and was withdrawn from Ardsley shed in October 1965.



For 00

SAMPLE SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leicestershire LE9 8EY.

PRICE
ref.32-555, £99.95

WHEEL DATA
B. 0.8mm, C. 0.8mm, D. 2.4mm,
E. 14.2mm.

Silflor tufts for all scales

International Models has stocks of the new short and long tufts, produced by noted German scenic specialists Silflor. They are supplied on a 6" x 4" sheet, and in various sizes of tuft.

Our photograph shows some installed in front of a length of 0 gauge track: as well as these 'spring' tufts, sheets are offered in a darker 'autumn' shade of green. Long tufts, labelled 'spring', 'summer', 'autumn' and 'winter' are also available.

The backscene in this and several other photographs is the Auhagen 'Döllnitztal' set of three sheets, also available via International Models. It has a matt finish, and each sheet measures 97cm x 68cm.



AVAILABLE FROM
International Models, Plas Cadfor,
Llwyngwril, Gwynedd LL37 2LA.

PRICE tufts £3.00 per sheet.

Lenz LE1000A DCC decoder

Lenz have released a new Digital Command Control locomotive decoder, the LE1000A, which represents a significant breakthrough in price.

It has been developed specifically in response to the requirements of the British market following Bernd Lenz's visit to the UK early in 2003 and requests from MacKay Models, who represent Lenz here, hence Lenz have nicknamed it the 'Mac-oder'.

Recognising that most locos made for the British market do not incorporate electrical functions that require switching, the LE1000A has just one auxiliary output rated at 100mA, which might be used for lighting, for example; it can be dimmed.

The maximum capacity is 1 amp, and all of that is available for the motor if no accessories are connected.

The decoder has a programmable four digit locomotive address (1 - 9999) and separately programmable acceleration and deceleration. It is selectable for operation on 14, 27, 28, or 128 speed steps, and has adjustable starting voltage, but does not incorporate back EMF (feedback).

It does support advanced consisting for multiple unit capability and programming on the main line (operations mode programming).

Like all decoders presently in the Lenz range, it will run on plain DC, automatically recognising the supply. (This can be disabled if desired.)

The decoder measures just 23mm x 16mm x 3.5mm (0.9" x 0.6" x 0.15"), and comes with plain cables for connection. The circuit board is single



sided so can easily be secured within a loco using a double-sided sticky pad. Full instructions for installation and use are provided on two sides of A4.

But, as we mentioned at the beginning of this review, perhaps the most significant thing about this device is the price: the normal recommended retail price should be £11.50, but for an introductory period MacKay Models and other Lenz outlets are offering it for just £9.95. This really is a breakthrough and must surely encourage those who are otherwise deterred from trying DCC by the cost of equipping a collection of locos with decoders.

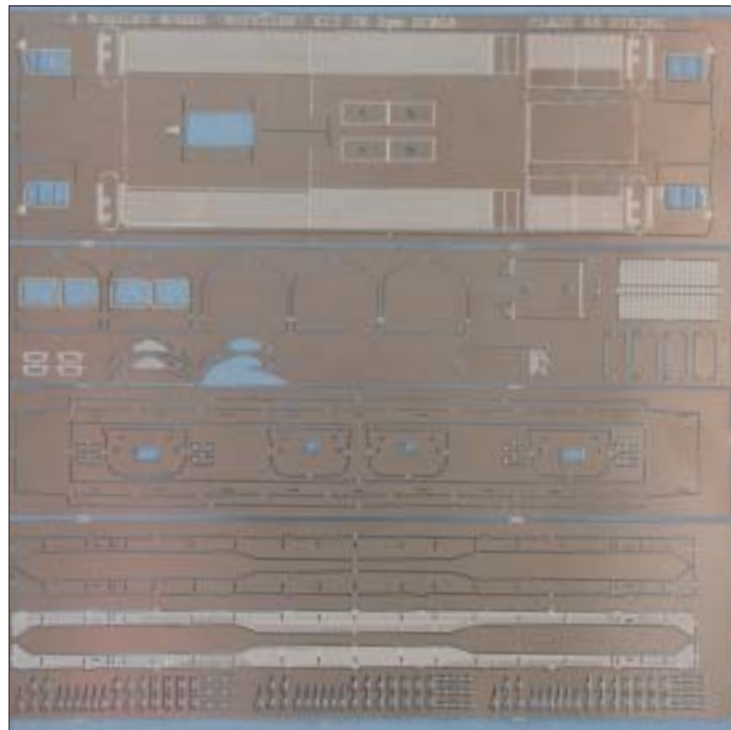
For 00

AVAILABLE FROM

MacKay Models, Studio 56/57,
Sir James Clark Building,
Abbey Mill Centre, Seedhill,
Paisley, Scotland, PA1 1TJ.

PRICE
£9.95.

Class 66 from Worsley Works



Although often associated with narrow gauge items in 4mm and larger scales, in fact Worsley Works has an extensive range of 3mm scale standard gauge kits, and a growing selection in 2mm scale.

Recently added to this range is a body kit for the Class 66 diesel.

Very cleanly etched in nickel-silver, the frets offer all the parts necessary to assemble a very highly detailed model of this now ubiquitous diesel.

Both sides and roof are formed in one piece, with excellent detail etched on the outside and half-etched line within to guide the folding and ensure the correct shape. The cab ends likewise have the window frames etched outside and fold lines within. Three internal bulkheads are supplied, to back each cab and reinforce the centre, though this may need to be cut away according to the mechanism used.

Radiator grilles, engine room panels, and the exhaust silencer have to be added to the roof.

The buffer beams are laminated from two layers, and attached to the floor, which has strengthening ribs that fold up to fit inside the body and slots to locate the frames.

The frames are made up with a base plate and a half-etched detail overlay,

both of which have slots etched to accept the body support brackets – these are very small parts and will require care, and time to assemble. Various steps also have to be attached.

As with Worsley's narrow gauge products, this kit is described as a 'scratch aid', but it is surely more than that, even though no solid castings are supplied, and, other than a large rectangular opening in the floor, no provision is made for the mechanism: we imagine a suitable American N gauge diesel could provide the chassis block, motor, drive component, and bogies complete with side frames – quite appropriately for the prototype's origin.

Assembling this kit will not be a quick job, but it has the potential to produce a finely detailed model.

For 2mm scale

MANUFACTURED BY
Allen Doherty, Worsley Works,
19 Douglas Road, Worsley, M28 2SR.

PRICE
£20.00.
Please add £1.00 per order for
postage & packing.
(Please make cheques payable to
A.Doherty.)

Merry-go-round hoppers and derivatives in 00 from Hornby



'Loads of detail' is the clever headline in the Hornby advertisement for the three new 00 scale hopper wagons and detail is exactly what you get. The new products are: 32.5T MGR hopper with canopy (HBA), 2-axle English China Clay hopper (CDA) and 32.5T MGR coal hopper (HAA). They are significant improvements on their predecessors, many hundreds of which we would guess are rolling around layouts worldwide.

The Chinese toolmakers have succeeded in capturing the essence of these 'merry-go-round' vehicles and the result is a range of high standard models. The effect of excellent tooling is apparent both inside and outside; it should delight both rivet counters and those seeking more general visual pleasure.

With the rolling stock removed from the protective plastic packing inside the familiar red and yellow outer box,



even a very brief examination will reveal that the separately applied components immediately increase the overall definition and effect of reality. Look more closely and the very accurate and fine quality printing together with the impressive underframe con-

struction further enhance the result.

It is good to see tension lock couplings in NEM pockets, which help to bring the model in line with today's expectations. Sprung buffers and metal wheels as standard show that Hornby are up there with the best.

The owner may wish to spend time with the weathering brush, but these free-running wagons are also available as a weathered version sold in packs of three; surely the prototypes would not remain pristine for long. The three-packs are an economical way of building up a large fleet.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4 JX.

PRICES
HAA (ref.R6213) – £8.99
HBA (ref.R6215) – £8.99
CDA (ref.R6214) – £8.99
Three-packs – £29.99

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Bachmann special run wagons in 4mm scale

Bachmann has been commissioned to produce special runs of wagons for various retailers, as follows:

For **Geoffrey Allison** (90 Cheapside, Worksop, Notts. S80 2HY), 500 sets of three private owners, Bentley Colliery, Barrow Barnsley and Hatfield Main collieries. Price £22.95 plus £1.50 P&P.

For the **TMC** chain (Marston Business Park, Tockwith, York YO26 7QF), three WR vans, individually numbered with chalk marks and weathering. 504 sets, price £19.99 plus £4.00 P&P.

For **Sherwood Models** (831 Mansfield Road, nr. Daybrook, Notts. NG5 3GF), Shipley and Awsworth collieries, price £16.00 inc. P&P.

For **B&H Models** (13 Corporation Street, Lincoln LN2 1HL) two tank wagons, price £16.00 the pair plus £2.00 P&P.

All excellent, of course.



Book Reviews

London's Underground

10th Edition

John Glover
Ian Allan Publishing,
Riverdene Business Park,
Hersham, Surrey KT12 4RG.
298mm x 220mm 160pp
Hardback £19.99
ISBN 0 7110 2935 0

This new and fully revised edition of the title first published in 1951 brings the 140-year history of the London Underground right up to date with the opening of the Jubilee Line extension and the creation of the Public/Private Partnerships. As with recent editions of the book, John Glover brings his tremendous expertise in public transport photo-journalism to the fore to create an account which is at once deeply researched, up to date, and thoroughly readable. His ability perfectly to balance the three important components of a railway book – historical, technical and political – is second to none.

Many of the photographs are by the author or from his collection and, apart from colour on dustjacket and endpapers, they are very well reproduced in monochrome. Some are indeed archive pictures, dating from the days of steam traction on the Metropolitan and District railways. More recent, but no less historic are accounts of the New Works Programme of 1935/40 consisting of the Northern extensions and other major works which were abruptly halted by the outbreak of hostilities.

Although the Underground carries as many passengers in London as on the whole of the National Rail Network, there is still more to the system than trains alone, and the author does not forget the posters, line colours, Johnston typeface, car cards, the Beck map and the whole LT culture which substantially survives into the present day.

Hampton and Kempton Park Waterworks Railway

Ron Howes
Kempton Great Engines Trust,
c/o Thornley House, Bells Lane,
Nether Wallop, Stockbridge,
Hampshire, SO20 8HA.
210mm x 145mm 32pp
Softback £3.75+34p p&p
No ISBN quoted

This slim pamphlet tells the story of the 2' gauge railway built and operated by the Metropolitan Water Board to serve two of its pumping stations. It began the humble task of carting coal landed from barges on the Thames to the boiler houses in late 1915 and continued to do so for about 30 years (the precise dates of opening and closing of what was, after all, just a piece of industrial plant with no public role, have not

been recorded). Motive power was provided by three neat little 0-4-2 tank locos specially built by Kerr-Stuart to the specifications of the Board's engineer.

Much of the story is told by way of extracts from official documents – evidence of diligent research in the primary sources, as little about the line has appeared in print to date. The archive material is augmented by eye-witness accounts from surviving staff.

The story is illustrated by a remarkable collection of black & white photos, reproduced as well as the originals will allow, and informatively captioned. If a few are less than technically perfect, they merit inclusion on the grounds of their inherent interest and rarity. Most are very good, and some so good that they have been reproduced full page to show the detail.

There is a fine reproduction of a scale drawing (side elevation only) of the locomotives, though interestingly as proposed rather than as actually built.

Clearly drawn maps and diagrams show the route and the layout of the tracks within the various works.

It would make a nice theme for a layout.

The book has been produced to raise awareness of and funds for the restoration of part of the railway by the MWB Railway Society on the site of the Kempton Park Waterworks, where the Kempton Great Engines Trust is working to restore the triple expansion pumping engines and make them and the engine houses available to the public – a worthwhile cause.

British Railway Goods Wagons in Colour 1960-2003

Robert Hendry
Published by Midland
Publishing/Ian Allan, Riverdene
Business Park, Molesey Road,
Hersham, Surrey, KT12 4RG
Softback 96pp
280 x 215mm £14.99
ISBN 1 85780 170 9

Underneath the main title on the cover is the line 'for the modeller and historian'. It is refreshing to find a railway book where so much consideration is given to both.

To say that the format is that of pictures and captions understates the extent to which each of the 160+ photographs is described and the background of its content explained. The substantial accompanying texts provide a full package of information that supports and illuminates the photograph, highlighting important points for the modeller and drawing attention to fascinating facts for everyone. The book covers goods wagons built and used in the years from the 1960s through to the new century.

The subjects are covered in a commendable degree of depth, but because of this, certain aspects are set aside from this book. It seems wise, however, to adopt this thorough approach and extend the subject to perhaps another in the series.

The author has selected some views that are uncommon and sometimes



Above: Sunday morning engineering works at Wolverton. A London-bound parcels service hauled by 'Britannia' No.70048 The Territorial Army 1908-1958 passes a ballast train.

Photograph: Phil Caley.

just what a modeller might need to finalise that illusive detail. Those wishing to find out more about the historical aspects can find essential, basic information that is hard to find elsewhere in such a concise form. This includes a table of wagon codes, a glossary and gems like why some stock has acquired names such as 'Toads'; not everyone knows!

Many references to Dr. Beeching's infamous recommendations crop up with pertinent comments that help to give reason to the movements within the industry and their consequences. All the time, parallels are drawn with the country's commercial trends and national politics of the time.

Narrow gauge is not forgotten nor is the departmental stock and the contribution from the US controlled EWS and Irish freight developments.

The quality of the illustrations, all of which are in full colour, is fine and they are of a size that makes viewing pleasurable. The continuous picture/caption layout is occasionally broken by narrative pieces that offer broader information in an easily assimilated way.

The author's views are enhanced by those of his father, Dr. Robert Preston Hendry to create a meaningful account that fully warrants the book's title.

Britannia Pacifics

Gavin Morrison
and Peter Swinger
Published by Ian Allan,
Riverdene Business Park,
Molesey Road, Hersham,
Surrey, KT12 4RG
Hardback 112pp
245 x 180mm £16.99
ISBN 0 7110 2920 2

A fleet of fifty-five locomotives and one Peter Swinger; it was the task of Gavin Morrison to weld these two together. Sadly, this was to be the final, unfinished manuscript of Peter Swinger before his untimely death.

The resources of both authors are combined to make a fitting tribute to locomotive and original author. After some introductory pages, a brief history of each loco is presented as a pho-

tograph, extended caption and table of allocations.

Following the 1948 locomotive trials, these two-cylinder giants, led by No.70000 *Britannia*, were introduced in 1951. That year saw a further twenty-three come from Crewe works to be located in the Eastern, Western and Southern Regions. Twenty more were delivered in 1952/3 and a final batch in 1954. Three 'Britannia' Class locos were used on the famous *Golden Arrow* run, but they were put to a huge variety of uses as the book tells us.

The pictures show that these locomotives had magnificent presence even though some went through times of apparent neglect when they were used in a filthy condition. But their qualities shone through and in a relatively short working life they made a significant mark on railway history.

The book runs in loco number order from 70000-70054 making reference easy. From page 66 to the end of the book is a substantial colour section, with captions, showing the many uses to which this class was put and the various states of care afforded to it

The quality of the pictures evokes the spirit of the times and the colour section brings added life; let your imagination loose and you can almost hear them working. They are also wonderful reference sources for modellers looking for the finer details.

The captions throughout the book provide a distillation of the important points in the history of the 'Britannias' and how each loco played its part in their combined story. In the table that accompanies each caption, it is sobering to see that so many were sold for scrap, only two being saved. The compact landscape format of the book invites the reader to dip in and study the subtle differences between locos and trace their fortunes across their allocations. But the more casual browser will derive pleasure wherever the pages fall open.

If only we could wind back the years!

Warley 2003 – new products released/announced at the National Exhibition Centre



The Peco Mobile Studio seemed busier than ever at the 2003 Warley Show, held at the NEC over the weekend of 6 and 7 December last. Many new items were borrowed for photography, and some feature also in our reviews pages. Addresses are given on page 116.

4mm scale

Hornby

Given the flurry of new items released during the past few months – the Q1, Class 50, and of course the live steam set – Hornby had nothing for the studio to cover. The display layouts, around which steamers were steaming, was as expected very popular indeed.

Bachmann

Several of the promised new diesel models were on display, although we understand that production time constraints in the Far East have meant that the Class 40s will be with us in the New Year. We photographed one of the two versions of the Class 20 (the other has a four-character headcode box in place of discs) and one of the 'Peaks', the Class 44. D1 *Scafell Pike* was the doyen of the big BR/Sulzer 1Co-Co1s, and the names of the first ten gave the classes their overall nickname.

Two varieties of 'Deltic' were also seen, D9004 *Queens Own Highlander* in the two-tone green (illustrated) that suited these machines best, and 55 009 *Alycidon* in the rail-blue-with-white-cab-surrounds livery that was the Finsbury Park trademark during the last years of 'Deltic' operation.

Heljan

The enterprising Danes' stand was very busy indeed. We believe that the firm sold all the green Hymeks it brought to the NEC by 16.00 on the Saturday! The model is reviewed in full

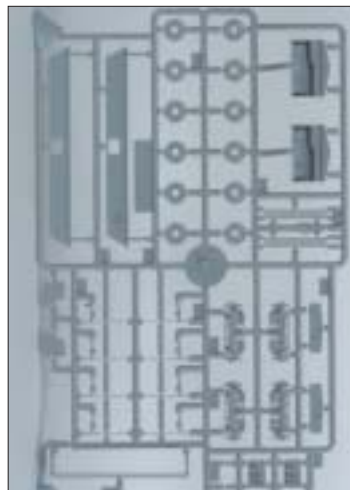


elsewhere in this issue: we snapped one of the other livery variants.

Heljan made public its 'Western' hydraulic project at the show. A sprue of components was on display, allowing the crisp detail and depth of relief to be appreciated. Note too that the characteristic slightly domed four-hole disc wheels will be reproduced as inserts, presumably within the existing RP25 profile wheelsets.

Also coming will be Class 66s, in both 4mm scale and H0. As many will

know, there is a sizeable fleet of these locomotives in use for 'open access' freight operators such as Short Lines and Rail4Chem. Delivery time is as yet unspecified.



Townstreet

The stand was busy as usual, but Jim Hendry had time to lend us a built-up example of his new Midland Railway lamp hut, and a small building that will be suitable as a yard office.

C-Rail Intermodal

New for the show is another sheet of waterslide transfers – produced by noted US manufacturer Microscale – to suit the Bachmann 20' containers. The sheet contains sufficient to produce six containers, in these shipping company names: Evergreen, Genstar, Hapag-Lloyd, Mitsui OSK Lines, OOCL and tex. Suitable Precision Paint is also available. Transfers are £4.95 per sheet, and paint is £1.60 per tin. Postage is £1.00.

Murphy Models

New to this specialist supplier of Irish outline stock are two commissions from Lima. There is a three-pack of BR Mk 2 coaches in Northern Ireland Railways livery, and a two-pack of Mk 3s in Irish Rail 'Executive' colours, both versions finished neatly by Lima.



Warley 2003 new products – continued



London Road Models

LRM is progressing a project begun by the late George Norton, to produce kits for Lancashire & Yorkshire 4-4-0s. Designed under the auspices of Barton Wright, these hardy machines were turned out by two builders – the kit reflects the subtle differences between batches – and trailed a variety of tenders. London Road Models has four under development, two early short wheelbase types and a couple of more modern long wheelbase designs.



and chassis and superstructure can now be separated for maintenance (c.f. the version of the kit mentioned in the article by John Cockcroft in the July 2003 issue).

Also new to the Piercy range is a kit for the LNER J267/27, and the LNER 13T slope-sided hopper wagon – with operating bottom doors!



Tower Models

The latest ready-to-run 0 gauge locomotive is the attractive Churchward 'Small Prairie'. It needs only painting and finishing to round off. It is scheduled to be released this month.

Our report from the Gauge 0 Guild convention in Telford (November issue) included the new Tower Models motor/gearbox: it's been joined by its bigger brother! Contact the firm for full details.

H0 scale

The British 1:87 Scale Society, dedicated to the furtherance of British H0, has released a kit for a 10' wagon underframe, thereby simplifying the task of scratchbuilding a 'traditional' British freight vehicle in this scale.

7mm scale

DJH Engineering

Another kit for a BR Standard has joined the DJH stable of 0 gauge items: a BR Class 6 'Clan' to be precise. A semi-complete example was on display, and kits should be available now. It boasts a one-piece pewter boiler/firebox/smokebox, many fine detail parts, brass fold-up cab and tender shell (pre-bent where required) and needs only motor/gearbox and wheels to finish. Factory-built locomotives will also be offered.

DJH acquired the **Piercy Model Products** brand last August, and has retooled the 'flagship' kit, for the Thompson B1. It now features a one-piece cast boiler/firebox/smokebox;



CRT/POW Sides

New to the CRT range of coach kits is a post-war LNER-design kitchen car to diagram 353 dating from 1948 and used in the *Flying Scotsman*. They had anthracite-electric cooking equipment and were built at Doncaster.

The POW Sides range of wagon transfers and pre-lettered kits has been increased again: the latest is for

Cains of Wallasey, and – it's true, believe it or not – a 7-plank wagon built by Hurst Nelson, operated by London coal merchant Wallace Spiers, but advertising Crystalate billiard balls ('cost one third the price of ivory, same colour all through'). And you thought garish advertising liveries were a modern phenomenon...

Townstreet

New to the 7mm scale section of this firm's extensive range is a length of straight stone walling with buttresses cast in place to make extending the feature very easy.



N gauge

Graham Farish

For modern fans, the Class 170 Turbostar should be out soon, the display sample being of a South West Trains 2-car unit. (Midland Mainline and Central Trains are the other two liveries offered at present.) The mechanism is as usual a centrally-mounted motor driving all axles. It is surrounded by a clear plastic shell, onto which the livery is sprayed.

The Class 25/3 is new, and is available in several liveries. A GF theme of





recent times is to include a livery variation within its sets that is not available in the 'mainstream' range.

Steam fans will appreciate the appearance of the Farish 'Merchant Navy' as No.35005 *Canadian Pacific* in BR express passenger blue. The model on display represented the machine as it is now, with black-backed nameplate on one side, and red-backed on the other.

Locos are all very well, but modern freight operators only had eyes for the HAA merry-go-round hopper. In fact the display item was not the finished result, and we were able to inspect fresh shots from revised tooling for the body and the cradle. It is understood that the rivets will be put on last – to allow for variations in number and position of these items – and it was pleasing to see that the subtle angles of the ends of the body, when viewed in plan, were present: the Minitrix body is flat at the ends, incorrectly.

CJM/Taylor Precision Models

Sharing a stand, these two top-quality N gauge suppliers had several interesting models on show.

The **CJM** Class 67 is one of those occasions where model railways becomes jewellery. It is fully detailed, with scale coupling and buffer beam on the No.1 end, scale panelling and

grilles, etched windscreen wipers and more. It boasts a smooth-running chassis, naturally, and flywheels. Under development for 2004 is a Freightliner 66/7, with the details specific to this operator's fleet of 'freds'. GBRf locomotives will also be offered.

Taylor Precision Models' new Kato-derived chassis for the Graham Farish Class 33 was on show. It allows the modeller to have a 'Crompton' – and indeed the BRCW Type 2s – with a quality drive allied to the correct bogie wheelbase, castings for the side-frames being included in the pack. TPM is also involved in the production of WIA 5-piece articulated car transporter wagons, the prototypes of which have been built by Arbel. Marketed under the **ATM** banner, the production run is limited to 100 models only.

Electra Railway Graphics

This new concern has released overlays, printed on good quality card, for modern parcels stock. They are designed to be fixed to Graham Farish GUVs, BGs and Mk 1s, and consist of a Super GUV, Super BG and two PCVs (propelling control vehicles) respectively in the first set. The cab ends of the PCVs are in two versions: full printed detail, and plain for those wishing to add their own, '3D' cabling, lights etc.

Continued overleaf.



Presentations and personalities

The Warley show was opened by Graham Hubbard, MD of Bachmann Europe PLC (*pictured*). He stood in for the intended guest, Sir William McAlpine, who was unable to attend. To mark a significant birthday milestone, Graham was also presented with a suitably decorated cake by members of the Warley MRC. (We could not possibly reveal said milestone, but readers are invited to think Brush Type 5...)

The winner of our photographic competition, Michael Mutimer, was on hand to receive his award from our general manager John King (*left*). His winning entry appears on page 90 of this issue.



The **Modern Image Cup** was awarded to Martin Edmondson for *Fort Nevis*, a 2mm finescale layout based on the new station at Fort William in Scotland. Martin also received his award from Pete Waterman.



The **Mayor of Sandwell's Trophy** was won by the Bowyer family's 009 layout *Glenbranter*, featured in RM February and March 2002.



David Lamb was the winner of the RAILWAY MODELLER 'Right Away' trophy for 2002, and he duly received his cup from the editor on the Saturday. David (*left*) is seen in front of a display of photographs of his layout – *Shedley*, featured in December that year – along with Warley MRC Exhibition Manager Paul Jones (*centre*).

Also presented was the **Calvert Cup**, created in the memory of this N gauge stalwart and prolific modeller. It was awarded to Nick Falconer for *Königshafen*, an N gauge layout set on the banks of the Rhine, between Mainz and Mannheim. See our sister magazine CONTINENTAL MODELLER for October and November 1997 for the full article.



The **Bachmann Cup** was awarded to the Wolverhampton MRC for *Charwelton*, an 00 finescale layout of a station on the GC in the 1950s/60s.

A **Virgin Trains** prize draw and sale of old promotional items raised £1812.85 for the **Warley Model Railway Club Charity Link**. A presentation cheque, supported by cash raised, was handed over to a delighted Warley MRC Chairman, Alf Fantham, just before the show closed. The event was organised by the Virgin Trains team who would like to thank all those who took part for their generosity. Those successful in the prize draw received a Bachmann GW brake van in Virgin livery.

The **Virgin 7mm Cup** was awarded to Chris Peacock for *Calstock Quay*, a narrow gauge layout depicting a small inland port that served the Cornish tin and copper mines. See RAILWAY MODELLER May, June and August 2000 for the full article. Chris (*left*) received his award from Pete Waterman.

In recognition of Exhibition Manager **Paul Jones'** 25 years service to the show, Warley MRC Chairman Alf Fantham presented Paul with some DCC equipment.



Warley 2003 new products – continued



Gauge 1

Aster Hobbies

The superb live steam Gresley A3 is now offered in late BR condition, with working double chimney, German-style smoke deflectors, left-hand drive and streamlined non-corridor tender. Ready-to-run examples are finished as – what else? – No.60103 *Flying Scotsman*, but those wishing to build the kit can have more latitude with identities.

The model boasts three cylinders, with outside Walschaerts gear and Gresley conjugated motion for the inside one. The run is very limited, so reserve without delay.



Wagon & Carriage Works

New to the range is an LNER 8-ton ventilated refrigerator van, one of the 9' wheelbase steel underframe designs built during the early years of the company, before vans were superseded by containers. The prototype for this particular model was registered at Stratford in 1926.

Z gauge

1:220 scale specialist **Z-Club GB** had display models of its resin bodies for BR Class 47 locos and Mk 3 coaches. Both are designed to run with Märklin chassis and bogies.



Aster Hobbies Ltd., PO Box 61, Abbots Langley, Herts WD5 0ZJ.

Bachmann Europe PLC and **Graham Farish**, Moat Way, Barwell, Leics. LE9 8EY.

British 1:87 Scale Society, 2A Farm Road, Oldbury B68 8RB.

C-Rail Intermodal, Morven, Roome Bay Avenue, Crail, Fife KY10 3TR.

CJM Studio, 51 Northwood Road, Tankerton, Whitstable, Kent CT5 2EZ.

DJH Engineering Ltd., Project House, Consett Business Park, Villa Real, Consett, Co. Durham DH8 6BP.

Electra Railway Graphics, 32 New Road, Woodston, Peterborough PE2 9HA.

Heljan (UK), PO Box 474, Peterborough PE8 6FF.

Hornby Hobbies, Westwood, Margate, Kent CT9 4JX.

London Road Models, PO Box 643, Watford WD2 5ZJ.

Murphy Models, 2-5 Wexford Street, Dublin 2, Republic of Ireland.

POW Sides and **CRT**, March Cottage, Warehouse Road, Stebbing, Dunmow, Essex CM6 3ST.

Taylor Precision Models and **ATM**, Unit 235, Stratford Workshops, Burford Road, London E15 2SP.

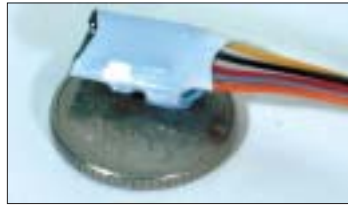
Tower Models, 44 Cookson Street, Blackpool, Lancashire, FY1 3ED.

Townstreet, The Old School, Carnbee by Anstruther, Fife KY10 2RU.

Wagon & Carriage Works, PO Box 7814, Sleaford NG34 9WW.

Z-Club GB, 36 Floribunda Drive, Briar Hill, Northampton NN4 8RZ.

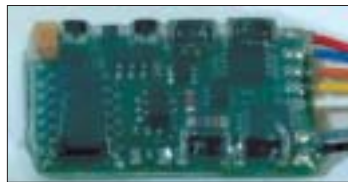
ZTC Controls, 75 Portway, Wells, Somerset BA5 2BJ.



Electronics

ZTC Controls launched two new digital command control decoders. The first, the ZTC 217, is believed to be the smallest available in the world; certainly within the UK (it's sitting on a 5p piece in our photo). This decoder is suitable for operating locomotives from N to 0 gauge and includes the firm's WhisperDrive™ technology for silent operation of all types of motor including the coreless RG4 and RG7 ranges. The current output is rated at 3/4 amp making it suitable for most modern drive motors. A full range of configuration variables is provided along with two independent function outputs.

The second decoder, called the 'Great British Loco Decoder' or ref.ZTC 218, is believed to be the cheapest DCC decoder available in the UK. It has been designed to fit into the majority of British outline steam and diesel locomotives and comes with a suitable rated output.



SHOP NEWS

OPEN

Bay Models, Carnforth

Eight years ago Jim Pinch took advantage of being made redundant from a career in lorry transport to set up a model train business working from home and trading at exhibitions.

But during November 2003 Jim opened a shop, Bay Models, Unit 5, Carnforth Station, Lancashire to specialise in large-scale garden railways. Jim's wife and brother-in-law also work in the shop.

Other shops in the area include Station Models and The Train Shop which complement Bay Models with different ranges.



Bay Models, Unit 5, Carnforth Station, Carnforth, Lancashire LA5 9TR. Tel: 01524 730101.

DJ's Models, Leigh on Sea

After a career in engineering, David Moore developed his life-long hobby of modelling into a new occupation, to run a thriving business specialising in radio controlled models of all kinds.

During December 2003 he expanded the premises to include a range of large-scale garden railway products. Apart from extending the selection of items for sale,

David offers expert advice to both newcomer and seasoned modeller. He will only recommend the most suitable products and solutions to problems.

David's partner and some friends are also involved so give him a call.

DJ's Models, 1176 London Road, Leigh on Sea, Essex, SS9 2AH. Tel: 01702 471196.

Model Collectors Corner, Portsmouth

Model Collectors Corner of Portsmouth has recently sponsored the nuts and bolts for the East Hayling Light Railway. More than seven thousand were needed on the mile-long, 2' gauge railway.

John and Fran Harris's shop is one of the largest model railway stockists in the area and keeps a

comprehensive stock of 00 and N gauge Peco track, plus extensive selections of Hornby, Bachmann and other top names.

The firm can also help you with loco repairs.

Model Collectors Corner, 117 New Road, Portsmouth, Hampshire PO2 7QS. Tel: 023 9265 3100.

4D Modelshop, London

After eight years on the City Road, 4D Modelshop Ltd. has relocated to The Arches, 120 Leman Street, London E1 8EU. Opening hours are 09.00-18.00 Mon-Fri, 09.30-18.00 Sat.

Now, the shop is even more accessible and within easy walking distance of several lines

including DLR, East London Line, Circle, District, Metropolitan and Hammersmith & City.

All the goods and workshop facilities will be on one level with purpose-built departments.

4D Modelshop, The Arches, 120 Leman Street, London E1 8EU. Tel: 020 7264 1288.

Wells Models & Hobbies

Keith Hunt is celebrating twenty years of owning and running Wells Models and Hobbies in the Somerset city.

Having been a collector whilst previously working in the milk industry, Keith decided to reorganise his collection. After advertising some of the collection, he received replies from all over the world. From this, Keith saw a business opportunity and set up his first model shop.

But over the years the business has grown; now two shops and a

wholesale business later, there is just cause for celebration. Keith's wife and daughter are also involved selling mainly 00 scale Hornby, Bachmann, Peco and other major model railway products, plus toys and models of a more general nature.

To find out more about the Wells or Minehead shop, give Keith a call.

Wells Models & Hobbies, Old Chapel Bakery, Union Street, Wells, Somerset BA5 2PU. Tel: 01749 675262.

Warley Symposium 2004

Following on from its hugely successful show at the NEC, the Warley MRC Annual Symposium and open day will take place on Sunday 15 February 2004.

The venue is the Clubrooms in Albert Street, Oldbury, West Midlands and the Christchurch Primary School opposite. Opening hours are 10:30 until 16:00 and admission is £2.00.

There will be displays, demonstrations and layouts from the Club together with trade representation.

A new feature will be a reunion of members of the Model Railways Evening Class run by Nick Tilston at Leasowes Community College, Kent Road, Halesowen from 1976 to 1992. Anyone who attended the classes is invited to the reunion and further information can be obtained from Nick on 01384 250478 or from the Warley Model Railway Club.

Further information about the symposium can be obtained from John Seward on 0121 532 8277.

Pendon Museum 50th anniversary

2004 sees the 50th anniversary of the Pendon Museum, Long Wittenham, Abingdon, Oxon.

The museum is well known for its magnificent layouts and amazing standard of model building. New for 2004 is the Oxford Line in the Vale of White Horse landscape. A full complement of trains passes realistic lineside scenery complete with all the building groups in

the area; this includes Britchcombe Farm which has been on display in an adjacent room for some time.

Also in 2004 there will be new introductory displays and an extended shop and tea-room, selling a wider range of products and refreshments.

Telephone 01865 407365 or see the website www.pendonmuseum.com for details of activities in 2004.

Hornby live steam – winner and update

In the November edition of RAILWAY MODELLER we invited readers to enter a draw to win a new 00 Hornby live steam locomotive *Mallard*. The draw has now taken place and we are pleased to announce that Mr. Chris Rigden of Bicton Heath, Shrewsbury has won this magnificent prize.

The live steam models are proving to be a runaway success. The factory is doing its very best to keep up with the demand and shipments are going out now – mid-December, at time of writing – with more to follow.

It is fortunate that this model is not a limited edition, so supplies will be

available for the foreseeable future as demand dictates.

Whilst writing, Simon Kohler of Hornby would like to pass on his appreciation to all those at the Warley Club for their generous help in making the Hornby stand such a success.

All the visitors to the stand were very welcome, as were their comments. Many people wanted to see the live steam demonstration and, to some extent, it was a victim of its own success. The crowds made viewing difficult, but next year that will be taken into account when organising the stand.

Cornwallis Yard photo credit

The photographs for the *Console for Cornwallis Yard* article in the December RAILWAY MODELLER were

credited incorrectly. They should have been credited to Karl Crowther.

Sincere apologies to all concerned.

Cheltenham GWMG aids charity

Cheltenham Great Western Modellers Group currently has two exhibitions a year in April and October to raise money for C.L.I.C. (Cancer and Leukaemia in Childhood) at St. Margaret's Hall in Cheltenham.

Because the group is are looking for funds towards the cost of enlarging the hall, there will be a one-off, one-day exhibition to help on Saturday January 24 2004.

For more details, call 01242 517788.

Paws for praise

Author Alan Cliff has, for the second time, achieved finalist status in the Queen's English Society Awards.

The Reverend Alan Cliff's short story 'Jack the station cat - special agent' is from a collection of stories, 'Jack the station cat and the space aliens and other stories'.

The judges' report: 'It is a very good yarn, well told in simple, direct English, suitable for encouraging the young to read, or to want to have it read to them.' Rev. Cliff is the first children's author to be shortlisted for the Goodchild Prize. This is the second children's book to be shortlisted for the award within three years.

Casterbridge at Southampton



An article will follow at a later date all about *Casterbridge*, the latest foray into 0 gauge by the Southampton MRS. The layout is now being prepared for its appearance at their annual exhibition on 31 Jan/1 Feb 2004 at the Eastpoint Centre, Burgoyne Road,

Thornhill, Southampton (see 'Societies & Clubs' for details).

Consisting of a double-track mainline, motive power depot and yard, it is based on the unusual layout of Dorchester South and is set in the late 1950s, early 1960s.

Digital Command Control course at Peco

In May 2004 Peco is offering an opportunity to find out all about DCC (Digital Command Control).

Some unjustified mystery surrounds the subject, but we aim to dispel the rumours of complication, and programming issues and show you what DCC can do for you.

Representatives from ZTC, Fleischmann, Lenz and Digitrax will be

on hand to advise and instruction will be available to enlighten the newcomer and help those more familiar with DCC to get the best from their layout.

The weekend of Saturday 22 and Sunday 23 May 2004 are the dates for your diary.

By the way, once you are in the Peco complex, the DCC lectures are free! Contact 01297 21542 for details.

Stafford Railway Circle show 2004

Stafford Railway Circle 2004 exhibition will be held over the weekend of 31 January and 1 February.

Following the success at the new venue, the exhibition will again be held at the Stafford County Ground and an

extra hall has been booked to ease congestion.

The expansion has allowed twenty-two layouts to be on show with increased trade support.

Full details in 'Societies & Clubs'.

Latest Squires catalogue

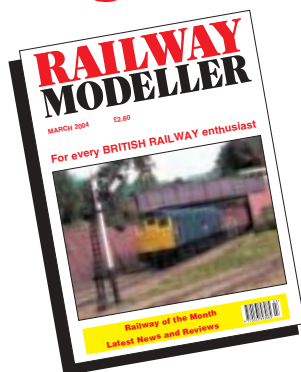
It is difficult to think of a modelling or craft tool or item that Squires does not have in its new catalogue.

Each section has its own contents list which makes finding the item you need much easier; just like having several small catalogues conveniently bound together in one book. There is also a full index in the back, and many monochrome illustrations throughout.

The 650pp catalogue is free to any UK address and orders received before 4pm are despatched on the same day. Postage and packing are free and payment can be made by cheque, credit or debit card.

Squires Model & Craft Tools, 100 London Road, Bognor Regis, West Sussex PO21 1DD. Tel: 01243 842424.

Coming next month



Out on Thursday 19 February

RHOSNEWYDD JUNCTION
Ken Gibbons' modern image layout is booked to appear at the East Midlands show.

RAVENSWORTH ROAD
Alan Gray gives us a tour of this 00 layout from the Birtley Model Railway Engineers.

WEST HIGHLAND STATION BUILDING
A full colour drawing by Edward C. Peckham.

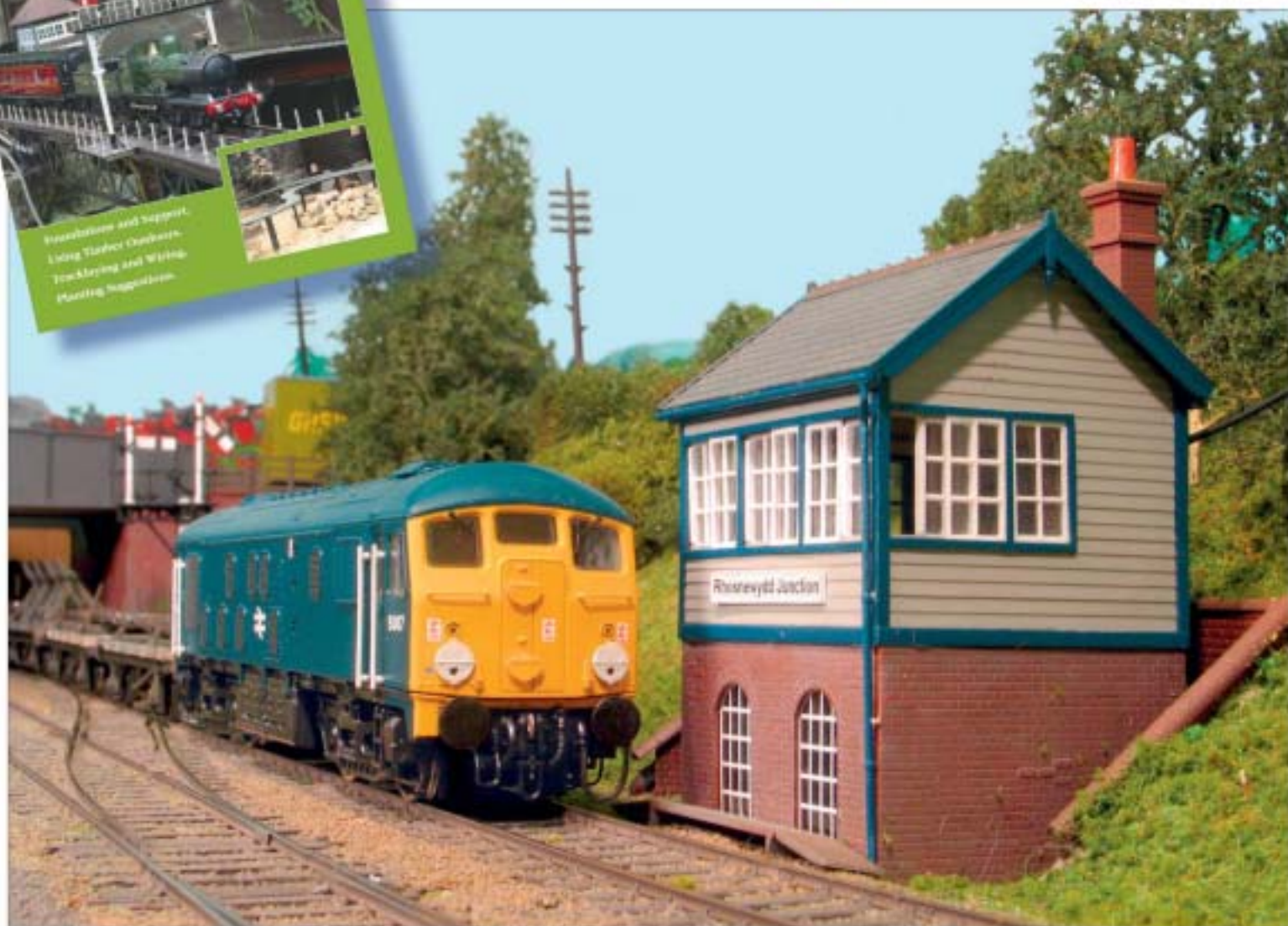
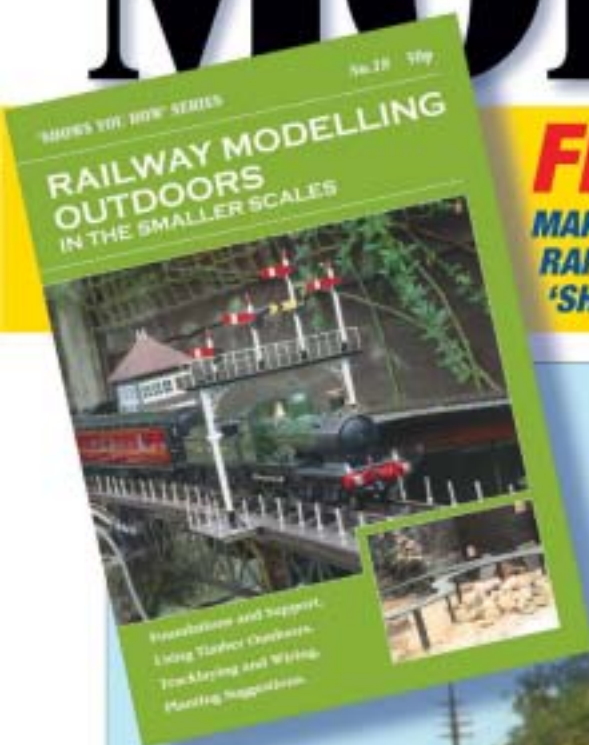
HUDSON ROAD NER – 2
Jon Grant covers operation, and the military aspect of his 4mm scale layout.

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MARCH 2004 £2.60

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RHOSNEWYDD JUNCTION – NORTH WALES IN THE 1970s IN 4mm SCALE
WEST HIGHLAND STATION BUILDING – FULL COLOUR SCALE DRAWINGS
BROOKLANDS PARK – BASED ON THE EAST COAST MAIN LINE IN OO GAUGE
RAVENSWORTH JUNCTION – LARGE 4mm LAYOUT SET IN THE NORTH EAST

FEATURES



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Railway of the month
RAVENSWORTH JUNCTION

Alan Gray describes the construction and operation of the 00 layout of the Birtley Model Railway Engineers.



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HUDSON ROAD NER – 2

Concluding our look at John Grant's snowbound setting of a busy World War 1 North Eastern scene.

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The first of a series on modelling the IOMR by Robin Winter.

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The four-track 00 exhibition layout of the Norwich Railway Heritage and Model Society described by Roger Lincoln.



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A compact BR blue-era layout in EM gauge by Ken Gibbons.

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Concluding this compact 00 layout set in North Yorkshire: Andy McMillan rounds off the project.

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WEST HIGHLAND STATION BUILDING

A 'near standard' structure drawn and described by Edward C. Peckham.



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Plan of the month

MALLAIG

In the fifth of his West Highland Wanderings, Ian Futers visited the terminus of the 1896 extension.

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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

March 2004 · Volume 55 · Number 641

Shows you how – every month

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COVER: Class 24 rumbles past the signal box on Rhosnewydd Junction. Photo: Steve Flint, Peco Studio.
BELOW: the best way to see Scotland – 90-hauled sleeper at Waverley in May 1998. Photo: Ian Futers.

RAILWAY MODELLER

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Of course...

In one of those 'why did we not think of it before?' moments, we stumbled upon the reason why the March issue has a slightly 'Scottish' feel to it, in one way or another. It is the issue to which we return from the festive break, in a Hogmanayish sort of frame of mind and with *Auld Lang Syne* still echoing around the head...

As promised, we present herein Edward C. Peckham's full colour scale drawing of a 'standard' West Highland station building, and there is another helping of the Ian Futers odyssey around the West Highland line. There's Scottish interest in the reviews pages too. Of course there is much more to see above the borderline than the west coast, and what better way to see it than from a sleeping car?

Sleeper services have been a feature (and were a well fought-for feature, too) of the West Highland for years, and no model will be complete without one. Indeed, the provision of sleeping cars to other parts of Scotland is part of the attraction of visiting the country. What better way is there than saying goodnight to Wembley and waking at Waverley? What better impetus is there to get out of bed early in the morning than the fact of crossing the Forth at dawn?

Sleepers are the dark horses in model terms. Sadly now-dormant – as far as mainland UK output is concerned – Lima provided us with 4mm scale ready-to-run Mk 3s and the means of their haulage – Class 67s – but earlier-period models survive, in the form of the Hornby Mk 1 and LNER-design types. It could of course be argued that *any* model of a sleeper is a brave project for a ready-to-run supplier to undertake, seeing that they are by definition mainly nocturnal animals. There are, naturally, those modellers who delight in illuminating all their houses and shops, street lamps, signal aspects/lamps, station buildings and so on – *Hudson Road* in this issue, for example – and running their layouts in 'night' mode, but it would be a brave marketer who pitched a sleeper solely at this sector of the hobby.

Probably the appeal is the very nature of sleeping car services itself. It is the 'wake up several hundred miles away' factor; the last of the 'real', unidirectional (no DVT), *long* passenger trains we have left; the least likely trains in which to hear anyone say 'I'm on the train'; and the most likely trains in which to instil someone with the whole appeal of railway travel. There's simply no better way to see the splendours of Scotland than from the window of a sleeping car.

Free booklet inside!

With this issue we present our updated 'Shows You How' booklet on garden railways (the electrically-powered standard gauge kind, that is). It's clear that you don't have to have much space to create a garden railway: an *Inglenuok*-type shunting layout in a window box, perhaps?

CD Annual

Yes folks – we've done it again! Our second CD Annual is now available, price £16.50. (We have also replenished stocks of the 2002 Annual due to demand.) It's designed for PCs running Windows 98™ or newer. It's packed full of interesting features, slide shows, and movie footage of some of the layouts that have appeared in the magazine over the past year, including clips – duration 10 minutes or so each – of the *Kendal Branch* by David Jenkinson and *Abbotsdene*, 0 in the garden by Graham Sheppard. Get yours today!



CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.



Railway of the month

Ravensworth Junction

The 00 layout of Birtley Model Railway Engineers

Alan Gray describes the layout, its construction and operation.

The layout was designed as a vehicle to show off the club's modelling skills at exhibitions, mostly at Birtley but also at other venues as invited.

The design had to include the needs of club members to test and run their own and the club's locomotives and stock.

The layout is situated in the North East of England. The sketch map shows the possible fictitious location.

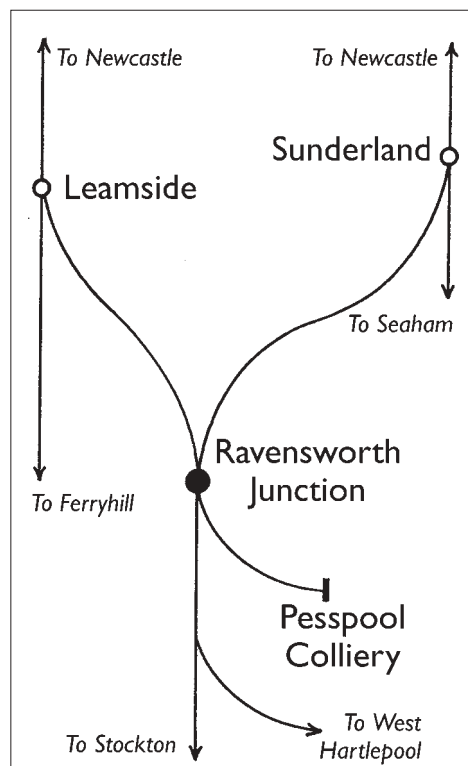
The design includes main and branch lines, with a goods loop, colliery exchange sidings and a locomotive shed with turntable and coaling stage.

The period of operation is in steam days around the early 1950s. It was decided to omit a passenger station from the design.

Baseboards

There are twelve baseboards, 2' wide and a maximum of 5' long. Only two are rectangular with the remainder having angled ends to ensure that the track crosses as near to ninety degrees to the ends as possible.

Sections are held together by two bolts while two pattern maker's dowels ensure that the tracks are in perfect alignment.



The sides are made with five-ply and the end and cross pieces are constructed using 3" x 1" timber and covered with chipboard.

Boards are transported in pairs fastened together with MDF sheets. Generally one scenic and one fiddle yard section are fastened together. When erected twelve free-standing trestles support the boards.

Track

On the scenic part of the layout code 75 nickel silver flexitrack is used with SMP points on PCB (printed circuit board) sleepers built from kits.

The points are operated by ex-Post Office relays and are altered by cutting the blade rail and inserting a hinge of phosphor bronze strip or wire. The switch rail is insulated from the crossing and connected to the stock rail. The fiddle yard is constructed with code 100 Peco nickel silver track. Here the points are hand operated.

Three points have microswitches attached to facilitate route selection.

Ash from the local preserved line is used to ballast the track and the rail sides are painted to give an authentic rusty colour.

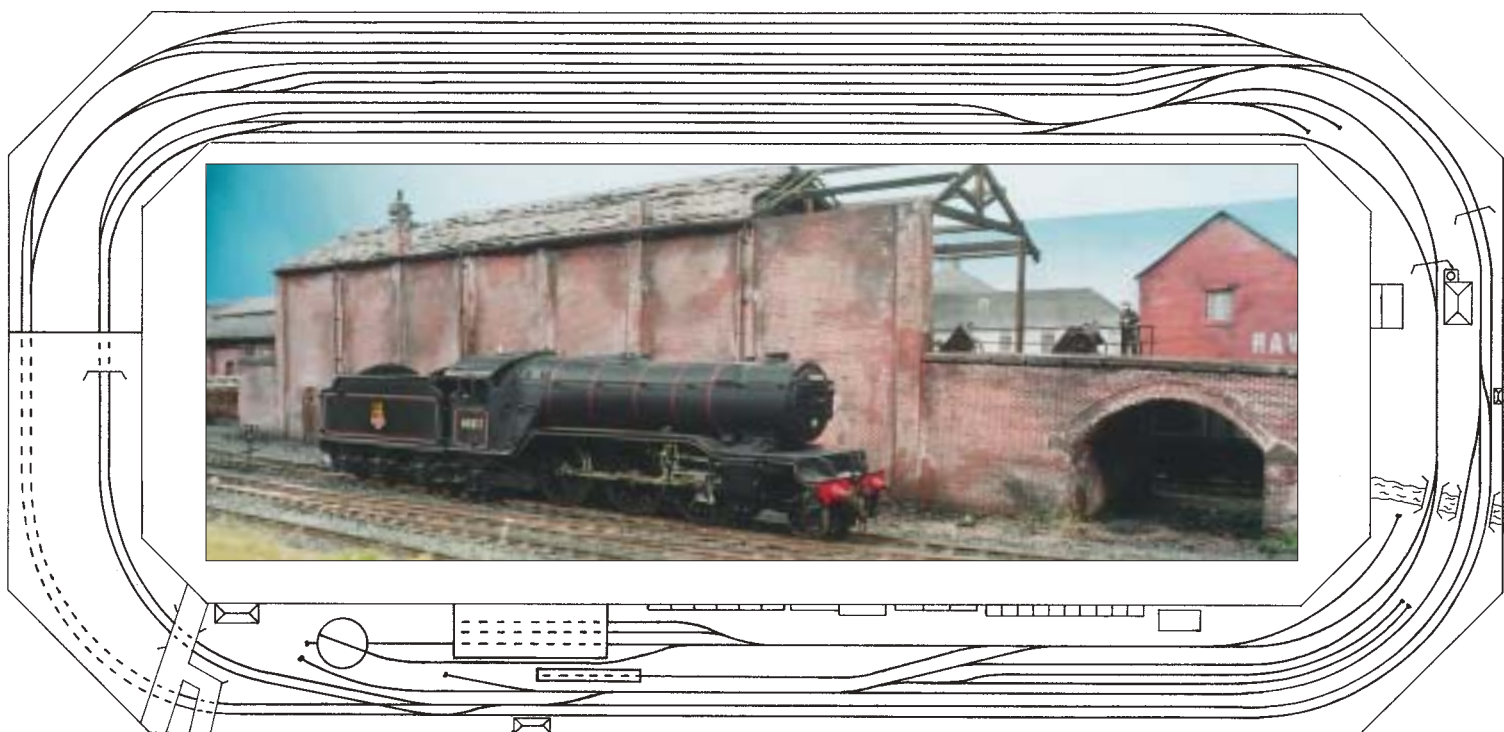


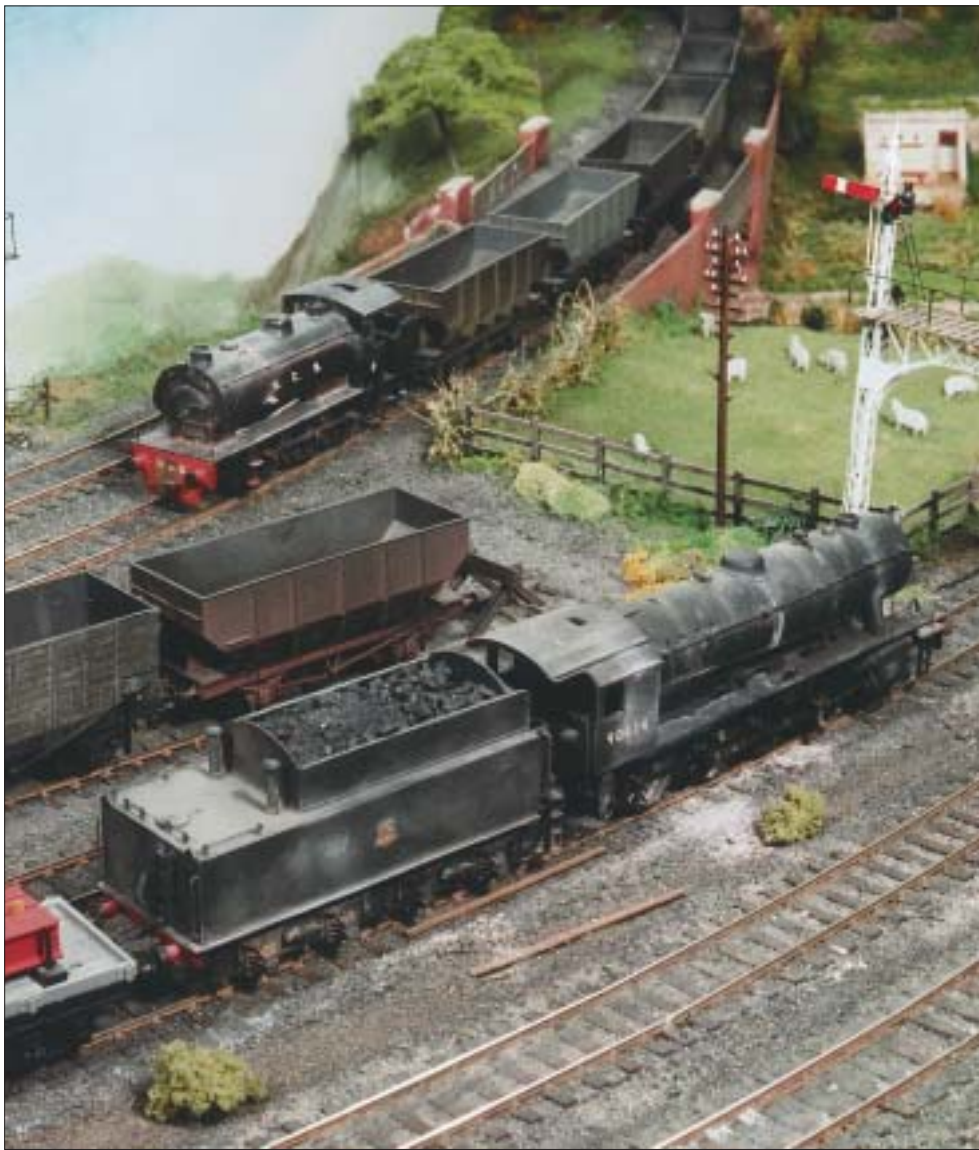
Left: K3 2-6-0 No.61927 hauls a cattle train on the main line. Ex-works J27 0-6-0 No.65814 waits to leave the colliery exchange sidings. An NCB Hunslet 0-6-0ST No.9 brings full wagons from the colliery to the exchange sidings.

Above: A3 4-6-2 No.60091 Captain Cuttle hauls an Up main line express, while Bachmann WD 2-8-0 No.90434 waits in the loop with a loaded steel train. NCB Hunslet 0-6-0ST No.9 shunts empty hopper wagons into the colliery.

Right: NCB locomotives No.12, a tender-fitted Andrew Barclay 0-4-0ST, and No.13, an ex-LNER J50 0-6-0T, stand in the refuge siding.

Below: V2 2-6-2 No.60812 returns to the shed after a parcels train duty.





Left: Bachmann WD 2-8-0 No.90434 waits to leave the down loop with a steel train. NCB Hunslet 0-6-0ST No.9 shunts hopper wagons into the colliery area.

Below: N8 0-6-2T No.69394 is travelling past the rear of the coaling plant towards the turntable.

Signals

The signals were designed and added after the layout was completed. All are hand built and operated by mechanical push rods with no interlocking with the points.

A mixture of upper and lower quadrant signals is used. Almost every movement on the layout has been signalled as was NER and LNER practice. The multitude of signals adds significantly to the authenticity of the layout.

Operation

There are two control panels with the point switches for the main and branch Up and Down lines and for the exchange yard sidings and locomotive department respectively. There are controllers for the Up line (clockwise), Down line (anticlockwise), exchange sidings, lines to the colliery, and the locomotive shed area.

The layout ideally needs six operators for exhibitions, as follows:

- * Up main and branch – driver.
- * Down main and branch – driver.
- * Exchange sidings and locomotive shed – driver.
- * Up and down dispatchers from the fiddle yard.
- * Signaller for the mechanical signals.

Generally sixteen trains are squeezed into the twelve tracks of the fiddle yard by doubling up shorter trains on some of the tracks.



Right: J27 0-6-0 No.65789 bringing coal empties down the branch towards the main line, destination the colliery exchange.

Below: J21 0-6-0 No.65103 stands over the ash pit for servicing while V3 2-6-2T No.67620 runs from the turntable towards the shed yard. The grounded coach acts as a messroom.

A set of full coal wagons is also in the exchange sidings awaiting dispatch. A push and pull train shares a road with a suburban train. They depart in opposite directions and cross at the front of the layout.

Other trains include an express passenger, parcels, cattle, mixed goods, plate empties, ballast two full and two empty coal trains.

There are several prepared train sequences which can be followed.

Locomotive stock

There are a variety of club locomotives in use, the oldest of which is a kitbuilt J27 which is used on coal trains.

There is one new (Alexander) J27 in this fleet; the older locomotives have done considerable mileage on all of the club railways.

Most locomotives are from the North Eastern and LNE railways including A3, V2, B1, K3, D20, D49, J21, J39, N10, G5 all built from kits. The late Albert Teasdale scratchbuilt a V3 and a K1 for the club. In recent years Bachmann A1, B1, V2, V3 and WD locomotives have supplemented the older locomotives. A converted Hornby three rail 2-6-4T and other detailed Hornby locomotives can also be seen.

The NCB locomotives include a Hunslet type J94 and an Andrew Barclay 0-4-0ST with tender both from Mercian kits. A spare NCB locomotive is a detailed Hornby J50 and a Q6 kit is currently under construction (Chivers





Finelines). Club members' locomotives are used as appropriate.

Couplings are three-link on all locomotives except the coal train engines, which are B&B with wire loop removed from one end to obviate the problems of 'loop locking'. These B&B couplings are a considerable benefit when shunting coal trains at the front of the railway compared with the good eyesight needed for

three-link couplings. The locomotives are weathered with paints and varnish and more recently weathering powder has been used.

Rolling stock

Most of the rolling stock in use belongs to the club and some of it is approaching forty years of age.

Passenger coaches used include representa-

tives of the Gresley, Thompson and BR eras, mostly in 'blood and custard' livery.

There is a main line set (Newcastle to Leeds express), two four-coach Gresley sets, one in each direction representing Newcastle to Middlesbrough semi-fast, and an ex-NER auto-coach for a push-pull service with a G5 tank.

Goods stock is common to the Durham area including coal trains both full and empty, and





loaded steel girders and empty plate wagons for the Consett Iron company. Other stock represents fast and pickup goods services.

The majority of the rolling stock is kit built, but some ready-to-run stock both from Bachmann and Hornby is used, suitably painted and weathered.

Again, mostly three-link couplings are in use with B&B couplers used on some coal wagons and brake vans for easier connecting at the front of the layout.

Buildings and scenery

The main feature of the layout is the engine shed and coaling stage, scratchbuilt by club member Malcolm Dunnet, and incidentally, prizewinners at both Shipley and Middlesbrough exhibitions. The tunnel has a

Above left: G5 0-4-4T No.67305 with push and pull coach leaving the branch passes V3 2-6-2T No.67620 being turned. A Sunderland District Omnibus passes a United bus on the bridge.

Left: D49 4-4-0 No.62732 Dumfriesshire passes the junction signal box with an up local passenger train and an Andrew Barclay 0-4-0ST with tender reverses onto the ash pit siding.

Above: K1 2-6-0 No.62021 leaves the main line with a train of vans passing the locomotive shed with V3 2-6-2T No.67620, detailed Hornby Standard 4 2-6-4T No.80116, G5 0-4-4T No.67281 and Bachmann B1 4-6-0 No.61399 awaiting their next turn of duty.

Right: V2 2-6-2 No.60812 reverses past the rear of the coaling plant towards the ash pit for servicing.

Photographs by Steve Flint, Peco Studio.

series of removable scenic covers in case train retrieval is necessary. The two signal boxes are also scratchbuilt. Other backscene features are made from the 'spare parts' box, while the factory and cottages are again scratchbuilt in keeping with the locality.

The layout has been well received at our own and other local shows as a good representation of the grime and industrial atmosphere of the early 1950s north-eastern region.

The constant flow of trains at exhibitions gives the public plenty to watch. Club members are still adding extra details each year, most members making contributions.

Ravensworth Junction can be seen at the Birtley Club's exhibition this month; see Societies & Clubs for details.



Hudson Road NER – Part 2

A 4mm layout concluded

John Grant's snowbound seasonal setting of a busy World War One North Eastern scene.



Operating the layout

Hudson Road has a capacity for up to twenty long trains or forty short trains although in practice between twenty-five and thirty trains are made-up before an exhibition, with space to accommodate a few 'specials'. A yard operator marshals each fiddle yard, while a third operator sets the route and operates the main running lines. A fourth operator shunts the goods yard and loco facility.

Four or five passenger trains work through, some stopping at the station, others classed as diverted expresses. They must be given right of way and all goods trains must be shunted into the loop. There are numerous goods trains, of which some are stopping goods, which deliver to and pick up from the goods yard.

I have developed a system of numbering ten sets of six wagons, each set of six having a different coloured disc and numbered from 1 to 6. When delivered, the yard operator splits them up into obvious destinations around the yard – i.e. the cattle wagon to the cattle dock – while collecting six wagons of a different colour to be taken away by the next stopping goods. The coloured discs are only on the side of the wagon that the operator can see.

Coal trains, of which there are three, run empty to the colliery and return full with the removable loads being passed between fiddle yard operators. I do not run to a sequence as such, although I hope to introduce a 'car card' system for the shunting. My operators may have something to say about this.

Setting a military theme

In addition to normal operations, I set my timescale deliberately in the winter of 1917-1918, so I could include one of my other interests, military modelling. The North East produced a lot of military hardware during the Great War, as well as providing hundreds of thousands of troops, all of which had to be transported to the continent, mostly via the Channel ports, where the shipping lanes were protected from submarine attack. All this traffic went by rail.

I have represented the wartime conditions by modelling special trains such as a tank train, using Airfix and Ehmar models on ABS 'rectanks' and Parkside bogie flat wagons (quad bolsters without the bolsters), since tanks were produced at Armstrongs in Newcastle. These were often kept under wraps in order to confuse enemy spies. (*This train was illustrated in part one, on page 6 of the January issue – Ed.*)

I have also made an artillery train with 18-pounder guns and scratchbuilt limbers, and an armoured car train using whitmetal Rolls-

Rolling stock

During the whole period of layout building, work had also been continuing with building stock for the greatly enlarged layout. My friend and fellow club member Mel Heslop is also an NER modeller and our combined stock was used on *Hudson Lane*. He agreed to build locos and wagons by the dozen, while I worked on the rest of the layout.

With the exception of the Mainline/Bachmann J72 (NER class E1), there is virtually nothing ready-to-run for the North Eastern modeller in 4mm. However, there is no shortage of good quality whitmetal and brass loco kits on the market by firms such as D&S, Nu-Cast, Steve Barnfield, Chivers, Little Engines and DJH to name but a few.

The locomotives have been built and numbered as examples shedded at Sunderland South Dock, West Hartlepool, Stockton or Newport, Co Durham, with a few 'foreign' visitors from York or Gateshead. It is hoped to add a few examples from other companies, such as the North British, Great Northern or Great Central, which were known to run occasionally to York and Newcastle.

Wagon and coach kits are as plentiful, with examples from 51L/Wizard, David Geen, D&S, ABS and Bill Bedford amongst others, in brass and whitmetal. Slaters does the very useful 20-ton hopper and birdcage brake van, which can be modified readily.

All stock is standardised with metal wheels and Kadee® uncouplers, suggested to me by Nigel Burkin as long ago as 1991, although some in fixed rakes, such as the coal hoppers, have D&E couplings to prevent accidental uncoupling.

When there has been a gap in the market, I have resorted to kitbashing or scratchbuilding locos and rolling stock in brass and plasticard, which I find easier to use, coupled with a good scale drawing in 4mm.

To date I have attempted some of the more unusual prototypes such as brake vans, mess and tool vans for the breakdown train (completed just before D&S brought out a brass kit), the snow ploughs and two rail guns, only one of which is completed. I also made a gas tank wagon using part of an old 'penny whistle', so I am not averse to using anything and everything!

Left: troops arrange supplies, while the yard waits for another local goods. The two goods sheds are based on examples from Alnwick.

Right: Peckett 0-4-0ST (a converted Dapol 'Pug') shunts the small factory, converted to packing gun shells as a wartime expedient, hence the gunpowder van.

Below: rail gun Broadsword, used for coast-line protection, heads for its next deployment behind Class N No.1643 of Darlington.

Royce armoured cars and either converting or scratchbuilding the support vehicles.

The North Eastern also converted a number of fitted wagons into Red Cross vehicles, which were used to transport wounded troops from the ports to hospitals inland. In order to represent these, I converted several D&S brass kits which are attached to the end of any passenger train heading in the right direction.

Since U-boats patrolled the North Sea, the North East fishing trade all but dried up, so a large number of the NER's fish vans were converted to other uses, including the transportation of shells and gunpowder.

The pride of my military traffic are the two scratchbuilt rail-mounted guns, Broadsword and The Beast, of which only the smaller, Broadsword is complete. The NER had several built to protect the coastline following German naval bombardment of Durham's coastal towns at the start of the war. The NER also added additional Westinghouse brakes to the train loco, a Class L 0-6-0T, to enable it to stop the train.

There is also a strong military presence on the layout from soldiers waiting at the station to a platoon of the Durham Light Infantry marching over Hudson Road bridge, with the



official photographer in attendance. There are also several German prisoners of war working in the station yard under guard, although it was common for them to wear civilian clothes with Belgian refugees, unguarded.

I have also included some heavy horses of an artillery battery waiting to be entrained

from the goods yard. These were often transported in cattle wagons, due to the shortage of horseboxes. The battery's supplies are stacked in another part of the yard. Finally some of the local industries have been turned over to the war effort with artillery shells being filled in an old farm machinery factory.





Conclusion

I have enjoyed building *Hudson Road* and have learned a lot from it. It is only my second layout, *Hudson Lane* being the first. Although the 'expert' fraternity may not agree with some aspects of my modelling, I do not feel remotely guilty about employing the many gimmicks, such as the snow, the night scene or the military aspect, to create something a little different. Indeed, they help to conceal shortcomings in the modelling, dirty snow, and some out-and-out mistakes which would probably have the experts choking with laughter!

I can easily blame any incorrect traffic operating movements on wartime conditions, although this does not excuse the operator who marshalled a gunpowder van in the middle of the local passenger!

Future developments

When time allows, I hope to add extra details to the layout such as point rodding, repeaters, and working signals, as well as several more military trains, such as a large naval gun car-

ried on the NER gun set, and several ROD/WD locomotives like the GC Robinson 2-8-0. Even a GWR 0-6-0 tender engine in military service!

I intend to change the layout from end-to-end running to a continuous circuit at some stage, with a fiddle yard round the back. This would enable me to set the whole layout up in the cellar and to expand on the scenery to include the exchange sidings at the colliery, which are currently only suggested.

One thing is for sure: my layouts rarely stay the same for long and I am continually making numerous changes without telling anyone, much to the annoyance of my operators.

Having built *Hudson Lane* and its larger replacement *Hudson Road*, I have now started on an American H0 layout.

If it is a snow scene it could be called *Hudson and Rock Island*, or possibly a continental snow layout; *Hudson Strasse* or *Hudson autobahn*!

Acknowledgements

My thanks go to the many people who have

contributed in either getting the layout built, operating it, providing information or suggesting answers to problems. Mention must also go to the clubs and societies of which I am a member – Sunderland and District Model Railway Society, the North Eastern Railway Association (NERA), and the Double 0 Gauge Association – without whose knowledge base *Hudson Road* would not have been built.

Special thanks, in addition to those already mentioned, must go to Neil Glencross and John Laidler, two of my regular operators, and to Mike Grocock of NERA, for the endless stream of information, articles and photos.

Finally thanks to my wife Sandie for putting up with a railway modeller.

Above: Class P2 No.1208 of Stockton shed transports a squadron of armoured cars and support vehicles past Hudson Road Goods.

Below: a Class Y 4-6-2 tank engine heads a train of eighteen pounder guns and limbers towards the main line at Ferryhill.

Photographs by Steve Flint, Peco Studio.



The Isle of Man Railway

A modeller's inspiration

*In the first of a series on modelling the Isle of Man Railway, noted Manx enthusiast and modeller **Robin Winter** looks at the source of inspiration for his 'Port Foxdale' layout (RM September 2002).*

The model railway industry and hobby has come a long way since the days of tinplate trains running around the floor or dining room table. We are now able to model, in some form or other, almost any railway company or part thereof with the existence of preserved railways, the support of the trade, and books and magazines providing inspiration.

Some inspiration comes from railways that have not been preserved but still exist or have evolved through history. My interest is in the Isle of Man Railway: although, like so many railways it has had a chequered history, I like to think that it has evolved rather than sunk into the preservation category. It is still serving the public transport needs of the Manx population as it set out to do in 1873.

Introduction

In 1964, at the age of eight, I was introduced to a magnificent 3' gauge steam railway system, which at that age, of course, was larger than life and full of an atmosphere that I have not forgotten or encountered anywhere else since.

Douglas station had in those days a unique antiquated smell of smoke, oil, and coal dust. The platform-less stations around the system were something else, all different in character from the next. Long fully-loaded trains left Douglas, often with a locomotive at the rear to bank the train up the steep gradients.

The best bit of fun was watching the trains being put away at night. All the locomotives were painted in Indian red livery in those days with red and cream coaches.

In the 1970s when I returned to the island, things had changed dramatically. The last trains to St. John's, Peel, Kirk Michael, and Ramsey had all departed back in 1968. The Peel departure platform, still with those mag-



nificent glass and iron platform canopies, was filled with parked cars. On the Peel departure line stood several redundant locomotives – *Sutherland*, *Pender*, *Mannin*, *Thornhill* and *Caledonia*.

A lot of 'early mornings' and patience spent in Douglas station and outside the locomotive shed meant that I was able to take a large number of photos not normally possible for the ordinary travelling holidaymaker. Subjects included locomotives No. 4 *Loch*, No. 10 *G.H. Wood*, No. 11 *Maitland*, and No. 13 *Kissack* in 'Ailsa' green livery, purely because those locomotives were the backbone of what was then known as the 'Victorian Steam Railway'. They were unfortunately the four serviceable locos left in use, out of an original sixteen.

I had the privilege of travelling on the footplate of No. 10 *G.H. Wood* on a permanent way train from Port St. Mary to Colby and back, which was a rarity in itself.

Above: No. 11 Maitland in Douglas yard in 1973. This loco is identifiable by its brass safety valve cover.

Below left: No. 13 Kissack inside the shed at Port Erin in 1975.

Below right: although considered redundant since 1953, No. 9 Douglas (minus a lot of pipework) was on display at Douglas station c.1977.

All photographs by the author.





Train working after 1968

I followed the working part of the Isle of Man Railway that was left just a few years after the 1968 closures, the Port Erin line, for the final years of the Isle of Man Railway Company and pre-nationalisation.

Lord Ailsa had come and gone and large expenditure was still required but not available. The Peel and Ramsey lines had closed forever. Despite this, some of the closed railway sites, stations, and infrastructure in the early 1970s still looked as if they were waiting for the next train to arrive.

All the locomotives in service were painted at this time in the bright 'Ailsa' apple green livery, though some of the redundant locos displayed at Douglas still carried the old Indian red. Coaches were still in the red and cream post-war livery. The remaining goods stock was scattered about the system in all sorts of greys, some bare of paint and some just being held together by fresh air and well-rusted iron work.

As a member of the Steam Railway Supporters Association, I can well remember going gardening at Port Soderick and painting signals in Douglas – all sorts of work was carried out.

Few trains if any ran on Saturdays during this period, but on certain Sunday afternoons one could travel to Port Erin on the 14.10 from Douglas, then join an express service from Port Erin to Castletown on a return special, the *Castletown Flyer*, all before returning for tea in Douglas.

The mid-1970s were very uncertain times. In 1975 the situation worsened and the line was again truncated, to run from Castletown to Port Erin only. Ballasalla had a reprieve in 1976, but the great ornate Victorian gates at Douglas station remained firmly closed: only the movement of stock, which needed access to the works for servicing, could be seen.



Top: No.4 Loch at speed crossing Four Roads just north of Port St.Mary.

Above: No.11 Maitland running round a 'Castletown Flyer' train one Sunday afternoon during the summer of 1974. The 'Flyer' was a special run at quite a pace from Port Erin to Castletown and back. Unfortunately on this occasion the staff outnumbered the passengers – just me!

Below left: at the coaling stage at Douglas stands No.13 Kissack. This view is now impossible as the Port Erin platform has been demolished, the grounded coach and scrap heap have been removed, and a concrete coaling dock and oil tank have taken their place.

Below: No.11 Maitland stands outside of the shed at Port Erin during 1977. The water tower has since been rebuilt.

Motive power detail

The history of the Manx Beyer,Peacock locomotives has been documented, so I shall not reopen that part of history here. It is well known that not one IoMR Beyer,Peacock engine is now the same as when they were built – they have all been partially or completely rebuilt.



Engines have also had pipes changed, rerouted, or added, and whistles swapped for different sizes and tones. There have been differing types of safety valves, various sizes and shapes of chimneys, and increased capacity side tanks (all with tank patches eventually added). In later years, handrails, cabs, and cab spectacles were altered, lamp brackets in various changing positions, and the inevitable boiler changes with increased capacities. The exception is the 'youngest' of the locos, No.16 *Mannin*, which has had much the same external appearance throughout its working life.

From the outset, boilers were certainly exchanged between engines as well as new ones being ordered. It is also the case that some locomotives have become donors to keep the fleet running - for example, No.7 *Tynwald*, followed shortly after by No.2 *Derby* which was withdrawn in 1949 after boiler failure, and by 1951 the whole engine had become a source of spares.

The practice of parts donation became particularly regular during the late 1950s, 1960s and 1970s during the run down and lack of expenditure on the railway. These events give each and every one of the sixteen engines their own personality despite the 'standardisation'.

Many locomotives have spent years idle, either on display at St.John's or Douglas stations, the museum at Port Erin, or worse, as in the case of No.5 *Mona*, which languished at the back of the old carriage shed in Douglas for almost 30 years. When that building was demolished in recent years, it was moved out just long enough to be photographed. *Mona* has subsequently gone into hiding once more at the back of the new carriage shed.

Successful restorations, which once would have been considered impossible, have taken place. No.15 *Caledonia* was the first and is in use today. *Sutherland* was also returned to traffic for a short while. However, after three years of active service, it is now destined to be returned to the museum and has given back the boiler that was borrowed from No.8 *Fenella*, which was returned to traffic in September 2003. However, that is the benefit of a standardised loco fleet and what the IoMR has always done - borrowed parts to keep other locomotives working.



As far back as 1944 consideration was given to diesel locomotives or even the oil firing of the steam engines. Nothing was done regarding the oil firing of the steam fleet and a diesel did not appear until 1992, that being No.17 *Viking*, a German immigrant.

Locomotives always ran chimney first out of Douglas, with two exceptions during the old IoMR company days, both for a short period only, No.14 *Thornhill* and No.7 *Tynwald*.

Conclusion

The Isle of Man is a special place, its steam railway still to this day is a precious living working railway with an atmosphere of its own. Only the Irish 3' railways come anywhere near it for interest, at least in my eyes! The experiences seen and gained whilst a teenager in the early 1970s left a marked impression on me. Roger Webster was Station Master at Douglas at the time (and probably the last person to hold that post for the Isle of Man Railway Company) and generously allowed me access to places not normally available for photography. It started a real interest that has since helped me to develop and attempt some sort of precision in my modelling of the railway.

Fortunately, since 1993 at a time of several special events and railway centenaries on the

island, support from the model railway trade has grown, especially in 4mm scale on 12mm gauge (OO_n3), but there are also some 7mm scale products. Kits are available to produce almost every variation of the Manx Peacocks and almost all of the different coach types. Some wagons are available, but what is not offered commercially still leaves plenty for the scratchbuilder to produce.

A vast assortment of architectural styles has existed on the system since 1873, and there have been some truly interesting track laying methods! All give the modeller of this railway plenty to think about, and in future articles I propose to look in more detail at some of these aspects.

Above: 1st August 1974 was the centenary day of the opening of the Port Erin line. No.4 Loch stands in the platform adorned with the ceremonial flags, whilst No.10 G.H.Wood stands on the centre road.

Below left: No.4 Loch enters Castletown during 1974. Note the tank patches, which varied from one loco to another, almost to the extent that one could identify a loco just by them.

Below: Douglas station forecourt during the 'Victorian Steam Railway' period. Note the Victorian lady on the station tower roof.



Rye & Camber 4w petrol engine

Built for the tramway by the Kent Construction Co Ltd

*1:20 scale running on 45mm gauge track, built and described by **John Golding**.*

A couple of years ago – August 2001 to be precise – RM ran an article on the now-defunct Rye & Camber Tramway (R&CT), in which the author suggested it would be possible to build a representation of the entire line – including all three stations – in 3mm scale on 009 track. I was quite taken with the proposition that it would be feasible to build a complete railway with its entire roster of rolling stock, but as I model in G scale, reproducing the whole railway was obviously out of the question for an indoor layout. However, after scaling up the track plan and making a few quick calculations, a terminus-to-fiddleyard arrangement featuring Rye station was shown to be possible. After obtaining what books I could find on the subject of the R&CT, I followed up with a weekend visit to the Sussex coast to photograph and measure what little remains of the railway.

The R&CT's track consisted of fairly light (25lb/yard) flat-bottomed rail, spiked to sleepers at 3' gauge. Some of this can still be seen, particularly in the vicinity of the old Golf Links station which is also extant, complete with passing loop and the remains of the spur down to the Admiralty jetty. I am using Peco G45 nickel silver track for the layout; its 45mm gauge actually scales at 1:20.3 if representing the prototype's 36". Not wishing to overcomplicate the maths, I have rounded down slightly and settled on a general scale of 1:20 (very nearly 15mm/foot) for my version of the Rye & Camber Tramway.

Whilst the baseboards were still in the planning stage I decided to get ahead with production of the rolling stock, all of which would have to be scratchbuilt. As having a loco would be useful for track testing, and also as I was fascinated by its unusual appearance, I selected the R&CT's 4-wheeled petrol engine as a starting point for the project.

The prototype

The R&CT closed to passengers immediately upon the outbreak of the second world war in 1939, but continued to operate a limited service under the auspices of the Admiralty, which used it for carrying freight to its jetties in the adjacent river Rother. During this time the railway became very run down and when the Admiralty handed the line back to its owners at the cessation of hostilities, it was so dilapidated that the directors took the decision to close it for good.

The last locomotive to remain in running order on the R&CT was a rather odd looking machine, built in 1923 by the Kent Construction Co Ltd. Propelled by a twin-cylindered petrol engine, it utilised a chain drive



system to power all four of its wheels. Purchased as a lower-cost alternative to the line's two 2-4-0T Bagnall steam locos that were becoming increasingly uneconomic to run in the face of competition from road transport, the diminutive engine commenced work on the R&CT in 1924. Although less powerful than either of the two steam locomotives, the Kent engine was more successful in daily use than the R&CT's directors might have expected; it coped well with the railway's two bogie carriages, although it did sometimes struggle to start its train rolling when, at peak periods, a couple of well-filled open passenger trucks might be added to the normal load.

The little machine underwent several changes in appearance during its working years. The exhaust pipe, which originally projected forwards horizontally out of the Dorman engine, developed an elegant downward curve early in the machine's life to discharge its fumes between the rails under the footplate. The covers over the wheel bearings were eventually removed to provide easier access, and in latter years a prominent sand-box was fitted to the front buffer beam.

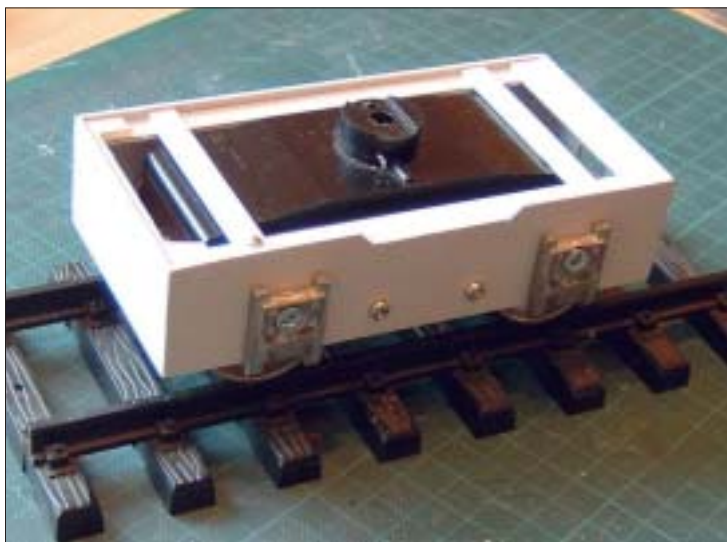
To the casual observer, however, the most obvious change was probably the progressive development of the cab, from an exposed half-cab design to a proper full width affair adorned with brass spectacle plates inherited from *Victoria*, the first of the line's two Bagnall 2-4-0T steam locos to succumb to the cutting torch. When the other Bagnall steam loco *Camber* was taken out of service pending an overhaul that was destined never to happen, the petrol loco was left to soldier on alone. Or, as it was to later fall under the command of the Admiralty, perhaps more properly it should be said that it sailed on!

Un-numbered and un-named throughout its life, the Kent Construction petrol loco is variously reported to have been sold on, exported or scrapped shortly after the announcement of the line's closure.

Commencing with compromises

Not the best way to start a 'scale' model, but you can't always have everything you want. I looked around for a four-wheel power bogie to use as a base for the model. My first thoughts were to use a second-hand Playmobil unit that has been in my spares box for a while, but its wheel diameter and wheel-base were both far too large. I have no detailed scale drawings of the loco; I have worked from photographs and information contained in the few publications I could obtain on the R&CT. I considered robbing my Lehmann™ 'Otto' loco of its means of propulsion, but as this loco is the one I let small visitors drive on my garden railway to keep them away from my precious LGB™, I allowed it to keep possession of its works, for now at least!

I finally settled on an MDC power unit from Garden Railway Specialists – not too expensive and an excellent runner. It's still too big though, so I had to raise the footplate up above scale height to clear the plastic hump of the motor casing. This led in turn to the distinctive hinged bonnets and cab roof also sitting too high and changed the proportions of the beast when I drew it out to scale prior to starting construction. To regain what I considered to be the right look of the prototype, I used a little modellers' licence and widened the loco to maintain the ratio with its height. The finished size of the model has turned out to be 180 mm over its buffer beams, by 92 mm wide, by 140 mm high. Its height is where the



greatest compromise lies – it is too tall by a couple of scale feet and as a consequence it isn't completely dwarfed by its coaches as the original loco was. Never mind, I'm not one for rivet counting.

Construction

A scratchbuilt plasticard body with a few proprietary detailing parts was the preferred mode of construction. I started by building a sub-frame that closely fitted the MDC power bogie. The body weight is taken on the top of the bogie as intended, the four threaded side spigots being used with self-tapping screws to hold the sub-frame in place. No modifications were made to the MDC unit; if necessary it can be removed and another substituted within two minutes. Cosmetic white metal axleguards were positioned adjacent to each wheel, using my belt-and-braces method of fixing – self-tappers and superglue.

For those readers who haven't tried it, plasticard and solvent is a quick, cheap and easy way of model building. Simply take a sheet of material of your required thickness, mark out the shape required and score the plasticard on one side only using a sharp modelling knife. It will then snap cleanly along the score line requiring a minimum of dressing up afterwards. Small pieces from thin sheets can easily be snapped with your fingers. Full length

pieces from thick plasticard takes a bit more effort. I have found that popping the sheet into the gap between an open door and its frame gives it just the right support whilst the pressure is applied. Do this when your partner isn't around – it sometimes goes off with a bit of a bang! Remember that modest curves can be produced by the scoring method as well, not just straight lines. Plasticard can be sanded and drilled, but don't get it too hot or it will begin to melt. Sticking the cut parts together is simplicity itself – just run a little Meks-Pak or similar solvent along the line of the joint using a small paintbrush and hold the pieces together for a few seconds whilst the bond occurs. The trick is not to use too much solvent. An excess will cause surfaces adjacent to the joint to soften temporarily and become disfigured if you inadvertently plant a fingerprint on them. Experiment on some odd scraps of material; you'll soon get the knack.

The footplate/chassis assembly was constructed next. It is a snug fit over the bogie sub-frame and is retained by yet more self-tapping screws. Wherever possible I build up the thickness of the material into which the screws go, using layered pieces of plasticard. The overall length of the model was determined by the length of the bogie subframe added to the distance required to accommodate the mountings of two LGB™ couplings; a plain loop at

the front and one fitted with spring and hook at the rear. This has made the model slightly too long in scale but it is not readily noticeable, given the other dimensional compromises already referred to.

The prototype carried some very prominent rivet detail on its frames and this was reproduced by drilling small holes where required and pressing tiny, roundheaded hammer-drive pins into them. Various cutouts were made to clear the top of the MDC bogie and the radiator etc. Channel sections were fabricated from strip and attached athwart the centre portion of the footplate to carry the engine and fuel tank. The centre support for the two lifting bonnets that cover the engine and fuel tank was also attached at this stage. I later regretted making this a permanent part of this sub-assembly, as it was a pig to mask for spraying. With hindsight it should have been made removable and attached by screws.

I simulated the 20hp Dorman 2JO two-cylinder petrol engine by cobbling together a few scraps from my oddments box, together with a couple of pieces of Lego. The top end of the engine is a two-gang piece of 30-amp terminal connecting strip; exhaust and inlet manifolds were rolled and sculpted from Milliput. The few photos I have of the engine layout are not very clear, so I only made a representation of what I thought the engine should look like. As



it is going to spend most of its time hidden under its cover I decided not to let my conscience bother me too much over this particular point of detail.

Talking of cover(s), I made the loco's two characteristic opening bonnets from plasticard sheet – 2mm thick for the ends and 1mm for the curved parts. These were assembled in about half a dozen stages, first bonding a straight portion and then, when it had hardened, tackling a little of the curvature at a time, holding it in place until it was set. My first attempt sprang apart defiantly, but after pre-curling the offending item in warm water it eventually behaved itself. I then had some trouble in hinging the covers so that they could be lifted up to reveal the Dorman petrol engine mounted on the left and the 14-gallon petrol tank located on the right. As an aside, I wonder if that petrol tank was ever filled to the brim? I expect that as the driver had carry his fuel in two-gallon cans from the local garage, the answer is very probably no!

The geometry was such that if I placed the hinges inside, as per the prototype, and made them small enough to clear the various obstructions under them, they were far too flimsy. If I made them big enough to stand up to regular handling they fouled the top of the engine and fuel tank as they swung round! I eventually overcame this by some lateral thinking (OK, cheating) and simply moved the hinges to the outside. I keep telling myself that if I don't say anything, nobody will notice.

The cab came next; just a simple box really, with 22mm diameter holes cut front and rear to take the brass spectacle plates sold by Ron M. Grant. These were glazed with clear acrylic and superglued in place after painting the cab. A false chequer-plate floor containing a control console and some Lego levers was made up to drop inside snugly. This was to aid later painting and also covered up the heads of the countersunk self-tappers that hold the

cab down onto the chassis. The figure chosen to become the driver underwent a horrifying surgical procedure to have a steel pin inserted into his bottom to retain him on his seat in the cab. By way of compensation he was later provided with a nice red cushion made of plasticine. The cab roof was shaped to match the profile shown in the illustrations in my reference books; a reinforcing piece glued underneath is a light interference fit in the top of the cab and keeps the roof firmly in place.

The rivets used on the cab were smaller than those on the chassis, so the hammer drive pins couldn't be used for this application. Instead, the smaller rivets were represented by marking out their positions and placing small blobs of PVA woodworking glue where required, using the point of a pin. With a little practice a consistent size of blob can be achieved; if any go wrong they can be wiped away instantly and another attempt made. After 24 hours these harden into passable reproductions of rivet heads. At this stage rough handling can dislodge them, but once spray-painted they become sealed into place permanently.

On the prototype the space under the driver's seat was used to store the starting handle; this locker was accessed via a hinged flap on the bottom of the left cabside. This was represented on the model with a rectangle of 0.5mm plasticard, decked out with non-working hinges at the top and a swivel catch (which does work!) at the bottom. The cab was finished off with cast brass handrails from Brandbright, one on either side of the entrance.

Detailing

The radiator was made from two white metal half-castings, also from Ron M. Grant. These were shortened, thinned down somewhat, and glued back to back. Fan and pulley are again from the Lego box. When my sons grew up I

kept their Lego for the use of future grandchildren; it's increasingly unlikely that much will be left by the time they arrive! Water and exhaust pipes are from shaped pieces of steel of the appropriate diameter. The fuel tank is the top of a sun cream bottle with domed ends shaped from Milliput.

The cranked support bar for the radiator's top water pipe was more troublesome to make than its appearance would suggest. I first used a piece of microstrip for the purpose and my main problem was making a loop small enough in its end to be a close fit on the pipe – it kept breaking just before I got the bend tight enough. After achieving success (again with hot water and very red hands) the next challenge was to get the rearward bend to stay in shape. After half an hour of struggling it still didn't look as if it really belonged, so I replaced it with a much more successful and better looking version made from strip brass. I really don't know why I didn't do this to start with!

Cosmetic brass bell-mouthed couplers from Brandbright were fitted to the buffer beams above the working LGB™ items. Also added was the R&CT's ingenious device of a cord in a tube that the driver used to pull the coupling pin out – this saved him from having to leave his cab to uncouple, prior to running around his train. This was fabricated from 60thou copper tube, bracketed onto the radiator; the cord is represented by 15thou micro rod.

The front bufferbeam sandbox was fabricated from scraps of plasticard and attached with two screws. The lesson had been learnt by now and it was made removable for painting! A short length of copper tube is fitted to suggest the presence of the pipe that originally carried the sand to the front driving wheel. Finally, a removable starting handle for the engine was made up from steel wire and scraps of plasticard. This locates in a socket on the left side of the engine.

Finishing

All parts were first washed in soapy water, rinsed thoroughly and dried overnight. They were then wiped over with a cloth dampened with white spirit to remove any traces of lanolin and allowed to dry. Great care was taken not to wipe off any of the PVA rivet heads during this exercise. A light spray of grey car primer followed. The loco was then finished in what I guessed to be nearest the colour it was wearing in its last year of commercial operation, a nice mid-green gloss. The roof, couplings and the subframe were sprayed satin black; buffer beams and axle guards are bright red. I considered painting the wheels but they can hardly be seen, so they have been left in MDC's bright plated finish.

The model of the Dorman engine was hand-painted in red, green and silver. This is not correct; every photo I have of the engine shows it to be all-over oily black. I justify this deliberate inaccuracy by suggesting that a new driver has taken personal pride in the engine's turnout. The power plant was finished off by the addition of HT leads and spark plug tops.

The Kent petrol loco, unlike its steam-powered sisters, never carried a name in real life. However, latterly I have corrected this omission and it now wears a pair of handsome etched brass nameplates bearing the legend *Rye*.

Performance

Hauling power is somewhat better than that of the prototype and the 1:20th scale version has a much higher turn of speed. The real loco was equipped with a patent gearbox giving two speeds in each direction. The Dorman engine could be revved safely to 1250rpm and at this rate in top gear the loco could achieve a velocity of over 10mph; the model reaches a scale speed of several times this figure easily.

I am still in the process of building models of the R&CT's two bogie coaches, so testing to date has been carried out with Bachmann G scale American bogie coaches. It romps around my garden layout's first radius curves and one-in-fifty gradients with three of these in tow, but loses adhesion a little when started uphill with two or three loaded 4-wheel wagons added to the train. This is really an unfair test, as the real R&CT featured almost level track throughout and, apart from the pointwork, had no curves of any great consequence.

In conclusion

Building this little loco was an interesting and enjoyable project. Construction didn't take so long that I got bored with it before it was finished – it took about four weeks of evenings and weekends from making the first cut to masking-up the completed model ready for spraying. Costs were reasonably modest – the power bogie was less than thirty pounds and about a fiver's worth of plasticard in various forms was used. Proprietary white metal fittings added another fifteen pounds; a spray-can each of grey primer and green topcoat from Halfords cost a further ten. Other paints, glues and oddments came from what was



already in the workshop. So, for an outlay of around £60 spread over several weeks, a few winter evenings of not being a couch potato and after an interval of over half a century, the R&CT's Kent petrol engine can once more be seen purring down the narrow-gauge tracks of England.

As well as building the two coaches that go with this loco I'm also on the lookout for a suitable chassis and motor on which I can build a model of *Rye's* much older sister – the Bagnall 2-4-0T loco *Camber*. With the editor's permission I will report on these projects in due course.

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Photographs by the author.



Brooklands Park

Four-track main line in a fictitious East Anglian setting

*The 00 layout of the Norwich Railway Heritage and Model Society described by **Roger Lincoln**.*

Brooklands Park is the exhibition layout of the Norwich Railway Heritage and Model Society, representing a section of four-track East Coast Main Line in a fictitious part of East Anglia. The name is a corruption of Brookman's Park, a station towards the London end and therefore suitable for an East Anglian setting. It has been under a continual process of construction, repair, and general tweaking since 1984. The three main factors guiding its design were

- 1) ease of (dis)assembly.
- 2) to provide exciting operation. It is actually possible for six realistic moves to happen all at the same time – more on this later.
- 3) to fit in the cupboards in the clubroom, which is shared with other non-railway groups.

Baseboards

The layout is 21' x 14' (6.4m x 4.3m) maximum dimensions on sixteen 2'6" x 3'6" (0.76m x 1.07m) baseboards, grouped as eight pairs. Each pair hinges to store face to face, with integral folding legs, held in place with self-locking window stays. The main sides are 3/8" ply with eight internals of 2" x 1" glued and screwed. The top is Sundeala with an extra layer of same under each track.

Inter-board electrical joins are integral to the joining faces, so this work is reduced further, and I have been informed that it can take a mere 20 minutes to assemble the layout, with another hour to add the buildings, signals and stock. The two control panels are held on with bolts and wing nuts, and being in the corners are supported in two planes, thus no supporting leg is necessary even though they are large and heavy.

For a 'pub fact', the baseboards were under construction for a year before any track was laid as work can only be done on a club night (Wednesday) due to the other groups using the premises.

Electrics

The person responsible for the electrics explained the wiring system to me, and after a short course of counselling and a few aspirins I think I now understand, so here goes. There are six controllers: two for the Up fast and slow, two for the Down fast and slow, each with a dedicated hand-held Pentroller on a long walkabout lead. The goods yard and engine shed each have an AMR walkabout controller. Using a dedicated controller makes life a lot simpler for operating, and when a route is selected, the relevant controller can be found by looking at the coloured track diagrams on each control panel showing which track relates to which controller.



In order to swap from one controller to another, eg to travel from the Down fast to the Down slow, the fast line controller over-rides the slow line controller until the points are reset when each controller reverts to its own dedicated section.

Point motors are Fulgurex slow action: there is a common wire switched + or - for direction. These point motors have a spare set of travel limiting contacts, and these are used for the LEDs on the display panel. As the point motor arm moves across, there is a brief moment when neither contact is touched. This dimming of the LED is a useful visual indication that the point has thrown. If not, one may either try again, or gently bring the train to an appropriate halt.

The points in the goods yard are hand operated by slide switches hidden in the backscene, and there is no visual indication of what is going on, the yard operator being responsible for his own shunting actions. Where the yard joins the main running lines, these points are on the main control panel and therefore there has to be a level of communication about what is going where and when.

The fiddle yard has three sidings for each main running line, and each siding is capable of taking a full scale-length (fourteen-coach or sixty-wagon) train in either direction. The points at each end are individually operated, and each has a corresponding dead section before it, preventing encroachment on to the main line.

The control panels, one for the up plus engine shed and one for the down plus goods yard, have the track diagram on them made from car lining tape, with LEDs at suitable positions and DPST switches for the points. The

transformers are integral so they are a little heavy but vastly quicker to wire up and safer as the mains is kept under cover. There are fuses to protect each controller, as we found out on the open day when one of them blew! Having lots of fuses makes de-bugging easier as only a small section goes down so it is easy to find where the problem is: it also means that other trains still run so the public still gets to watch the trains go by, unlike some layouts where nothing happens for ten minutes or more.

The tops of the control panels are hinged so that access to the important bits is easier, and the wires for the hand-held controllers can be stored inside at the end of the operating session. Each control panel has a normal 5 amp 3 pin socket for external equipment (not kettles!), eg soldering irons. Having integral transformers means that the whole thing only needs one mains socket. There is one umbilical cord running between the two panels.

Track

This is Peco code 100 Universal with electrofrog points. Great attention has been paid to smooth running, with flowing points and curves. The curves are superelevated. The ballast is real granite mixed 1:1 with Cascamite and covered in a gunge of enamel weathering colours.

The track edges are painted in RAF Camouflage Dark Earth as this is close to the real thing if you look at it with an open mind and are not brainwashed into using track colour or so says the chairman.

Scenery

There are four scenic areas, two country, one town and one depot. All the buildings are

modified kits from a wide variety of sources, eg Heljan. I would like to draw your attention to some of these:

- 1) the coaling tower is a card kit from Tower Models which has been strengthened with balsa wood and has plastic square section legs.
- 2) the station building is an ex-Prototype Models kit of Heckington station in Lincolnshire.
- 3) the engine shed is two Wills kits and has a removable roof.
- 4) the pub is a now defunct cast resin kit from City Models.
- 5) the Peco turntable has a Meccano gear train. This has been modified by the addition of vacuum tanks. It came as a surprise, to me at least, as I thought turntables were hand-powered or electric, but I gather not so and the large ones were moved by connecting the loco's vacuum pipe to a vacuum pump. The stopping/starting alignment of the turntable is from the Engine Shed controller via a DPDT switch and the good old Mk 1 eyeball. This allows a progressive start /stop and reversal.
- 6) the signal boxes are modified from the Prototype Models kit of Stamford (Great Northern) box.

A novelty is having station platforms made from packing foam. Yet to come are platform canopies which will be from brass kits. The deliberate obscuring of trains in the station is part of the attempts at realism – there is something about trains entering and emerging from obscurity that is part of the evocative nature of our hobby.

There may be a certain amount of incredulity in using so many kits given the expense, but



this has been mitigated by the speed of construction. Some kits are robust which definitely helps on the exhibition circuit.

Opposite: the impossible. The three versions of Gresley's 'Hush Hush' Class W1. Left to right, the first version, the rebuilt version in LNER livery and the final BR liveried version.

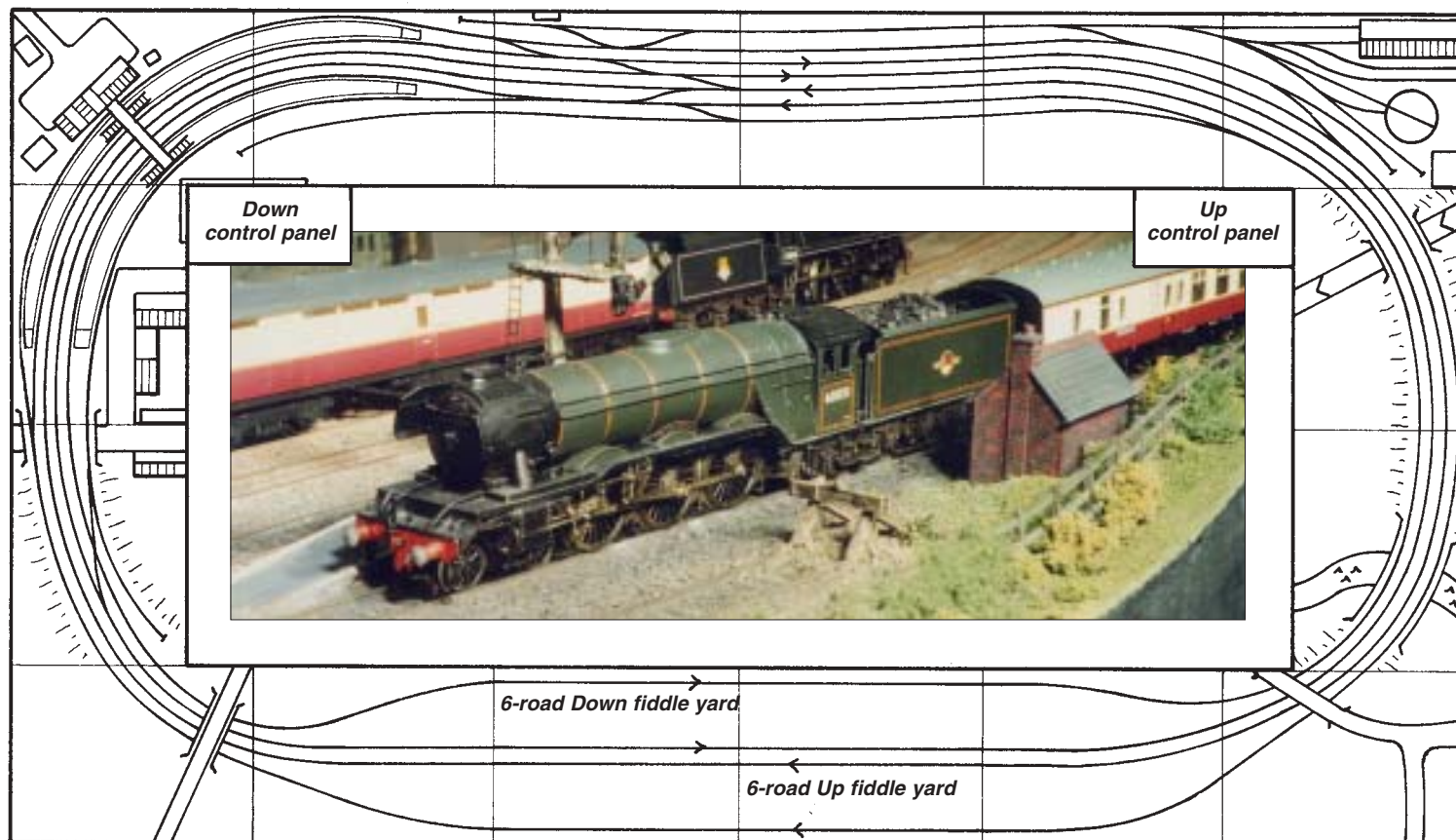
Above: Brooklands Park station building and forecourt with taxis and Eastern National bus waiting for custom.

Below: ex-LNER Gresley Class A3 Pacific No.60051 Blink Bonny gets the right away at Brooklands Park with an Up express composed of carmine and cream BR Mk 1 stock.

The trees are also from a variety of sources, varying from proprietary 'bottle brushes' to huge great scratchbuilt things from twisted wire. The grass appears to be anything that is a suitable shade of green and has some form of texture – trust me, it's all sorts, dyed sawdust, Woodland Scenics, that sort of thing.

A major scenic area is – the fiddle yard. Yes, this too has been ballasted, painted, and weathered to the same standard and degree as the rest of the layout because:

- 1) a double sided layout increases interest and viewing possibilities.
- 2) there's no hole in the sky, artificial hills, tunnels, road bridges, etc.





Left: LNER Class D52 (ex-M&GN Class C) No.012 gets the right of way while F3 No.8079 waits with a local stopping train. N2 No.895 shunts an LMS parcels van on the Down Slow.

Centre left: LNER Class B17/5 No.2870 City of London on a Down express passing Class B17/3 Earlham Hall on an Up express boat train.

Bottom left: InterCity 125s. 43077 with an Up express is passing 43157 Yorkshire Evening Post.

Photographs by Richard Bird.

Yes, there are bridges over the tracks, but as part of the overall scenic effect, as it were, rather than something inevitable for a train to go under. As can be seen, there are also under-line bridges.

Stock & operation

The aim at an exhibition is to run at least two trains simultaneously, one each on the up and

Right: LNER Class B17/4 No.2844 Earlham Hall is on an Up boat train. Class F3 No.8079 waits in the bay platform with a local stopping train.

Below: Class A4 No.2512 Silver Fox on a down express is passed by Class W1 No.10000 on a through Down express.

Bottom: 43068 waiting on the Slow while 43077 gets away on the Up Fast. 43162 Borough of Stevenage passes with a Down express.

Bottom right: LMS Class 8 No.6251 City of Birmingham backing on to the turntable.

down lines, so in a five to ten minute spell you will see twelve different trains with no waiting between each one. The stock we choose to run at an exhibition is either steam late 30s to late 50s or diesels up to the present, but not both at the same time. For example, in the steam era you can see a sixty-wagon coal train hauled by a Gresley P1 2-8-2 loco or O4/2, and in the post-war era by WDs, or a Crosti 9F on a fifty-van



train. This may come as a surprise to the fussier modellers, but if a member has gone to the time, trouble and effort of making one, then why not run it?

Passenger stock is covered by teak coaches, also seven- and eight-coach *Silver Jubilee* sets (not running together!), a *Coronation* set, and post-war stock of Thompson and BR Mk 1 derivation.

The BR era has a wide variety of types from diesel classes 08, 31, 37, 47 right up-to-date with 66s, as well as HST sets in blue/grey and Intercity. What we can't run yet are Class 91s with Mk 4s or Eurostars – but we are thinking about it.

Brooklands Park may be seen at the Society's exhibition in the Norwich Sports Village on Saturday 13 March. See *Societies & Clubs* for details.



Rhosnewydd Junction

A British Rail era showcase layout built to EM standards

Memories of the not too distant past modelled by Ken Gibbons.

I suppose that *Rhosnewydd Junction*, like another of my layouts, had its roots planted into my brain many years ago. It probably all started during the mid-to-late 1970s, when my Dad used to take my brother and myself to the Llangollen Railway, at that time embryonic. Along the way, we traversed the then newly built Wrexham bypass. At one point, it crossed over the line that ran from Croes Newydd Yard to Brymbo with its steel works. There had obviously been a junction there, though the lines to the Moss Valley seemed long disused. Yet it was an attractive little scene, with a small ex-GW signal box and a large number of signals, just situated within the countryside and neatly boxed in by road overbridges. In fact very modellable, though I didn't realise this at the time. I always looked out for it on my journeys along the aforementioned bypass, though by the early '80s progress had removed this little piece of railway interest forever, including the lines to the steelworks.

Fast-forward now to 1996, and having just moved my family home about as far due east as I could get without splashing into the North Sea, a timely purchase of *North Wales Branch Lines* by C.C. Green occurred. Having spent several of the previous years living just inside North Wales, I was fascinated by this book and surprised at just how much railway activity there had been in this part of the world to serve coal mines, brickworks (known locally as 'Brikils'), steel works and quarries, all of which seemed to be long gone.

Included amongst the pages was a fair amount on the Wrexham and Brymbo areas. I then wondered why on earth didn't I go there

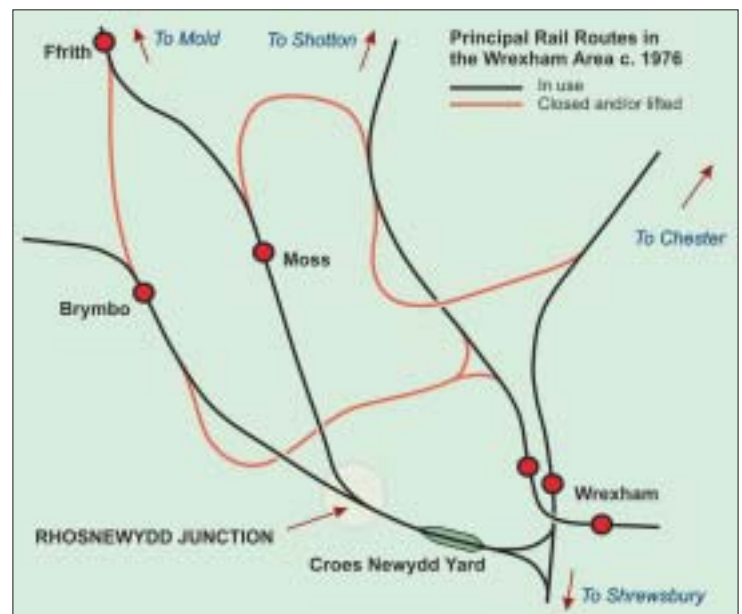
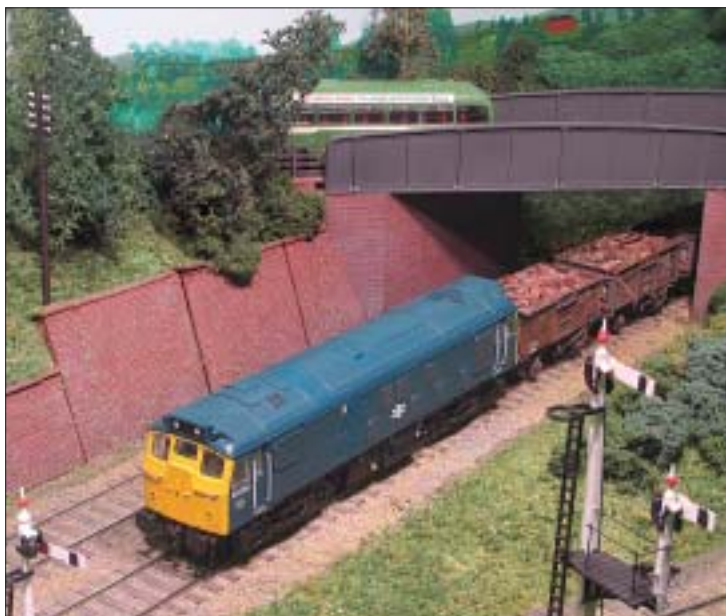


at least once in '80-'82 and take some prototype photos, instead of yet another journey to the 'bright lights' of Crewe. The area was full of wonderful subjects just begging to be modelled. However, at that time, I was busy working on my *Lapford Road* layout (see RM September 1999) and the images in the book had to serve as fuel to my 'pipe dreams' of layouts that could be based in this area.

It's about time! (and place)

Anyway, things move inexorably on, and with *Lapford Road* accomplished, my thoughts turned to doing something based a lot nearer to my erstwhile home which would also enable me to run the LM based locos I remem-

ber from my teens. The ex-GW lines in this area seemed to provide some scope for a 'compact' layout scheme. Memories of the scene described above were sketched out onto scrap paper and soon I realised that Moss Valley Junction, as it was called, provided a good basis from which to work. However, things like dual carriageway roads scale out at about 7" or 8" wide in 4mm; not really what you want as a scene break on a layout the scenic section of which is only going to be 6'-8' long. Therefore, I used copious amounts of that old hoary chestnut modeller's licence and, unlike the real location, went for smallish country-road overbridges as scenic breaks. In addition, a line to Mold runs off the Moss





Above left: just prior to receiving her TOPS numbering, 5087 (24 087), wheels some returns up to Brymbo. Someone in the works is not going to be popular.

Above: on another duty, the same 24 heads for Brymbo with a short raft of wagons. Being bereft of their usual load, they'll either end up loaded with heavy slag, or limestone from the remaining quarry just beyond Brymbo.

Below far left: 25 058 with loads from Brymbo is checked outside Croes Newydd yard.

Photographs by Steve Flint, Peco Studio.

Valley line and, to suit my purpose, it has been left open on the model.

The resultant design, whilst not very much like the real location, does give me a flavour of what I can remember and certainly the addition of appropriate locos and rolling stock from the period helps to complete the atmosphere. Now, if I may be excused an aside here,

a plea: please will people stop constantly knocking the 'Blue Era' of British Rail. For many of the 30-40-somethings like myself, the old cliches of 'Dull Blue Era', or 'Uninspired Livery', have long worn thin. I actually do like the 'Blue' livery, that's maybe because I grew up in the period.

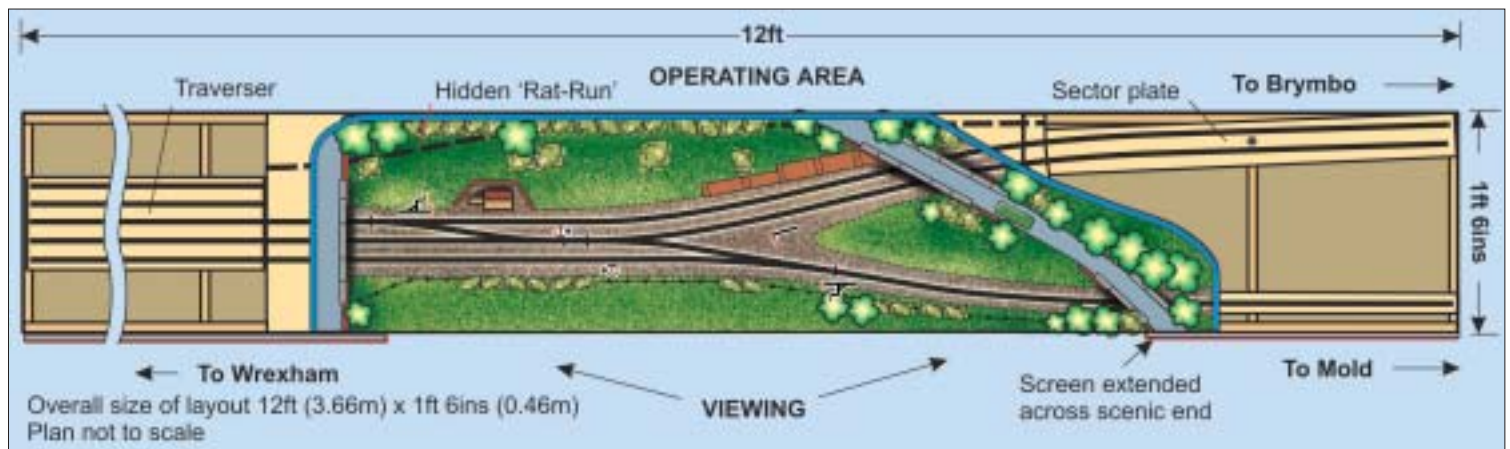
The final draft plan of *Rhosnewydd Junction* was pretty much as seen in the accompanying photos. However, being substantially different from Moss Valley Jct. a new name was required, hence I merged Croes Newydd (New Cross) with Rhos, hence Rhosnewydd (New Ross) – I just hope that the name is grammatically correct as a Welsh place name!

Time marched on and the original scheme lay dormant for about four years until fate intervened. A large dollop of time mismanagement on my part in respect of another project, plus the welcome availability of some very attractive off the shelf items, led to the plan being dusted off. In July 2003 I set to work.

Building details

Now for the prosaic but necessary bit. The layout structure is the old favourite – 50mm x 25mm pse timber framing with tops of 6mm plywood. 3mm cork sheet was laid onto the board surface and the trackwork, by SMP, was fixed in place to the desired formation. All pointwork is EMGS rail soldered to copper-clad sleepers – rather low tech these days, but very robust.

Each point is actuated from a DPDT slide switch linked to the point tiebar by under-board rodding. Two features of the layout design to note are the use of three fiddleyards and the hidden escape road at the back, or 'rat run' as it's now called. Given the sort of locos we are using, the name is most appropriate! Once all the trackwork was completed, the sector plates and traversers were fitted and the wiring installed. The backscenes were next to be fixed in place before ballasting and scenery construction commenced.





Above: 25 058, fresh from overhaul and soon to spend a couple of years in Devon heads back from Brymbo for the last time, at least until 1980.

Below: 40 171 starts to propel some Presflos backwards into Croes Newydd yard beyond the bridge. Neither the motive power nor the wagons could be considered as anything but well used.

As mentioned previously, the structures are all commercially available items. The Ratio signal box is entirely appropriate for the area, as many of this type of box, to McKenzie & Holland design, were built all over the GW lines in Shropshire and North Wales. Overbridges are a mixture of Wills and Peco with abutments from Wills brick sheets. Signals are mainly Ratio, solely for the reason that they were already built and the whole layout was being constructed to a tight time constraint. I really would like to replace them with ones built to finer standards when time permits, though the Ratio ones will do for now.

Trees are mostly Green Scene 'Forest in a Box', with ground cover from the Green Scene and Heki ranges of scatters. I'll be the first to

admit that the layout is nothing exceptional in terms of design and content. The only exceptional aspect of the construction is that it was completed in about four weeks, working three to four hours each evening, though, thanks to the deadline, some of those hours were after midnight. Would I like to do that daft trick again? No! But I had made a commitment which I wished to honour.

The wheels of industry

Operationally, most of the traffic seen on the layout is to do with the Brymbo steelworks. This gives plenty of scope for coal and coke carrying vehicles, plus four-wheel steel carriers. Regarding the latter, I've not seen any photographic evidence of bogie wagons on this

line, maybe due to the sharp curves around Brymbo, though I'd love to see some concrete proof if anyone knows otherwise.

On the Mold line, I invented a link to the cement works at Penyfford, hence the occasional trip workings of about four Presflos up the branch. The aforementioned curvature of



Right: the sporadic Wrexham to Mold service heads past some of the varied Rhosnewydd signals: upper- and lower-quadrant types are represented. Obviously Chester Depot must be short of power twins, it seems that this Buxton unit must have wandered into Chester at the right time, while they sort out the regular Class 108 that usually does the run.

the route, plus lightness of build, precluded anything larger than a Type 2 traversing either of the branches, thus, as far as haulage is concerned, Sulzer Type 2 'Rats' are the rule. Setting the layout around 1975-1978 allows us to use 24s as well as 25s.

Just the other side of the bridge spanning three tracks is the end of the main marshalling yard at Croes Newydd. Class 40s and 47s were often in charge of trains terminating here, so we assume that the light engines, having dropped off their trains, then venture across Rhosnewydd Junction to gain the road back into the yard and their intended destinations. It may be an unlikely scenario, but it extends the operational interest and allows big main line locos to appear on this diminutive layout.

Whilst freight is intended to be the bread and butter of the layout, there is a smallish bit of passenger interest in the form of a supposedly occasional Wrexham to Mold DMU service, although it can get very un-occasional during an exhibition when all the fiddle yards need sorting out, and something has to be run quickly. As to rolling stock, I really need to try and get the freight side beefed up. I've got most of the kits in stock, but it's back to that old bugbear again – time. However, thanks to the East Yorkshire EM 'mob', a pool of suitable wagons for the layout was already available. Locomotives in use are my own, with one notable exception, this being the gloriously weatherbeaten Class 40 in green, courtesy of my brother. Readers will probably guess who the Type 2s are by; suffice to say that they all run faultlessly. As the photos show, they are in need of some more weathering, when I can find the time.

And finally

I'd like to think that despite its somewhat rushed construction, *Rhosnewydd* captures the atmosphere of 1970s British Rail, albeit in an 'off the beaten track' genre. I also hope that it shows what can be attained by anyone, from beginner level upwards, using mostly commercial equipment, ie RTR locos, rolling stock kits, building kits and components, etc. Indeed, other than the track gauge, much of the modelling techniques employed are well within the grasp of the average enthusiast. It follows very much the build style of *Brancaaster*, the *Railway Modelling Explored* layout (which we hope to feature in full later this year – Ed.) and could have been built just as easily using 00 gauge flexible track and points without any loss of authenticity.

Now to the acknowledgements: well, there were so many people that helped, held faith, or were instrumental in *Rhosnewydd* coming together that the list would be impossibly long. However, you all know who you are, so a big thank you to everyone.



Rhosnewydd Junction will be at the East Midlands show; see *Societies & Clubs* pages.

Tupdale – the finishing touches

Concluding this look at a Yorkshire-set OO layout

Andy McMillan adds the small scenic touches that make a model come to life.

The undulating line

It is in the nature of art that the 'undulating line' creates a feeling of action, of movement, and it is in the nature of the Pennines that any representation of it must abound in undulating lines. Indeed, this model-maker went to considerable lengths to create undulating lines for his trains to pass through so as to make the distance travelled seem further.

This theory works well enough when actually watching a moving train, but what about when there is not one to look at? At no time could the train service over the S&C be called intensive, so there needs to be a few minutes between trains so as to make the passing of each one more of an event.

This means that firstly, we need to provide something for the visitor to look at and secondly, we need to find some means of 'calming' the dynamism produced by such exuberant use of that undulating line. Since we also want to reinforce the fact that this is Yorkshire one is looking at, and at the same time create a sense of harmony between the railway and the community it serves, albeit incidentally, then what better than a pub and a barn; two of the most familiar buildings in the country?

Why a barn? Well, partly because of the reason noted above, partly because I like them and partly because of the historic and community perspectives which old stone barns always give to a model. The main reason however, was because this part of Yorkshire had a unique style of barn, the Bank Barn. Since it is rare that the simple addition of a plain stone building can locate one's model so precisely, I just had to put one in somewhere and where better than right at the front?

As to its precise placing, the pub had to have the prime location, but with the river and the railway forming the axis of a cross, where else to put it but in the opposite quarter where the two buildings could reflect and balance each other? The dualism thus created helps to restore a sense of calm and serenity to the model.

Recipe

Construction was in fact simplicity itself. The general arrangement of the shape and detail was taken from a photograph of an excellent prototype I found in a book. Since there were literally hundreds of these barns in a wide variety of sizes, the size of this one was arranged to fit the model site and harmonise with its intended surroundings. The four walls were cut from 3mm card, the ends being arranged to fit between the sides.

Doorways and a vent were cut out and the four sides trimmed to fit the finished land-

form. Glued together around a rectangular strengthening piece at eaves level, a final fitting to the ground was obtained and the nascent barn removed to the bench.

Before anything else was done, a piece of thin card was held behind each door opening and the outline traced with a pen. This was put to one side. Next, a layer of wood glue was applied to each wall in turn and, while this was still wet, a layer of car body filler was applied with a single spread to a wall, aiming for a layer about 2mm deep. Any gaps, holes and rough patches were ignored until the filler had set, and then the next wall was done.

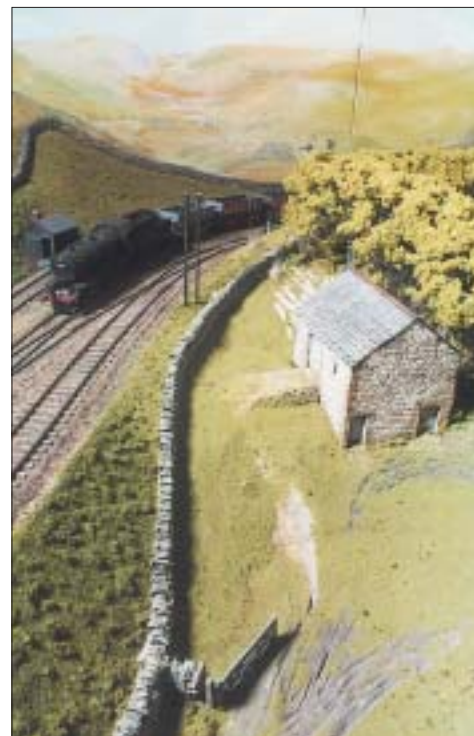
As doorways and the vent were reached, the still soft filler was carved out with a length of wire run around the edge. With all four sides coated, the large holes were filled first, along with any gaps at the corners, and any smaller ones smoothed in with the fingers. Remember to wear rubber gloves when handling chemicals! The whole was then put aside to harden thoroughly and the doors tackled.

Firstly, lines were drawn inside the outlines which, when cut out, would represent the inner edges of the door frames. Odd corners of thick card were selected for the doors and heavy cuts taken at least halfway through the card to give the effect of vertical planks with wide gaps between them. The joint between the double doors was however cut right through.

Next, each 'plank' was slashed lightly with a sharp blade to represent a hint of grain. Now both types of cut are undoubtedly out of scale, but it is not the precise finish of old wood we are trying to capture, rather we want a surface that will pick up paint in a helpful manner when we apply it later. Next, a few hinges and weather-proofing strips were cut from thin card and each complete doorway assembled, tried behind its opening and the bottom of each door trimmed to clear the ground under it. The bottoms of the two lower doors were then hacked about with the knife to represent a century or so of rotting! A thin coat of dark grey was applied to the completed doors as a wash and left to harden.

By this time, the barn should be dried thoroughly and firm to the touch so it is time for the thoroughly tedious but still absorbing business of carving the stonework in the filler. Large stones were first carved as lintels above each door (and the vent), and then the corner stones were carved, starting with large ones at the base and moving up to slightly smaller ones towards the eaves. The door jambs were similarly treated and finally the vent, once a cill stone had been carved out.

The next step was to carve a few roughly



horizontal lines across each face, some from one side to the other, some only part way along. Between these, sections of rubble wall were carved in about a scale 2' 'lift', or the approximate depth a mason would lay in one day. Note that these walls were not laid dry but bedded into limestone mortar, a 'muck' which is slow to dry so limiting the amount of wall which can be laid at one time without it collapsing. This fact brings about a series of occasional, almost horizontal courses in many buildings, although naturally each wall varies with the skill and techniques of the mason who built it!

At every opportunity, cracks in the filler and changes in the depth and surface texture were used as the edges of stones so that the finish is made up of an almost natural variety of stones; some long, some square and some rounded. Each cut was made with the tip of a scalpel held at an angle, first one way and then the other, so that a thin sliver was literally carved from between each finished stone. At the top edge of each side wall a wooden 'wall plate' was carved although this can hardly be seen on the model, but at least I know it is there! The ends of a few roof support timbers were also carved into each end along the top of the gable; at least these are more obvious. Finally, any overhang of filler was filed away and a thick card surface was glued, on supports, between the gables to give a surface to which to glue the tiles.

Left: the barn, seen from the gable end and looking along the valley, shows the full illusion of depth.

Above: Tupdale station with a coal train passing. The attention to detail such as the plant tubs, the glazed screen and its brackets all add to the quality of the completed building.

Photographs by the author.

The roof

The roof was to be made of stone flags and these were carved in rows from plastic sheet. The first three, in 40thou, were sawn into large flags then filed to shape so as to lose all suggestion of straightness and flatness. The higher rows were all done in 20thou and became both shorter and smaller as each row was added until the top row contained nearly twice as many flags as the bottom.

There were two sides to the roof each to be carved one row at a time, which occupied a further four days and, if truth be told, became just a tad tedious, but the effect achieved was undoubtedly worth it, if rather expensive in time to create!

Adding the colour

Painting was again in acrylics but only the first, thinned coat contained any black, the stonework itself being dry-brushed in multiple coats of brown and white, all done wet so that a little more white on the brush soon picks up the paint underneath which tones down the white but makes each successive stroke create a subtly different colour.

This all took less than an hour, which is why so much effort was put into carving the stonework. Each individual stone looks different but all are in shades of the same hue, thus suggesting use of the same stone throughout. The doors and roof were painted in the same rough fashion; several coats, each lighter than the other but this time with a little added black, and again worked wet on wet.

Completing the scene

Finally, the doors were glued behind their openings and the completed barn stuck to the landscape with more filler, trimmed to seal any gaps. The ramp walls were formed using offcuts of dry stone wall mouldings and the centre filled with plaster, smoothed into the landscape at the base and coated with a surface of fine stones pushed into the half-dry plaster with a finger. Once dry, a touch of paint on the sides and a wash of colour over the ramp surface completed the barn itself.

As a final flourish, the section of typical Yorkshire limestone pavement was formed out of sausages of Milliput pushed down onto the plaster base by squeezing it down along the edges with the pointed wooden end of a small paintbrush. This tool was also used to create the large dimples in the surface which lying rainwater creates. The more pockmarked areas were created by stippling the still-damp filler with an old toothbrush.

A coat of dark brown was applied and left to dry and then the highlights were dry-brushed with a very pale brown to finish. Well watered-down wood glue was run into the 'clints' (the



gaps between the 'grykes' or separate stones), and burnt grass texture scatter material applied, as it was to the rest of the field. A few ruts, a few trees and a scattering of longer grasses and it was job done.

The station building

Since one could only view the model closely in photographs, it was decided to make the stonework of the walls flat, which meant I could work in card. Artist's board of about 120 grams was chosen and the detail taken from David Jenkinson's excellent book *Rails in the Fells*. All external joints were folded while most of the internal ones were used to hide the joints between the several separate pieces.

Having produced an outline of each component I marked and carved in the corner stones. I then sliced a 'vee' from behind each joint and test-folded the corners to 90°. Only when I was happy with each corner did I assemble them all in a 'dry run' to prove the fit. I then cut out the door and window openings and added cills, lintels and the same interlocking stone shapes around the openings and below the gables as found on the corners.

The trefoils (three interlaced round holes) in the gable ends presented a minor problem since one cannot drill round holes in card, but a suitable size of copper tube was found in the 'bits box' and filed to an edge by removing material from the inside. As long as each piece was removed from the middle of the tube as it was punched, this worked very well and the trefoils were soon punched out.

Now it was time to add the rest of the stonework which was done with horizontal strokes of different lengths; perhaps 'slashed' would be a better choice of word since this was done freehand and at some speed! Short vertical strokes here and there provided some semblance of individual stones, but again this was done fairly quickly and no attempt was made to carve each stone individually.

Next each bay was assembled around a card 'floor' former, likewise the additions at each end and finally, the extension at the back for the entrance hall. Here only the side walls

were worked on in any detail but, since the windows in the rear wall might be seen from some angles through the glazed front screen, these were cut out to the glazed dimensions and glazing bars added.

Happy that the shape and outline were correct, another layer of the same card was cut about 4mm wide with one edge at 45° and fitted to the bottom of each wall to provide the necessary relief. This layer added vital solidity to the building both visually and in reality.

Painting

Only now were the walls painted. I chose the usual black, white and brown but warmed the whole with a generous dollop of bright red. While the colour as represented is more appropriate to the warm sandstones used in the buildings of the Eden Valley than those of the 1,000' contour around which the model is based, the artistic warmth provided by the inclusion of this red tint makes the station a more inviting place when seen in contrast to the surrounding scenery. This is contrary to normal artistic practice where warmer colours are normally confined to the foreground with cooler ones towards the rear so as to give them the correct air of distance. However, I defy you to see the model station in the flesh and not want to wander over and have a look around it!

In breaking the established rules like this, it was necessary to make this colour change less obvious so some red was also added to the platform walls, the retaining walls under the snow barriers and the dry stone boundary wall behind the cattle dock. This, allied to the use of some suitably warm colours in the nearer landscape of the backscene, works perfectly well in practice, especially since much lighter colours are used in the barn so that the station buildings still look right, even when seen from the room entrance behind some six feet or so of foreground. Much of the intervening detail is however quite deliberately hidden behind the row of trees that backs the barn so that the station appears nearer than it is, all of which aids the illusion.



All this colour discussion may sound like arty-crafty nonsense but the bargeboards, to be described shortly, looked too 'cold' in plain white, even once dulled with grey and, since this still looked wrong, with another wash of thin brown. To give the right impression they have in fact ended up a pale pink, although the enormous candlepower of the powerful flash-lights used to get maximum depth of field for the photography, have removed this subtlety from the resulting photographs altogether! Unfortunately, seeing the thing in the flesh is always better than looking at photographs, but since this model will never go to exhibitions, most of you would not see the model at all without them, ideal or not!

The windows chosen were the simplest of the several designs the Midland used since I wanted to show off the modelled interiors, of which more later. They were simply carved from card in two layers; surrounding frames first and then individual lights and glazing bars, painted and glued behind the openings. Glazing from clear plastic sheet was glued behind the window frames.

The glazed screen

One of the more interesting details of the two larger S&C building designs was the use of a glazed screen between the two main wings. To recreate this, I shaped a sheet of clear plastic to fit between the gables and used this as both the glazing and the deepest layers of timber panelling. Framing and simple glazing bars were cut and fitted from plain white plasticard of varying thicknesses. A narrow strip of 80thou was radiused on two edges to represent the round pillars. The complex shapes of the raised ledge above them were carved from two layers of different thicknesses and added on edge.

There was one detail which defied this building up of layers; some cast iron brackets which strengthened the joints of this basic timber structure, mounted at the top corners of the main glazing panels but in front of the glass. It was decided to carve the detail of one of each hand of these, at least as well as could be ascertained from the rather distant pho-

tographs, which were all I had to go by. Filling in the carved areas with a dark grey would give the appearance of cast iron with holes in it and, as long as they were all the same, this deception would not be apparent.

These two originals were therefore added to the backing of the bargeboard masters and cast along with them. It was necessary to paint the white plasticard black, to keep out the light, before repainting in the white and the deep red finish (called Gulf Red, apparently), which BR used in the early 50s on its ex-LMS sections. This was then fitted to the assembled and painted stonework, but not glued in place until the interior detail had been added.

With the masonry of the building complete from the roof downwards, two half chimneys, one single and one of double depth, were made up from plasticard to the drawings in David Jenkinson's book and stonework carved into the surfaces. Several of these were cast and assembled upon return into finished chimneys of two sizes. Sufficient were cast to enable their use on the goods shed office and any other small buildings I might later decide to add.

Bargeboards

At the same time, consideration had been given to reproducing the very fancy bargeboards the Midland used as a trademark on the S&C. These were all of the same type in that they had a straight inner board at the roof's edge with a fancy scalloped layer attached as decoration, ending with a holed circle. These scalloped pieces, although looking very similar at first glance, were unique to each different type and size of gable. There were two basic shapes, a scallop consisting of a series of curves each ending in a point, as used on the small buildings on the opposite platforms, and a combination of these scallops with a reverse curve which swept in three arcs between successive points. The numbers and shapes of these seemingly varied with each size of gable and, since the main building roofs and the similar-height platform-facing gable roofs had different angles of slope, one original had to be made of each type.

Since no more than two were required of any casting this only represented a small saving of time, but any saving is useful and at least if anybody else wants any, I can cast them off for them.

The roof was made of a simple card supporting structure in 3mm board with a top layer of the 120gram artist's board.

Selecting the shape of each roof piece where it meets other sections, chimneys etc was a mixture of measurement and trial and error but was generally simple enough. At each valley, the top layer of card was removed and, after assembly, a strip of thin card, curved along its length, was used to create the gutter valleys. A mark was made some two scale feet from each valley and each roof piece was then carved with a sharp knife into rows of slates.

Another line was made a slate and a half's width in from each gable end. Between these lines, alternate rows of slates were nicked vertically to create individual tiles; a tedious process but quicker than laying individual rows and perfectly adequate considering the viewing distance. Painting was again with acrylics; a medium grey being chosen with just a little dash of blue to give that subtle slate colour, but without spoiling the overall warmth of the buildings.

Ridge tiles on the real thing were very fancy terracotta mouldings but, fortunately, many of these had been replaced with more normal ridge tiles by the 1950s, so I chose the easy course and did them in thin card. Otherwise I would have had to resort to another etching which, for this model, seemed to be going a bit far! Guttering and downpipes were simple enough to add from more card and thick wire, the effect being more important at this distance than the fine detail.

Lighting

Since the sunset was such a feature of the opposite corner, and the signal boxes at either end of the station were to be given illuminated interiors, it was felt that some lighting must be provided in the station area to provide balance. This turned out to be a full complement of station platform lamps and it became prudent to provide some interiors in the station buildings which could then be illuminated to create another point of interest in an otherwise darkened room.

Two types of lamp were produced. Simple plastic boxes glazed on three sides and mounted on either a wall or a board in front of the fencing produced the most simple and common type. Brass tube of various sizes, soldered together, turned and filed to a hexagonal shape provided the solitary standard lamp on the island part of the platform. This was given a top formed with four glazed faces with details and roof in plastic and a turned brass finial.

A ring of brass tube was melted into the base of the top and this was rested on the grain of wheat bulb which provides the illumination. One wire of the lamp is soldered to a piece of wire that runs up the middle of the tube base while the other one is soldered to

Left: the pub's back garden (pub removed).

Right: the building's origins as the Norman church will be obvious to those who know it, but it is the correct architecture for old buildings in this area.

the top of the tube thus enabling relatively simple replacement at some future date should that be necessary.

The lamps on the platform in front of the fencing are mounted on lengths of copper-clad sleeper strip, gapped down the middle. The glazed housings slot over the bulbs and are held by friction between the bulb and the sleeper strip. That on the retaining wall is powered by two wires run up inside the scenery.

Interiors

These were a bit of nonsense but fun, nevertheless. I have no real idea what the interior of an S&C station waiting room or booking hall looked like since I have seen no pictures of the interiors anywhere. Most of them are now closed or modernised so it seems unlikely that I ever will. I therefore surmised the interiors from the position of the doors, windows and chimneys and created two fairly detailed scenes, the booking hall and the waiting room. The former is of little note, but the latter interesting in that it contains the only passenger modelled on the entire layout! He can be seen through the main window, seated facing the door with his legs outstretched and crossed, reading a newspaper.

Since the average number of passengers for a station of this size in 1955 was just six a week, this may well be the station's only customer for the day. It seemed both unnecessary and unlikely to have had any more passengers and with only a few stopping trains every day, the platforms would have been empty for 99% of the day, precisely as modelled.

'The Summit' pub

The real summit of the line was, as everybody knows, at Ais Gill but in the literal sense there are some seven 'summits' on the line. Given the period (1955), and the history it does not seem to be stretching it too far that a pub situated beside one of the other six should be called 'The Summit' rather than the more accurate 'A Summit'.

Most of the construction is a drastic reworking of the old Airfix kit of the Norman church! For painting the stonework, I followed my usual methods again using my favourite artist's acrylics but this time, as well as the usual black, brown and white I added a touch of ochre here and there which increased both the range of colours available to me and the brilliance of the finished stonework. This helped create a more 'immediate' feel to a building open to very close inspection.

Completing the exterior came a Wills slate roof. The church one was neither suitable for a pub nor the right size. This was surmounted by the bell tower masquerading as the chimney. The openings for the bell to peal through were removed and a string course added at the very top precisely as can be found on most period chimney stacks in this part of Yorkshire. There



are dozens of examples of the type in Dent and the many surrounding villages.

The slate roof was painted using a grey made of the usual black and white with just a touch of blue to give that cold feel which slate roofs need, but this was brightened by adding ridge tiles of clay in a variety of browns, reds and ochres and by using an old toothbrush to spatter some pale green and orange moss over the whole roof, especially on the north side where roofs tend to remain damp longer.

Stone copings atop the gable walls matched those of the church kit which had been used on the porch and bottle store. The addition of gutters and down pipes, along with some raised plastic letters and a few choice printed paper advertisements, completed the exterior.

Windows

Moving inwards from the wall, the leaded windows were carved into plastic glazing material and painted with a medium to dark grey enamel which was wiped from the glazing when half dry.

Frames were cut from thin card in two layers, inside and out, since the inside of one window could be seen through the other in the adjoining wall. These were painted black first to prevent light showing through the card when the interior was illuminated. When dry, they were finished in a light grey.

The bar

Next came the 50s period pub interior, commissioned especially by the customer, like the fully detailed signal-box interiors. Several thoroughly enjoyable days were spent fashioning a bar, beer pumps, a stool, tables, settles and benches along with a fireplace complete with fire with a few ornaments on the mantelpiece above. This was lit by a 5mm red LED. To one side of the fireplace is a dartboard, while before it is a stone flag hearth. Behind the bar are bottles of beer, a few bottles of spirit as well as the visible advert of that well-known brand of sherry 'from the wood'. This, if I remember correctly, was just the end from an old barrel with a metal interior to hold the sherry. By the time I knew them in the 60s, they

had a plastic moulded replica barrel, but I am assured by some who ought to know that the originals in the 50s were wooden. Either way I have tried my best to create a rural mid-fifties pub interior, even down to the railway worker having an off-duty pint and a local landowner roasting his ample behind in front of the fire with his Great Dane at his feet.

As a final touch, I added an ashtray and beer mats to the tables. This has caused considerable discussion in my own local pub as to whether beer mats would have had found their way into deepest rural Yorkshire by 1955 or not. The best information I have gathered to date is that cardboard beer mats were a 1930s invention of the London clubs that soon became popular in the posher pubs throughout towns and cities. It seems they were dispensed with for the duration of the War, but were brought back with almost universal application by the larger breweries in the early 50s; so unless you know better we will stick with that for now! A single grain of wheat bulb lights the bar; another was placed inside the porch as a welcome, which completed the lighting.

Outside

Outside we have some dry stone walling, the odd gate or two, dustbins, a recent delivery of fresh vegetables and a rather run down garden with log shed, logs, weeds, a broken wheelbarrow, a few flowers and bushes, an outside lav and a clothes line. Beside the pub is a right of way from the lane to the signal box complete with warning notice. At the front, a pile of crates has been stacked outside the bottle store and the door locked.

A 1950s Austin car is parked outside; something to do with the 'introductory history'. I gather it was the photographer's. This was a quick conversion from the familiar cast Hornby model of a London Taxi that was such a familiar feature of station approaches on model railways of the 1960s.

So that is the story of *Tupdale*. It was all fun, it was all educational (for me, the creator that is) and I present it merely as one way of building a model which has a specific place and time in history.

Scale drawings

West Highland station building

A 'near-standard' structure

Drawn and described by **Edward C. Peckham**.

The North British Railway opened its line to Fort William in August 1894: a ceremonial train departed Glasgow Queen Street on the 11th of that month, but in order to maximise revenue from tourists – the chief source in this striking but sparsely populated region – the first public train ran on the 7th, the day Board of Trade approval to open the line was received. The NB must have taken special satisfaction from

the fact that it had finally succeeded in penetrating so far into the part of the country that the Caledonian saw as its own: indeed, the extension to Mallaig followed swiftly on, a tale related by Ian Futers in the following article.

Originally there were fifteen stations, of which all but four had island platforms. They were built to a near standard design as illustrated in the drawing, and resemble Swiss

chalets: this impression was enhanced by the overhanging roofs. The buildings are clad in wood – originally incorporating shingles, imported from Switzerland – on a timber frame which sits on a brick plinth and when constructed had small greyish-brown slates on the roof. The plinth, which also sits on a low stone base, was constructed using reddish-orange bricks.



Drawing reproduced to 3mm scale.





The buildings have weathered the often harsh climate well, although a couple of stations saw their 'chalets' succumb to fire (Criarlairich) and subsidence (Ardlui). Rannoch has been re-roofed at some time with patterned mineralised roofing felt similar to that used on beach huts and posh garden sheds. Upper Tyndrum still retains a slate roof and the orange ridge tiles.

The Rannoch Station Tea Room website describes the station as being 'listed by its owner Railtrack [sic], as being of Architectural and Historic Interest.'

The drawing is based upon an earlier diagram that appeared in the official LNER History of the West Highland Railway, published and reprinted several times in the 1940s. The glazed end roof supports that shelter the platform have now had their windows replaced by solid infill panels. It should be noted that this is almost a schematic drawing with the individual stations varying in detail. Rannoch for example, has three chimney stacks – two doubles and a single in a central position – but the drawing only shows two doubles.

The colour scheme is that currently applied to Rannoch Station.

Many thanks to Alistair B. Moffat of the Isle of South Uist for forwarding a copy of the original drawing and Ian Futers for his excellent photographs that solved the riddle of the roofs.

Further reading

The West Highland Railway by David St. John Thomas (published by David & Charles, ISBN 0 946537 14 3).

The website mentioned is:

<http://www.rannochstationtearooms.co.uk>



Plan of the month

Mallaig

West Highland Wanderings – 5

Ian Futers looks at the terminus of the 1896 West Highland extension.



Way back in *West Highland Wanderings 2* (Fort William, March 2003), it was mentioned that the terminus at Mallaig would eventually be looked at. So this article will be devoted to that station which nowadays is really a shadow of its former days. What is also not always recognised, is the fact that the railway used to continue right down to the harbour in NBR and LNER days. More of that later, first a little bit of history to refresh our memories.

The Mallaig extension was authorised in 1896 and the Act also took in the building of a new harbour. The Government of the day recognised that such financial outlay by a railway company, in the territory to be traversed, would hardly be likely to benefit its shareholders. As a result, and against a fair amount of opposition, there was a Treasury Guarantee Bill issued to aid the North British build the line. One of the objectives for the Government was to enable islanders from Skye and beyond to gain better access to the mainland and Glasgow. The route from Skye to Glasgow was to be shortened by 80 miles whilst fishing fleets would save many more miles to reach a port, in this case, Mallaig. Their fish could then be taken speedily to the fish markets in Scotland and further afield. It is interesting to note that Mallaig was not the original choice for the terminus. Surveyors indicated that the bay near to Roshven would be an ideal location. However, local landowners, one Glasgow academic in particular, refused to allow the railway across his property.

The engineers for the Mallaig line were Simpson & Wilson of Glasgow whilst the contractors were Robert McAlpine & Sons, also of Glasgow. The contractors worked at about four locations, the easiest to reach being by Loch

Left and right: the neatly modified original stone built station building seen from platform side (left) and road side (right).

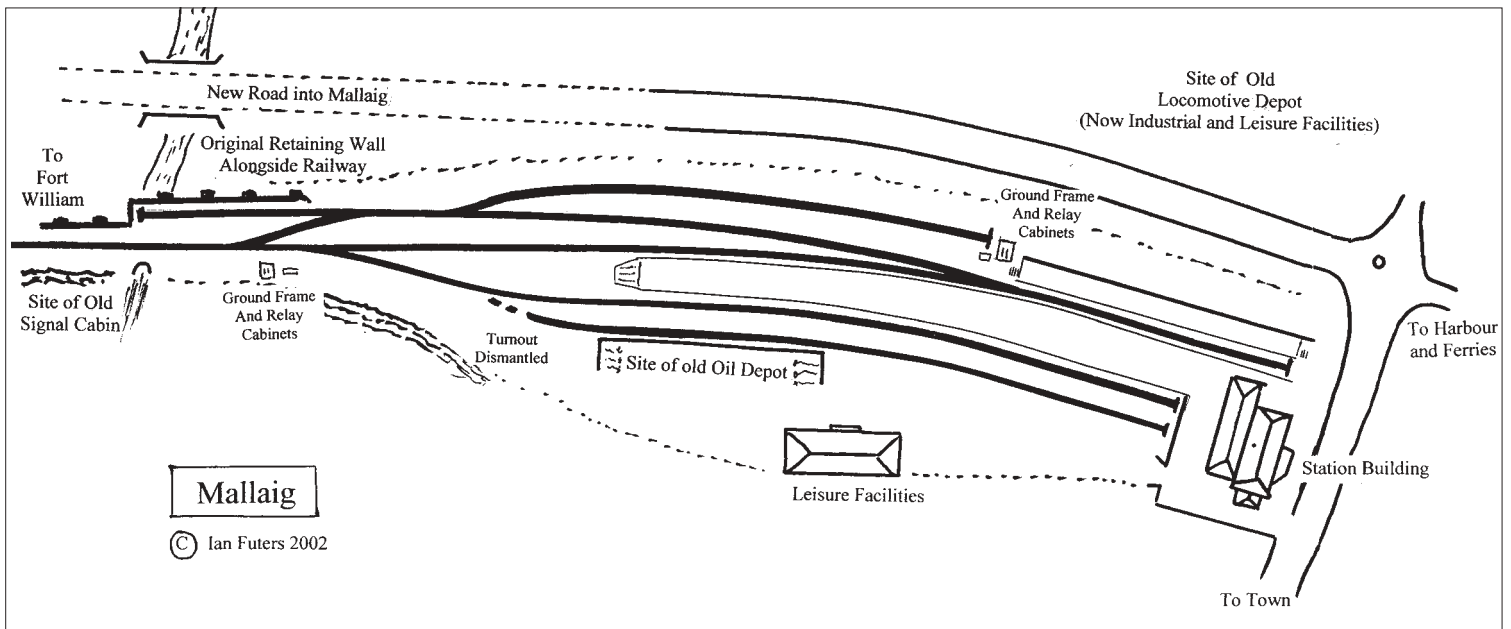
Eil, as the track simply follows the lochside at this point. Other points were used on sea lochs and it was hoped to have the line opened by 1900. However, McAlpine & Sons ran into many difficulties especially when it came to blasting out the rocks. Instead of cuttings as planned, a great number of rough cut tunnels resulted. Even today, as you traverse the route in a reasonably comfortable DMU, many rocky outcrops appear along the line where you can see how the navvies have simply blasted their way through. The construction of the line was different from the main line in that concrete was used for practically all the main structures including the magnificent Glenfinnan Viaduct. The McAlpines were pioneers in this form of construction and it has stood the test of time very well indeed. There is, of course, the frequently told story of how one of the McAlpine sons was injured whilst blasting the rocks. He was taken back down the line to Fort William

by contractor's locomotives and boats on the Lochs. A special train then took him down the main line, overnight to Glasgow where some navvies carried him to hospital. He made a full recovery and reached a ripe old age.

The line finally opened for traffic on 1 April 1901 and was operated by the North British Railway from the outset. It ran as a separate company until 31 December 1908 when the whole of the West Highland line, Mallaig extension and Banavie branch were absorbed into the North British Company. Eventually the LNER operated the services followed by British Railways and nowadays, Scotrail has the honour of running the trains in the West Highlands.

Mallaig has always been seen as an outpost of the railway network: indeed I feel sure I have read that it is the most westerly terminus in mainland Britain. Certainly I felt a great sense of adventure as I stepped off the train during my break in Scotland in 2002. There are the sounds and smells not to mention the typical sights of a fishing port. The concrete island platform has always been a feature of Mallaig. The two-arm starter signal has gone, as has the twin canopy which seemed to give scant protection from the fierce weather which can be found in those parts. The original stone-built station building still stands with some tastefully added office accommodation of late. All that development has taken place in the last thirty years or so. Indeed early photographs of the station taken in NBR days show very little in the way of the town buildings so one can assume most of the dwellings for the fisherfolk were down by the harbour. The town, whilst still small, now wraps itself around the bay and up the hills behind the station.





Right: the attractive station building, seen from across the road.

Below right: the carriage cleaning platform can just be seen at the end of platform 1.

Photographs by the author.

Being a terminus naturally meant that locomotives had to start and end their journeys there and so basic facilities were required. There was a turntable and small locomotive shed at Mallaig, a sub-shed in LNER and BR days of Fort William. There would usually be a locomotive shedded there if only to carry out any shunting works. One or two spare locomotives would also be held there in order to be ready to take a fish special out. The railway operating department would work closely with the harbour master regarding these sort of activities. Again, as I have mentioned, the tracks went on past the station, curved to the right to end on the harbour itself. That is where much of the fish loading took place rather than in the station itself. In amongst all of this would be the passengers heading for MacBraynes ferries. It is fair to assume that at certain times of the day, the station would be very busy. Right since the opening of the line up until the present day, the line has been advertised as a tourist attraction. As most people will know, there are steam specials each day during the summer season between Fort William and Mallaig, and very popular they are too.

The site of the station is quite spectacular, clinging to the very edge of the Sound of Sleat and at the mercy of the Atlantic seas. Across from Mallaig is the southern tip of the Isle of Skye. A ferry, which only takes about half an hour, calls at Armadale which is directly across the Sound from Mallaig. Many years ago you could travel between Mallaig and Kyle of Lochalsh by boat but since the bridge opened at Kyle, this is not possible for some reason. It should be noted that the ferries and trains do actually tend to connect, so it is possible to tour the area by public transport as I did in 2002.





Above left and right: the carriage cleaning platform at platform 1. Note too the ground frame, relay cabinets and suchlike.

Below left: the 16.08 for Fort William about to depart, formed of two 156 units in the current and vivid Scotrail livery.

The signalman at Mallaig must have had the best view out of a signal cabin. It stood just outside the station limits and had uninterrupted views across the Sound of Sleat. The box was used as a store when the radio signalling took over but has since been dismantled. The run out of Mallaig takes the trains along a stone sea wall and then into some huge stone cuttings before heading down to Morar with its stunning sands. So, as a station site nowadays, it remains much as it always has been

but without the locomotive depot. I am not too sure when running down to the harbour ceased, but the large scale track plan I have been given is certainly LNER.

The track plan allows for two platforms to be used, and they are quite lengthy. I am sure the steam special I saw consisted of at least six Mk 1 coaches if not more. There is a run round facility from platform one whilst an additional siding for carriage storage is also located next to it. The station throat is quite typical of any

station with a crossover in evidence followed by a turnout which gives access to platform two. An additional siding which used to serve the small oil depot has had sufficient of its turnout lifted not to allow any running into it. This I feel is quite a recent change because I have seen photographs of stock, and not just the odd oil tanker, standing in that siding. Well into diesel days, the mixed freight train was alive and well on the Mallaig line. An oil tanker or two would frequently be added to a passenger train. Remember, the fuel oil was not just for the locomotives, it was more likely to be for the fishing fleet.

Only seven turnouts are required to produce Mallaig in the present or near present period. I would discount the fact that the turnout to the oil depot sidings has been cut. You need four left hand and three right hand turnouts and again, I would use the large radius turnouts if you are working with the Peco track systems.

The track ballast, by the way, is a mixture of beige chippings and the typical Scottish Region red chippings. Again, the red ballast is available from Lanarkshire Model Supplies in a variety of sizes. For anyone modelling the current scene in Scotland, the red ballast is an important feature.





As with any modern scene, there seems to be an abundance of signs telling passengers and train drivers what or what not they are supposed to be doing. A number of firms, especially in the smaller scales, produce this signage but for people like me in the senior scale of 7mm, it is often a case of photographing the actual signs on sight and then reducing them to a suitable size and then sticking them on posts or bits of rail. At Mallaig, the turnouts are now operated from two ground frames. One frame is near the station throat whilst the release turnout on platform one is operated by the other ground frame. The usual array of

Above and below: the station throat showing the out of use turnout to the old oil depot.

Above right: the long curved concrete platform.

grey metal relay cabinets abound at these two locations. Along with all this station detail are the cable runs. Some of it is in concrete ducting, and some of it is in plastic pipework including that lovely bright orange pipework which runs under the track.

Sturdy buffer stops are to be found at the ends of all the terminating lines, and these have red stop lights on them. An unusual fea-

ture is found at the end of platform one. A carriage cleaning platform is located here flanked by a brick wall to protect staff from the weather I should think. At the very end of this platform will be found the typical British Rail red station sign too. The whole of the site is now surrounded by chain link fencing which I believe can be obtained in model form.

As I indicated, the station building is the original and very central for the town, sitting as it does, on Station Road I believe. As an aside, the Fisherman's Mission opposite the station caters for all needs, not just fishermen, and provides good meals and hot drinks at very reasonable prices – all freshly cooked too. The newish additions to the station building, including the information and booking office, have been constructed in a smooth stonework and are purposeful for the needs of rail and sea travellers. The mid to dark green paintwork on the building is matched by the large tall platform lights which are also in this colour. Nobody can say Mallaig station is not well lit!

In actual fact, the large curving platform, which I find unusually graceful seems quite bare in appearance. Mind you, I remember the original canopy which had the huge stone wall to the seaward side of the platform. This was put in place, again to afford some sort of protection from the elements whilst the locomotive and stock were awaiting release. This canopy was attached to the wall by impressive cross girders. There is a view of this scene with my favourite Class 27s in one of those photographic albums of the 1980s.

I will not ramble on too much about operation. If I were building Mallaig I would prefer



Right and centre right: ground frame and relay cabinets at the station throat.

Bottom right: a Jacobite steam special with K1 No.62005 on 23 July 2002.

the period which saw Class 27s and Class 37s operating the services, the early to mid 1980s. The track layout then was much the same as it is now because the locomotive depot had been dismantled to allow for the building of a new road (A830). This road cuts right along the side of the railway whilst the site of the old locomotive depot is now a small industrial site. Other leisure facilities have grown up alongside this new road. As these are outside the station limits I would probably not model them.

So you could have short or long trains, mixed trains, a little freight, usually linked to the fishing industry or off-shore industries as well as for a very short period some fish traffic using Spanish refrigerated vehicles. Permanent Way trains would also be seen from time to time but for those of you who still like the odd kettle on your layout, the *Jacobite* steam specials are just the tickets. That newish Hornby Black Five or a Bachmann B1 would be just the job. Other types which have operated the service can be produced from etched brass or white metal kits. I am thinking of the J36 and the K1/K4 locomotives. A rake of Mk 1 coaches in maroon, carmine and cream or LNER tourist green and cream is all you need.

Hopefully someone will do a special run of the Lima Class 156s in Scotrail livery in the not too distant future although you could be brave and decide to run Scotrail 158s on the assumption that they now have enough Class 170s in service to cascade the Class 158s onto the West Highland. Surely it will also be a matter of time before a Class 170 DMU also traverses the West Highland lines. The Class 156 I had take me out to Arisaig certainly made hard work even getting out of the station.

In future *West Highland Wanderings* we may well look at the southern section of the line including the junction at Crainlarich with its still famous tea rooms. The southern section originally had a wide range of stations constructed from beyond Craighendran Junction where the line diverted up into the Highlands. These stations were built to serve a growing residential market but they usually suffered from being placed well out of the town making access difficult. The supposed clientele frequently decided to go to Glasgow along the River Clyde by steamer instead. However, many of these small stations survived into the 1960s latterly served by the early British Railways four-wheeled railbus generation of DMUs. However, steam in the form of push-pull C15 4-4-2 tank locomotives and two ageing Gresley non-corridors hauled the local services between Arrochar and Craighendran Junction for many a year. Steam in the Glens and I am ever hopeful a suitable kit will become available for the D34 Glen kit itself in 7mm. Still, the K2 has arrived, if a little late, from Four Track Models, so devotees of the West Highland in 7mm (and I suppose 4mm) have plenty for which to be thankful.



Instant Lock-ups

Not glamorous, but realistic scenic detail

Paul Adams discovers old shipping containers as lock-up units; an idea drawn from a local walk.



A good way to find interesting features that can be duplicated on your model railway layout is simply to take a walk around your own neighbourhood. Recently, I have noticed that a number of business firms are using metal shipping containers as lock-up storage sheds, as it is easier to acquire one of these, ready made, than to build a shed. Perhaps they do not have to worry about getting planning permission, etc. from the local council as they are not actually building anything.

The containers are often placed next to the main building in the company car park. They can also be found on construction sites, or where road works are being carried out. Even one of the smaller containers is going to provide plenty of room for tools and materials. The end doors are the full height of the container, making for easy access. They are also

very portable, being easily loaded onto the back of a truck using a crane. A local timber yard has at least four containers dotted about, one even having a window cut into the side, with a door on the opposite side. The latter seems a little redundant, given the double doors at the end, but perhaps these are considered too cumbersome for normal use. The addition of a window and a door would suggest, that this particular container is being used as either an office or a workshop.

The ISO or International Standards Organisation shipping container comes in several standard sizes. Height and width are the same, regardless of length. The box is usually quoted as being 8' (96" or 244cm) square, although those I measured seemed to be 95" (241cm) wide by around 100" (254cm) high. The latter figure includes the corner-mounted

lifting brackets, which project slightly above the main box. Length is 20', 30', or 40'. Although the dimensions are standard, the detail design varies greatly; some have plain sides, ribs of various thicknesses, half ribs, or side doors. There are even open-topped containers for certain loads, but these are of no use as lock-ups! There are also refrigerated containers for chilled or frozen goods. The big double doors at the end are not the same size, the door on the right being very slightly wider than the door on the left.

Modelling

Ready-made containers, in a variety of markings, come with the various container wagons made by Bachmann, Hornby, Lima and others. Some truck models also include containers and there are a few available separately as accessories. You can probably get away with using H0 scale containers with 00 scale models, as long as models in the two scales are not placed side by side.

Scratchbuilding is not difficult, given that the container is just a big box. The corrugated

Above left: a small container with only two vertical locking bars on the ribbed end doors, instead of the usual four. The door handles are positioned centrally. The yellow paintwork is in appalling condition with heavy rust, but the sign on the side is clean and new. This is yellow with the triangles forming the letter W in light blue and the word WORKS in black.

Above right: this container sits in the corner of a company car park. It has been fitted with a sloping metal coloured roof to allow the rain to drain off. The end doors are plain with the locks at the bottom.

Left: surrounded by junk and a rubbish skip, this container is situated at the rear of a warehouse. The doors have unequal horizontal ribs rather than the more common vertical ribs.





Above left: these two smooth-doored, flat-roofed containers occupy an empty corner on a construction site. Only one container carries company markings.

Above right: providing storage for equipment during road works is this ribbed, smooth-doored container. Foreground clutter comprises concrete blocks, an oil drum, plastic piping, a roll of cable and a road warning sign.

Left: very neat and tidy, this container is situated on a construction site between two portable office buildings. The end doors feature evenly spaced horizontal ribs. The company name is on a sign fixed to the ribbed side.

Below: this unusual smooth-sided container sits in the corner of a timber yard. A window has been set into one side although there is no glazing in it and it has been boarded up from the inside. Partly hidden by the sheets of roofing iron, the window extends almost to the bottom edge of the container. There is a door on the opposite side, just behind the double end doors. The whole area is very scruffy and clearly subject to vandalism.

Photographs by the author.



sides and end wall can be made from the sheets of Box Profile Steel (ref.SSMP225) made by Wills in the Scenic Series Materials Pack range, or by laying lengths of plastic strip over plain plasticard sides. The plain roof and optional plain sides are ordinary plasticard.

The detailing on the end doors are pieces of plasticard laid over the main end piece, while the long handles are lengths of plastic rod. If you want, the doors can be left open, to show off the interior. This can be detailed with whatever you like or have to hand: sacks, boxes, oil drums, a wheelbarrow, or other tools.

The smaller, wooden furniture containers from the Hornby conflat wagon can also be used. These are available in both GWR and LMS versions. The container is a very well detailed, one-piece moulding, and comes ready painted. All it needs is a little weathering. In fact, it is one of these containers that now fills up an otherwise vacant space on my own layout, *Catweazle*.

Painting

The finish and company logos are not necessarily those of the company using the container for storage. One local firm, however, has painted their storage container to match their main building, giving a much neater and tidier appearance, although the end by the fence remains a dirty brick red colour. Building firms

will usually paint the company name on the side, or apply a sign. In general, the paintwork tends to be well worn, with a fair amount of rust, so weathering can be as heavy as you like.



Lady Margaret

A Great Western oddity

Charlie King builds a new 7mm scale kit by NBL Locomotive Works.

When I was asked to build a model of *Lady Margaret*, I had visions of constructing one of the Great Western's grand passenger locomotives. It was not to be, as *Lady Margaret* turned out to be a diminutive 2-4-0 tank engine that became Great Western property when that company took over the Liskeard & Looe Railway in 1909. *Lady Margaret* was built by Andrew Barclay in 1902: she had 4' coupled wheels and weighed 28 tons.

I have to confess that my knowledge of all things GWR is a bit thin but I am aware that it was pretty ruthless in getting rid of non-standard locomotives acquired from other railways. It is perhaps surprising therefore that this little engine was extensively rebuilt in 1929 and lasted, with minor modifications, in this condition until withdrawal in May 1948. After the rebuilding it spent time on the Culm Valley line before moving to Oswestry, where – according to the notes that come with the kit – there is a tale that it was painted black. If this were so, I suspect that the image conscious GW authorities at Swindon would have soon sent someone with the requisite quantity of green paint to remedy matters.

The kit, manufactured by NBL Locomotive Works, for whom this is a first effort in 7mm scale, is based on the 1929 rebuild. It is a near-complete kit in that the only things that the builder has to add are wheels and motor. The usual format of brass and nickel silver etches with castings in whitemetal and lost wax brass is followed. The standard of the etches is excellent but some of the castings in my example required a bit of cleaning up. The designer's philosophy seems to have been that if it was on the prototype it is in the kit so there is a wealth of fine detail.

The instructions are a mix of computer generated drawings (which are good) and text, but on separate pages which I find is not a very 'user friendly' arrangement. The first thing I did was to cut up the sheets and re-assemble them so that the text and related drawings were together.

Although comprehensive, there are several omissions from the instructions particularly in relation to details although this may have been remedied in later versions. A most useful inclusion is a side view photograph of the prototype.

Chassis

The construction of the chassis comes first. This went together without difficulty and as described in the instructions except for the brakes where a bit of inspired guesswork had to come into play. I fitted wiper pickups acting on the top of the wheel rims and thus hidden



by the valances. If you adopt this method of pick-up the slots in the footplate for the wheels will need to be lengthened to make sure that there is ample clearance and reduce the risk of shorting. I worked out from the photo supplied that the vacuum cylinder was mounted on the rear outside of the right-hand main-frame rather than the more usual position between the frames.

The manufacturer recommends that the loco is powered by a Mashima 1824 motor coupled to a Markits MM7 11 54L fold-up gearbox and gears. When the rear shaft of the motor is removed it is short enough to fit into the firebox.

I am not a big fan of fold-up gear mounts but I have to admit that this one folds up into a robust gearbox which, combined with the deep cut gear set, removes the meshing problems that are a principal cause of poor running when using this type of drive. The same motor coupled to an ABC Gears mini box would provide a more sophisticated alternative.

Body

The basic bodywork is straightforward enough except that the valances need folding carefully as described in the instructions and that the boiler requires rolling. The boiler is too big and needs to be cut down to obtain the correct diameter and, although this is mentioned in the instructions, I found that I had to remove a bit more metal than was suggested. The boiler is supposed to fit through the hole in the casting that forms the joining ring

between boiler and smokebox. On one hand the design of the boiler to smokebox joint is a good one but the operation of enlarging the hole to accept the boiler is quite time consuming as quite rightly, the manufacturer has erred on the side of caution in allowing for shrinkage in what is quite a large casting.

The locomotive body consists of a number of sub assemblies that are then held together with half-etched detail overlays that show off all the rivet detail to good effect. I soldered these sub-frames together with 188° solder so there was no risk of movement when putting on the overlays with 145° solder. This method of construction means that the locomotive body has to be assembled off the footplate. I found that it was important to work on a clean flat surface to help ensure that everything sat true and square. I used a piece of MDF for this as I have found that this material does present an almost perfectly flat surface. The cab floor requires a cut-out to accommodate the back edge of the firebox before fitting in place. Once in place the floor adds strength and stiffness to the model.

The locomotive body is located on the footplate by two tabs at the rear and a 6BA screw through the floor of the smokebox at the front. The back edge of the firebox fits in the cut-out in the floor which then determines how far into the smokebox the boiler is supposed to penetrate. I was a bit sceptical of this whole method of constructing the locomotive body at first but I have to confess that it works very well so long as care is taken in lining up all of the parts correctly.

Left: the passing resemblance to the later 14xx class locomotives can be seen in this side view particularly if you ignore what is below the footplate. The position of the brake cylinder mentioned in the text can just be seen behind its cover plate to the rear of the cab steps. The vac pipe is made from copper wire stripped out of a piece of flex and the rod that operates the sanding gear can just be seen running along the tank top.

Right: this rear view shows some of the rivet detail as well as a glimpse inside the cab. The hooks on the bunker back are just asking for a set of fire irons and a bucket.

Photographs by Trevor Cousins.

Details

The remainder of the construction consists largely of adding detail. The instructions point in the right general direction of where most but not everything should go and the photograph really comes in useful for checking the location of many of the parts. I added the vacuum ejector pipe from thick copper wire to the left-hand side of the boiler and the steam heating pipe again from thick copper wire along the right-hand side valance. The copper wire is stripped out of electric cable bought from the local DIY superstore. The flange covers for fitting the vacuum ejector pipe to the smokebox are there in the kit but are an example of the detail not mentioned in the instructions.

The top feed and connecting feed pipes assembly is a neat one-piece whitmetal casting. If you fit the vacuum ejector pipe as I did then the left-hand feed pipe has to be cut carefully to allow this and the ejector pipe to cross each other. With a little careful filing of the cast pipe with a round needle file the joint can be made up so that the vac pipe looks as if it is passing under the feed pipe as it did on the real locomotive.

I was fortunate enough to obtain a second photograph of the locomotive which clarified where some of the other detail went. The sandboxes sit on the footplate hard up against the front of the tanks. A rod is just discernable going down the tank front and into the back of the sandbox which I assume is part of the operating linkage for the sanding gear. If this is so then the operating rod must have run along the top of the tank to a couple of cranks that enabled the movement to turn through the required angles to operate the sanding gear.

There is an etched part in the kit that purports to be this linkage but no clues as to how or where to fit it. I decided that it must have been fixed to the top of the leading edge of the tank connecting the operating rod that must have run back to the cab and that which goes down the front of the tank to the sandbox.

The same photo shows that the steam pipe supplied in the kit, which appears to be based on the type fitted to the 14xx class is incorrect. Looking from the front, I drilled a 1mm hole in the correct position about 4mm to the right of and just below the coupling hook on the buffer beam, cut the casting at the point at which the pipe joins the fixing bracket and soldered the pipe in place in the hole. In keeping



with other Great Western engines I noticed that *Lady Margaret* has a couple of lamp brackets fitted to the footplate to accommodate spare lamps. These were made up from a bit of scrap etch and fitted in place on the right-hand side just in front of the leading wheel spring.

The whistles, located on the cab roof are two quality brass turnings that capture the look of the real thing very well. Lost wax brass is used for some of the detail castings such as the distinctive mounting on top of the dome and the steam cock on the front of the smokebox and these are very good.

The choice of parts produced in lost wax is a bit odd and it is a pity that vulnerable parts, vacuum and steam heating pipes for example, are in whitmetal yet the handbrake, tucked safely of the way in the cab, is lost wax. The brass cast coupling is a nice representation of the GWR type of screw coupling and repays the time spent assembling it carefully.

Painting

On completion and after a thorough wash, a coat of Halford's grey primer was applied. The chassis is finished in their satin black and I used the same for the black parts of the locomotive bodywork. Leaving the model for 24 hours in a warm place hardens the paint so that the black parts can be carefully masked off for the application of a thin coat of grey primer followed by Precision Paints GWR green. This might seem an odd way of going about things but the car paint, being harder, is less prone to damage from masking and handling than the softer green enamel.

Any touching in of the black was done with Humbrol satin black. The brass parts were finished using Humbrol 'gold', and the buffer beams are Precision Bufferbeam Vermillion painted over Humbrol 'Bauxite' as an undercoat.

The name and number plates are included in the kit. These were sprayed black and then carefully rubbed over a piece of fine wet and

dry paper held on a flat surface to remove the paint from the raised letters and numbers. Transfers come from CPL Products, whose list of bits and pieces I would have thought would be an essential for followers of the GWR, and who will sell sufficient transfers for just one locomotive. A coat of satin varnish completes the paintwork.

Having modelled her in later condition I used the GWR monogram on the tank side of *Lady Margaret* under the nameplate. I also felt that the model would look visually more pleasing than with the words 'GREAT WESTERN' filling the tank sides.

Although the notes with the kit hint that in its later years *Lady Margaret* did not carry any company insignia, I suspect that as with other locomotives the rather subtle GWR monogram got lost under a coating of grime. For reference I used a colour photograph I have of a preserved 14xx tank in this livery and *Lady Margaret* has more than a passing resemblance to this class of engine.

Conclusion

Summing up, this is a good kit with a wealth of detail that goes together very well. Being based on a one-off prototype the kit might have only limited appeal which is a pity as new manufacturers who are prepared to produce work of this standard should be encouraged. During building the model has rather grown on me and I suspect that GWR enthusiasts could easily be persuaded to find an excuse to have one.

Charlie King will be demonstrating the building techniques described in his articles at the East Midlands exhibition in Nottingham this month (see 'Societies & Clubs' for details). Some of the models featured will be on show.

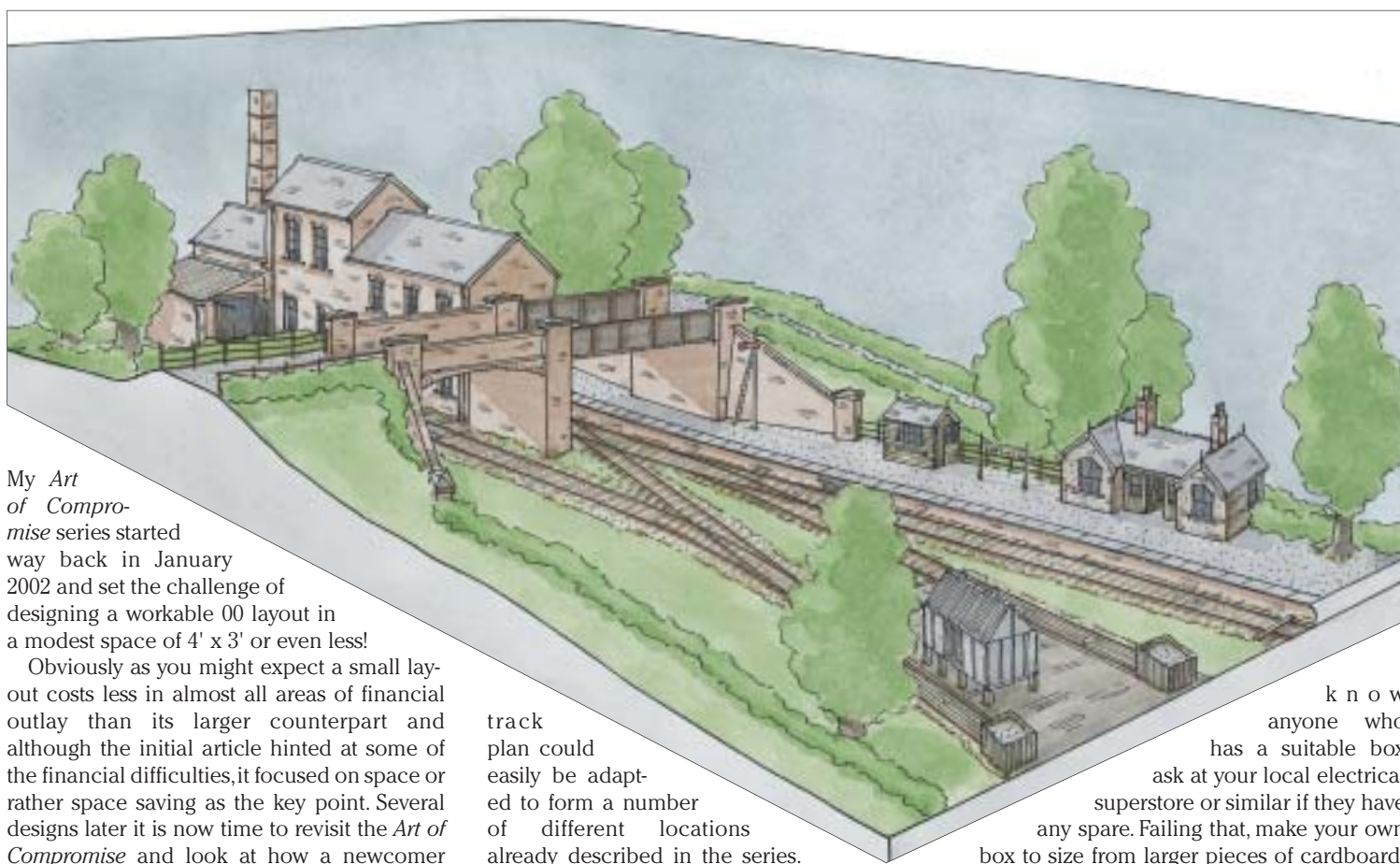
The kit for *Lady Margaret* is distributed by Mercian Models, 1A Market Street, Hagley, Stourbridge, West Midlands DY9 9LT.

...an exchange of railway modelling ideas for beginners of all ages

Less space, low cost

An ultra-small 00 layout in 3' 4" x 1' 10"

Paul A. Lunn continues his Art of Compromise series.



My Art of Compromise series started way back in January 2002 and set the challenge of designing a workable 00 layout in a modest space of 4' x 3' or even less!

Obviously as you might expect a small layout costs less in almost all areas of financial outlay than its larger counterpart and although the initial article hinted at some of the financial difficulties, it focused on space or rather space saving as the key point. Several designs later it is now time to revisit the *Art of Compromise* and look at how a newcomer might address other issues, especially cost, for a different and even smaller start in 00.

Measuring 3'4" x 1'10" this layout consists of three points (two Ys and one left-hand), five pieces of straight track, no curves and the Peco Loco Lift. Note that Peco Streamline (Setrack compatible) code 100 short Y points are indeed shorter than anyone else's, although this layout uses all Setrack components.

The basic design consists of three lines to shunt, each with a capacity of three or four short wheelbase wagons plus a kickback siding into the works. The hidden siding and platform line are each capable of holding a single diesel railcar or a short loco and two to three wagons or a 57' coach. Inspiration is from prototype settings, but the overall idea including

track plan could easily be adapted to form a number of different locations already described in the series.

The colour illustration shows a branch line with an even more cost conscious coal/stone terminal to follow.

In terms of speed and cost I particularly wanted to look at something quite different in terms of baseboard and scenic construction. What I propose is very much in the tradition of the long running *Blue Peter* Series, in taking surplus household materials and recycling them into a craft item. This fits also with my keen sense of wanting to support the environment, especially in the re-use of waste materials and sustainability.

So – ready for the shock – our baseboard is made from a stout cardboard box, the sort that vacuum cleaners, portable music keyboards and the like come in. If you don't happen to

know anyone who has a suitable box ask at your local electrical superstore or similar if they have any spare. Failing that, make your own

box to size from larger pieces of cardboard, the sort found protecting washing machines and fridges when delivered new. Increase the inner strength by reinforcing with kitchen roll/toilet roll inners. Cut to the height needed.

Cover the board surface with thin polystyrene, the sort used for ceiling tiles. Ask friends and relatives for leftovers from a recent decorating project or again visit your local DIY superstore and make an offer for the damaged ones. The tiles will act as a waterproof barrier to the cardboard base. Laminate the backscene from 2 pieces of card with corrugations running at 90 degrees to each other for extra strength. Cover surface with a better quality card, the sort used for cornflakes packets, before fixing a decorative backscene from used calendars. Mask joints in backscene with

buildings or trees, either as a flat from calendars, or in the form of a 3D model. Formers for the landscape come in two useful forms, either the already mentioned kitchen roll/toilet roll inner or egg boxes, especially those made from compressed card covered with paper and decorated.

Use kits for most main structures on the branch line, some thoughts on assembly, assembly cost and accuracy can be found in the accompanying table. You will have to decide for yourself on the quality of the product not only in terms of accuracy and pleasing appearance but also in the materials used, ease of assembly and whether it represents good value. Ask your local model shop to demonstrate the benefits, or not as the case may be, of each product. I've included specimen prices taken from RAILWAY MODELLER during October and September 2003. Scratchbuild or customise Metcalfe products for large works, designed to hide non-scenic section and Peco Loco Lift. Note the roof and upper walls will have to overhang the hidden siding at the right hand end when facing the model. Ensure that there is sufficient clearance for the Peco Loco Lift and any stock.

Entry-level motive power costs between around £10 and £40. This gives us a range of single car DMUs, ideal for short branch line passenger service together with a vast array of small tank engines and shunters to suit just about everyone's taste. In the mid £30 range Bachmann offers Classes 03, 04 and 08 diesels together with some very attractive tank engines, the J72 to name but one. Similarly Hornby, which focuses more on steam at this end of the range, can offer for the same sort of price, a J94, a 14xx and a Terrier. Of course if you want to start at a budget price, the Hornby *Smokey Joe* and *Thomas the Tank Engine* all come in at just over £20. If that's not tight enough on price an industrial or preserved line might be able to excuse the use of an imported American loco, whether out of the box or customised to look as though it was built in the British Isles. At current prices the Model Power 0-4-0 shunters are just under £10 – very attractive!

Price varies less on wagons and coaches, with vent vans around £7, mineral wagons at £5 to £6 and 4-wheel tankers at £6 to £7. Coaches can vary from around £11 and £20 depending on what you purchase. Modern developments in quality and detail have understandably led to an increase in price although shopping around can bring good deals at prices lower than those indicated.

A final few words about the baseboard. Cardboard boxes will only work well at this small size and are probably not suitable for a large or regularly transported layout. Equally it is important in construction to avoid the use of water based glues as much as possible as these tend to encourage the cardboard to warp. So it is Bostik/UHU on card (not polystyrene) and spray mount (cheap version available at some cut price book shops) for backscenes. Any exposed card will benefit from a coat of matt varnish to stop warping.

It should be possible to get the whole base-



board to a fairly advanced state in almost no time at all. Saving for glues already mentioned, a good straight edge and knife and a selection of paper clips, rubber bands and clippy clothes pegs (all to hold things together whilst the glue sets) are all that will be needed, certainly no specialist electrical tools.

If you would like to know more about entry level layouts, a series of designs and thoughts from Neil Ripley, Ken Gibbons, Jack Burnard and Steve Flint accompanied by myself appear in a new Santona Publication *The Model Railway Planning and Design Handbook*, which will be available soon.

Kits or ready-made	
small station building	Peco LK-16 (£8.50 inc. hut); Hornby R510 (£7.00); Wills SS60 (£4.50); Alphagraphix F303 (£3.00); Prototype 46W9 (£4.00); Dapol C14 (£4.29).
small signal box	convert Peco hut (with LK-16); Wills SS29 (£2.65); Alphagraphix F211 (£2.00); Prototype 46W4 (£4.00); Ratio 503 (£9.95); Dapol C6 (£4.29).
station nameboard	ModelScene 5091 (£1.75); Wills SS68 (£2.99); Dapol C12 (£4.29).
platform	Peco ST-290 (£2.50); Hornby R460 (£2.50); Wills SS61 (£2.99); Metcalfe PO216 (£5.99); Alphagraphix F314 (£2.00); Ratio 520 (4.85); Dapol C22 (£3.60).
signal	Hornby R171 (£6.00); Ratio 460 (£5.95).
buffer stops	Peco ST-270 (£1.05); Hornby R083 (£0.85).
1-road engine shed	Wills CK14 (£8.99); Alphagraphix F315 (£3.00); Prototype 46W8 (£4.00); Ratio 522 (£16.99); Dapol C7 (£4.95).
goods shed	Hornby R8002 (£12.00); Wills CK15 (inc. bank and crane, £8.99); Metcalfe PO215 (£5.99); Alphagraphix F319 (£3.00); Prototype 46W6 (£4.00); Ratio 513 provender store (£9.95).
fencing	Peco LK-45 (£2.25); Hornby R537 (£4.49); Wills SS45 (£2.99); Ratio 425 (£1.90); Dapol C23 (£3.60).
Scratchbuilt/modified	
bridge	Hornby R180 (£11.00); Wills SS57 varigrider (£2.99) and SSMP227 brickwork (£2.25); Prototype 46T2 (£5.00).
factory	Wills SSMP227 brickwork (£2.25), SSMP203 slates (£2.25) and SS71 round-top windows (£4.50); Metcalfe M0054 brickwork (£5.25) or PO219 (£5.25); Alphagraphix F56B brickwork (£3.00); Prototype 46BR redbrick paper (£1.25) and 46GT grey tile paper (£1.25).
Materials involved	
plastic kits	Peco ; Hornby (inc. adhesive labels); Wills (some extra work involved); Ratio ; Dapol .
card kits	Metcalfe ; Alphagraphix ; Prototype (some plastic parts).

READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

UNWANTED DECALS

I refer to George Macleod's letter in the January RAILWAY MODELLER regarding the removal of unwanted decals, in his case, overhead electric warning flashes. As a modeller of the Scottish end of the LNER I am quite happy to use RTR models but often have to re-number individual locomotives to represent one allocated to Scotland. The detail and finish of current models is so good that it can be difficult to achieve the desired removal without damaging the surrounding artwork.

My method requires a small quantity of methylated spirit and cotton buds, both available from your local chemist, although you may have to explain why you want the meths! Using one end of the cotton bud, apply a small quantity to the unwanted decal and leave to work for a few minutes. Using the dry end of the cotton bud gently rub over the decal which should now be soft. Repeat until all traces have been removed. Remember, twice the meths does not halve the time.

Dry the area thoroughly, then buff up with a dry cloth and there you have it. To anticipate the question, yes, you can use white spirit but when left to soak it can creep and may soften the surface.

Congratulations on a fine magazine.
R.D.A. JOHNSTON

FOWLER 2-6-4 TANK ENGINES

Further to Mr Joseph's article *LMS Fowler Class 4P 2-6-4T* in the January edition, I would like to offer a couple of extra pieces of information under the 'Notes for modellers' section.

Mr Joseph states that there appears to be a dearth of 4mm kits and conversion parts. Alan Gibson offers two versions in kit form covering the second Fowler cab version Nos.2385-94 and the Stanier version Nos.2395-2424. The former of these also applies to the retro-fitted cabs on locos 2300-2374. I am not sure if the outside steam pipes are offered as an option within these.

Also, during the 1980s and possibly other times, Perseverance offered a conversion kit for the Hornby body shell which allowed the second Fowler cab version with roundhead rivets to be built and the outside steam pipes and angled mushroom vents to be added if appropriate. If anyone has one of these conversion kits and is willing to sell it to me, I intend to build a 4mm model of a 2385-2394 version.

Chassis kits and parts are available from Comet, Perseverance and Alan Gibson.

DAVID TILLET,
1 Sunderland Drive, Christchurch,
Dorset, B1123 4TE.

Right: Canopy work at Whittingham Station, Northumberland.
Photograph: John N. Stanley.

WHITTINGHAM STATION

Whilst on holiday in a cottage in Northumberland we were told that there was a station just over the wall which was no longer in use. I had to go and look and found the most delightful buildings, sadly without tracks, in fantastic condition considering how long it is since the doctor worked his magic.

I believe the station was called Whittingham (the village is 1½ miles away) and it was on the line from Alnwick to Coldstream and the borders. The actual location is off the A697 road and just behind the Bridge of Alne Hotel at East Whittingham.

The thing is these buildings were built to a very high standard and have survived so well, they are a great example for anyone modelling a country station. I have never seen better canopy work anywhere, as my photograph shows even the bargeboards are cast and still in prime condition.

JOHN N. STANLEY

RUABON AND THE LLANGOLLEN RAILWAY

I was interested to see the first part of Gareth Jones' article *Ruabon* in the January issue and his intention to portray the station at a point in the future making the assumption that it had become a junction once more for the Llangollen line.

As the Llangollen Railway's Honorary Public Relations Officer I have a particular interest in Ruabon, not least because I travelled through the station and over the entire length of the cross-country line via Llangollen and Bala Junction to Morfa Mwddach on three occasions during 1964.

The first time was on 25 April aboard the Festiniog Railway Special from London, returning by the same route that evening and the early hours of the following day. For those interested, 4079 *Pendennis Castle* provided the motive power as far as Ruabon and the train went forward through Wales behind BR Standard Class 4 4-6-0s 75009 & 75023. On the return 7032 *Denbigh Castle* took the train south

from Ruabon but problems with the valve timing caused it to be replaced at Birmingham Snow Hill by 6959 *Peatling Hall*.

My third and final journey was on 26 September. On that day the Tal-y-llyn Special became the last through train from London to travel via Ruabon to the shores of Cardigan Bay. It arrived at Ruabon behind 1011 *County of Chester*, that had replaced 7029 *Clun Castle* at Wolverhampton Low Level, and went forward with 7827 *Lydham Manor* piloting the privately preserved GW Small Prairie 4555, a combination that can still be seen in Devon.

Readers may be interested to know that the possibility of modelling Gareth's model in 12" to 1" scale is not necessarily ruled out and my Llangollen colleague Steve Jones, a civil engineer and I are actively exploring the options to reconnect the Llangollen Railway with the National Network.

We are satisfied, based on a condition survey of the remaining infrastructure; reinstatement of a single track railway line between Ruabon and Llangollen remains feasible. The only notable obstruction to the route immediately east of Llangollen, together with the missing bridge over the A539 at Acrefair, represent the main hurdles to be overcome. However solutions to these have already been identified, as has an option to provide access independent of the double track Chester-Shrewsbury line to the former Llangollen bay platform at Ruabon.

In most respects what Gareth has done mirrors what would be proposed, including the provision of a turntable, and there is scope for facilities to house stock. It would be our view that an independent track from the site of Llangollen Line Junction back to the bay platform would be essential so as not to affect the main line with the added complications and costs that could bring into the equation. Whilst there is ample clearance between the abutments of the A539 road bridge for the proposal, the next bridge to the

south would require reconstruction to provide a wider span. Insofar as Ruabon infrastructure is concerned, clearly it would be attractive to restore the station to as near to its original features as possible and develop it as a Park & Ride facility to gain maximum benefit from investment given its close proximity to major trunk roads.

We are currently lobbying Members of the Welsh Assembly, local councillors and various bodies in the rail industry to gain support and ensure no further obstruction of the existing track-bed occurs that would preclude reinstatement.

FRANK SPENCE

GOODS TRAINS FROM THE STEAM ERA

I read with great interest the item on *Goods Trains from the Steam Era* in the January issue of RAILWAY MODELLER.

In my younger days I was a plate-layer on the Staines District of BR(S), which was responsible for the shunting yard at Feltham. This was as steam was giving way to diesel. Even at that time there were some interesting kinds of trains and many workings of steam locos being hauled to breakers yards.

A few years later, I joined the army and was subsequently posted to the King's Troop Royal Horse Artillery in London. During my time with 'the Troop' I was to travel on Troop specials with the unit. This was usually formed of three passenger coaches, about ten or twelve horseboxes and a couple of GUVs to accommodate the men, horses, guns and harness of the unit. I recall that one particular journey (most started from Kensington Olympia) in a horsebox was very rough, especially on a bypass route through Putney to Wimbledon. It was very odd to have to make out a travel warrant for such a journey for all that lot.

BILL AVERY

Congratulations to Barrie Walls for a most useful and informative article on *Goods Trains from the Steam Era*. The photographs are most helpful in illustrating the varieties of goods train formation in this period, which often seems a mystery to enthusiasts and modellers alike.

The view of the 'Gobbler' on the Class K transfer goods illustrates that even if the train was composed of vacuum-fitted wagons, the headcode might not reflect this at all. Indeed, headcodes seem baffling to many modellers if it is assumed that they are a precise description of the rolling stock, rather than a classification based on the speed and loading of the train. A Class J working – described as a 'mineral or empty wagon train' could easily contain neither mineral wagons nor empties; but the classification was for a train which could be more heavily loaded than Class H or F trains and more slow-moving. This in turn could allow it to be 'put inside' for faster trains to pass it along its route. Conversely coal trains, loaded or empty, could run under Class F or H headlamps and the latter coding was often to be seen in later steam days when the BR standard steel mineral wagons, with their oil axleboxes and improved running gear, became common.

Better ready-to-run models and kits should allow more modellers to con-



centrate on accurate operation; indeed there is no reason why a layout stocked 'straight out of the box' cannot be operated in a completely prototypical way as long as the modeller understands what this was. A particularly useful book for those wanting to explore this is Bob Essery's *Railway Operation for the Modeller* (Midland Publishing, 2003) which gives abundant details of how the steam railway was run.

Speaking of books, I couldn't help noticing the review of *The Heyday of the Westerns* in the same issue of RM, which noted that these engines 'could get alarmingly scruffy in their last neglected days'. Living in Bristol in the 1960s, I saw these engines under construction at Swindon and must observe that many of them were alarmingly scruffy in their early days; in fact they seemed uniformly filthy and unkempt almost from the beginning, while the capacity of automatic washing plants to remove their paint was legendary.

However rosilily they are remembered now they were a poor advertisement for the much trumpeted cleanliness of diesel traction and, when compared to the way the 'Kings' and 'Castles' they displaced were kept until soon before their advent, conveyed an image of a railway which really didn't care about presentation at all.

NEIL BURGESS

Perhaps I can shed some light on the salt wagon Barrie Walls was enquiring about in his article on *Goods Trains from the Steam Era*.

As a boy in the 1950s I used to spend summer holidays with my grandparents. They lived in a village called Fulbourne, Cambridgeshire. This was on what was then the main Cambridge to Newmarket line. Like all villages in those days it had a station level crossing and goods yard. There were plenty of trains – local passenger, express passenger and goods.

My cousin and I used to spend most days at the level crossing watching the trains and the highlight of the day was the 11.00 am pick up goods. It shunted the goods yard picking up and setting down coal wagons, vans, wagons for sugar beet etc. There was one wagon which arrived daily – a salt wagon. Two men with shovels unloaded it by hand into a tipper lorry which then made several journeys to the water softening plant. Perhaps this will give Mr Walls a reason to add it to his fleet.

G.W. TATE

THE RINGFIELD MOTOR

I refer to the review in the January RM on the *English Electric Class 50 in 4mm scale from Hornby* in which a reference is made to the Ringfield motor being 'dead'. Don't you believe it – the Ringfield motor is alive and well, still providing excellent motive power around the world inside Hornby trains of all ages, shapes and sizes.

During the years I have been servicing and repairing model trains, thousands of Ringfields (and even more XO4s) have crossed my bench and been returned to their owners to provide enjoyment for years to come.

One of the advantages of old age is that we can criticise the efforts of the younger people who now run a world which has completely lost the plot in

every single area of endeavour. Whatever happened to Toy Trains? Whatever became of toys which were only representative of the real thing, but allowed a fertile young imagination to see reality in his playtime mind?

When I was a wee boy in Hillington, Glasgow, my clockwork LNER 501 would shoot under the dining room table, dodge behind the piano stool, and come to rest in front of the sideboard, between several books which were platforms and stop there automatically. After a moment or two while the passengers alighted, I would blow my Acme Thunderer, press the brass control in the cabin, and off she would go again. Next time round I would depress the auto stop in the track, and she would be a through train. This toy was not a 501 in my mind, but the *Flying Scotsman* and I was driver, signalman and station master!

Of course, I appreciate what a marvel this Class 50 is, like all the new Hornby products, but with all their electronic gismos, what is left to the imagination? And when that little can motor dies, what do you do. Repair it? No way. You replace it with a new one.

Long after these Chinese marvels have been binned, the Ringfields (and XO4s) will be being rewind, remagnetised, fitted with new carbon brushes and carry on in toy like fashion as they were meant to be by Frank Hornby.

CHARLES E. SOMERVILLE

P.S. The Hornby Bullied Q1 is a real beauty. Now if that had an XO4 driving it, I could be tempted to buy one!

We only wanted to imply that such transmissions were now passé on new models – Ed.

RAILWAY SCENERY – INFO REQUIRED

Much has been written about the history of railways – on various countries, regions and branch lines as well as the engines and rolling stock used on them. To a certain extent the history of their architecture has also been covered. What I would like to know is has anybody written about the history of the scenery and is there one book where one can find answers the following questions:

1. When did concrete fencing first appear and where?
2. When did the mechanical horse and trailer appear/disappear?
3. When did country railways get rid of their horses and stables?
4. When did telegraph poles appear and disappear?
5. When did level crossing gates appear and when did they eventually give way to barriers?
6. When did farmers first start to use the 'flail' for hedge trimming?
7. When did cattle, horse and sheep movement by rail stop?

This list could go on forever. Has anybody covered the hobby from this stand point?

Any help or advice on the subject would be much appreciated.

M. THORNHILL,
Kenwater House, Bridge Street,
Leominster, HR6 8DX.

LNER PUSH-PULL DRIVING TRAILER

I read with interest Mr King's article on the ex-NER Auto Coach in the January issue of RAILWAY MODELLER.

I think he should have been talking about Monkseaton to Blyth rather than Monkwearmouth. I remember travel-



ling on these trains whilst on holiday in the area in 1952 and 1953 but can't remember there being push-pull trains.

In September 1955 I photographed this train in both directions and although the G5 No.67340 was fitted for push-pull working, the train was running normally with the engine running round the train at Monkseaton. The coaches also appear to be of LNER rather than NER origin.

I have built three NER coaches from D&S kits in OO which look very good.

Also reference is made to 'Micro Sol Kristal Kleer' for sticking in windows and I would be pleased if you could direct me to a source for this product.

R.G. WARWICK.

Note from the Editor:

Micro Sol Kristal Kleer is available inter alia from M.G. Sharp Models, 712 Attercliffe Road, Sheffield, S9 3RP. Tel: 0114 244 0851, or Totally Trains, 1 Cantilupe Court, Cantilupe Road, Ross-on-Wye, HR9 7AN. Tel: 01989 567577.

GRESLEY STOCK, CARRIAGE INTERIORS AND SHUNTING HELFORD

Further to my last letter (RM October 2003), upon re-reading Mr Tillet's article on Gresley 61'6" stock (RM July 2003), I find he is modelling the immediate post-war period, and not, as I thought, the pre-war, so if modelled in ex-works condition, his coaches should really be carrying post-war numbers, and not have the number 3 on the third class doors, as this was discontinued from 1941. It would be simpler to give them a coat of grime. I have since discovered that Comet Models produce castings of LNER corridor stock buffers in the extended position (ref: ECE2).

I would also like to comment on a letter published in the December 2003 issue of RM. I was much taken by Mr Johnston's simple and elegant way of making tables for carriage interiors. As regards fitting interiors the right way round, may I remind prospective carriage constructors that the side-corridor brakes in the Kirk range are, with one exception, right-handers – that is to say the brake compartment is at the right hand end as viewed from the corridor side – so don't build a LH interior for a RH brake as I did. It didn't fit, and turning it round didn't help!

I also enjoyed Neil Herd's article *Shunting Helford in Steam Days* (RM November 2003), and feel that RM could usefully feature more articles on the operating of model railways, which seems a rather neglected subject.

Above: G5 No.67340 working a Monkseaton to Blyth train on the Avenue branch, photographed on 25 September 1955. (Note – the G5 has extended tanks).

Photograph: R.G. Warwick.

One thing I would comment on though – Mr Herd points out that he has marshalled the tanker nearly at the rear of the train, as a precaution against fire in steam days. Now, in *Buckjumpers, Gobblers and Clouds*, (Bradford Barton, 1981), the late Jim Hill describes a collision on the former Great Eastern in January 1931, where a train with two or three petrol tanks marshalled next to the brake van, was struck from behind, with explosive, and fatal, consequences. Jim Hill tells us that as a result of this accident, 'the Railway Inspectorate directed that all petrol tanks in mixed trains were in future to be marshalled near the middle of the train. Trains consisting of petrol tanks only had to have a wagon and brake van at both ends.'

D.J. TOOLEY

INTRODUCING DCC – 'SHOWS YOU HOW' SERIES No.17

At last someone has written a booklet about DCC that gets across the point that 'it is simple' – simple to install, to fit the decoders into the locos and simple to programme those decoders.

I have a 20' x 20' loft layout in OO gauge. It has a four track main line, two branch lines and two terminals each with six platform faces that will hold eight coach trains.

Wiring this lot up would have been a nightmare so I decided to install DCC because it was easier.

The connection of the ZTC 511 master controller was simplicity itself (by the way the 511 does not contain a transformer as stated on page 8 of the booklet).

The beauty of DCC as far as I am concerned is not the running of X number of trains at once, which can be exciting, but the fact that I can take any loco anywhere on the layout and leave it there until it is required.

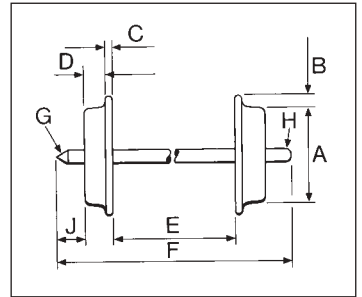
As well as the more obvious places like MPDs it can also be at a signal set at danger on the main line. The O8 shunter carrying out pilot duties in the terminal station is a sheer joy.

Please ask whoever wrote *Introducing DCC* to produce some more articles in the future. This is the first time I have seen something written about DCC that would not have the uninitiated running a mile.

MIKE HERBERTSON

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Hornby releases latest 50s, including unrefurbished models, in 00



Hornby released its version of the Class 50 in unrefurbished state just before Christmas, along with the refurbished style (see RM January) in late-period Network SouthEast weathered finish, as 50 045 *Achilles*.

When built, the 50s were fitted with an array of equipment that in practice saw little use. Slow-speed control (for merry-go-round coal train duties) and similar then-high tech electronics, plus rheostatic brakes were all removed in a refurbishment programme that started with No.50 006 *Neptune* (released to traffic late 1979) and which took over three years to complete. The work, carried out at Doncaster, removed the noise an original 50 made within its cooling system, one which led to the 'Hoover' nickname, but undeniably made better machines of the availability-poor class compared to the situa-

tion pre-refurbishment. Part of the job involved the installation of a clean-air compartment, with associated grilles where before were engine-room windows. The chief body change was the plating-in of the rheostatic brake grille area, giving a smoother roofline.

The mechanism and fine details aspects of the 50 are every bit as good as the refurbished one, so need not be repeated here. The body is the main area of change.

The model represents the period in the life of 50 018 between naming (*Resolution*, after the HM battleships of the same name in April 1978) and call to 'The Plant' for refurbishment during autumn 1982. *Resolution*, incidentally, was also a name carried by two 'Jubilees', LMS 5708 and LNWR 1919. The livery is executed very well, and as '18 did not carry a crest there is no

contrast on the model between the flat plate and crest in relief, as occurs with *Ark Royal*. The name on the bodyside shown, however, is in the wrong place: it should be nearer the No.1 (left) end.

The grilles for the rheostatic brake are moulded crisply, and the fans beneath can be rotated, although unlike the radiator fan they are not driven. More subtly, the unrefurbished 50s had cabside wind deflectors: these were removed during refurbishment, but the Hornby model has them. (They're probably as fragile as those on the Black 5; handle with care!)

One slip is the retention of a grille on the three-grille bodyside: it should be a window, and hopefully this will be corrected on future early-style 50s. Openable doors and poseable louvres are present, as expected.

The new 50 for 2004 is (controver-

sially in some eyes) the renamed 50 007 *Sir Edward Elgar*: there is no new identity for the 'old' 50, which means that we are just going to have to wait to see, 76 times smaller than reality, the little plate with the words 'THIS LOCOMOTIVE IS THE PROPERTY OF ENGLISH ELECTRIC LEASINGS LIMITED'.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4JX.

PRICES
50 045 *Achilles* (R2350) – £85.00
50 018 *Resolution* (R2348) – £85.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Proper Charlie

Hornby has released the latest in its collection of Bulleid Q1 0-6-0s in 00: it's in its 'proper' livery of Southern black with 'sunshine' lettering.

The model is every bit as good as its nationalised predecessor (RM January), details of which need not be repeated here.

SAMPLE SUPPLIED BY
Hornby Hobbies, address as above.

PRICE ref.R2343, £72.50.

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



West Highland Mk 1 coaches in 4mm scale...



Bachmann's standard of model production has been a fine example within the industry for many years and these Mk1 West Highland coaches, specially commissioned by Harburn Hobbies of Edinburgh, continue to represent high quality. Indeed, anyone inspired to model Mallaig – or anywhere else on the West Highland for that matter – in 4mm scale will need these models.

The prototype Mk1s were painted green and cream for use on the

Jacobite tourist trains on the West Highland Extension from Fort William to Mallaig in the summer months from the late 1980s on. These colours are accurately reproduced. The trains, often loading to seven or eight coaches in the high season, are hauled by a variety of motive power, for instance Black 5s and Class 37s, so this adds to operational versatility.

The coaches are available in two sets: a pair of open seconds (TSOs) or a TSO and a brake composite (BCK),

all with different fleet numbers. The TSOs have B1 bogies and the brake composite is equipped with Commonwealth bogies. The coaches are correctly 'West Highland Line' branded and have fine lining. They have whitewalled metal wheels and the full complement of 'No Smoking' symbols on the open coach windows and the brake's compartment windows.

The underframe detail work is to the standard expected and completes a very satisfactory set of coaches.

For 00

AVAILABLE FROM
Harburn Hobbies Ltd., 67 Elm Row,
Edinburgh EH7 4AQ.

PRICE
£45.00 per set plus £3.00 postage
and packing.

WHEEL DATA
B. 0.8mm, C. 0.8mm, D. 2.4mm,
E. 14.2mm.



The range of Easy-Build precision-milled plastic and metal coach kits for BR Mk 1 coaches in 7mm scale has been increased. We first encountered these vehicles, available from DMR Products in Cornwall, in our October 2003 edition.

Two more of the firm's built-up display models are illustrated: the corridor composite (CK) is not new (see our Telford roundup in the November 2003 issue for an example in brown & cream), but is included here to show the quality of the printing – another one for West Highland fans! The kit is now available with interior fittings – seats and corridor details – but is not shown here.

New to the range is the brake composite (BCK), finished here in SR green with black ends, but as with the Bachmann 4mm scale versions seen above, it is an ideal candidate for the

attractive West Highland tourist stock colours.

As before the models, supplied in boxes large enough to hold the completed coaches, are priced £125.00 plus P&P for the unpainted kit; £165.00 plus postage for pre-painted sides in the livery of your choice; and approx. £225.00 for custom-built and finished coaches. Interior kits are £15.00 each. Please contact Easy-Build, via DMR Products, for details of timescales involved with the pre-painted and ready-to-run options.

For 0

AVAILABLE FROM
DMR Products, 25 Halwyn Place,
Redannick, Truro, Cornwall TR1 2LA.

PRICES
In text.

...and in 7mm scale!



Insulated meat van in 0

New to the Parkside Dundas range of 0 gauge wagon kits is the Great Western Mica A. The GW built 54 of these insulated meat vans in 1930, to Diagram X9: they were unique amongst the company's vehicles for this traffic in having a 17'6" RCH underframe.

The kit, as is normal with this firm's 0 gauge output, is supplied in a box large enough to take the finished model, and comprises all that the modeller will need save tools, adhesive and paint. Thus wheels and transfers are

supplied, the latter for GW or BR(WR) timespans. A pleasure to assemble, no problems were encountered during construction, the build being guided by excellent instructions.

For 7mm scale

AVAILABLE FROM
Parkside Dundas, Millie Street,
Kirkcaldy, Fife KY1 2NL.

PRICE ref. PS49, £23.45.



Latest Dapol private owner wagon commissions in 00



Dapol has produced several more custom-finishes in its private owner wagon range as a result of commissions by suppliers.

The **TMC** chain has stocks of wagons lettered for Waterloo Leeds, Manchester Collieries, Annesley, Longbottom & Co and Archibald Bathgate & Sons. The wagons are local to the chain's stores in Leeds, Manchester, Liverpool, Nottingham and Sheffield.

There is a choice of three fleet numbers in each livery. Additionally, every box carries its own issue number. Price £7.25 each (£2.00 post and packing) or £21.00 for a set of three (£4.00 post and packing).

The Model Centre, Marston Business Park, Tockwith YO26 7QF.

The **Peak Rail Stock Fund** is a small independent fundraising group that acts in support of the Peak Railway project. It has recently commissioned a limited edition (500 only) 7-plank wagon in the livery of Tom Wright of Darley Dale. Price £TBA.

The Peak Rail Stock Fund, 13 Trenchard Drive, Buxton, Derbyshire SK17 9JY.

The **West Wales Wagon Works** has commissioned Dapol to produce 159 wagons in the livery of Bliss Tweed Mills of Chipping Norton and Isaiah Gadd who was a prominent businessman in Wokingham, Berkshire.

The models were also produced for two railway clubs, Banbury, Oxfordshire and Loddon Vale, Berkshire.

Both wagons are £8.00 each including postage.

West Wales Wagon Works, Glanafon, Llandyngwydd, Cardigan SA43 2QX.

Micro motor from Nigel Lawton



This tiny motor, just 12mm long and 6mm in diameter, is the type fitted to the 'Micro remote-controlled cars'. It develops a much higher torque than similar 'pager' motors, and with a suitable dropper resistor (included) and reduction gearing (minimum 30:1 recommended) it may be used with a vari-

able 12 volt DC controller and will easily power small locomotives or layout accessories. The shaft is 0.8mm diameter and projects 4mm from the end of the casing.

The positive connection is via a contact on the back end of the unit, while negative is supplied to the metal body. No fixing holes are provided, so the motor would have to be secured in a suitable mount.

Nigel Lawton has plans for complete kits of various small internal combustion locos based on these micro motors. Watch this space!

AVAILABLE FROM Nigel Lawton, 77 Katherine Way, Seaford, East Sussex, BN25 2XF.

PRICE £4.50. Postage & packing 75p UK, £3.00 rest of world.

Scenic Rust from Deluxe Materials



Effective rustwork has been made easier by the introduction of Scenic Rust, by Deluxe Materials. It works by setting up a metal layer on wood, plastic, metal or whatever, which then reacts with real rust but without harming the material beneath. It should be suitable for most scales: our 'guinea pig' is a Peco 7mm scale iron ore wagon (an eminently suitable subject, given the nature of the prototypes' existences).

The pack comprises the following: rust powder, rust developer, Scenic

Binder, mixing cup, pipette, spatula and full instructions. The surface to which the rust is to be applied must be clean and grease-free: approximately equal volumes of rust powder and the binding agent are prepared and mixed together, and applied to the subject – the wagon body in our case – with a clean brush. When dry, the rust developer is applied, and left to dry in about 8 hours.

We found that the rust when set looked a little 'sandy' in colour, which

might be entirely appropriate if the wagon to be weathered is a Presflo or similar cement carrier. For rust, however, it did not convince our eyes fully until the model had been treated with a couple of the dyes – a blend of red and yellow – sold by Deluxe in its Scenic Water pack. (The dyes are intended to discolour the 'water', to represent runoff from mine workings and suchlike.) The finished result can be judged in the closeup photograph: the panel to the right of the rib shows the untreated

'sandy' effect; that on the left shows the rust after having been dyed.

In short, an excellent new product. It should be available from most good model shops and by post.

For all scales

AVAILABLE FROM Deluxe Materials, Unit C3, German Road, Bramley, Hants. RG26 5BG.

PRICE £12.00.

Scenix 'ready-to-plant' finished buildings in 4mm scale

Recently we have been able to examine samples of the Scenix range of cast resin 'ready-to-plant' structures. The examples illustrated are typical of the range, which covers structures railway and 'civilian'.

The water tower (105mm x 70mm x 110mm high) boasts plank detail and access lid on its roof and effectively weathered brickwork.

The 3-house terrace (163mm x 105mm x 107mm high) is in full relief and evokes a typical *Coronation Street* kind of atmosphere.

The single-road brick engine shed (195mm x 93mm x 120mm high) boasts a neat louvred roof extension, and even has a notice board for crews' information.

These are very characterful struc-

tures at very good prices, and as such will be ideal for the modeller with a large area to fill with a townscape or shed scene economically. They are equally ideal for youngsters' budgets.

They are hollow inside, and weigh between 350g (water tower) and 630g (shed). Windows are solid, painted black, but could be opened out with care and glazed if required.

For 4mm scale

DISTRIBUTED BY
Pocketbond Limited, P.O.Box 80,
Welwyn, Hertfordshire AL6 0ND.

PRICES

water tower (ref.EM6105), £8.95
3-house terrace (ref.EM6008), £10.95
engine shed (ref.EM6102), £12.95



Graham Farish A3s for N

Two revamped A3s have joined the Graham Farish stable: No.60066 *Merry Hampton* is fitted with single chimney, GNR coal-rail tender, no smoke deflectors and carries lined green with early BR emblem, whilst perhaps inevitably You Know Who is portrayed in double-chimney, Witte deflectors, corridor tender and late crest guise as No.60103.

They bear all the recent steam outline improvements Bachmann has carried out (blackened wheels etc) but the models' tenders could do with wiring for pickup to give better performance.

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

60066 (ref.372-377), £86.95
60103 (ref.372-378), £86.95.

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.



Rolling road for 7mm scale



Bedding in a locomotive mechanism is a necessary task, for which a stationary 'rolling road' is available from N Brass Locomotives. It is described as a heavy-duty device, as it follows the successful light duty road, which is already available.

The road illustrated is the smallest of the three versions offered (£36.50), designed for an 0-6-0 with tender, or any tank engine up to and including 2-6-4T. (The thick base is not supplied.) We found that the Southern Mogul on test here could be accommodated if one tender wheelset was unsupported; no problems were encountered.

Also available are roads with sufficient rollers for an eight-wheeled diesel (£40.00) and one for a Pacific or 2-8-0, including tender in both cases

(£46.50). The gauge of the main rails of the road can be set from 16.5mm to 38mm: they carry power to the loco via the rollers, testing both mechanism and pickups. (The loco in the photo, incidentally, features the 'American' type of pickup, whereby the loco collects current from one rail and the tender gains current from the other rail.)

For 7mm scale

AVAILABLE FROM
N Brass Locomotives,
32 Crendon Road, Rowley Regis,
West Midlands B65 8LE.

PRICES

In text. Please add £1.50 for postage and packing.

C&L board protectors and iron

C&L Finescale has introduced some novel baseboard track end protectors, which not only keep rails out of harm's way but can maintain electrical connections when the boards are joined. A pack of four suitable for 2mm and 3mm scales is priced £3.50; 'beefier' versions for 4/7/10mm scales are also offered at the same price.

Also new is a bespoke whitmetal soldering iron (£48.00), based on the Antex TCS but with a black (not the usual yellow) handle for easy identification. It has 50W output, is adjustable between 100-160 degrees C and comes with the most suitable tip for its job (9 other tips are available).

The indispensable Carr's soldering handbook is also available, at £2.75.



For all scales

AVAILABLE FROM
C&L Finescale, Longridge House,
Cadbury Camp Lane, Clapton in
Gordano, Bristol BS20 7SD.

PRICES in text.



BR-livery Fowler 2-6-4T in 00 from Hornby

In the December 2003 issue of RAILWAY MODELLER we reviewed the LMS version of this upgraded 'Super Detail' model. The firm has now released the BR late crest Fowler 2-6-4T, complete with weathering, modelled to an equivalent standard. If you don't like them dirty, there is also the un-weathered version, as No.42355 with early BR emblem.

The outside steam pipes are the significant features not present on the LMS loco; only the first ten had internal pipes and in this respect Hornby has done its homework.

Some points are worth reiterating. Both are DCC ready with an eight-pole dual inline NEM652 socket and blanking plug. The five-pole motor drives the centre coupled axle and propels the



loco smoothly at all speeds even before running in. All the detail work is very fine and a tribute to plastic-moulding techniques. The Walschaerts valve gear is refined and stands up to close

scrutiny. The well finished backhead is impressive as are the fine handrail mouldings and sliding cab roof ventilator. The minimum radius curve on which they can operate is 17 1/2".

Overall, the standard of modelling is superbly executed and difficult to criticise. This is now what we have come to expect and nobody should be disappointed. Two more must-haves for the BR(LMR) modeller.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4JX.

PRICES
No. 42322 (ref.R2287) – £64.00
No.42355 (ref.R2223) – £64.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Structure kits from Knightwing in 4mm scale

Knightwing has released some useful structure kits in 4mm scale: the three would look ideal together in a modern freight depot scene: production Portakabins date from 1961.

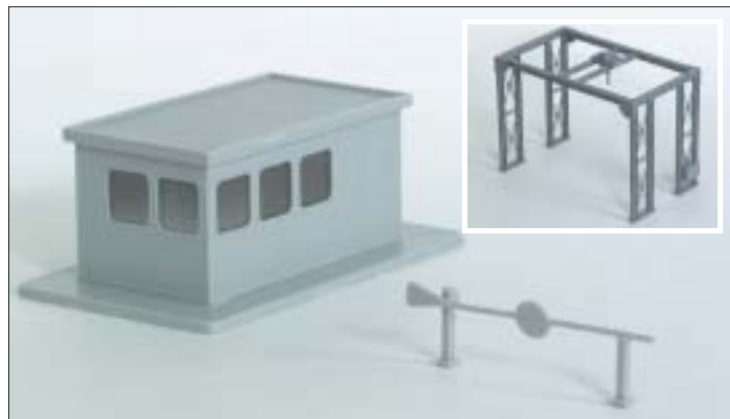
The double Portakabin (115mm x 60mm x 75mm high, £13.00) boasts flush glazing and safety tread on the steps. The gatehouse (90mm x 55mm over base, 37mm high, £7.99) also has flush glazing, and is complete with gate. The portal crane (125mm x 72mm x 88mm high, £8.99) has a moveable gantry, along with a moveable hoist on this gantry.

The kits go together well, without much fuss or filing, and are moulded in appropriate colours.



AVAILABLE FROM
Knightwing Models International,
1 Wood Street, Huddersfield HD1 1BT.

PRICES in text.



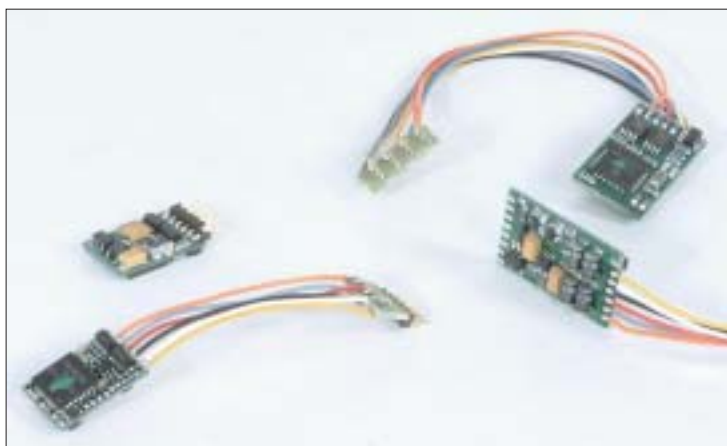
New DCC decoders from Fleischmann

Noted German manufacturer Fleischmann has launched a new selection of digital decoders that conform to the NMRA DCC standards, no doubt with its new DCC-only Lok-Boss simple controller in mind, though they are equally suitable for use with the firm's Twin-Center in DCC mode, and indeed any NMRA DCC compatible controller.

Primarily for 4mm, there is a decoder with a capacity of 1 Amp for the motor and 100mA for a switchable auxiliary output (e.g. lights, which can be directionally controlled). The address can be set from 1 to 9999. The motor output is load regulated, and acceleration and braking characteristics can be set. This simulation of 'inertia' can be cancelled by the Function 1 button – useful when shunting, for example. The minimum and maximum speeds can be set, as can the values for the 26 intermediate steps, thereby allowing loco performance to be tailored exactly. The Function 2 button switches the output to half-speed mode for shunting.

The decoder can be run on conventional 12v DC, though this facility can be cancelled by programming (CV12 and CV29) if not required.

The device is protected against short circuit and overheating: in either



case it shuts down automatically, and blinks the loco lights – continually for a short, and double if overheating. Once the fault condition is cured, the decoder will perform normally again.

The dimensions of the decoder (without wires) are 20.3mm x 10.6mm x 4.1mm, and it can be obtained with either a NEM651 six-pole plug (ref.6876) or with a NEM652 eight-pole plug (ref.6878), in each case on 80mm long leads, or with 150mm long plain wires (ref.69 6876).

There is also a smaller unit, measuring 13mm x 9.1mm x 3.7mm (without wires); with a motor capacity of 600mA, it is intended principally for N, but might suit small 4mm locos. It has similar properties to the larger device, except that there is no protection against overheating. It can be obtained as a direct plug-in for the NEM651 six-pole socket (ref.6858), with 80mm long leads fitted with a NEM651 six-pole plug (ref.6859), or with 150mm long plain wires (ref.69 6859).

The plain wire versions are for adapting older locos not supplied with the convenient socket, and Fleischmann recommends that they should be fitted by a dealer.

The decoders come with comprehensive instructions in German, French, and English.

Each decoder is supplied with two short strips of double-sided self-adhesive tape for fixing and insulation. It is vitally important to avoid the decoder making electrical contact with any other part of the loco.

Note that the dimensions for both decoders, quoted accurately here, are marginally larger than the anticipated measurements given in the 2003 new items leaflet.

For 4mm and N

MANUFACTURED BY
Gebr.Fleischmann, Postfach 910148,
D-90259, Nürnberg, Germany.

UK SALES AGENT
John Hills, Fleischmann UK
Marketing & Distribution,
Riverside Studio, 40 Brook Lane,
Ferring, West Sussex, BN12 5JD.

PRICES T.B.A.

DZ123 DCC mobile decoder new from Digitrax

Digitrax has recently released the DZ123 digital command control mobile decoder.

This tiny unit has been designed to be small enough to fit into Z scale locos, but is equally suitable for N and 4mm when space is at a premium. It will handle 1 amp continuous current (2 amp peak) yet is of thin profile for installation in restricted spaces – overall size is just 18mm x 10mm x 4mm. It can be obtained ready fitted with a connector plug or with plain wires: a wiring diagram is included in the supplied installation instructions.

The circuit features all mode programming and offers both two and four digit programmable addresses, while supporting basic, advanced, and universal consisting for multiple unit working. It has programmable momentum,

acceleration, and deceleration, plus start, mid-point, and maximum voltage, and the user can select 14, 28, or 128 forward and reverse speed steps for smooth motor control. It features the SuperSonic™ motor drive for silent operation, with torque compensation for smooth performance. Further, speed tables can be loaded for precise customised control of performance characteristics. The reset can be activated with or without affecting the speed tables.

The normal direction of travel is user selectable, and there is now easier and quicker access to the reduced yard switching speed range.

The decoder has two FX³ function outputs, rated at a maximum of 500mA. They provide constant brightness lights, with either directional or

independent control, plus a range of prototypical effects: these naturally reflect the decoder's US lineage, offering ditch lights, strobes and more; the functions can be qualified to be direction dependent. Function remapping allows for a custom set-up of fourteen functions, and for simplicity a master switch can be set to turn off all lights and functions with one keystroke.

This advanced device is transponder ID equipped for systems employing monitoring via the controller's feedback bus, and is compatible with digital surround sound systems.

To prevent damage to the decoder, it has motor isolation protection, and it is fully compatible with the NMRA DCC standards and compliant with the relevant requirements on radio frequency interference.



For Z, N, and HO

IMPORTED BY
Sunningwell Command Control Ltd.,
P.O.Box 381, Abingdon,
Oxfordshire, OX13 6YB.

PRICE
£19.00.

1:35 scale Jeep-O-Motive kit



The Smoky Bottom Lumber Co. has produced an ingenious set of parts to adapt the 1:35 scale kit for a Jeep produced by Italeri or Tamiya.

The conversion pack includes four rail wheels, a canvas top and frame, the windscreen, the sandbox and delivery pipes, a front counterweight, and a rear coupler.

This set of parts will allow the creation of many different variants, as demonstrated by these two examples displayed at Expo Narrow Gauge.

Note that the kit does not include any components to motorise the vehicle.

Please also note that the SBLC has a new contact address.

For 1:35

PRODUCED BY
Smoky Bottom Lumber Company,
P.O.Box 794, Cheltenham, GL52 3ZW.

PRICE £16.50 + postage & packing.



Accessory decoder by LDT

LDT (Littfinski Daten Technik) has recently released the S-DEC-4-DC-G digital command control four channel accessory decoder as part of its Digital Professional Series.

It can be used with the NMRA DCC system and is thus compatible with Lenz Digital Plus, Digitrax, Zimo, and Roco Digital (keypads only – the Lok-Maus® is not supported) as well as the Uhlenbrock Intellibox and Fleischmann Twin-Center, plus Märklin-Digital, and even the old Arnold system.

The moulded grey plastic base plate measures 90mm x 80mm, and has a 3mm diameter fixing hole in each corner. A plastic housing 35mm high clips over the centre section of the printed circuit board to cover the electronic components, which have been neatly assembled and soldered in place.

All external connections are simply made by good quality screw terminals securely mounted along the edges of the circuit board, so the unit can be easily installed without soldering. Inputs (power and control) are at one end of the board, outputs (two each side) are at the other. All connections are clearly labelled.

The unit receives instructions via a two-wire input, either from the track, the control bus, or direct from the command station, and is supplied with 14-18 volts AC from a power transformer. It is possible to power it via the data connection, but this will affect the power handling capacity of the control system overall, and a separate supply is preferable.

The four outputs can be individually addressed and used to control coil-driven accessories that need a momentary pulse or a relatively short period of supply, such as points, signals, and uncouplers. For such things as lights, where a higher continuous current is drawn, an external relay is required: LDT offer a suitable device which will cope with up to 4 amps.

Each of the outputs will handle up to 1 amp – more than enough for most modern point motors, which typically use 250-500mA. An automatic fuse protects the outputs against overload



caused by point motors which fail to switch off at the end of the movement. The fuse resets when the fault is cleared.

The decoder is supplied with instructions, in English, covering both sides of an A4 sheet: while most points are clear enough, it is apparent that they have been translated from German, and a moment or two may be needed to think what is meant – for example, the turnout positions are described as 'straight' and 'round', when 'curved' might have been more familiar; however, the sense is apparent even if the terminology is a little unusual.

The unit comes with a two year limited warranty.

Further information is readily available from the UK distributors, South West Digital, or from the LDT website: www.ldt-infocenter.com

For all scales

MANUFACTURED BY
Littfinski Daten Technik (LDT),
Osterholder Straße 15,
D-25482 Appen, Germany.

DISTRIBUTED IN THE UK BY
South West Digital Ltd.,
68 Brookfield Walk, Clevedon,
North Somerset, BS21 6YJ.

PRICE
ref.910213 £23.00.

Book Reviews

The Power of the Castles

R.C. Riley and Peter Waller
Published by OPC, an imprint of Ian Allan Publishing, Riverdene Business Park, Hershams, Surrey KT12 4RG.
280mm x 210mm 112pp
Hardback £19.99
ISBN 0 86093 587 6

The tried and tested format of photographs and captions always seems to work. The 'Power of...' series from OPC, however, is rather more than that and its offering about the 'Castles' is a good example of how simplicity can produce an effective and enjoyable result.

The Introduction could be called 'Castles in a nutshell'; this is a concise history which singles out specific important events, personalities and locomotives to give a readable and manageable mental map of the subject.

The evocative photographs are accompanied by illuminating, extended captions that not only describe the picture, but often announce significant points in 'Castle' history. The photographs themselves are of high quality, reflecting the use of larger format cameras many years ago. Sometimes, the geographical location of the photographs will hold special interest and bring forth memorable associations for the reader.

The finer points of the 'Castle' class are brought to the reader's attention by the authors so that those with less knowledge will benefit greatly and the more seasoned enthusiast can enhance the broader view.

The book is arranged chronologically in seven main chapters taking us from the reasons why the Class came into being, through the stages of its existence to its final state of withdrawal and the saving of specific examples.

It is the detail and the perceptive attention to features that might go unnoticed, that gives this book its authority.

A colour section would have been the welcome icing on this excellent cake, but the overall production for its price makes it a worthy addition to the series and a personal library.

British Railway Pictorial Black Country

Paul Collins
Ian Allan Publishing, Riverdene Business Park, Hershams, Surrey KT12 4RG.
280mm x 210mm 80pp
Softback £12.99
ISBN 0 7110 2969 5

Anyone who has spent time in the Black Country will have sensed the unique atmosphere and industrial history of the area. It is very different now, of course, from when many of the photographs in this book were taken, but the ghost of the past is still present.

Paul Collins has amalgamated many



Above: originally Powis Castle, 'Castle' No.5082 was renamed Swordfish, after the famous Fairey biplane of the time, in January 1941. This 'stringbag' heads west at Iwer on 31 July 1954.

Photograph: Phil Kelley.

historic and evocative pictures and combined them with informative and concise captions. Each chapter is prefaced with an introductory text which sets the scene and helps to put the illustrations into context.

The reproduction quality of the shots is commensurate with that of the originals, but the contents of them all are of interest and make them worthy of their place.

After a chapter entitled Beginnings, each chapter covers an area: Wolverhampton, Walsall, Dudley, Stourbridge and Old Hill. It is easy to dip into the book at any point or to read it from cover to cover; there will be something to grab the attention wherever you look.

The varied page layouts complement the diverse subjects and reference sources. Not only trains, but road vehicles, architecture, landscapes, people and events all contribute to the overall impression of the districts during an ever-changing era.

Midland Record No.19

Edited by Bob Essery
Wild Swan Publications Ltd., 1-3 Hagbourne Road, Didcot, Oxon OX11 8DP
272mm x 216mm 80pp
Softback £9.95
ISSN 1357-6399

This diverse collection of written pieces from several authors continues the Midland Record series incorporating the post-Grouping and post-Nationalisation scene.

This diverse digest includes items about engines, railway architecture, civil engineering, a weighing machine and the beauty of MR locomotives, but justice is not done in a list. There is a mixture of hard fact and personal viewpoint from the authors that lends authority to the text and enhances the effect of variety.

The mixture of well-reproduced photographs, drawings and documents adds a dimension that is rare and very

welcome. Useful pointers to other publications tempt the reader to look further afield. The article entitled 'The history of a great enterprise', all about the Midland Hotel in Liverpool, referred to Oliver Carter's book *An Illustrated History of British Railway Hotels* which proved to be a delight in itself.

Reproductions of historic Ordnance Survey maps give fascinating reference points to those familiar with the areas as they are today.

If the Midland Railway is your specific interest, *Midland Record* will be enjoyable. The highest standards are maintained as one would expect from the editor Bob Essery.

Railway Archive No.5

Edited by Neil Parkhouse and Ian Hope
Lightmoor Press, 120 Farmers Close, Witney, Oxfordshire OX28 1NR
275x215mm 96pp
Softback £7.50
ISSN 1477-5336

This periodical would not look out of place in Sherlock Holmes' office. Three issues per year come from the Lightmoor Press as a collection of substantial articles based loosely on the Victorian era.

The brown cover with its gold lining has a 'Pullman' feel about it and this bygone flavour is continued through the book, on high quality paper. The illustrations, in black and white and colour, create a nostalgic atmosphere, but the text and captions are refreshingly up to date.

The first article is entitled *Painting Victorian Trains*. The industrial processes described would make a health and safety officer cringe, but it illustrates the way the world has changed.

Following this, is an article called *The Disgraceful Affair of the Thomas Street Level Crossing*. Without analysing each article, there is a period charm throughout which is the result of using the well-reproduced historical photographs combined with thorough research and a readable writing style.

The book's layout is plain enough to highlight the style of the Victorians without making it old fashioned. There

are interludes of pictures and graphics on most pages but reading the text is well worth the effort and the captions are substantive.

The book is compiled from submissions by several authors, but has been edited to give a consistent, flowing style. The more you read it, the more its depth is revealed, making you want the previous and future editions.

Branch lines to Felixstowe and Aldeburgh

including the Snape Branch

Richard Adderson and Graham Kenworthy
Middleton Press, Easebourne Lane, Midhurst, West Sussex GU29 9AZ
240mm x 175mm 96pp
Hardback £14.95
ISBN 1 904474 20 9

This well-established series has a reassuringly consistent quality. It always provides useful and interesting texts and collections of photographs that fully reflect the book's title to cover a meaningful time span; this is no exception.

On the first page, a map orientates the reader and shows the basic layout of the lines. The Geographical Setting page that follows gives a helpful description of the branches together with a gradient diagram.

The Historical Background section is concise and provides a thumbnail sketch sufficient to make the whole story coherent. Immediately before the main photo and captions section, the Passenger Services pages give a fascinating cameo of how services were run years ago, including a 1922 timetable for August Bank Holiday arrangements for the Felixstowe Branch.

Sprinkled amongst the evocative photographs are historic track plans to which the reader can relate the illustrations. It is tempting to dip into the book at random intervals, but a journey from cover to cover will reveal a complete picture of the lines. The captions are of sufficient length and impart solid factual content.

Those seeking to expand their library could find many interesting titles in the list at the back of the book; it is a way to build up an authoritative collection at reasonable expense.

The Furness Railway in and around Barrow

Michael Andrews
Cumbrian Railways Association, 104 Durlay Avenue, Pinner, Middlesex HA5 1JH
297mm x 210mm 104pp
Softback £9.95
ISBN 0-9540232-1-8

As a result of a thesis written for an evening class in Railway History Studies, Michael Andrews was persuaded to use the research material as

the basis for this book. The thesis was written many years ago, but a small team has since brought the text up to date and illustrated it to present a comprehensive, very well researched and fascinating publication.

The author is a native of Barrow and is an authority on the Furness Railway. He tells the story of how this small farming community changed into a major sea port and industrial centre within a few decades and how the iron ore mines and slate quarries were connected to a pier near Barrow village.

The role of the Furness Railway Company in the development of Barrow-in-Furness was highly significant. Its directors played a pivotal part in the development of the local industries of iron and steel, ships and jute. They also made way for other industrialists to establish traffic that increased the use of the railway

But financial problems hit the railway and the businesses associated with it, at the end of the nineteenth century. The way that the company reacted to change is remarkable and the progress through the war years and depression is fascinating. In the hands of the LMS and, in the second half of the twentieth century with the nationalised BR, Michael plots the fortunes of the Furness Railway and brings the reader up to date with a summary of the situation in Barrow today.

A look at current maps of the locality would show how much influence the presence of the railway still has on the shape of the region's industrial activity.

It is the detail content that is the real substance of the book. For instance, the costs involved seem paltry by today's standards; chapter two states that the estimated cost for building the line was £100,000, enough perhaps, to buy a modest house now.

Liberal spiced with black and white photographs, drawings, maps and charts, a full and authoritative picture is created. The book will be popular with railway enthusiasts and historians and those with a general interest in the area.

Modelling Buildings

Methods and Materials

Malcolm J. Smith
Pendon Publications, Pendon
Museum Trust Limited, Pendon
Museum, Long Wittenham,
Oxon OX14 4QD
210mm x 148mm 16pp
Softback £1.80
ISBN 0-9504614-1-5

Let us start by mentioning the Pendon Museum, Long Wittenham, Abingdon, Oxfordshire, which celebrates its fiftieth anniversary this year. For those who have not been there, this is a display of the highest standard of modelling in 4mm scale. The Vale of White Horse is depicted in all its detail in a display that is 70' long.

This title is a product of Pendon's Development Director, Malcolm J. Smith, who has been working there since 1989.

The techniques used at Pendon for modelling buildings have been refined over many years and a sixteen page

book can not hope to impart all that is necessary to know. It does, however, enthrall the reader to find out more and develop the seeds sown in these pages.

The apparent simplicity employed in making houses from cardboard and painting them with water paint is deceptive. Some techniques are not difficult, but it is patience and practice that are required. For instance, different bricklaying patterns (bonds) are made clear as are the methods to achieve the final result. But the painting of bricks individually demands a certain dedication.

The end product of using these methods is highly effective and the basics are laid out in a very easy to read and understandable way. The photographs show amazing detail and the diagrams reinforce the text admirably.

It is a shame that the book is not bigger and therefore more comprehensive. Another book, *Modelling Guide No.2* from the same source, is mentioned; it would be good to think that a collection of these guides could build up into a combined volume to help the reader to achieve similarly high standards to those set at Pendon.

The locomotive Giggleswick

Nigel Mussett
Kirkdale Publications, Kirkdale,
Station Road, Giggleswick,
Settle, North Yorks. BD24 0AB
210x148mm 56pp
Softback £9.95 plus 65p P&P
ISBN 0 907089 04 6

Nigel Mussett's compact book has a very personal style that shows the value and respect he has for the subject and the background of events and people that surround *Giggleswick*, the locomotive. The author, a trained botanist and historian has spent the whole of his teaching career as a secondary school Head of Biology, the last twenty nine years of which were at Giggleswick School. He has, of course, had a life-long interest in railways.

Below: an example of structure modelling out of the top drawer – a cottage takes shape for Pendon.

Photograph: Len Weal, Peco Studio.



The development of the 'Patriot' Class and the rebuilding of many engines proves that the concept of recycling is not new. A great deal of research has gone into the story with statistics and documentary evidence to support the text.

The two significant working periods of *Giggleswick* are covered in the chapters about its LMS years 1933-1947 and its time with BR 1948-1962. Evocative photographs capture the varied tasks that were assigned to the loco; the lengthy captions provide valuable information that reinforces the accompanying text.

A welcome 8-page colour section in the middle of the book shows facsimiles of the Engine History Cards and a glimpse of some of the people who cared for *Giggleswick*.

The association with Giggleswick School is a pivotal part of the story, but the significance of this is kept in proportion and is well placed in the story as a whole. Personalities are brought in at salient points and enhance the book overall, adding a personal touch that does not get in the way of the story.

Often, good books contain a mystery and this is no exception. The whereabouts of the left nameplate is a puzzle. It was removed and sent for sale in 1962, but its present location is not known – unless you know otherwise!

The GWR Swindon to Bath Line

Colin Maggs
Sutton Publishing Limited,
Phoenix Mill, Thrupp, Stroud,
Gloucestershire GL5 2BU.
270mm x 195mm 183pp
Hardback £19.99
ISBN 0 7509 3403 4

This famous stretch of railway was the last link in I.K. Brunel's Great Western Railway between London and Bristol. The author is the 'resident' railway historian in this part of the world (he received the MBE for services to railway history in 1993) and this is the latest of his many works on railways within eighty miles of Bath.

After an all-important map and Introduction, the author deals in logical order with the planning and construction of the line, its opening (30 June 1841), and descriptions of the route,

passenger train services, locomotive sheds, permanent way and signalling, accidents and railways associated with the line. Contemporary reports of the line's construction and opening contribute a great sense of period, atmosphere, and occasionally humour to the story. Above all, they bring home to the reader the awe, terror even, engendered by rail travel generally and Box Tunnel in particular.

Appendices give financial and traffic information and reminiscences from railwaymen who worked the line. Over 200 captioned photographs and engravings from all eras are supported by maps and timetable and poster facsimiles. There are some photographs from the broad gauge era, including one taken at Bathampton before the mixing of the gauge (1874).

The author's knowledge of this area and its railways is second to none. Only he can share with us the delightfully named New-Found-Out siding at Chippenham and other such ephemera which go to make a railway more than a means of transport but part of a locality.

This railway history is both authoritative and charming, as you would expect.

Branches & Byways

Southwest Scotland and the Border Counties

Robert Robotham
Published by OPC, an imprint
of Ian Allan Publishing,
Riverdene Business Park,
Hersham, Surrey KT12 4RG.
300mm x 220mm 256pp
Hardback £35.00
ISBN 0 86093 575 2

In this lavishly illustrated book, the author tells the history of the branches and byways that formed the surprisingly intricate network of lines which once served the sparsely populated area under review. The book opens very usefully with a system map from the 1950 BR North Eastern Region timetable and, at least for Southerners, this will be referred to many times during perusal of the book's contents.

The illustrations are drawn from the work of well known railway photographers and many depict 'last days' specials which, for this reviewer always evoke the bitter-sweet excitement of such occasions. The locomotive on such trains was often in super condition (eg *Glen Falloch*) or sometimes even one of the preserved machines in pre-Group livery such as *Glen Douglas*, *Gordon Highlander* or CR 123.

After dealing with the dramatic 'Port Road' from Dumfries to Stranraer and Portpatrick, the author goes on to visit the following routes and branches: Dumfries to Lockerbie, Beatock to Moffat, Peebles West to Symington, Riddings Junction to Langholm, St Boswells to Roxburgh Junction, Jedburgh and Berwick, St Boswells to Duns and Reston, Galashiels to Selkirk, the Peebles Loop, the 'Lauder Light', the Border Counties and the Wansbeck Valley, Alnmouth to Alnwick, Alnwick to Coldstream, and Eyemouth to Burnmouth.

Closure dates are given for all lines and there is a useful alphabetical index of locations.

The photographs and text are supported by many track plans and timetable facsimiles.

This book is an excellent record of a once far-reaching network of rural railways.

A Lifetime in Traction

Arthur Tayler
KRB Publications, 2 Denewulf
Close, Bishops Waltham,
Hants SO32 1GZ.
270mm x 210mm 96pp
Softback £14.95
ISBN 0954485920

This book carries the subtitle *An Engineer on the Southern Diesels and Electrics* which tells most, if not quite all the fascinating story of Arthur Tayler's professional life.

A fourth-generation railwayman, he was advised by his grandfather, formerly a CE with the L&SWR, that the future of the railway industry lay with the electrical side. Consequently the 17-year-old Taylor joined the Southern Railway, at Deepdene House, Dorking as Temporary Junior Draughtsman in June 1942. There followed a career which included five-and-a-half years with Southern Railway, almost sixteen-and-a-half with BR Southern Region, nineteen years with Sulzer and seven with the Institute of Mechanical Engineers.

His various moves, responsibilities and experiences are concisely and readably laid out in the Introduction and Brief Biography which opens the book. This is followed by a selection of around a hundred of the author's photographs which represent significant periods in his career. Although mainly of Southern EMUs, DMUs and electric and diesel locomotives, the photographs also include memories of locomotives at work in Switzerland, Nigeria, France and USA.

This book is a must for all who are interested in Southern electric and diesel traction. It's a pity it was not blessed with better proofreading.

The Great Northern Railway

An Irish Railway Pictorial

Tom Ferris
Midland Publishing, 4 Watling
Drive, Hinckley Leics LE10 3EY.
280mm x 210mm 112pp
Softback £14.99
ISBN 1 85780 169 5

The Great Northern Railway was a most enterprising Irish concern, despite the problems caused it by the partition of the country. Not only did GNR tracks cross the border in seventeen places, there was the inconvenience caused by two sets of prices in the bars of restaurant cars, one for each side of the border, and constant delays caused by customs examinations.

Who better could there be but



Above: a Southern innovation of the highest order – electric traction on the country's first electrified main line, the former LBSCR. NSE-liveried 4-CIG No.1921 trails a Victoria-bound service on 22 September 1987.

Photograph: Frank Hornby.

Omagh-born Tom Ferris to bring together this collection of photographs, mostly from the period 1945-65, covering both main and secondary lines of the old company. Thus we see both the crack *Enterprise Express*, a name still in use today, and the Fintona horse tram with its three-class open-top car and quadrapedal motive power *Dick*.

In between these two extremes there are pages of captioned B&W photographs of Irish steam trains hauled by lovely 0-6-0s and 4-4-0s.

Subjects covered in the text are steam and diesel traction, the main line and its branches, The Derry Road, Portadown to Cavan, the Irish North (which includes a brief encounter with the SLNCR) and a delightful chapter on trams and buses including the other GNR tramway, the electrified Hill of Howth.

As always from this publisher, the book is nicely designed and a pleasure to read.

The Southern Railway Handbook

1923-1947

David Wragg
Sutton Publishing Limited,
Phoenix Mill, Thrupp, Stroud,
Gloucestershire GL5 2BU
265mm x 190mm 236pp
Hardback £25.00
ISBN 0-7509-3294-5

The Southern Railway was arguably the most innovative of the four companies that emerged from the grouping of the railways in 1923. It created the largest electrified suburban railway network in the world before the Second World War and established the first main line electrification in 1931.

The idea of an even-interval service was introduced so that passengers no longer needed a timetable. International services were pioneered with the *Night Ferry* through-trains from London to Paris in 1936 using dedicated ferries. Let us not forget too the *Golden Arrow* service that became so well known.

Author David Wragg, former journal-

ist and author of more than twenty books, has used his extensive and meticulous research to bring to life the historic development of the Southern. Chief Engineer Oliver Bulleid and General Manager Herbert Walker were prominent figures who, with others mentioned in Chapter 5, made a significant contribution to the shape of the railway and their influence is, justifiably, well documented.

The book begins with a brief history of the pre-grouping companies that provided the basis for the new company. The following seventeen chapters deal in considerable depth with the structure of the developing company, its evolution in management and commerce and how it coped with changing demands, war, relationships with other transport modes and lastly, what might have been.

The chapter on The London Termini is fascinating and helps to structure the scene in the capital. Sensibly, this is Chapter 2 and so the hub of the Southern system is established in our minds early in the book. After this in Chapter 3, we read about the destinations, thus a clear mental picture of the network is built.

Personalities are brought to life in the chapter entitled The Managers. The strengths of their characters are described and the reader can see their working roles and relationships unfold and the value each had to the whole administration.

Inheriting buildings, rolling stock and staff seemed adversely to affect standardisation and the major factor of electrification highlighted the need for rearrangement and simplification; paradoxically, this seemed to add to the problems when organising services within London.

The introduction of electric stock inevitably meant the withdrawal of much steam and this is admirably documented. The subsequent closures and creation of new lines emphasised the importance or otherwise of smaller railways such as the Somerset & Dorset and the adaptability required by a growing railway company; this leads the reader to seek further information and to this end, a useful bibliography is provided.

The Appendix section is very valuable and is worth exploring at an early stage whilst a comprehensive Index makes finding specific topics easy. This concludes a very full and readable book that will make many much the wiser and well entertained. It might also give a different perspective on what might be considered not the most glamorous of the big four.

LMS Locomotive Profiles

No.5 – The Mixed Traffic Class 5s, Nos.5000-5224.

John Jennison & David Clarke
with David Hunt, Fred James &
Bob Essery
Wild Swan Publications,
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP.
270mm x 210mm 104pp
Softback £14.95
ISBN 1 874103 87 9

These are the first of the famous Black Fives, and the authors take the story from the very beginning, with one of the first photographs showing Nos.5070 and 5071 under construction at Crewe. Although there are many generously captioned photographs of the engines, drawings are possibly the book's great strength, although as they are reductions of works drawings, sometimes called 'pipe-and-rod,' they will need careful interpretation by modellers, particularly those working in the smaller scales. This reservation apart, the drawings are good both to look at and simply to possess. They include firebox, boiler, smokebox, motion bogie, cab, frame, tender frame, tender tank and other details.

Tabular appendices to the main text include Engine Diagrams, Boiler Particulars, Tender Particulars, Building, Numbering, Renumbering, AWS and Withdrawal Dates, and Shed Allocations.

Students and modellers of Stanier engines and the Class Fives in particular will need this book and also the supplement below. Read on.

Pictorial Supplement

to LMS Locomotive Profile No.5

John Jennison & David Clarke
with David Hunt, Fred James &
Bob Essery
Wild Swan Publications,
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP.
270mm x 210mm 72pp
Softback £12.95
ISBN 1 874103 83 6

This is the first of a new series of supplements designed to complement volumes in the *LMS Locomotive Profiles* series.

Many will know Mr Jennison as 'Mr Brassmasters', and anyone detailing a Hornby Five with one of his kits – reviewed in RM February 2003 – will find these books of great value.

The photographs are extensively captioned and include official views, 'shed portraits' action shots and detail closeups. The latter will be of great benefit to modellers, and include really useful pictures of the motion of preserved No.5000 and others. Also of interest to modellers will be the drawings of boiler mountings, a full-page vertical study of boiler/firebox top and an amazingly rare picture of a tender frame *inverted*. And all for the modest price of this supplement.

Hornby programme for 2004 officially announced

On a sunny Thanet Thursday in January, the always enthusiastic and hospitable Hornby Railways boss Simon Kohler described the Company's plans for the coming year to the model railway journalists who had assembled in the delightful Broadstairs watering hole which has now become the traditional venue for this press call.

As always, the new and revised products centre on the latest catalogue. This year, as it is the 50th edition, counting from the 1st, by Triang Railways in 1955, a special run has been case bound in red linen and supplied in smart slip cases. The standard catalogue is not casebound but is a splendid 136-page colour production in similar style to those of recent years.

Notwithstanding the recent launch of the astonishingly successful live steam train sets, the Hornby electrically powered range continues to grow in scope and diversity.

Two brand new locomotives for release this year are a GWR 'Grange' 4-6-0 and a Brush Type 2 A1A-A1A diesel electric, or Class 31.

The 'Grange' will be powered by a loco-mounted 5-pole motor. Features will include sprung buffers, cab interior, NEM couplings, sliding roof hatch and DCC readiness. Three loco identities will be available initially; No.6818 *Hardwick Grange* in GWR livery, and Nos.6862 and 6869 *Derwent Grange* and *Resolven Grange* in BR green. Hornby will make three different tender types available for this model. We are looking forward to a really superdetailed model and wonder if Hornby will remember the crosshead-worked vacuum pump?

The Brush Type 2, having been introduced in 1958 is right for steam/diesel transition layouts and one version of the model will be in BR green livery as D5512. Two other versions will carry weathered blue livery c1980 and Civil Engineers' livery c1990. The models will have 5-pole motors with twin bogie drive and pickups on all wheels. Apparently the level of detailing will be high, as on the recently released Class 50, and we wonder if Hornby will try to include working 'half' route discs on the green-liveried version?

Other revised models from the steam-outline list will be released as follows throughout the year. The LMS 'Princess Coronation' Pacific will appear in BR maroon livery as No.46251 *City of Nottingham* and in BR blue as No.46225 *Duchess of Gloucester*.

For Eastern fans a new superdetailed A4 Pacific will feature 5-pole loco-mounted motor, sprung bogie and truck, cab and tender detail and provision for NEM couplings and DCC.



Three loco identities will be available, namely: No.4901 *Charles H. Newton* in wartime black livery, No.60031 *Golden Plover* in BR green and 4468 *Mallard* in Garter blue.

Two more superdetailed Gresley Pacifics to be released later in the year will be Class A1 No.4472 *Flying Scotsman* in LNER green and Class A3 No.2500 *Windsor Lad* in LNER green and No.60077 *The White Knight* in BR green. Like the new A4, these locomotives will feature 5-pole loco-mounted motor, sprung bogie and truck, cab and tender detail, NEM coupling pockets and DCC provision.

The BR Class 7MT will have a new identity this year as No.70018 *Flying Dutchman*. It has brake gear and sprung buffers but it will retain its faithful tender-drive Ringfield motor.

Among the Southern Bulleid light Pacifics No.34083 *605 Squadron* with early BR crest will be a new identity and this year's 'National Collection' Special Edition model in conjunction with the NRM will be No.34051 *Winston Churchill* with late crest and immaculately turned out as it worked the great statesman's funeral train on 30 January 1965.

From the GWR 4-6-0s, the 'King' will appear as No.6028 *King Henry II* in GWR livery and the Hawksworth 'County' as No.1010 *County of Carnarvon* in original GWR livery (and with original nameplate spelling) and as No.1026 *County of Salop* in later BR style.



New from Hornby for 2004: a Class 31. D5583 Stratford Major Depot was captured at Stratford on 27 August 1991.

Photograph: Frank Hornby.

green NCB livery with red side rods.

The ex-LBSCR 'Terrier' appears in the famous lined ochre livery as the Brighton Works shunter of fond memory, an authentic opportunity to have a pre-Group livery on a postwar Southern layout.

The tiny ex-L&Y 'Pug' arrives in weathered BR black carrying No.51232.

There is a lot going on in the land of the diesels, including a new version of the splendid English Electric Class 50 Co-Co already released, in the shape of the green-liveried No.50 007 *Sir Edward Elgar* in its present preserved condition.

Class 37s will be released as No.37 410 *Aluminium 100* in weathered Transrail livery, and a multiple working twin (one unpowered) consisting of 37 216 and 37 248 *Midland Railway Centre* in weathered Mainline livery.

A plum year for Duffs will bring five new Class 47s as follows: No.47 816 *Bristol Bath Road* in First Great Western green and gold livery. No.47 237 in DRS livery. No.47 839 in the plain purple of Riviera Trains Corporate. No.47 853 in Riviera Trains 'XP64' blue with D1733 numbers. No.No.47 805 *Pride of Toton* and 47 854 *Womens Royal Voluntary Service* in Virgin Trains livery.

There is also a new multiple working twin in Class 58s. This consists of 58 024 and 58 037 *Workshop Depot* in weathered EWS livery.

Two new Class 56s are No.56 107 in Loadhaul livery and 56 058 in EW&S livery.

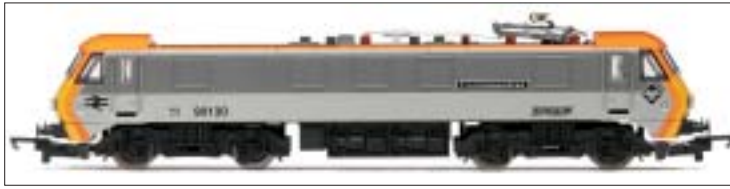
An exotic newcomer in the electric fleet is Class 90 No.90 130 *Fretconnection* in SNCF livery.

There are three new Class 86s listed as follows. No.86 235 *Novelty* in InterCity 1980s livery; No.86 215 as Anglia Railways *The Round Tabler* and Virgin Trains No.86 233 *Alstom Heritage* liveried in Heritage blue with E3172 numbers.

The Class 35 'Hymeks' will appear this year in 1960s two-tone BR green livery as D7046 and in late 70s blue/yellow as D7067.

The 08 shunter will wear the St Rollox depot livery of black, grey and red with the number 08 568.

In the field of passenger rolling stock there is much that is new or revised. Brand new is a range of LNER 6'6" teak bodied coaches with correct underframes. The five models will be available in LNER varnished teak finish and also in BR crimson and cream. The vehicles are as follows. Corridor First Class Coach; Corridor Third Class



Coach; Corridor Brake Coach; Buffet Car; and First Class Sleeper.

Revised versions of existing coaches scheduled to appear this year are as follows: GWR Clerestory Third in chocolate and cream; Clerestory Brake in chocolate and cream and Centenary Composite in chocolate and cream. Also in this livery will be the Restaurant Car, Composite Coach and Brake Third.

The SR Composite Coach will appear in malachite green livery with 'sunshine' lettering.

An LMS Brake First in blue/white Coronation livery is listed as new, as are LMS Composite and Brake Third in LMS Crimson.

The BR Mk 1 Composite, Parcels and Brake will appear in the crimson and cream livery, and the Mk 1 Composite in Southern Region green.

A number of coaches are spending a season in BR maroon, as follows: Mk 1 Composite, Brake, Buffet, Parcels and Sleeper, all in weathered finish. The Sleeper (only) is available clean with a Western Region number.

Mk 1 coaches available in BR(W) chocolate and cream will be Composite, Brake, Buffet and parcels.

The Western Region auto coach will be available in crimson and cream.

Mk 2a Open Standards and First Brakes will be available in NSE livery, fine behind a fifty.

Mk 2ds First and Standard are new in InterCity blue/grey with Western Region numbers and red coil springs. Also listed as new are Virgin Mk 2 First, Open Standard and Brake Standard.

There is a new Mk 3 First Class Open in First Great Western livery and First Class Open and Open Standard liveried for Midland Mainline.

In the fleet of freight rolling stock a three-pack of weathered *Redland* Procor Hoppers is an attractive item.

The PCA tank wagon wears the striking orange livery of RMC.



Veetank wagons are new in Blue Circle Cement livery and there is also a weathered three-pack of these in the very plain Portland Cement scheme.

The 100 ton TEA bogie tank now carries the attractive BP colours.

There are plenty of new variations to add interest to the range of traditional four-wheelers. *Easter Iron Mines* is a red oxide three-planker with white lettering. *The Harts Hill Iron Company Limited* is a four-planker from Brierley Hill. *Somerset Trading Company* is a red five-planker with white lettering from Yeovil. The six-plank *S.J. Moreland & Sons* wagon has an elaborate livery familiar to those who have used their matches. *Wallace Spiers* is a London-based six-plank wagon in

yellow livery with red corner plates and black lettering. Two end-tipping wagons are new, namely *McKay* and *Adler & Allan*, both red with white lettering.

A new Conflat and Container is lettered for LMS Furniture Removal Service, and the six-wheel Insulated Milk Wagon is also now available in LMS maroon with 1930s gold lettering. This six-wheeler has been chosen as the latest in the annual Hornby Limited Editions of 3000. It is bright red and lettered *Hornby 50 2004*.

The 45-ton GLW Steel Carrier and Open Wagon both have loads and are finished in Freightliner livery.

In the land of the Toads, revised goods brake vans are as follows: the ex-LBSC van is in 1930s SR brown and the GW 20-tonner in BR bauxite and GW grey. The BR standard brake now wears Railfreight colours.

In the range of sectional track a useful new item is the Power Track (R8206). This straight track section incorporates wire terminals for electrifying the layout and is the same length (168mm) as standard straight, isolating and railer/uncoupler sections.

Itself quite new, the Skaledale Collection of 00 buildings has many new models this year. These are: Misdale House, Strawson's Warehouse, St James Church, The Old School House, Clovelly Cottage, Hanson's Bakery, Riverside Cottage, Old Green Cottages, Holly Farm house, pigsties, stables, workshop and barn, and six different Stone Wall packs in Cotswold and granite styles. New buildings of a railway nature are Station Master's Office, Waiting Rooms large and small, Station Hotel, Coal Merchant's Office, Water Tower, Signal Box and Engine Shed. Station Platform straight sections and ramps are also useful and new.

Train sets and train packs are important components of the Hornby range. A new set for this year is the 'Western Pullman' which includes *Cadbury Castle* and four Pullman cars, transformer, controller, track mat and oval with two sidings.

New train packs are GNER 225 *Mallard*, a Eurostar six-vehicle pack, and High Speed Trains (power car, dummy and two Mk 3 trailers) in Virgin and Midland Mainline liveries.

The ever popular 'Thomas & Friends' sets, packs and individual items continue unchanged.



Toy Fair 2004



Bachmann

The star of the display was the new E-Z Command digital command control (DCC) system. The concept, developed by Bachmann in the US in partnership with noted DCC engineers Lenz, takes the form of a low cost DCC system that is easy to use. It features such aspects as 'programming on the main', whereby there is no need for a dedicated programming track. Re-addressing a locomotive – anywhere on the layout – is as easy as pressing a couple of buttons in sequence. The system is NMRA-compatible, boasts 128 speed steps and 8 functions (for lighting, or for the effects a sound decoder can produce).

The controller is compact (about the size of a video cassette) and on its own can control up to 9 DCC-equipped locomotives and one on conventional analogue. Perhaps the most remarkable feature is its ability – when hooked up to a conventional DC power pack – to allow the control of a DCC-fitted machine, and an analogue-only loco, on the same track at the same time. (We had to see it to believe it ourselves.) The other very remarkable aspect is the price. Bachmann estimates that the controller will be around the £60.00 mark or so, with decoders at the £6.50-£7.00 tag.

Also new for release are DCC train sets: one with two characterful freelance decoder-fitted steam engines (an 0-6-0T and 0-4-0ST), oval of track with siding, three wagons and this controller – not a 'budget' or 'de-specced' version – for around the £100.00 mark. A digital freight set, with chipped Class 25, 5 wagons, oval of track with siding and the DCC controller is planned to be priced at about £120.00. These prices are approximate; see your Bachmann dealer for actual prices in due course. It is simply no exaggeration to suggest that this will be a significant move in the DCC field.

Modellers with existing large fleets of conventionally-powered locos can 'go DCC' in their own time without sizeable start-up cost, and youngsters can operate their locos on Dad's layout whether chipped or not, DC or DCC. We look forward to evaluating a review sample when these remarkable controllers are released.

Locomotives

Now to the models themselves, starting with steam and diesel locomotives. The new diesel model – and 'cover girl' of the 2004 catalogue, is the EMD Class 66. Three versions are planned (EWS as 66 135, Freightliner as 66 610 and GBRf as 66 701), with detail-specific ends and so on. When they are

Announced by Bachmann at the Toy Fair: Class 66, here in the shape of Freightliner 66 530 at Melton Ross on 20 May 2003. The Heavy Haul HHA hoppers are also part of the programme.

Photograph: John Chalcraft.

released circa autumn, the models will be the fruit of extensive co-operation between Bachmann and the diesel division of General Motors. Also to come will be Class 57s (re-engined and re-engineered Class 47s) as Virgin Trains 'Thunderbird' 57 301 *Scott Tracy*, 57 008 *Freightliner Explorer* and 57 602 in First Great Western livery. Each will have six-axle drive, and not the 'Bo1-1Bo' arrangement of the 37 and 55.

No less significant – and in some cases more so – is the headline steamer: a Great Western 'Hall'. Significant in no small respect in the fact that Bachmann and Hornby have co-operated, Hornby developing its 'Grange' project, and Bachmann running with these Collett 4-6-0s, specifically to be 6939 *Conyingham Hall* in BR green with late crest, 5960 *Saint Edmund Hall* in BR black with early emblem and 4936 *Kinlet Hall* in GW green. We understand that the 'Hall' project had its gestation in parallel with the Bachmann plan to model a 'Grange', and as the firm itself put it, it changed horses mid-race. Elimination of duplication (remember the late 1970s?) is to be applauded.

Other new locos, in order of catalogue appearance, are: 'Warship' D801 in weathered maroon; 56xx 6600 in green with GWR initials; retooled 08s representing hinged door locos, including the preserved Tyseley BR black example, 13029. 08 243 (blue) and D3336 (green) are the others. New numbers for the 45xx are announced, one of which is weathered 4573 in black with early BR emblem. Its 4575 sisters are now available to all modellers, not just Club members: 5531 is in GWR green with initials; 5555 is green with GREAT WESTERN spelt out; and 5500 carries BR black with early emblem.

New Hughes/Fowler 'Crabs' are lined LMS black 2715 and weathered lined BR black 42942 with early emblem on its riveted tender. The 2251 'Baby Castle' now boasts Churchward tenders as 2294 with 'shirtbutton' and 2217 in weathered BR black with early emblem. BR Standard Class 4 tank 80038 will appear weathered with late crest. Class 40 1Co-Co1s were on display; spring delivery is anticipated. The firm is at pains to point out that although the mechanism is the same as the 'Peaks', the bogies will reflect

the prototype, and not simply be carried over from the big BR/Sulzer 1Co-Co1s.

Another new project is the Ivatt 4MT 2-6-0, nicknamed 'Mucky Ducks' by those who had to work on them rather than take their numbers. Three will be released: 3001 in LMS black with original double chimney, 43160 in early emblem BR lined black with single chimney – atrocious steamers, the prototypes were redraughted thus – and 43047 in late-crest lined BR black. New 'Deltics' are 55 002 'KOYLI' in green with full yellow ends, and 55 012 *Crepello* in Finsbury Park white-cab blue. The Standard 5 4-6-0 gains a new tender, BR1F, as 73110 *The Red Knight* in late-crest BR lined black. 4-car Virgin Voyagers will be offered as 220 032 *Grampian Voyager*, whilst its 5-car tilting sister will come as 221 101 *Louis Bleriot*.

The Gresley K3 2-6-0 has been announced: two lined BR black versions will appear, 61932 with early emblem on a new-tooling Group Standard tender, and late crest 61907 with flared tender. A 'start-from-scratch' project is the EE Class 37/0, to be blue 37 038 with split headcode and centre-headcode green D6826. They will share the four-axle drive mechanism of its existing sisters, but will gain etched frost shields. Others will be green split-headcode D6707 and blue centre-headcode 37 238. The 166 Turbo gains Thames Trains' latest livery. The LMS 'Jubilee' receives weathered late-crest BR lined green and a 4000-gallon tender as 45697 *Achilles*. Also on the end of the weathering treatment is J72 68727. Ivatt 2-6-2T 41212, however, escaped weathering on its BR lined black with late crest. B1 61008 *Kudu*, in lined BR late crest livery, was not so lucky, and ditto the two weathered J39s, 64960 with early emblem on its 4200-gallon tender, and 64841 with late crest on its flared tender.

Two preserved A4 Pacifics round off the locomotive newcomers in this productive Bachmann schedule: 4468 *Mallard* in Garter Blue and 60007 *Sir Nigel Gresley* in BR blue, weathered, and with single chimney. The 'Streaks' have and do not have valances, respectively.

Coaches

Where better to start the carriages section than with the Bachmann Mk 1 Pullman Cars? All five types will be produced, and three were on show. (Coaches come after wagons in the catalogue, but not here.) The Cars will feature interior lighting and all the qualities of the 'plebian' Mk 1 stock that we know so well. GUVs will also appear, in BR maroon, blue and Rail express systems red. New to the catering Mk 1 fleet will be the RMB mini-buffet, in green, maroon, chocolate & cream and (preservation period) carmine & cream.

Coming too are Mk 2s, specifically FK corridor first, TSO open second,



BSO brake open second and BFK brake corridor first. Anyone modelling the Waterloo-Exeter line will recognize the significance of this lineup! Blue & grey, NSE, InterCity and Regional are the liveries on offer, but not on all body styles.

Similarly (and also with 50s in mind), Bachmann plans Mk 1 SK corridor seconds, SO open seconds, BSK brake corridor seconds, CK corridor composites and FK corridor firsts in Network SouthEast colours, correctly replicating the slightly lighter shade of blue used on hauled stock vs. locomotives in the later years of NSE.

From an earlier era, Bachmann has responded to customers' requests and will introduce the Collett stock in Hawksworth-period livery, naturally chocolate & cream and with full lining.

Wagons

Bachmann prides itself on being the company of the 'big wagon', and this year's new tooling is no exception. Thanks to co-operation with (and permission from) Freightliner, the firm is to add new models of the HHA bogie hoppers, in operation with the railway company's Heavy Haul division. The two subtly different body variations will be covered. Also new are TTA tank wagons, and the MTA spoil carriers that use (in reality and in model form) the same chassis, and the MKA/POA aggregate-carrying four-wheelers. The HEA/HSA/CEA hopper family will benefit from a chassis upgrade, down specifically to the original tooling becoming life-expired. Bachmann will therefore take the opportunity to do some fettling 'below the waterline', refining elements that no longer stand up to contemporary scrutiny. The MEA box-body and MFA open wagon types will be treated similarly.

The traditional range of freight stock sees the type BD container (in BR crimson) nestled within a 3-plank wagon; a similarly-liveried container on its proper Conflat; and Southern ventilated vans in the three (plywood, planked and uneven-planked) flavours. Rounding up the 'traditional' freight models is – what else – a planked brake van, representing a 20-ton LNER veranda design, discernible from the BR Standard versions by the short footboards.

A new family of long-wheelbase modern stock will see the light of day in 2004: the OBA air-braked open, in both high-end – representing the wagons dedicated to Plasmor bulk traffic – and lower end formats. Other modern wagons gain weathering (the HTA in EWS livery) or rebranding (the VGA and a VKA) and new to the modern

range are BRA telescopic steel wagons, in weathered and un-weathered finish to the EWS maroon.

Graham Farish

This famous N gauge range will see the revamp of the 'Western' diesel hydraulic, 8F 2-8-0 and 'Crab' 2-6-0, test shots of all three of which were on display. The full complement of SR Bulleid Pacifics were on show, as were weathered Class 47s and 25s.

But the best news? Mk 1 Pullman Cars – in N – a development which will see the introduction of Commonwealth bogies to the range.

Bachmann Europe PLC, Moat Way, Barwell, Leics. LE9 8EY.

EFE (Exclusive First Editions)

The range of 00 gauge underground stock has been increased with 1959 stock on Northern Line duty (to Edgware via Bank), in the modern livery of red doors on blue & white bodywork. We hope to be able to review a sample in due course.

EFE, 32 Woodall Road, Enfield, Middlesex EN3 4LG.

Well done!



Further to our note in the news pages in last month's issue, here is a photograph of a clearly delighted Mr Chris Ridgen of Shrewsbury with his Hornby live steam set, the prize he won in our recent competition.

Mr Ridgen received some expert tuition from the Hornby technicians present when he was awarded his set, and was very soon up and running!

LT open weekend at Acton Depot

An open weekend is announced at the London Transport Museum Acton Depot for 6 and 7 March 2004.

This open weekend brings together layouts from 5' to 20' in length, depicting twentieth century London Transport, by professionals and amateurs and in 00 to 0 gauges. All modes of London travel are covered, from trams and underground trains to cycling and walking.

Many of the layouts are inspired by real London locations. The *Kew Bridge* model tram layout, by the Thames Valley Group of the Tramway and Light Railway Society, covers the whole of the tramway era from 1901 until 1935 when trolleybuses took over.

The weekend offers family activities such as rides on the Wootton Tramway. Architectural models such as the 1990s Jubilee Line Canary Wharf station and the Oxford Circus station model as rebuilt in the 1960s for the Victoria Line will be on show.

The depot is at **118-120 Gunnersbury Lane, London W3 8BQ**. Nearest underground station is Acton Town; best bus stops are Acton Town station or junction of Gunnersbury Lane and Uxbridge Road. Opening times 11.00-17.00, last admission 16.00. Adults £6.95; concessions £4.95; under-16s admitted free.

For further information contact Louise Johnson on 020 7565 7266.

B&B Couplings – correct address

In the December 2003 RAILWAY MODELLER on page 722, the B&B Couplings address was given as 27 Layston Park, when it should be as fol-

lows. Sincere apologies to all concerned.

B&B Couplings, 24 Layston Park, Royston, Hertfordshire SG8 9DS.

East Midlands show 2004

This year's show is at the Harvey Hadden Sports Centre, Nottingham on 20-21 March and will feature Charlie King demonstrating locos, buildings and atmosphere at a clinic he will be running. Charlie is a regular contributor to RAILWAY MODELLER and is a member of Nottingham (Bulwell) MRS. Many of the techniques involved in the construction of models featured in RM will be demonstrated.

There will be in the order of thirty-plus layouts at the show including *Rhosnewydd* by Ken Gibbons which is featured in this issue.

Not to be missed is a major new feature 'Layout planning and design' based on the new Santona book of the same name which is being launched at the show and presented by our own Steve Flint together with Neil Ripley, Ken Gibbons, Paul Lunn, Jack Bernard, Ian Fleming and Jeff Taylor.

The show will be supported by all the main specialist scale and gauge societies, plus an impressive line-up of hobbies manufacturers and suppliers.

Doors open at 9:30 a.m. on both days. For full details see 'Societies & Clubs'.



Digital Command Control at Peco

The weekend of Saturday 22 and Sunday 23 May has been dedicated to encouraging and helping those who are curious about Digital Command Control (DCC) but who are hesitant to make the commitment, and those who have perhaps taken the first step and want further practical advice.

Over recent months, both RAILWAY MODELLER and CONTINENTAL MODELLER have reviewed DCC products, featured digitally controlled layouts, included a look at DCC on the CD-ROM presented free with the December 2003 issue, and given away a 16-page introduction to DCC with the January 2004 issue of RM. But DCC is very much about operation and there is only so much that can be done in print, so a 'hands-on' event was the next logical step, and where better than on site here at Pecorama?

DCC is relatively new, and in the same way that anyone but the younger generation is wary about computers, mobile telephones, and video recorders, many still regard DCC as a huge mystery. But we now live with this level of technology and it presents few fears when we understand it, and can offer benefits if we choose to use it.

The aim of this weekend is to dispel any unfounded fears and show what DCC can do for the modeller, how simple the principles are, and how DCC can be applied to the operation of layouts of every size, frequently offering a flexibility and realism difficult to achieve by conventional control.

Since we ourselves have no vested interest in any one system or brand, we felt we were ideally placed to be impartial hosts.

There will be a very strong trade presence with four major DCC manufacturers represented by staff who will be willing to answer questions at all levels. Lenz, Digitrax, Fleischmann, and ZTC have offered their expertise for the weekend, so start thinking of some serious questions!

Each manufacturer will have their own display stand, with working test tracks for demonstration purposes. There will also be the opportunity to make purchases.

At specific times during the weekend, the manufacturers will be making individual presentations.

We also expect to have a couple of digitally controlled layouts present, so that practical matters can be discussed with modellers who have genuine experience of the subject and no commercial bias other than as satisfied customers.

The welcome desk and manufacturers displays will be situated in the large marquee at the heart of the magnificent gardens, while the purpose-built Lecture Theatre in the Millennium Garden will be the venue for the presentations.

We hope the atmosphere will be relaxed and conducive to easy learning, with the chance to discuss all aspects and try the equipment for yourself.

The weekend is open to all, and should not be missed: getting all this knowledge under one roof does not happen often! It should be an unequalled opportunity to compare systems and products, and get advice.

Pecorama is normally closed on Saturday afternoons, but for this event the site will be open for the whole weekend.

Of course, one of the major advantages of holding this event at Pecorama is that the site offers so much more for other members of the family – as well as the permanent exhibition of model railways in various scale and gauges and the 7¹/₄" gauge steam-worked miniature railway through the grounds, there are extensive landscaped gardens and a well-equipped play area for children. Refreshments are available in the *Orion* Pullman Car and the pleasant Garden Room chalet restaurant. So why not make it a day out and come with the family? There will be plenty to amuse them while you immerse yourself in DCC!

Incidentally, once you have entered the site (usual admission charges will apply), all the talks, demonstrations, and advice will be absolutely free.

Telephone 01297 21542 for further details.

of Altrincham, Second Prize to J.R. MacDonald of Alresford and Third Prize to Mr. P. Skinner of Northampton.

Congratulations to all! A similar competition is in operation this year.



More Comet Mk 1 Pullmans in 4mm

The third of the 4mm scale BR Mk1 Pullman cars, the kitchen second, is ready for release from Comet Models.

The specification is the same as the previously released bar second and kitchen first with separate sub-assemblies for the inset and door sections. The special underframe detail is supplied as an etched fret and white metal castings. Castings are also supplied for the kitchen ventilators.

The kit (ref.KP13) is priced £36.00,

with a 'sides only' pack (including underframe, roof and castings) for those converting RTR Mk 1s at £10.00. The end pack for conversions is £4.50: Marks wheels and bearings £3.95.

The GWR Centenary corridor composite (£36.00, sides £8.50) to Diagram E149 completes the series of all seven coaches.

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE. Tel: 0121 242 2233.

William (Bill) Scobie

It is with much regret that Cupar and District MRC has to announce the death of William (Bill) Scobie at the end of December, aged 66.

In the 1970s, Bill was a founder member of the Club and always took the keenest interest in all its activities.

An accomplished modeller, early joinery and telecommunications industry experience allowed him to create award-winning layouts with complex

electrical circuits.

His layouts drew high praise and one of his great contributions was to the Club's latest exhibition layout *Dunniken*, based on a Dundee steam shed.

Bill was always a generous man and gave much time advising and encouraging less skilled modellers. He will be sadly missed by all his modelling friends.

David Rees

Pontypridd Railway Club members were shocked at the early death of David Rees on December 4 2003. David was well known to many on the South Wales and West exhibition circuit as the 'buttons and badges man'.

His collection embraced air, rail, road and sea transport and was

always a source of interest to visitors and fellow collectors. David was a knowledgeable transport historian, often rescuing from oblivion what others discarded as unconsidered trifles. He will be sorely missed by his family and friends, both inside and outside the railway fraternity in South Wales.

Derek Lawrence

With regret we have to announce the death of Derek Lawrence. He collapsed on 29 October 2003 and died two days later.

Born in Norfolk, Derek was trained as a sheet metal worker which stood him in good stead as a professional modeller building huge numbers of 4mm and 7mm coaches. His favourite line was the M&GN Joint, but his

knowledge of all British coaching stock was extensive.

Away from railways, Derek was a big country and western fan with a collection of over one thousand LP records. He was a larger-than-life character in many spheres and will be sorely missed by many including his children and grandchildren. Derek's wife Audrey died some time ago.

Lucky Tickets!

The winners of the 2003 Pecorama Lucky Ticket Draw are as follows. First Prize goes to Mr. and Mrs. G. D. Haden

Broadsheet 50th

The Broad Gauge Society's journal *Broadsheet* has just reached its 50th edition.

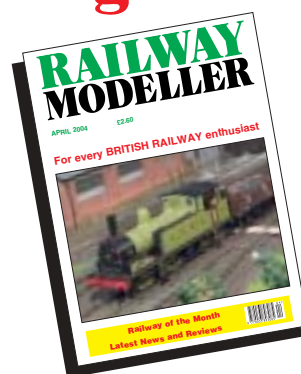
A great deal has changed since 1980 when the Society was founded; the first issue was a single A4 sheet, now it has a full-colour cover with the contents printed on high quality paper.

A free copy of this 50th issue will be sent to all new subscribers who join before April 9 2004.

Contact the membership secretary, Roger Parkinson, 9 Strachey Avenue, Leamington Spa, Warwickshire, CV32 6SS. Please send a SAE to Roger or visit the website at: www.broadgauge.org.uk

Coming next month

Out on Thursday 18 March



HARLYN ROAD

A dual-period 7mm scale layout, built by members of Crawley MRS.

THE BLAGDON GOODS

Neil Burgess describes freight operations on his S&D layout in 4mm scale.

MAUNSELL Z 0-8-0T

Constructing the new DMR kit in 7mm scale for this heavy-duty tank engine.

SANDESEN

The Whitby-Middlesbrough route in 4mm scale, by John Fletcher and Stuart Hudson.

RAILWAY MODELLER

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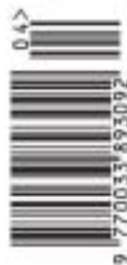


Hellifield - Yorkshire Junction in 00

Blagdon - Working the daily goods in 4mm scale

Harlyn Road - North Cornwall in 7mm scale

Sandsend - Middlesbrough-Whitby Line in 00



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RAILWAY MODELLER

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Shows you how – every month

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COVER: shunting in progress on Harlyn Road, modelled in 7mm scale and based on the 'withered arm' in north Cornwall, by Bob Middleton, Peter Beckley and John Smith. More on page 208. Photo: authors.

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CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.
Published on the second Thursday
of the preceding month.

Photo Finish!

In about the closest race we can remember, the 2003 RAILWAY MODELLER Cup Competition has run its course: it deserves a special mention this time around, as this was the 50th.

The Cup Competition is nearly as old as the magazine itself, but the basic concept has not dated: readers chose what they considered to be their favourite article of Volume 4, just as we asked today's readers to pick their choices from Volume 54. (How many, we wonder, have entered all 50?) Then as now the wide variety of preferences expressed is instructive, and as usual very little of last year's output received no vote at all. Interestingly, the first winner of the Cup, the late Norman Eagles, garnered it for an article on timetable operation: in the light of the feedback to Barrie Walls' recent goods trains feature it is clear that this aspect of railway modelling is as strong now as it was then, when it was practised with *panache* on the *Sherwood Section of the LMS*, probably the railway modeller's model railway.

Top spot this time goes to Simon Homewood, for *Wickley* (February), a busy secondary route terminus in 00 set in BR(S) days and inspired by the LBSCR. Simon's carefully observed scenes, detail work and excellent structure modelling won many over. In second place – by a whisker – is David Jenkinson, for *The Kendal Branch* (January and February). This 0 gauge empire is his latest take on his beloved 'Midland in the North Country' theme, and readers with long memories will recall that both *Marthwaite* and *Garsdale Road* were Cup-winners, in the 1966 and 1970 competitions respectively.

Third place in 2003 goes to Ian Graham, with *Mereton Junction & Allchurch* (May), an extensive 00 layout with main line and branch, and featuring both ex-GWR and ex-LNWR influences. Also placed highly were *Scarborough Central* (April) by the town's own club; and *Kirkby Stephen West* (November) by Ian Macdonald and Martin Wright. Both these extensive 4mm scale exhibition layouts – based on real locations – received a lot of support.

By a 'country mile' the best-placed 'Right Away' feature was *Brantingham* by Duncan Baines (June), a 00 layout with a mix of LNER and contemporary stock.

So to the winners. First name out of the Editor's Breton fisherman's cap (don't ask) was Mr. Harrison of Saltburn, who wins £300-worth of vouchers to be 'spent' with any of the advertisers in the magazine. Mr. Booton of Lymington wins second prize, £150-worth of vouchers, and third prize of £50-worth of vouchers is awarded to Mr. Brown of Bury. Well done all!

Because the Competition is half a century old, a special extra prize is going to Mr. Harrison, namely a signed print of Jonathan Joseph's drawing of the Fowler 2-6-4 Tank (see January 04 issue). Hopefully this extra prize of a drawing is something we shall be giving away again this year, so watch this space for more details around November/December time.

The 51st RAILWAY MODELLER Cup Competition is already (with this issue) one third old, so you may already have made up part of your selection. If not, keep taking the magazine every month!

Garden Railways

The forthcoming May issue – out on Thursday 15 April – will feature our second 'Shows You How' booklet on garden railway modelling, this time for the larger scales, and no doubt you will be interested to know that it's not the only piece of special news in this issue.

There will be details of another Competition with a really excellent prize of a Cheddar Models 'Samson' live steam 0-4-0 radio controlled locomotive, valued at just over £1,000. If you have thought in the past about modelling in the garden but not as yet had the commitment or opportunity, then this spring and summer is the right time to have a go and at the same time try and win this wonderful narrow gauge engine.

Our garden railway feature this month, by Geoff Thompson on page 198 will perhaps also give you that inspiration for which you have been waiting.



Railway of the month

Hellifield

A Yorkshire Junction in 4mm scale

Stephen Rabone describes his 22' X 10' loft layout.

It was in the summer of 1957 that my father took me, as a five year old, to watch trains at Hellifield. It was the beginning of my interest – some would say obsession – with this junction in, what was then, the West Riding of Yorkshire. Over forty-five years later I still remember that day vividly. The noise of steam locos, the continuous procession of Summer Saturday passenger trains and, above all, being invited into a level crossing keeper's hut just south of the station to shelter from the sudden rain shower.

We returned the following year, but this time midweek, and walked by the railway towards Settle Junction. This time freight trains were more frequent than passenger trains but the memory of 'Royal Scots' on the *Waverley* and *Thames-Clyde Express* remains embedded in my memory.

Early in 1964 my father took me north from Hellifield to Dent, travelling on the 'Black Five' hauled Hellifield to Carlisle local. Later that

day we walked by the Settle to Carlisle line over the fells to Ais Gill summit seeing numerous steam hauled freights. The following year we moved from Manchester to Keighley and my real interest in Hellifield and its railway began. By 1966 I was a regular visitor to the platforms of Hellifield station, being particularly interested in the freight trains which called here for crew changes, allowing me to ask the staff what each freight train was. My favourites were, inevitably, the 9F hauled limestone trains from Long Meg quarries near Appleby to the chemical works at Widnes.

Sadly, by this stage in its life, Hellifield station was sinking into dereliction but something of its past glory as a major railway junction still remained and as I grew into adulthood I decided that one day I would build a model of the station. Little did I realise that it would take me so long. Meanwhile, I devoured everything I could find out about Hellifield, the Settle to

Carlisle line and its associated branches to Morecambe, Carnforth and Blackburn. I built static card models of Midland Railway carriages and locos in 0 scale and later similar models in 4mm. But like so many modellers I never really had the space, or the skill, to model what I wanted. So plans for Hellifield were laid aside and I pursued other modelling subjects; German, Austrian and Irish layouts appeared in various scales, several of which have appeared in RM or CM.

Time and time again I found myself wanting to model Hellifield, inspired particularly by the writings of David Jenkinson. Finally in the late 1990s all the things I needed to model Hellifield successfully eventually came together. I had the necessary room, my skills for building locomotives that ran well had been honed and, finally, I had cracked the problem of how to fit the basic track layout of Hellifield into the available space. Let me explain.

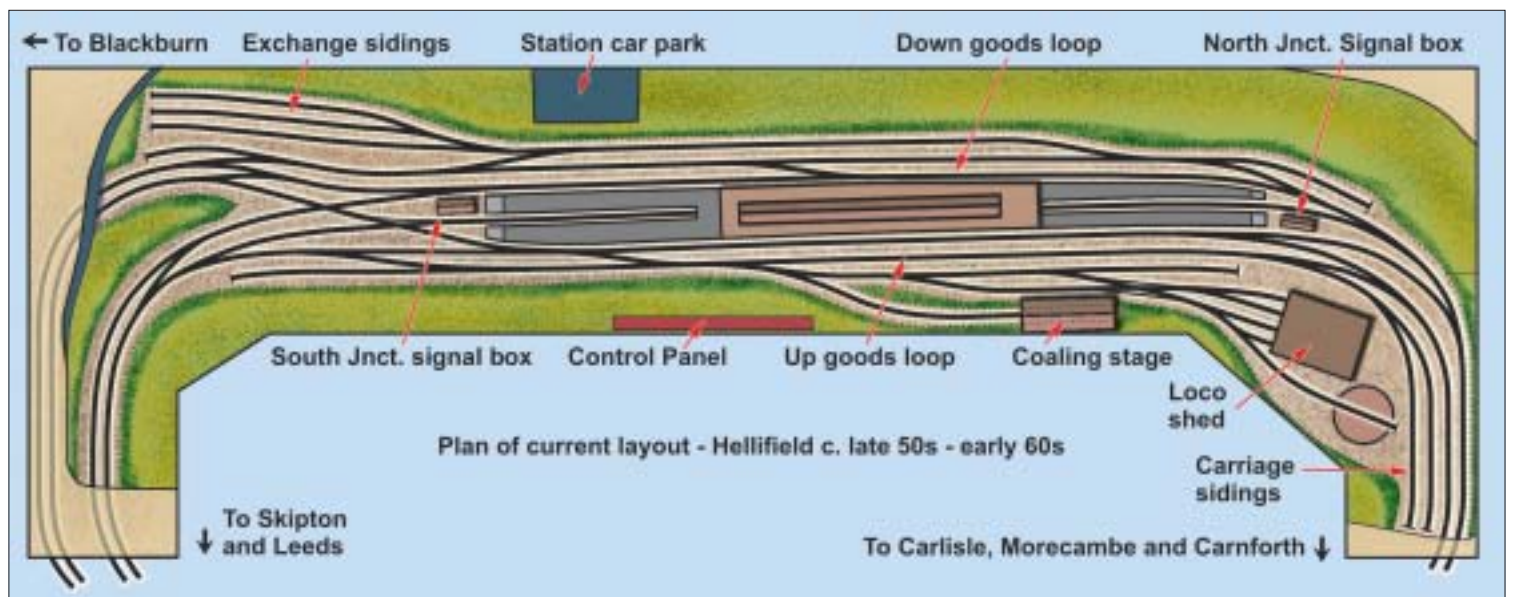
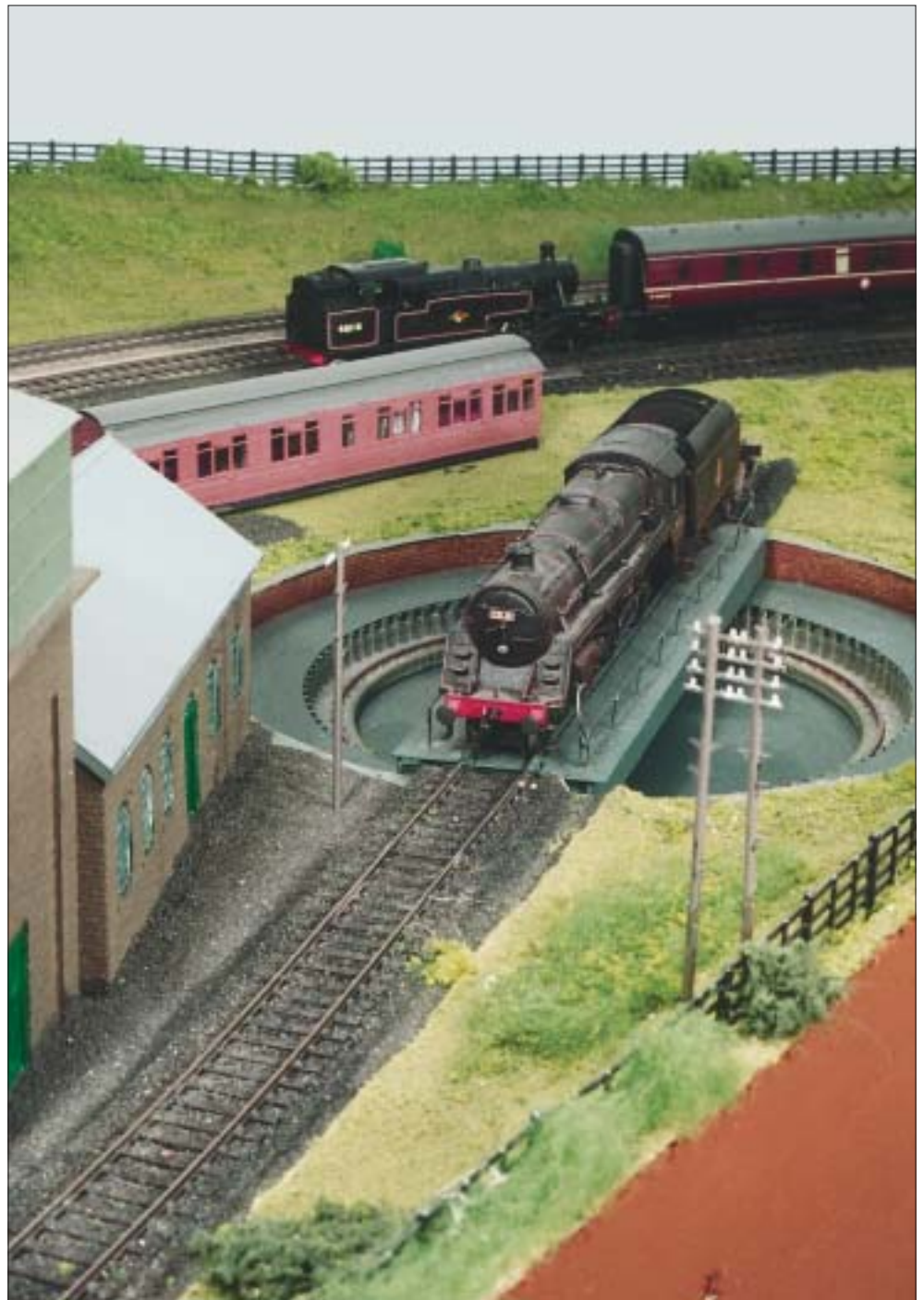
Hellifield should, ideally, be modelled looking from the west, as there is a convenient hillside to the east of the station which can help to give an impression of the Craven district countryside in which Hellifield is situated. Unfortunately when viewing the station from the west, the real Hellifield station curves towards one. This has the effect of making the necessary baseboard space far too wide, particularly at the north end where the locomotive depot was located. It was only then I realised that it would fit if I decided to build the station as a mirror image and as if looking from the east. I agonised for a long time over this concept. If the station platform curved in the wrong direction could I still call the layout Hellifield? In the end I decided that I could, and time has, I feel, proved me right. The layout still has the feel of the real station and, above all, when operating it, this visual deception becomes irrelevant. Better a mirror image Hellifield than none at all!

The layout

The layout is built in a loft with a usable baseboard area of 22' x 10'. It uses a simple flat-top baseboard surfaced in chipboard, with cupboard space underneath for all those bits and pieces we modellers collect. The track plan is based as closely as possible on that of the real station as it was at the end of the steam era. Inevitably, some simplification has had to be made, but almost all the features of the station

Left: it's 11.39 and 'Jubilee' 45570 New Zealand pulls out on the 10.35 Leeds to Glasgow St Enoch as 45258 waits in the north end bay platform to follow the express over the Settle to Carlisle at 11.55. Carnforth-based 40118 is seen standing in the shed yard.

Right: we see this Scottish Standard Class Five 73120 being turned at Hellifield after arrival on the morning local from Carlisle. In the background 40118, obviously recently ex-works, is about to pull some coaches out of the north end carriage sidings. In real life there was an ex-Midland Railway Pullman sleeping car body in use as a staff bothy at the carriage sidings. I've chickened out of building this and used the body of a Midland clerestory coach instead.





are represented. The main Leeds to Carlisle line forms the main circuit running either side of the large island platform. At each end of the station are the two bay platforms used for stopping trains to Blackburn or for the Hellifield to Carlisle locals.

The Blackburn line trails in past the impressive Hellifield South Junction signal box. On the west side of the station are the High Level Exchange sidings, so called because it was here that the Lancashire & Yorkshire Railway handed over wagons from its Blackburn line to the Midland Railway. The Down Goods Loop

on this side of the station was linked directly only to the L&Y line. Midland route freights had to reverse into them from the North Junction as facing crossovers were anathema to the Midland Railway. It was only in late British Railways days that a facing crossover allowed freights from the Leeds direction to run directly into the Down Goods Loop.

On the east side of the line can be found the four-track locomotive depot with its turntable and large coaling stage. The Up Goods Loop did have direct access from the north and was also used to reach the extensive carriage sid-

ings. In model form I've had to truncate these sidings seriously, but the two sidings are actually sufficient to handle the stock in use on the layout.

The storage loops are obviously the key to the successful operation of a large layout, and considerable thought went into this part of the track design. Despite this the storage area has undergone several re-designs as my rolling stock collection has increased, or operation has suggested amendments. Presently there are fifteen through loops, some of which are capable of holding two train sets. Four of these can be accessed from either direction and are used principally for reversing trains such as the Settle to Carlisle line locals and the main express trains. The Blackburn line trains are handled in two dead end sidings and are fitted with Kadee® magnetic uncoupling ramps, which allow hands-off uncoupling of locomotives. In addition there are eight short sidings, which allow individual locomotives to be held between engine changes in the storage area.

I have used Peco Finescale track and pointwork for the scenic section of the layout and



Above: before the Blackburn line closed in 1962 this was a common sight at Hellifield. Leeds Holbeck's 44852 leaves on a Morecambe and Carnforth to Leeds train whilst 42363 awaits departure time before heading off to Blackburn and Manchester. In real life Fowler 2-6-4 tanks were quite unusual at Hellifield but they're one of my favourite types so one is included on the layout.

Left: Hellifield South Junction signal box. It is still standing and in use today, although fitted with new window frames.



code 100 Streamline track in the storage loop area. Peco foam ballast strip has been used with the high ballast shoulders hidden by laying 1/8" cork between the ballast strips. This was then covered in Woodland Scenics N scale ballast and the whole lot weathered lightly to blend the foam and stone ballast together. Points are operated by drilling a 12mm hole under the point tiebar and screwing the Peco solenoid, fitted with an extension pin, under the baseboard.

The turntable is a heavily modified Arnold N scale item, which I obtained very cheaply. A new extended deck was built of balsa and plastic sheet on top of the turntable bridge. A circular hole was cut into a piece of chipboard to accept the N scale turntable pit. Next another hole about 260mm in diameter was cut in the baseboard and the modified turntable was fitted inside this hole from underneath. Amazingly it works well and doesn't look too bad.

The layout uses switched feedback controllers by Kent Panel Controls. Normally the feedback is switched off but a few locomo-

Above: Stanier 8F 48710 pulls a Heysham to Leeds Hunslet express freight, comprising a shock open and containers amongst others, past the North box and into the up Goods Loop late in the afternoon to allow the engine to take water.

Right: an ex-works 8F 48352 pulls off the Blackburn line and into the down Goods Loop with a freight from Manchester Ancoats goods depot to Carlisle.

Photographs by Steve Flint, Peco Studio.

tives run better with it in use. Two main panel controllers are used, as well as a hand-held one for shunting in the High Level Exchange sidings. The entire layout is broken up into over sixty track sections, which are switched through centre-off double-throw switches. However, running two trains simultaneously on a complex layout like this is a demanding task and I often run only one train at a time. In order to improve the performance of the layout I use both a capacitor discharge unit for point control and a Relco track-cleaning device.

Buildings

In order to represent Hellifield as accurately as possible I felt it essential that the structures should be close copies of the original. A visit to the present day Hellifield, now, thankfully, restored to something of its former appearance after years of dereliction, resulted in a collection of detailed photographs of the main station building and the South Junction signal box.

Numerous photos were studied in various publications and revealed details of the shed, coaling stage and North Junction signal box.





From these I drew up drawings which, whilst not strictly to scale, at least captured the feel of the originals.

Four heavily modified Ratio Midland signal box kits were used to produce these two large and distinctive buildings. Both signal boxes are different, the South Junction being much higher than usual for MR boxes. The rest of the structures were built out of plastic sheet and embossed stonework by Slater's. Building the station itself was a fascinating challenge with much multi-layering of the plastic necessary to achieve the distinctive stone panel work.

The most difficult item to build was, inevitably, the station canopy, which is the one scenic item that really defines the layout as Hellifield. This magnificent structure, still almost complete in real life, required a great deal of determination to complete! The ironwork was soldered in situ from a mixture of brass section for the support columns and code 65 and 100 nickel silver rail for the glazing supports. The metalwork was cleaned and then painted before the glazing was added. This was made from thick clear plastic, which was rubbed with fine emery paper on the

underside to frost the sheet, an idea suggested many years ago in in RM by Peter Denny. The narrow glazing bars were then drawn on the sheet using a fine black overhead projector pen before being glued to the metal framework with small amounts of two-part epoxy resin.

I debated for some time whether to make the signals work, but in the end decided that there would be enough to do on the layout when operating without remembering to change the signals. I also find it very difficult, physically, to work under the baseboards and the thought of the amount of fiddling required to produce working signals made this a non-starter. In the end I built the required models from the Ratio LMS signal kits using, in some cases, brass angle for gantries. The signals were set at clear for the main line; the rest of the time, I'm afraid, my drivers pass signals at danger.

Locomotives and rolling stock

The layout houses a large collection of stock,

Above: something has obviously gone wrong with the locomotive rostered for the north-bound Thames-Clyde Express. Two Class Fives race north just before 4.00pm on their way to Carlisle. These models are stretched Hornby models mounted on an Airfix 'Royal Scot' chassis.

Left: Fowler 4F 44389, complete with tender cab, for winter snowplough duties is shunting the High Level Exchange sidings. The red spots of paint just visible in front of the coupled wheels show the position of the Kadee® magnetic uncoupling ramps.





which represents what would have been seen at Hellifield in the years 1960 to 1965. There are a few slight anachronisms but nothing too serious. Locomotives are a mixture of standard ready to run, kit-built and 'kit-bashed' items. These latter include, for example, several Bachmann locomotives fitted with Airfix tender drive units to improve traction as well as a batch of the old Hornby LMS Class Fives rebuilt to scale length and mounted on a re-wheeled Airfix 'Royal Scot' chassis.

The full range of ex-LMS and BR Standard locomotives that ran through Hellifield are present on the roster, most with several examples:

- ⊗ Stanier and Ivatt 2-6-2Ts;
- ⊗ LMS 2P and 4P 4-4-0s;
- ⊗ Ivatt 4MT 2-6-0;
- ⊗ Fowler 4F 0-6-0 in various guises;
- ⊗ Stanier and BR Standard Class Five 4-6-0s;
- ⊗ 'Jubilee', 'Patriot' and 'Royal Scot' 4-6-0s;
- ⊗ Stanier and WD 2-8-0s;
- ⊗ BR 'Britannia' 4-6-2s;
- ⊗ 9F 2-10-0s.

Above: Hellifield shed in the early 1960s when it was still a busy place. An Ivatt 2-6-0, an LMS 2P and the inevitable Class 5 and 4F poke out of the shed, but the photographer's real interest is in that Scottish Standard Class 5 73120 'borrowed' by Carlisle and sent south on an Settle to Carlisle local.

Right: today the up Waverley from Edinburgh to London St Pancras is running late as it pulls out of Hellifield behind Holbeck's 70052 Firth of Tay. Meanwhile a Lancaster Green Ayre 'Patriot' arrives with the 3.00pm arrival from Leeds to Morecambe and Carnforth.

In addition there are also some diesel locomotives and multiple units, which are run when I want to represent the later part of the period I model:

- ⊗ Sulzer Type 2 (later Class 24 and 25);
- ⊗ 'Peak' Type 4 (Class 45);
- ⊗ English Electric Type 4 (Class 40);
- ⊗ Brush Type 4 (Class 47);
- ⊗ DMUs of the Cravens, Derby lightweight and Metro-Cammell versions.

Most passenger rolling stock is based around the Airfix/Dapol standard LMS corridor and non-corridor coaches. Many exam-

ples have replacement Comet coach sides to represent specific vehicle types. BR Mk 1 coaches make up the principal expresses to Scotland, being a mixture of Comet sides on Mainline coaches or the Bachmann models.

Freight stock is largely kit-built, principally from the Parkside range, with some ready-to-run models. In addition there are two complete rakes of scratch-built wagons: the Anhydrite wagons used on the limestone trains referred to earlier and a set of LMS and BR high sided coke wagons used for trains to the steel works in the Furness area. Most





freight stock is fitted with Kadee® couplings within the train, but with adaptor wagons to allow tension-lock coupling to the locomotives.

Readers will, of course, notice that much of the stock on the layout is, as yet, unweathered. A start has been made on this but it is a long

and slow task. In any case, as one friend said to me recently, 'Do you really want to see the disgustingly dirty railway that the London Midland Region was in the early 1960s?' Nevertheless this task will have to be undertaken soon if I really wish to capture the atmosphere of the time.

Operation

Building a layout is, for me, a means to an end: I want to operate the layout in order to recreate those days of my youth when traffic through Hellifield was more than Sprinters, Pacers and Class 66s on coal and gypsum trains. I drew up a sequence of operations based upon the summer 1961 timetable.

Finding freight timetable details has proved more difficult. I found some information about freight trains in the Aire Valley between Leeds and Skipton for 1959. I then drew up what I think is a likely freight working timetable for these trains through Hellifield.

Sadly I haven't found any information about the Blackburn line freight trains so I have to rely on a few notes that I made myself as a teenager. If any reader has any detailed information about the freight services through Hellifield in the late 1950s or early 1960s I'd love to receive it via the Editor.

Having drawn up the sequence timetable and run it through to check for any problems in actually operating it, the details were entered on a spreadsheet. After various buttons on the computer were pressed I printed out the individual train details on to card index files. A two-part wooden rack was attached to the front of the layout to hold these cards and can be seen in one of the photographs.

A few points about operation may be of





interest. The first is the sheer variety of types of trains operated and the high proportion of freight trains compared to passenger. Freight trains include container traffic (principally from Northern Ireland via the docks at Heysham); long distance overnight freights from the Midlands and Yorkshire to Scotland; an enormous number of coal and coke trains and their associated empty wagons workings; specialised traffic such as oil and chemical trains between Yorkshire, Teesside and the refineries at Heysham as well as the mail and parcels traffic in separate parcels trains.

Recently I have started to operate the local freight services, which were still sorted at Hellifield at this time. Kadee® couplings allow

Above left: a brand new Sulzer type 2 brings the afternoon Leeds to Heysham parcels train into Hellifield. Here some of the vans will be detached to go forward on the afternoon Bradford Forster Square to Carlisle local. One of Skipton's remaining 4Fs waits on the Blackburn line with a short freight.

Left: a Morecambe to Leeds service operated by a five-car Metro-Cammell DMU arrives at Hellifield in 1965. The card index rack and cards can be seen.

Above: a Carlisle Kingmoor 9F gently starts the 'Long Meg' anhydrite train from Long Meg quarry to Widnes over the South Junction after a crew change. The wagons are scratch built and urgently need weathering!

this to be done without resorting to manual uncoupling. I use the short uncoupling ramps that don't allow pre-uncoupling in preference to the standard length, as the short length of British four-wheel wagons can sometimes result in wagons uncoupling at both ends of the same vehicle. Slightly unprototypically I occasionally use my Bachmann 350hp (Class 08) to do this, as its slow running is so impeccable; I think Hellifield shed has borrowed it when it was being delivered from Derby works to Scotland! At other times one of Hellifield's 4Fs performs the duty.

Passenger traffic interest revolves around three basic types of service. The express trains over the Settle to Carlisle line usually load, in model form, to seven or eight Mk 1 coaches and are hauled by exotic 'named' motive power usually with headboards fitted. I've built sleeping cars for the overnight services but as yet I've not installed any lighting to allow this to be done realistically, so they stay in their boxes. The second passenger flow is for the Leeds and Bradford to Morecambe and Carnforth services. These are all operated by six car LMS corridor coach sets, which are arranged with the correct formation of vehicles to permit the splitting of the Morecambe and Carnforth portions at Wennington. Motive power for these are usually the various 4-6-0s.

Finally, the humble local services all utilise three car sets of suburban or corridor coach-

es. The ones on the Blackburn line are fitted with Kadee® couplings, as are three of the tank engines. Strategically placed ramps are installed in various places around the station and storage loops to allow uncoupling. The Bradford or Hellifield to Carlisle locals all use one three-car set and can be headed by anything that Carlisle Kingmoor shed chooses to allocate to the service. This was, in real life, often surprisingly grand; I remember seeing 'Royal Scots', 'Britannias', 'Clans' and even a V2. More common of course was the inevitable Black Five, although frequently they came from unusual sheds north of the Border. I well remember coming across a Grangemouth Class Five one day.

The captions to the photos of this article will give more details of what each working is intended to be. If your layout is feeling a little stale and interest is waning I recommend that you do what I did and construct an operating scenario for your layout. I'm sure you'll find it as fascinating as I did.

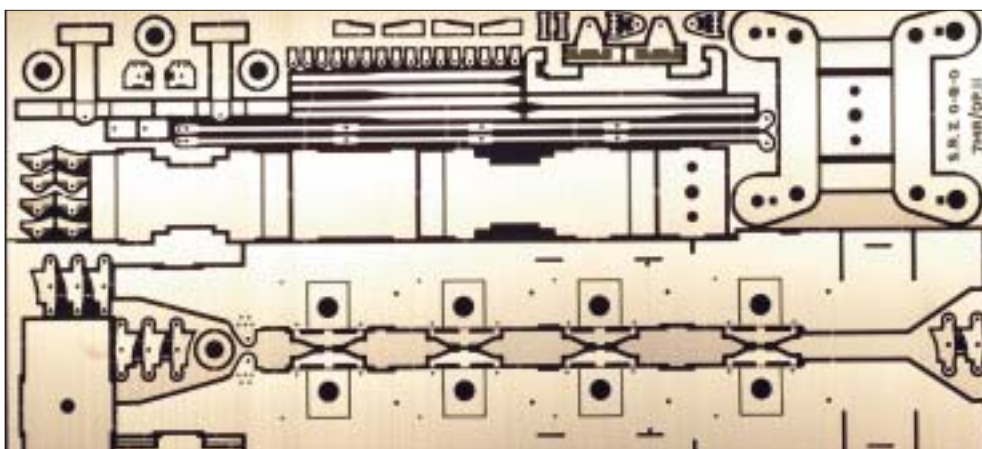
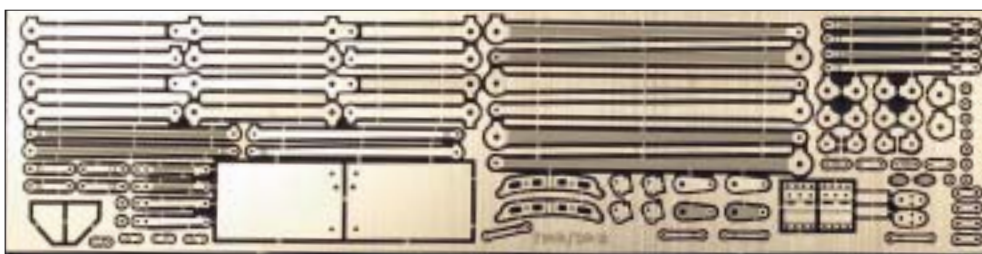
In part two of this article (*next month – Ed.*) I'll be looking at how I could bring my steam-age Hellifield into the diesel age. I'll show how that without destroying the layout it can be made to look substantially different and how a completely new operating concept can be developed. I'll be presenting ideas based on what actually did happen in the diesel-era and some might-have-been concepts.



Maunsell Z class for 0 gauge

The SR three-cylinder eight-coupled tank makes an impressive model

R.M. Staff examined the newly-released DMR Products kit for these handsome Maunsell bankers.



Eight of these three-cylinder heavy tank engines were built at Brighton Works in 1929 to the design of R.E.L. Maunsell. The locomotives were designed for working in the yards and sidings at Hither Green, Exmouth Junction, Folkestone, Salisbury and Gillingham. In later years their versatility was exploited further and they became well known as bankers on the 1 in 36 gradient between Exeter St Davids and Central, the trains concerned of course including loaded ballast trains from Meldon Quarry.

The original number series was A950-A957, becoming BR 30950-30957. Livery was always black, originally with the SR fine green lining of the time.

The model

The Z Class is a recent release in the DMR Products 7mm scale range. It follows a similar format to Mike Russell's previous kits and consists of etched nickel silver frames, rods and motion, etched brass body and pre-rolled and shaped brass boiler. This is in sections, which telescope together, to allow the distinctive shape of the boiler as a whole to be repro-





duced. Boiler mountings, smokebox saddle and door, sandboxes etc are high quality white metal castings. Handrail knobs and wire are included.

Some parts need to be laminated, for example the motion, but this is no problem if care is taken with the iron.

Large drawings are supplied for front, rear, top and left elevations. Parts on these are numbered and are referred to in the instructions but do not appear on the frets. Other drawings cover valve gear, chassis and superstructure assembly. A drawing of the backhead would have been useful but was lacking.

The frames and body were no problem to assemble, using our preferred soldering methods of big iron, and some resistance soldering.

Our chosen wheels were Slaters and the motor/gearbox was from Connoisseur (see RM April 03), mounted vertically and acting on the third-from-front coupled axle. The position of the transmission makes it invisible when the superstructure is in position. We'll make sure we get the balance weights right next time... The chassis was built rigid and the loco will traverse 6' radius curves.

The valve gear was easy to assemble using the previously mentioned drawing.

Sprung buffers are supplied in the kit.

The boiler was given a generous load of lead, and to balance the locomotive we also weighted the bunker with a liberal coating of 'liquid lead', which adds some useful mass to this part of the model.

Painting and finishing

We wanted a late BR unlined black finish for which we used RS aerosol grey primer – note in the photo that the buffer shanks have been plugged with scraps of cotton wool to prevent paint getting in – and matt black paint. Buffer beams were brush painted red from the Humbrol range. The transfers were from the HMRS Prefix range.



Light weathering was obtained from the fine ash from lavender scented joss sticks. The bunker was coated with the real thing, courtesy of a surreptitious visit to the Beer Heights Light Railway running shed when no-one was looking! This load was secured with PVA.

The locomotive is not just a display piece, but will actually earn its keep on the steeply-

graded garden railway presently under construction: the banking siding has been added to the plan as a result of its arrival...

Our thanks to Mike for the opportunity of constructing this enjoyable kit.

D.M.R. Products, 25 Halwyn Place, Redannick, Truro, Cornwall TR1 2LA.



The carriage shed

An N scale model based on an actual building

Richard Bardsley wonders if it was really worth 'kitbashing' this simple modern structure.

The February 2003 issue featured a 'Plan of the Month' written by myself that was based on the carriage shed and associated area on the East Lancashire Railway. I quite fancied turning plan into reality, but I did not think this would happen for some considerable time. However, when my father read the article, he was quite taken with the plan, as he is also a member of the ELR. Having just entered early retirement, he has followed the path of many modellers who return to the hobby in their later years, and has embarked upon building a layout based on my plan (saves me having to do it!).

My father was going to use the Peco diesel shed for the carriage shed, and there's nothing wrong with that idea, but I had something else in mind, and in a rash moment, I volunteered to build the carriage shed. I'd had a Micro Engineering Company 'Doyle Distribution Center' kit (available from Modern Structures In Miniature, PO Box 3119, Ferndown, BH22 8XY) in the cupboard for a couple of years, destined for my original larger idea of what *Mill Lane Sidings* would be (see May 2003 issue for the much smaller realisation of this idea). It's quite a big kit, and I was intrigued to give it a try to see what our fellow American modellers are enjoying. The real carriage shed has two apex roofs to cover four tracks, each track capable of taking four Mk 1 carriages. Compromise is the railway modeller's motto, therefore the model would only have to cover



three tracks, each one taking two Mk 1 carriages, so the single apex roof of the kit actually looks better.

These four walls

The walls feature moulded 'score marks' on the inside in a number of patterns and a number of different places. Cutting round these marks will make openings for the doors and windows that are included. It's a great idea, offering easier construction and good flexibility.

My father had laid three sidings for the shed, fed from a couple of Peco Setrack points, and this was a nice fit with the shed for width, but it was about 1" too long. The extra length was

easily removed from the sides with an Xacto razor saw. I cut from the rear, having first marked a cutting line with a scribe and steel square. Next, I installed the doors in the sides towards the front of the building, which are actually fire exits, so the plain windowless doors included were correct. I compared the various included doors with the moulded score lines and was not sure how good a fit they would be, nor how clean the moulded score lines would cut. Add to this the fact that the doors would not be quite where I wanted them, and I decided to abandon using the moulded lines and just mark and cut the walls where I wanted the doors, and fit them there.

The rear wall has a secure entrance door on



Upper left and right: overall view of each side of the shed.

Lower left: the ends of the shed.

Lower right: close-up of the rusting buffer stops, rails and signal posts, slowly being covered by nature. The paint store with various bits of rusting scrap. Note the buffers stood next to the fire escape door.

the right and this again was installed where I wanted it to go rather than relying on moulded lines. The front of the building had to take three tracks, and none of the moulded lines were big enough for three doors, nor in the correct place. In the end, I cut one big opening into the front, and edged the resulting opening with Plastruct L-section. I've made two pillars that can fit between the tracks when my father installs the building. The doors of the real carriage shed are of the roller shutter type so I am assuming that they are permanently open, and therefore not visible.

Up on the roof

The four walls went together very well with liquid polystyrene cement, and when this had hardened I tackled the roof sections. These also needed 1" removing like the sides, but when I examined them more closely, they needed more than this amount off, as the kit is designed with quite a substantial overhang at the ends which was not correct for the shed I was modelling. Then I came across a real problem – the roof is moulded thicker on the inside, to provide strength and also to form an edge to locate inside the walls for secure construction. I had shortened the roof pieces so much that one end was now thicker than the other! The Xacto razor saw came out again and I very carefully cut the thick end into a thin end by about 1/4".

The roof pieces now fitted within the ends, but not within the sides. The instructions say to sand the apex edges to an angle to get a clean edge along the top. They took a lot of sanding and a bit of carving to fit, but the end result was a few gaps right at the top. There are some support pieces to fit inside that help to strengthen the roof but these did not hide the gaps. However, no need to panic – a piece of paper was folded in two to make a new apex and then cut to size before attaching by flooding it with liquid polystyrene cement, which welds the paper to the plastic underneath. Make sure you always have plenty of ventilation when using this kind of solvent adhesive, especially when 'flooding' something.

Wallpaper

The inside of the shed would be visible, and the walls showed the moulded score lines, which would probably look all right with a coat of paint, but I wanted to do better. The inside of the shed should look the same as the outside, that is, the vertical ribbed pattern of modern steel sheds. It was easy to replicate this with a computer. For the PC-literate amongst you, I used Microsoft Word to create a table with a row height that matched the gap between the ribs on the outside of the walls, namely, 2.5 mm. The background of the tables



was 'filled' light grey colour, with the grid lines of the rows being a darker grey for contrast. I printed off an A4 sheet's worth which was enough to cut two sides and an end to fit inside. The 'wallpaper' was attached with a glue stick from a stationery shop and when it was dry, it was trimmed back where the three doors are.

Store rooms

The ELR makes extensive use of old containers around the carriage shed for storage of

spares, mostly spare seats and window frames. One container is simply an old Graham Farish container, the underframe of which was long ago donated to another wagon.

This was rusted and weathered to make it look as if it had been round the world's oceans a few times. The other containers are made from the new C-Rail kit, one of which was duly purchased from the N Gauge Society Shop. The kit features a spare roof which makes a floor. As my container would be fixed to the side of the carriage shed, I only needed one



wall, and no floor, so the spare floor and wall made a second container with some new ends from Evergreen Scale Models plastic card (1mm thick with 2mm spacing). Of course, this means that the second container has no doors, but some of the actual containers on the ELR are placed in pairs, door to door, and can only be accessed from inside the shed for security.

The odd little brick structure down one side is actually a paint and oil store – not the privy – accessed from inside the shed, since Health and Safety law states that these must be kept in a secure area. It was made from a piece of Ratio brick building sheet, with the edges mitred on sandpaper to get good corners. The mortar of the bricks was done by applying a wash of white paint, wiped off with a cloth, and then when it was dry, lightly rubbed with some wet 'n' dry paper as the Ratio plastic is a suitable brick colour. The roof is just a piece of plasticard, with microstrip barge boards. The plain plasticard lacked the texture of the felt roof, so a piece of tissue paper was 'welded' to the roof with liquid polystyrene cement.

Paint the shed

The ELR carriage shed is a chocolate brown colour, nice on the carriages themselves, but a little bland on such a large structure. My father and I thought brown would not look so good on such a large model, so I used the green colour I had used on the modern building on *Mill Lane Sidings*. The containers received the same colour, as per the prototype, apart from the Farish container. The roof was painted grey. The translucent roof panels were represented by masking off rectangles on the roof and painting them white. To tone them down a bit, the whole roof was weathered, by sprinkling some Carrs's weathering powder on to a piece of card, and then using a brush to mix in some varnish; the resulting 'dirty' varnish was applied to the roof using a flat brush with straight stokes from the apex to the gutter.

Final touches

My father uses Peco underlay and this raises the track by a few millimetres. Therefore, I added a 'concrete' foundation for the shed made from thick card, which is cut out inside the shed for the track; the walls of the real shed sit on a concrete base. The foundation extends outside the shed to support the containers and paint store.

Inside the shed on one side are various cabinets, shelves and telephones as per the real



carriage shed; these were spares from a variety of Ratio kits.

Various odds and ends from the scrap box litter the ground around the shed, quietly rusting away in the vegetation. An old Lima wagon chassis gave me a set of buffers and the chassis sides. There are some lengths of Peco rail and a couple of signal posts from my first layout. They are actually old Hornby uncoupling signposts with the tops cut off. I had a Peco buffer stop kit on which I had broken the cross-piece, so the sides were put to good use.

Above: the rear of the shed showing the skip, spare wheelsets, scrap wagon pieces and other details. The flagstones laid to the door are from a piece of Slaters embossed plasticard.

Below left: a detail shot showing how the new framing round the main door was made from Plastruct L-section. Note how the ribs on the wall above the door have been cut back slightly so that the L-section will sit flush and that a piece has been cut from the L-section itself so that it will sit flush on top of the side frame.

Below right: two out of one – a rear view of the two containers made from the C-Rail kit.

Photographs by the author.

Everything was painted rust, or track colour and heavily weathered.

There is a couple of wheelsets, and the obligatory packing crates and oil drums. The skip and traffic cones are from P&D Marsh. Scatter materials were used down the sides and rear. Several shades of green, browns, silver sand and 'flowers' were used to develop the 'overgrown' look. These were wet with water from a perfume spray and then held in place with a 50/50 mix of woodworking glue and water, with a drop of washing-up liquid to kill the surface tension in the water. In places, the glue mix has crept up the sides of the shed as they got wet from the spray, but this only adds a weathered effect to the shed itself.

Once finished, the carriage shed was delivered to the 'customer' for installation on the layout. I am sure that when my father has finished the rest of the layout, you will see it in the pages of RM. The big question, though, is was it worth all the effort of 'kit-bashing' when I could have made it just as easily out of the Evergreen Scale Models plasticard? The answer is 'no'. The Micro Engineering Company kit is excellent, there is no doubt about that, and if you want a modern distribution building for a corner of your layout, then I





would not hesitate to recommend it. However, with a specific prototype in mind, I could just as easily have built it myself. That's the thing about modern steel frame buildings, they are just big boxes, and very easy to scratch-build. I also had a lot of bits left over from the kit that were not used.

Having said all that, it was still a lot of fun, proving that even simple structures offer their own challenges for the modeller.

Top left: the rear of the carriage shed with an assortment of clutter including old wagon buffers stood on end like giant toadstools and a couple of traffic cones. The immediate surroundings are a mixture of old stone cobbles and spent ballast.

Top right: a view up one side of the carriage shed showing a number of old containers being used for storage, and more rusting clutter.

Above left: this view was actually taken outside the loco works but is typical of many preserved railway sites. Old station canopy support columns are hiding in the grass while the frames of a buffer stop are separated by an old wooden pallet.

Above right: not actually a carriage shed, this is Wigan Springs Branch diesel depot on 19 September 1992 before it became a component recovery and disposal centre. The three road shed has a brick base, but note the similarity of shape to the finished model.

Right: the OCL container is showing rusty traces of the world's oceans.



Otterburn

A declining Northumbrian backwater in the 1950s

Ian Futers re-visits a 1970s modelling project but this time constructs it in 7mm scale.

Otterburn is a small settlement in North Northumberland on the A696 just before the junction with the A68, which then continues over the Border into Scotland at Carter Bar. There is an inn, a woollen mill, and a number of houses, some linked to the forestry industry. Tucked away amongst the hills to the east of the village is an army training ground and surrounding the camp is a fair amount of restricted access land.

It never received a rail link, but could have been part of the rail network from as early as 1845. Two or three other attempts were made to provide rail access, the last being around the mid-1890s but the projects rarely got past the initial planning stage. Two of the schemes belonged to grand plans to link Newcastle with Edinburgh and Glasgow. The earliest was the 1845 Newcastle, Glasgow and Edinburgh Direct Railway. In 1894, the LNWR and L&Y planned a similar route. A more local scheme was included in the little known Scotswood to Scotsgap line of 1874. That project would have probably been a branch line with the possibility of eventually crossing the Border to make another route to Edinburgh and Glasgow. Frequently schemes were proposed simply to 'stir things up' as it were, with one or two companies which had designs on a particular area.

Most of these schemes left Newcastle and headed north west to Ponteland, Belsay and Kirkwhelpington. Some schemes diverted to Woodburn and then went up the Rede Valley whilst others kept fairly close to the A696 and headed towards Otterburn. From there they travelled up to Carter Bar where a tunnel was envisaged and then either went to Hawick via Bonchester Bridge and joined the Waverley route near to Hawick or up towards Jedburgh, and then joined the Waverley route higher up. With hindsight, the gradients would have been fairly steep, certainly on the section past



Otterburn and on either side of Carter Bar. In all probability the line would have been single track although I am sure the 1894 scheme may have preferred double track as it was an obvious attempt to create a new, more direct main line route into Scotland. By that time, the actual Border Counties line up the North Tyne Valley was more or less a secondary route.

The location of Otterburn has always attracted me and indeed in the late 1970s I did model a small P4 branch terminus complete with potted history of how it was constructed up the east side of the Rede Valley from a junction with the Wansbeck line at Woodburn. I worked out the timetable, which was to link in with the actual Wansbeck timetable, along with traffic patterns and operational details. I quite enjoy this approach to modelling, as it makes you concentrate on what stock you require before you have even built a baseboard. Chris Pendleton of *North Shields* fame has obviously been along the Otterburn path



too. He constructed a layout based upon Bonchester Bridge, just over the border from Carter Bar. He published that account in the *Model Railway Constructor*. Later on, whilst living in Glasgow, he constructed a superb layout based on the location of Kirkwhelpington. I remember seeing the layout at a Glasgow Show. This was in P4 and again was probably influenced by the 1845 scheme. If I remember correctly, some of the trackwork was later used on his *North Shields* layout.

If the line had been built, it would possibly have needed some rather heavy duty locomotives to haul the trains because of the gradients. If indeed it had been double tracked, it perhaps would have been reminiscent of the old Waverley Route. Tyneside locomotives and Hawick based locomotives along with types from Edinburgh and perhaps Glasgow would have been seen along the line. On the other hand, it may simply have become another rural backwater possibly even truncated at Otterburn and ripe for closure in the early



Left: G5 and passenger train at Otterburn.

Below far left: G5 at the loading bank.

Right: G5 and single coach.

Lower right: J27 at Otterburn.

Photographs and drawing by the author.

1950s. The Border floods of August 1948 could have swept a portion of the line away north of Otterburn and because of dwindling traffic, it was not deemed financially astute to reopen the whole line. Final closure of the line could have happened in stages, Otterburn losing its passenger service in 1956 along with the Border Counties. The freight may have lasted until 1958. The section to Ponteland or Belsay could have hung on until 1964 when a number of lines lost their passenger services in South East Northumberland. I suppose you can see where that is leading me.

Another of my favourite locations is Kielder Forest station on the Border Counties line. It has quite a simplistic track plan, a loop which was used for passing trains, a short siding for cattle and general merchandise with a kick-back siding for the meagre coal traffic, and that was about it. The station building at Kielder has never struck me as being important enough, although it was described as a pair of superior cottages when the line was under construction. However the platform mounted signal box always appealed to me. The station building at Woodburn on the Wansbeck Valley line, although rather plain, was to me also quite attractive and of course was next to an impressive road bridge which carried the A686 over the line. This feature could be at the end of a layout in order to disguise an exit to hidden sidings.

If I could mix and match these features, I felt a small but quite attractive layout, with a reasonable amount of operation could be managed in a small space. In fact I was hoping to fit the whole scene onto two baseboards by using the scenic break of the road bridge to disguise a small traverser, which would only hold a locomotive and would therefore allow the said locomotive to run around its train, be it passenger or freight. A normal style hidden siding section would fit on the other end and again the exit to that board would be disguised by the road bridge from Kielder. So looking at the layout you would see pure Kielder (more or less, with a little modellers compression) on the right-hand side, and pure Woodburn on the left-hand baseboard.

Extremely compact I know, but that is what I prefer, as do many other modellers judging from the comments I receive regarding my minimum space creations. Yet despite all of that, it is still possible to carry out prototypical moves especially with the freight. It is a tad simpler with the passenger trains as I only envisaged a one-coach service hauled by the usual G5 0-4-4 tank engine. The freight would also be a simple J21 0-6-0 locomotive with possibly a J27 filling in. Of course, that assumes the period of the layout is the early fifties and that, more importantly, the line was severed north



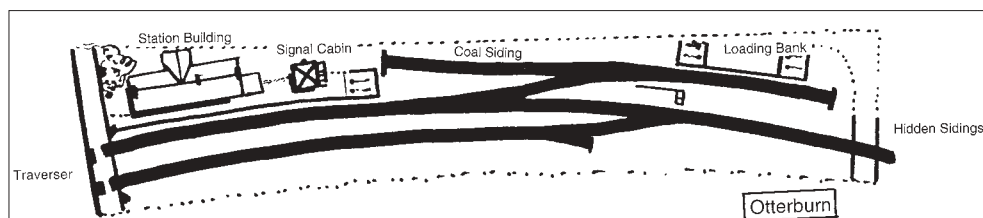
of the station because of the August 1948 floods in the Borders. That therefore assumes the line was then a truncated if rather lengthy branch line. If the line had remained open fully for freight and passengers until November 1964, as it may well have done, the possibility of seeing diesel multiple units along with Type 2 locomotives would be of interest to those who prefer that form of traction. The pick-up freight could be still clinging on at that period.

Another reason for the line staying open could be the huge Otterburn Army Training Camp nearby. The scope for military style traffic would then be endless. However, the period in which I envisage setting the line, basically in the 1950s, would perhaps not see too much of

that freight traffic, and ten-coach troop specials are going to be difficult to fit in. So I feel it would be better modelled as a rural backwater like the other Northumbrian branches but still with a plausible history, which to me actually, is quite important.

Worked started on the layout in late 2003 and originally I had intended to have its first exhibition at York 2004. However my good friend Ian Trivett persuaded me to take it to the East Midlands Show in March 2004: it appears here as a preview of the York Show.

Indeed, you can see Ian, Otterburn and much else at the York Show over the Easter weekend. See our Societies & Clubs section for details.



Garden Railways

In G-45 and SM-32

Geoff Thompson explains how the garden railway is achievable for all modellers.

If you have not been keeping your eye on the world of garden railways for the past few years, you may be rather surprised at how much it has changed. There are still a lot of people who think that, in order to enter the hobby you either need to be rather wealthy or have access to a very well-equipped workshop with the engineering skills to match. You can certainly still go out and spend a fortune buying a fantastic garden railway, and if you are a highly skilled engineer with all of the facilities to hand, you can still build fabulous models from scratch, of course, but in one scale at least, garden railways need not be the preserve of either the wealthy or highly skilled. The main reason is quite simple – ever-growing trade support.

Whilst I'm quite in favour of folk getting fun from their model railways in whatever scale they choose, whether they buy the whole lot ready-made or toil away on lathe and milling machine to produce their model masterpieces. What I am saying is that there is, increasingly, access to affordable models for the garden, and a range of parts and kits which will allow those with the time and inclination to produce attractive models, without the need for a workshop, specialist tools or above average skills. This was just one of the factors which attracted me to the garden route.

As this is my first article for RAILWAY MODELLER, perhaps I should take a little time to explain 'where I am coming from'. We all model railways because we enjoy it, and we choose our branch of the hobby because it suits us, don't we? Well, yes, up to a point. Some scales are prevalent in just about every model shop in the country, and a quick glance through the pages of this magazine will pretty much cover the spectrum of what is available to the indoor railway modeller – British outline? No problem. Steam era? Tons of it. Not enough space for 0 gauge? 00 gauge then, or N, and so on down the millimetres per foot. Well in my case one of the reasons I went for 16mm to the foot was lack of space – not as



daft as it sounds, as I hope you will discover.

Many of us start railway modelling when we are kids, and our first efforts will usually be based around a starter set from the local model or toy shop. Pocket money will grow the railway a little bit at a time, augmented by leaps at Christmas or birthday times, when that longed-for new loco or track extension arrives. Some people manage to carry on modelling, uninterrupted by education, courting, children or career, though this is a rare achievement.

Sometimes, it is the coming of children that brings an excuse to rekindle the interest. Space can be a problem however: modern houses in particular tend not to have oodles of spare capacity, and property prices in general don't lend themselves to the purchase of a house with spare room for a layout. Hinged baseboards or loft conversions are options, of course, but I prefer the garden solution, just one of many reasons I headed outdoors.

Most of us have plenty of space in the garden which we don't actually use – i.e., sit in or walk about on. This is the space my railway occupies, and it is still just as nice to look at, the domestic authorities would have it no other way. You could take my railway out of the garden, replace it with a couple of bags of compost, and in a few weeks you would not know it had been there. This is because it blends into the garden, running through the rockeries and flower beds. In the summer, the trains disappear and reappear as they thread their way through plants and flowers, adding greatly to the running interest, in my opinion.

Of course, there are places where the railway is obvious, and some areas are planted with sedums and dwarf conifers to give 'scale' vegetation, but the overall effect is pleasing to

Above: unobtrusively, the railway threads through the flower beds.

the eye, people tell me. A harmony between railway and garden, I like to think. You don't need *Ground Force* either. The railway meanders round the outside of the garden at the back of raised flower beds, which slope down to dwarf retaining walls. It didn't take Capability Brown to come up with the landscape and the plants and flowers are, in the main, where and how my wife decided. If you can create a nice garden, you can create a nice garden with a railway in it, and you don't have to do it all at once. Mine was done one rockery and flower bed at a time over a period of months, extending the line each time. This also spreads the cost, if budget is an issue.

If I happen to mention in conversation that I have a garden railway, there is usually the same initial response – 'what size is it?' The next comment used to surprise me at first, because with very few exceptions, people go on to tell me that they know a friend, neighbour or relative who has a railway in their garden. Until I started seriously to contemplate having a garden railway, I never realised just how many other people enjoyed the hobby. If the conversation continues, the imagined high cost associated with this branch of our hobby inevitably arises, along with the question of scale. Explaining my choice of scale requires some consideration, but dispelling the myth of garden railways always being a 'rich person's game' is not so difficult.

Of course, if you want a live steam locomotive to run on your own (or local) ride-on line, you will either need to build it in a well-equipped workshop, or pay a very handsome

sum for a ready to run one. Equally, if you want an extensive 'main line' style railway with highly detailed ready to run locomotives and stock, with factory-built buildings and line-side detail, then there will be a hefty price tag. Both of these options are ruled out for me, even if I had several thousand pounds to spare and a fully-equipped workshop, not to mention the engineering skills to make use of it. You see, it is a long way to the nearest club line, I like scenic model railways and I have an average sized garden. I also like things to be vaguely prototypical.

Even if I built a railway track around my garden which was almost circular, the radius of its curves would look out of place for a main line in anything much above 4mm scale. I dare say you could stretch it to 7mm if you modelled a branch line, but there isn't much in the way of 7mm scale kit designed to withstand the rigours of outdoor operation. I would love a 10mm scale model railway based on the LNER, but with a return journey of a little over 27 yards (25m) the trains would be 'chasing their tails' around a 833 yard (769m) scale circuit, with ridiculously sharp curves. There is a solution though – narrow gauge. Britain had dozens of narrow gauge railways, and their characteristics make them ideal prototypes for a garden railway, while at the same time not being too far removed from the essentially British appearance of our standard gauge.

Narrow gauge railways are much cheaper to construct than standard gauge, requiring less civil engineering work. They tend to follow the contours of the land, rather than drive through it in deep cuttings or rise above it on huge embankments. They are generally designed for economy rather than speed, so sharper curves and steeper gradients are more acceptable. This makes them ideal for difficult terrain, which is why we see so many narrow gauge railways in the mountains of Wales.

The slower pace and reliance on single line working also allows for simpler operation. Many narrow gauge railways have few – if any – signals, often with simple ground frames for points, rather than the elaborate signal boxes of their standard gauge counterparts. Narrow gauge locomotives tend to be tank engines, and are usually small (long frames being pre-



Above: 32mm gauge tippers. These are cheap and easy to build and paint.

Below left: everything you need to build 45mm gauge kits.

Below right: an example of simple masking for easy paint detail.

cluded by the sharp curves, and heavy axle loadings prevented by lighter rails and smaller track foundations). In turn, typical narrow gauge trains tend to have modest loads with fewer wagons, with mixed passenger and goods trains often being the norm.

You may be beginning to see the attraction of narrow gauge railways for a prototype – I use the plural and singular deliberately. Some people choose a real narrow gauge railway for their prototype. For example they may decide to model one of the narrow gauge lines in Wales: the Corris, Talylyn, Vale of Rheidol, or Welshpool & Llanfair, most of which are of approximately 2' (0.6m) gauge. Others (like me) base their railway around the characteristics of narrow gauge, but have an 'imaginary' prototype, finding that this has its advantages.

My railway is based on a 3'6" (1.08m) gauge line in North Lincolnshire, which was begun but never completed. The place names are real but the railway is my own invention.

Nevertheless, the flavour of the line is typical of British narrow gauge, and it is prototypical in that although the multitude of our narrow gauge lines had much in common, they all had their own feel, their own atmosphere and style. Locomotives and stock were often second hand, and grandiose building very much a rarity. Local firms often undertook construction work, so buildings and structures were peculiar to the railway, rather than the standardised output of a distant head office drawing board. All quite liberating for the modeller: I can even choose which local companies are served by the railway, and thus the type of traffic which will generate its meagre – for it was always meagre – income.

The attractions of modelling narrow gauge railways have been discovered by modellers in many scales, but in the garden, two scales dominate the scene, G scale and 16mm. The former uses 45mm gauge track to represent roughly metre gauge, and is very well catered for by producers of European and North American outline models. British outline 16mm to the foot narrow gauge railway is my choice, along with a growing band of devotees, both in the UK and abroad. So why 16mm scale? I won't go into the historical reasons, but there are compelling reasons today, not least the trade support I mentioned earlier.





Left: 45mm gauge wagons.

Below: Roundhouse Classic "Katie".

Photographs by the author.

masking tape, a little pot of black gloss and a few pence-worth of dry lettering and you will have private owner wagons.

There are also some very affordable kits available for a whole range of freight wagons and coaches.

Locomotives start at around £45.00, and you can buy a beefy, all metal, four coupled diesel outline locomotive which will look quite at home on the front of a passenger train for less than £160.00.

Without a doubt, one of the major attractions of running a garden railway is live steam – it has to be experienced to be believed. Surely a decent quality live steam locomotive is going to cost a small fortune? Well, I won't pretend they come really cheaply, but prices for a brand new locomotive start at under £300.00 and there are models from some of the best known manufacturers for around £400.00.

I bought my gas fired, radio controlled Roundhouse Classic 'Katie' for £700.00 second hand, and like many a live steamer, I believe it will probably still be chuffing around gardens long after its owner has finally run out of puff.

If you would like to know more about 16mm narrow gauge railways, the best advice I can give you is to visit a garden railway show, where you will be able to see what is on offer, and get in touch with some garden railway folk. I can almost certainly guarantee a friendly welcome.

Alternatively, you can give the Association of 16mm Narrow Gauge Modellers website a visit at: <http://www.16mmngmodellers.org.uk>

Good track is fundamental to any railway, and 16mm scale is well provided for in this respect. Some people prefer to make their own, but Peco produces a range of affordable 32mm narrow gauge trackwork (SM32) with the correct rail profile and sleeper spacing for modelling 2' gauge prototypes. Its G45 45mm narrow gauge track is G scale (1:22.5) representing metre gauge, but stands in very adequately for 3' gauge or thereabouts in 16mm scales 1:19. Choosing between these gauges depends on taste, but a major consideration has to do with the social side of the hobby.

A lot of 16mm modellers like to visit each others railways for running sessions. These are invariably good natured and friendly affairs, full of good humour, and with plenty of encouragement for modellers old and new. If you do contemplate beginning a 16mm garden railway, I'd thoroughly recommend that you visit a line in your area. You will get a warm welcome and as much advice as you can take in! If the majority of lines in your area are 32mm and you would like to attend or host a meeting, then this may influence your decision. Many locomotives can be adapted easily for either gauge, but stock cannot. I chose 45mm, but I am building a 2' gauge 'feeder' line from a dockyard, giving me the opportunity to also run 32mm locos and stock.

What about locos and stock – don't they cost a fortune? Here are some examples: Tipper wagon kits for 32mm gauge which take minutes to assemble cost only £7.00 each (they can be painted quite authentically with red

oxide primer from your nearest pound shop). Hopper, mineral and tanker wagons kits for 45mm can cost less than £10.00, with the same paint treatment as the tippers, or use matt grey to ring the changes. All that is required is some





The Blagdon Goods

A Somerset & Dorset branch line terminus which could have been

*Watch the daily goods arrive with **Neil Burgess**.*

It is a rather chilly spring morning in 1954 and the weather dull and cloudy after overnight rain. This is not the best of days to go out photographing trains, but our intention is to record the daily goods train on the Somerset & Dorset branch from Binegar to Blagdon. After an uneventful journey from Bristol, first over the Midland line to Bath, then down the S&D main line, changing at Binegar for the branch train, we are waiting patiently under the platform awning for the goods to appear. Bill Wilmott, the porter-signalman with whom we have exchanged a few words after our arrival, has gone over to the small goods yard to speak to the coal merchant, who has loaded his lorry and is about to be on his way. We understand that he is particularly concerned that the wagon he and his mate have been unloading is despatched by the branch goods in order to avoid paying demurrage charges on it.

This 10½-mile long branch was originally a horse-worked tramroad, bringing down stone from the quarries at Binegar to be forwarded by road from the village of Blagdon. In the 1880s the Somerset & Dorset Joint Committee acquired the tramroad, which by then was

largely disused, and converted it to a steam-worked railway with a view to extending it to Weston-Super-Mare. But even in the heyday of the railways, the S&D's finances were precarious and certainly insufficient to promote a line to Weston, already well served by the Great Western. Although it has lived a relatively uneventful life, the Blagdon branch has seen a good deal of activity over the years in connection with the building of Bristol Waterworks' Blagdon reservoir in the latter part of the nineteenth century and more recently the construction of a second reservoir nearby at Chew Valley. The waterworks pumping station on the River Yeo is served by a short spur off the branch and other material for the reservoirs is also handled from time to time. The waterworks line is served by a small geared steam locomotive and we are hoping to see this on our visit.

After waiting for about an hour in the chilly air, the sound of a steam locomotive working up an incline indicates the good is arriving. With a blast on its whistle it breasts the short climb from the waterworks connection, the driver shutting off steam as it comes under the

bridge and the train coasts to a halt in the platform. We exchange a few words with the enginemmen as they dismount from the footplate of their Midland 3F and they and the guard chat to Bill Wilmott about what wagons are in the train and where they are to go in the yard. The arrivals are coal, one wagon for the coal merchant and another for the waterworks; a van of animal feed for Silcocks' storage shed, an open carrying a large piece of machinery for the pumping station and another wagon of bricks for the Rural District Council, which is building several new houses on the edge of the village. There are also empties to be collected, including a van from the end-loading siding.

Above: just before half-past twelve, the goods from Binegar rolls into Blagdon's small platform, under the watchful eye of Bill Wilmott, the porter-signalman. The engine, Midland 3F No.42358, has been 'borrowed' by the subshed at Radstock from its home at Gloucester Barnwood. There is no-one else about at this time of day as the next passenger train is over two hours away.

Photographs by Steve Flint, Peco Studio.

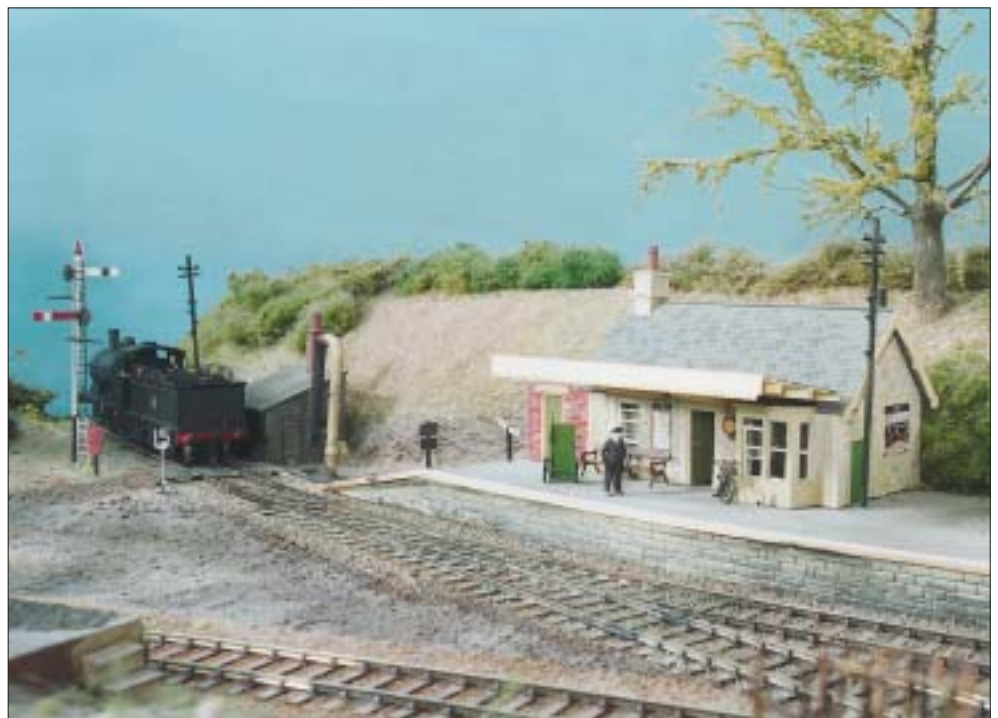
The shunting takes about half an hour, the engine moving purposefully to and fro amid the crash of buffers and the grinding of brakes, depositing the new arrivals and moving those to be forwarded through Binegar to the rest of the railway network. Bill deftly couples and uncouples the wagons, pinning down brakes to check their movements, moving from siding to siding holding over the points as the engine glides around the yard. This process has been refined over the years by much practice to get the maximum work done with the minimum of effort, though it strikes us as hard work to keep up with the tempo of the action.

The driver tells us how much he appreciates having a 3F, referred to on the Somerset & Dorset as a 'Bulldog', since its lever reverse makes shunting much easier than the screw reverser on an 'Armstrong', or 4F No.43258 has clearly been 'borrowed' by the sub-shed at Radstock, which supplies the branch engines, as its shed plate reveals 22B, the code for Gloucester Barnwood. It has been working hard today too, having banked both the 5.00 and 8.55am goods trains from Bath to Evercreech Junction up the predominantly 1 in 50 between Radstock and the summit of the line at Masbury, before collecting its train and venturing down the branch.

Inspirations

Readers of RM from the 1960s will no doubt recall Mac Pyrke's *Berrow Branch*, a small layout set at the end of a fictitious extension of the Evercreech-Burnham line of the Somerset & Dorset system. I don't think I ever actually saw the line on one of its periodic outings to exhibitions, but the photographs depicted a believable piece of a real railway system not far from my home in Bristol. *Berrow* was also one of those lines made to be operated in a realistic way and had a timetable, including connections to the 'real world' of the British Railways system.

All that poring over pictures of the line must have left a deep subliminal sense of the attractions of a small layout, so I record my indebtedness to Mac Pyrke's inspiration four decades ago. John Betjeman's BBC film *Branch Line Railway*, made on the Evercreech Burnham line in 1963, gives a glimpse of what that long-lost world was really like.



Construction

The Blagdon branch, or at least the station at its end, was built inside a year during 1996/7. It offered a chance to try my hand at some new techniques such as plywood baseboards built on the 'Barry Norman' method, while also allowing me to recreate my own bit of the old Somerset & Dorset. The inspiration had come while on holiday in Somerset about that time and Blagdon seemed an ideal choice for a terminus, even if the gradients would have been precipitous to say the least. I had plenty of rolling stock suitable for use on the S&D, so it was just a matter of planning out a suitable track and scenic layout, helped by one of Iain Rice's layout plans, from his book *An Approach to Model Railway Layout Design* (Wild Swan 1990), and get down to building. Details of construction are as follows.

Structure

Two boards, 110cm x 55cm each, were built from 5mm ply recovered from two old doors found in a skip, pinned and glued together, the 'sandwich beams' for the main members being ply skins 10cm deep separated by

50mm x 25mm wood blocks. The two boards are aligned by brass dowels and held together by case catches. The whole thing sits on top of two trestle legs supported by 4" x 3" L-girders, giving a ground level of 4'8" above the floor, and has recently acquired two end boards to support a ply fascia which incorporates a 40W fluorescent tube for lighting.

Above: uncoupled from its train, No.43258 runs forward before reversing into the yard to collect the outward wagons. The twin-armed signal is an example of the Somerset & Dorset's dedication to economy since not only does one post do the work of two but the post is simply two old rails bolted together. The grounded van body seen on previous page is further evidence of never getting rid of anything which might still have some life left in it!

Below left: a small country station with little going on. Bill Wilmott stands looking down the line while pieces of station furniture and a bicycle shelter under the canopy. It may be six years after nationalisation, but the poster board is still lettered 'LMS'.

Below: still life around the parcels lock-up, with the cat sitting in the doorway.



Track and Control

Plain track is SMP finescale bullhead 16.5mm gauge on plastic sleepers, the points and crossings being the same manufacturer's rail on copper-clad paxolin sleepers. Electrical control is by an AMR hand-held controller, the transformer for which stows under the ground surface in a box built into the frame. Points are controlled by a system of wooden push-rods under the board surface, given a return spring action by rubber bands and switched electrically by DPDT switches.

Landscape

Landforms were built up from 50mm thick expanded polystyrene, as sold by builders' merchants for cavity wall insulation, stuck down with PVA glue and subsequently carved to shape with a breadknife. The result is covered with plaster bandage, held in place with more PVA, and painted with artists' acrylics before being coated with a mix of filler and coffee grounds. Woodland Scenics scatter materials and Heki nylon strand grass are added, along with bushes from horsehair and trees from 7 x 7 strand steel fence wire.

I have tried to avoid using granular materials which give very rough textures for surfaces like platforms, yards and roads; in reality these were either made smooth or became so and many model surfaces would be as difficult to walk over as pebbles on a beach!

Buildings and details

All are constructed from plastic sheet and strip to resemble actual Somerset & Dorset prototypes. The station building is Wellow, in mirror image, the goods lock-up and permanent way hut are both from Radstock, the ground frame hut from Midford and the water tank from Sturminster Newton. Silcocks' asbestos store hut is from drawings produced by the LMS Society. The two signals are from S&D prototypes, the single-arm starter from Burnham and the double-arm one from Clandown near Radstock. They use spare lengths of bullhead rail, soldered together, with Model Signal Engineering arms and other fittings.

The yard crane was from Ratio, an almost exact copy of the one at Midford, the notices from Smith's, the figures by Monty's Model Railways and Scale Link, the phone box by Langley and motor vehicles by all sorts of people. It is important not to overdo detailing; country stations were rarely crowded and it is generally better to suggest activity by leaving a door or window open than fill every square inch with incident. Weathering, of structures and trains, is essential as it allows the disparate elements of the layout to be blended together into a whole. I generally use enamel paints for this, but artists' acrylics and weathering powders have also been used.

The trains

I have another, larger, 4mm scale layout which supplies the locomotives and rolling stock for the Blagdon branch. Somerset & Dorset branch lines in the 1950s were operated by former Midland and LMS engines, primarily



'Bulldogs' (3F tender engines), 'Armstrongs' (4Fs), Johnson 0-4-4 and Ivatt 2-6-2 tanks, plus very occasionally 'Bagnalls' (3F tanks). All of these put in an appearance and include ready-to-run offerings from Tri-ang (much modified) Airfix (modified) and Bachmann (hardly modified) cheek by jowl with a Craftsman etched kit and a scratchbuilt 'Bulldog'. The promised Bachmann 'Bagnall' (not a 'Jinty' here please!) is awaited with keen anticipation.

The waterworks 'Jocker' (explained below) is generally their own Atkinson-Walker geared locomotive, though occasionally a Somerset & Dorset Sentinel from Radstock is borrowed to cover repairs. Both the geared engines are scratchbuilt and the Sentinel has attracted a good deal of interest at exhibitions. If the Editor permits, the Atkinson-Walker may be described in a future issue. Passenger trains comprise either one or two LMS non-corridor

coaches and the goods is made up from wagons of widely varied origins and pedigrees. As in reality, common types predominate, minerals, opens and ordinary vans, mostly untouched by vacuum brakes and other modern refinements.

Above: No.43258 propels two empty wagons up the 'coal road' to reach out the third empty, about which the coal merchant was so concerned. The leading wagon is an LSWR designed high-capacity merchandise wagon built by the Southern after Grouping. I enjoy wagon building and scratch-building projects like this one add variety to the rolling stock. The 'Bulldog' is also scratch built, though with a K's whitmetal tender.

Below: not much sign of life as two wagons are propelled into the end of the 'coal road' while the vehicles on the other siding, known as 'Silcocks' await collection. The lorry driver seems to have disappeared, possibly looking for the key to the stores shed.





Left: a view across the Blagdon to Burrington road through the station gate towards the platform. The Ford Prefect parked up on the end-loading dock belongs to Blagdon's sole commuter, a solicitor working in Bath who catches the 7.20 train each morning to arrive in Bath by 8.42.

Centre left: the passenger train 'shuffling in and out with its solitary coach', today in the hands of Johnson 1P 0-4-4 tank No. 58051, another 'borrowed' engine, this time from Highbridge. The normal formation is an LMR two-coach non-corridor set, but a single coach is being tried here, possibly as an economy measure.

Below left: Blagdon has no signal box, just a small ground frame to control the few points and signals. From Binegar to Charterhouse (the station nearest to Blagdon) the line is worked by Electric Train Staff, but beyond operation is by 'one engine in steam' with a staff to unlock the points.

Below: Silcocks' animal feed store shed in all its solitary glory. These prefabricated asbestos buildings were constructed by the LMS at country stations during the 1930s and predate the post-war concrete structures found in many other places. The model is from plastic sheet and strip with Slater's corrugated roofing and was constructed with the aid of drawings published about twenty-five years ago by the LMS Society.

Operation and trial by exhibition

The lower section of the branch, including Blagdon station, is worked on the 'one engine in steam' principle, which simplifies electrics no end. There is a timetable sequence of one

goods and six passenger trains a day, plus occasional forays up to the station by the waterworks 'Jocker'. I find it is important to have at least an operating sequence for a layout; without this there is a likelihood that after

a time things simply become purposeless, running trains haphazardly. Having some purposeful structure in which to run the trains allows me to enter into the story of the layout rather than as one might become involved in the story of a book or a film: I am on the Blagdon branch, watching the trains, even though the line never actually existed.

Blagdon was never intended for public consumption, but over the years it has appeared at exhibitions in Lincoln, Edington (near Bridgwater) and Doncaster. Because it was designed to be operated from the front I am 'out with the public' at shows, which allows conversations to develop with visitors who feel able to ask about aspects of the models, chat about the Somerset & Dorset, or modelling in general. The height off the ground has attracted a good deal of favourable comment from visitors, who often comment that it makes it easier to see the models from a realistic viewpoint. While the height doesn't help with children, I don't think small end-to-end



Right: an aerial view of the station with the goods arriving behind No.43258. The single slip means that there is no direct access from the far yard sidings into the end loading dock, which can make shunting very interesting at times!

Below right: the Waterworks Jocker or 'the flying greenhouse' – though the latter is not a name calculated to please her driver, Ernie Pillinger, who is looking out of the cab as Atkinson-Walker geared steam locomotive Blagdon stands at the end of the 'coal road' before collecting the two wagons for the waterworks pumping station.

layouts like *Blagdon* appeal greatly to the undertwelves. Having said that one young teenager at Doncaster spent a long time chatting about the building techniques and getting some ideas, which is one of the things exhibitions are all about.

At Edington, which is only about fifteen miles from Blagdon, there was a lot of interest in whether this was the 'real' station there; I had to admit it wasn't since Blagdon was in reality served by the Wrington Vale Light Railway, operated by the Great Western from the Cheddar Valley line at Congresbury. In eastern England the Somerset & Dorset isn't very well known, so there are often questions about the line and its history. These contacts are to me an important part of exhibiting, and though it can be tiring to stand operating all day, the effort is well worth it.

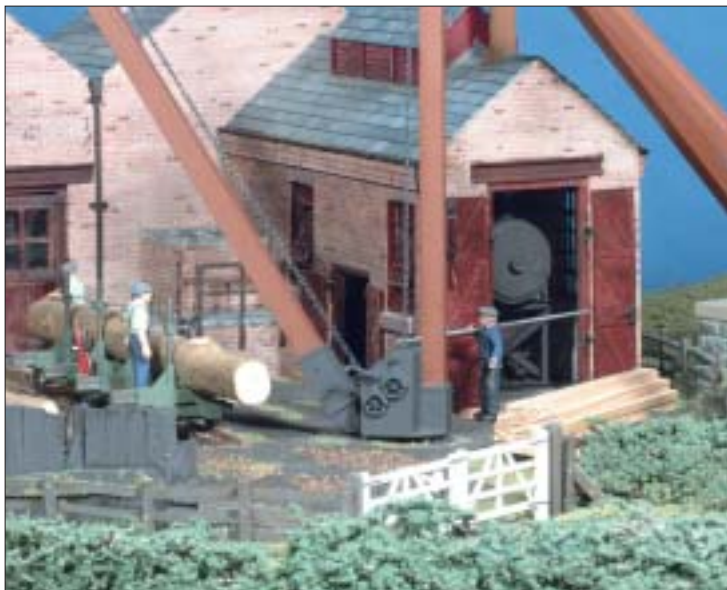
The goods has gone on its way back to Binegar some while ago and the passenger train has shuffled in and out, its solitary coach hauled by Johnson 0-4-4 tank No.58051, on loan from Highbridge to cover the Ivatt tanks which usually work the line. Now we await the final part of the goods operation for the day, the arrival of the waterworks 'Jocker', or shunting engine. 'Jocker', apparently is a Somerset & Dorset version of the Midland Railway 'Jocko', a generic term for a shunting engine, or a shunting turn, meaning that any engine used for shunting however grand, can be spoken of as a 'Jocko'. The waterworks uses an Atkinson-Walker geared engine, a type of which only about twenty examples were built during the late 1920s. It appears in the distance, propelling a single mineral wagon and a home-spun shunting 'runner', apparently made from the underframe of an old brake van, up the incline from the junction for the waterworks line. British Railways specifies that, because of the 1 in 65 gradient, the engine must always be at the lower end of the train, to avoid runaways should a coupling fracture. The little green engine glides into the platform, its train coming to a stand just short of the station building. Its driver is introduced to us as Ernie Pillinger, a rather disconsolate Bristolian. As the engine uncouples and moves off to run round the wagons before propelling them into the yard, we comment to Bill Wilmott, the porter-signalman, how small it is, no longer than a wagon. Bill winks at us and says, 'Last time they borrowed an engine from Radstock, the blokes on the goods kidded Ern he was getting a Bagnall; I ask you, we'd never've heard the last of it. He'd have been Drunk with Power.'



Cockayne & Sons sawmill

Part, just 4' x 2', of a large 0-16.5 layout

Tim Allsop is Layout Team Leader of the Trent Valley Area Group of the 7mm NGA.



Above: an overall view of Cockayne & Sons sawmill as it would be seen from Park Road. In the foreground is the branch line from Park Road station to Ashbourne Exchange. The buildings and timber derricks illustrate just how large 7mm scale structures can be.

Below: Atlow has a fully detailed cab interior and a spark arrester inside the smokebox! Atlow not only shunts the sawmill yard but also works the logs from Park Road and the sawn timber to Ashbourne Exchange.

The sawmill is just one baseboard, measuring 4' x 2', of a large 7mm scale narrow gauge layout (0-16.5), *Ashbourne (Park Road)*, being constructed by the Trent Valley Area Group of the 7mm Narrow Gauge Association.

The fiction

The Henmore Dale Light Railway has been

Above right: this is the main loading and unloading derrick surrounded by sawn timber of various sizes. The timber was supplied by Midway Models and both derricks are kits from Port Wynnstay Models. The logs in the foreground are cut from a privet hedge. Privet has the correct shade and texture of bark for 7mm scale logs, or at least some of it has: it took the team several attempts to get sufficient pieces with just the right look!

Photographs by Len Weal, Peco Studio.

built in and around the Derbyshire Peak District gateway town of Ashbourne and also along parts of the valley of the Henmore Brook. Originally constructed in the late 1890s, the line operated as a general carrier up the Henmore valley as far as the village of Hopton.

Between 1905 and 1910 the line was extend-

Below: the sawyer adjusts one of the peel dogs on the saw carriage which clamp the logs to the slides of the saw carriage. This was the last item to be built, due to lack of any detailed information on the subject. Then a friend said that he had purchased a book, Military Engineering Vol.VII (HMSO 1934!). Here we found a scale drawing of a WW I saw carriage, as used in a semi-portable saw mill. The model is scratchbuilt from Evergreen plastic strip and sections, except for the wheels, and runs on 3'6" gauge track.

ed northwards, into the heart of the Peak District, so that the vast quantities of limestone there could be transported easily from the many quarries in the area. At the same time a branch line from Park Road Station was built through the centre of Ashbourne to the NSR/LNWR joint station on the other side of the town. Here a new narrow gauge station





Top left: the secondary derrick is used mainly to load logs on to the saw carriage, and also to move coal, using a large iron bucket, from the wooden-sided coal store in the foreground to the brick-built bunker on the side of the boiler-house to feed the boiler. The low hedging is from Green Scene.

Below right: this photo shows how, with a little time and patience, even three static figures and their surroundings can be made interesting. All the figures are by Phoenix.

Above left: through the open doors of the boiler-house can be seen the smokebox of the stationary boiler. This is a scratchbuilt model of one from an LNWR DX 0-6-0. The builder got carried away, putting all the fittings on the backhead and all the steam take-off valves and pipes on the boiler, but none of this can be seen unless it is removed from the boiler-house! The gates are scratchbuilt and motorized. These open and close in sequence using only one switch. The complicated parts are hidden under the baseboard!

Top right: the branch line here can be seen meandering towards Park Road station. The station home signal is electrically operated using a Fulgurex slow action point motor and is interlocked with the other signals on the layout, controlled by the signal box at Park Road station. All the signals and telegraph poles are Ratio products and the post and rail boundary fence around the sawmill yard is by Peco. The bolster wagon set consists of four Festiniog wagon kits, two iron bolster and two iron slab wagons with a 10' (70mm) coupling bar between the pairs by Port Wynnstay.

was built, Ashbourne Exchange, with passenger and goods interchange facilities with the standard gauge railway.

Taking advantage of the narrow gauge railway's expansion, Cockayne & Sons built a sawmill, with a private siding connection to the branch line, which made the transportation of raw materials (large logs) and the finished products (sawn timber) very easy indeed.

Construction

The two buildings have plywood shells, using 6mm and 9mm ply, and are clad in Slater's embossed Plastikard. All the fixtures and fittings for them are scratchbuilt with the exception of the side windows, which come from the Port Wynnstay range. The post and wire fencing is from Slaters, whilst the hedging material is from Green Scene.

The ground scatter materials are from the Green Scene and Woodland Scenics ranges, with the exception of the loose bark flakes. Unable to find any commercial product that looked right, we decided to make our own bark flakes. To do this one of the team went to his local park and rummaged through piles of dead leaves (fortunately it was autumn) look-

ing for leaves of the correct brown/grey shade, and got some very funny looks from passers-by in the process! The leaves were then torn up and passed through sieves of various sizes until the desired size of particle was achieved. This took a lot of time but we think the results are worth it.

Above: Atlow, the Park Road station trip engine, is seen shunting the sawmill yard. This locomotive started life as a Bachmann 0n30 Porter 0-4-2ST, but has now had a major body rebuild and has been 'anglicised' using various manufacturers' and some scratchbuilt components.





Harlyn Road

A 7mm layout that serves two periods

Bob Middleton, Peter Beckley and John Smith accept no compromises to span the decades.



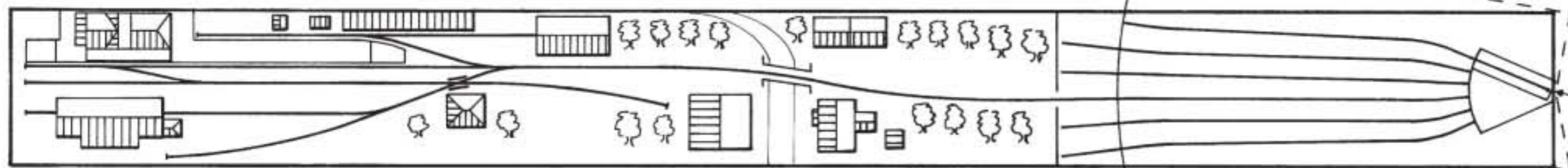
When the three of us decided to combine our efforts and build a layout, we had to resolve a problem. Although our models are all in 7mm fine scale and based on the London & South Western area of the West Country, two of us have a collection of locomotives and stock of the British Railways era of about 1960, while Bob's models are set in 1924, with both LSWR and Southern liveries.

Above: Beattie 2-4-0WT arrives with an early morning workmen's train, composed of four- and six-wheel stock.

Left: view from the buffer stops, showing a passenger train in the main platform, with Ivatt waiting to run round.

Top right: Gate stock coaches in the bay platform with goods vehicles awaiting unloading.

Middle right: Ivatt 2-6-2T emerges from the fiddle yard with a rake of Mk 1 stock.



As grimy, black locomotives do not mix with fully lined, green polished ones, we decided that the proposed layout would have to serve both periods. Whilst a jump in excess of three decades would be impossible between say the 1960s and the 1990s due to major changes in building styles, road signs and railway architecture, we felt that we could switch between our periods simply by changing the stock and the road vehicles, as other features would have remained largely unchanged. On this basis we started to draw up some plans.

The layout was intended from the start to be an exhibition layout, so before construction commenced, we spent a considerable amount of time in planning how it would be constructed, how it would be stored and transported and importantly how we would present it. We agreed that construction would not be rushed as we aimed to achieve what we considered to be a high standard of modelling, and this would not be compromised by trying to complete it by a deadline. I seem to remember us thinking that it would take around four years from start to finish, but in reality it took over six!



Right: the compact signal box is based on the example at Swanage.
Photographs by the authors.





Above: Adams 0395 'Jumbo' arrives with the evening goods. Fast passenger stock in main platform.

Below: the fiddle yard employs a double sector-plate arrangement, the smaller of which is used for loco release.

Now that construction is complete (many people say that their layouts are never complete but we think this one really is) we thought that the time had come to write a description of the layout.

Harlyn Road is fictitious and is a branch ter-

minus set in north Cornwall to the west of Padstow, with a track plan typical of such stations in that area. The railway buildings are based on LSWR prototypes, the goods shed being that of Bodmin, the station building is from Padstow, the engine shed is from Sidmouth and the signal box from Swanage.

By good fortune, the three of us have a variety of preferred areas within the model railway sphere. As a result none of the main areas of work, i.e. baseboard construction, tracklaying, wiring, buildings and green stuff (trees, shrubs, grass etc.) has been a chore as generally we each took on a section. Had we all been keen on one aspect, then progress would have been even slower, and the project less enjoyable.

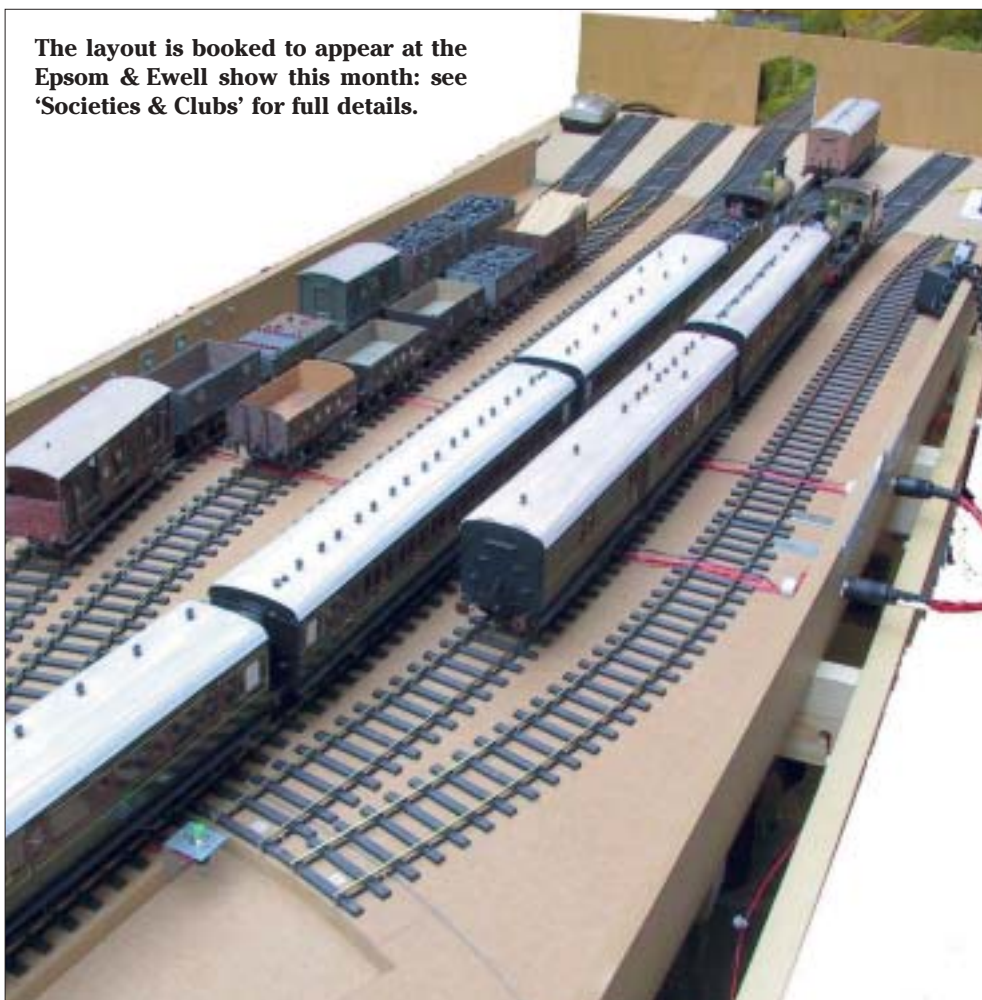
The scenic section is 17'6" long by 2'6" wide, with baseboards constructed from plywood, sitting on softwood legs. One dropped baseboard has allowed the track to run on an embankment and over a bridge across a small valley scene. The fiddle yard adds a further 7'6" to the length and takes the form of a sector plate accommodating five roads. At the far end is a sector plate within the sector plate, allowing incoming locomotives to be released from their train without handling them. At exhibitions we have sometimes noted more people looking at the fiddle yard than at the scenic section!

Track is by C&L, with points and the double slip built to suit their locations. The points are operated from below the baseboard by Fulgurex motors. There are three control positions, two for the scenic end and one for the fiddle yard, with the track being wired in sections allowing any controller to control any section. We have run the layout with only two operators, though it requires more than a little concentration.

With the exception of the signal box, which is a kit, all buildings are scratchbuilt. The method of construction varies, with plywood, MDF and foamboard being used. Surface finishes also vary from embossed plasticard to scribed DAS modelling clay.

A curtain hanging from the baseboard covers unsightly legs (the layout's, not ours) at exhibitions, and wooden folding screens hide the fiddle yard. The screens are not too high though, as people do like to look over the top as noted above. Fluorescent lighting has enhanced the appearance of the layout, and we now have no fear of being put in a darker corner of an exhibition hall.

We run the layout to a sequence, which adds to the pleasure of operating, while ensuring that no unprototypical moves take place such as the local goods heading off up the single track line closely followed by the express to Exeter! The sequence is not too rigid, in that descriptions such as 'local goods departs' allow us to assemble any suitable wagons to make up the train. All stock is equipped with Sprat & Winkle couplings (the 4mm version as they are slightly more discreet) and with permanent magnets below the track all shunting operations are carried out remotely. Considerable thought has been given to the positioning of the magnets, not just to mini-



The layout is booked to appear at the Epsom & Ewell show this month: see 'Societies & Clubs' for full details.

Right: the end of the line showing station building and goods shed.

Below: the bracket signal is a working model, actuated by memory wire.

Below right: Adams G6 arriving past loco shed, while B4 waits in the headshunt.

mize the number of backwards and forward moves to uncouple and position stock, but also to avoid the chance of a departing train leaving some of its stock behind having been parked over a magnet.

The locomotives are all kit built, except for the N Class which is scratchbuilt, painted and weathered by ourselves.

Having taken much care with the tracklaying and with most locomotives being compensated or sprung and all fitted with flywheels, slow running is excellent. Any problems with running are invariably operator error and not the fault of the layout or stock.

As far as goods and passenger rolling stock are concerned, we have not listed these as this would possibly make heavy reading. Suffice it to say that all items are kit built by us, with the exception of the Mk 1 coaches, which are modified and detailed Lima. All are weathered to some degree, with the later BR era goods stock looking particularly grubby and tired.

We are currently using two different types of controller, both of which are feedback types, suited to our locomotives' motors. One is a Kent Panel Controls switched feedback model that is easy to use and offers very smooth low speed control. The other is the old H&M Walkabout which features inertia control. Trains leaving the station are driven by the fiddle yard operator; trying to judge how much power to apply to achieve a realistic departure speed from 12' or more away is tricky with manual control. With the inertia type however, a very gentle start is made and the train gradually increases pace with no danger of it rocketing away before the operator realises how fast it is going. Braking using the inertia control helps one appreciate the skills required to drive a real locomotive, particularly in this larger scale. Anticipating when to apply the brakes in order to buffer up gently to waiting



stock requires much concentration, but is very satisfying when you get it right.

Talking of electronics, a notable feature is the bracket starter signal on the platform. The arms operate suitably slowly using a memory wire mechanism, which is below the baseboard, and has proved to be very reliable.

Changeover time between LSWR and BR stock takes place around halfway through the exhibition day, so to avoid the disruption of emptying the entire layout of stock and then replacing with that of the later era, we have a gradual changeover. This means that for a short while stock from both periods are on the layout at once, which although not ideal, does mean that there is always some action on the layout. Road vehicles also have to be changed. Unfortunately this has to be a manual operation, as we have not yet been able to make the horse pull the cart off scene or perfect the radio controlled Morris Minor driving into the station car park.

The three of us are members of the Crawley Model Railway Society and we would like to thank the society for allowing us the opportunity of giving the layout its first public showing at their annual exhibition at Horsham in April 2002. Thanks must also go to our patient wives for their tolerance of our absences, to other society members: Malcolm Pocknell for the point rodding and Rob Cottrell, Mark Pelham and Matt Smith for their help with operating and transport. Thanks to Rob also for the use of some of his locos and goods stock. They look superb and run as well as they look so we let him run them on 'our train set'!

We have enjoyed building the layout, and are looking forward to visiting further exhibitions with it in the future. As stated earlier, the layout is complete with nothing left to be done.

Though what about slotting in an extra scenic baseboard or two before the fiddle yard? Perhaps a layout is never finished!



Scale drawings

Proposed North Holderness Railway 0-6-0T

A narrow-gauge North Eastern Railway might-have-been

Drawn and described by **Jonathan Joseph**

The North Holderness Light Railway was to have been an NER-backed 2' gauge railway in the Hull area, though as events worked out, it was never built, and so likewise, the 0-6-0T illustrated here never became a product of Darlington. The line was to have run over the mainly flat land between the towns of Beverley and Beeford, a distance of approximately 12 miles.

The light railway applied for its first act of parliament in 1896 (it being granted in 1898), but remained unbuilt, the NER serving the area through its road transport operations. Twenty-odd years later in 1919, the plans for the line were drawn out and dusted off again, Darlington going so far as to prepare a sketch/weight diagram of a possible 2' gauge tank engine, which I have worked up into a more complete drawing here.

Quite why custom-built motive power was envisaged rather than WD-surplus is now lost in the mists of time, but the locomotive, although squashed into a tight loading gauge at the expense of having anything approaching a roomy cab, possesses larger firebox, boiler and cylinders than the Hunslet 4-6-0T or the superficially similar W&L 0-6-0Ts, and would probably have been capable of 20-25% greater power output. Without the benefit of a leading bogie, however, the track would have had to have been first class to enable any greater speeds to be run – perhaps the additional power output was intended to enable the running of comparatively long trains, or maybe the Darlington drawing office, fresh from designing the massive T3 (later Q7) 0-8-0, had difficulty 'thinking down' to narrow gauge motive power, and this was the smallest engine the draughtmen could conceive. The overall weight estimate seems reasonable, incidentally, though the planned uniform axleloading of 5 tons 10cwt indicated on the original diagram is probably optimistic.

Liveries

Simple, there were none! Had the locomotives been built, I concur with the painting created by Mr Barnes (see bibliography): NER lined passenger green would have been employed (particularly given that the line would have been in competition with motor buses for traffic), presumably giving way to the LNER equivalent, possibly unlined or at least simplified. Had the line survived into the war and early BR days, all-over black would have been the fashion, perhaps replaced by WR style lined

Brunswick green in the mid fifties if operations were still continuing.

Other rolling stock/operation

No details of other proposed items of rolling stock are available, though one could probably justify a small fleet of passenger coaches patterned on either suitable standard gauge NER practice, or contemporary commercial builders' stock, for example that for the Ashover Light Railway. The only addendum to this is that open saloons are probably appropriate, since the NER would most likely have employed conductor/guards to issue and collect tickets, allowing unstaffed intermediate halts to be provided at modest cost.

Something similar applies to goods stock, though miniaturising the traditional (and tempting) NER-pattern chaldron hopper wagon is probably a non-starter – had any significant coal or other mineral traffic been envisaged, the line would surely have been planned as standard gauge to allow easy passage onto the rest of the NER network. Bogie wagons similar or identical to those provided by the SR for the Lynton & Barnstaple do not seem unreasonable, however.

War Department-surplus goods stock from the Western Front was also available at this time, some of it practically new. Initially the government agents seem to have wanted unrealistic prices, but these gradually fell. That said, one questions how much would have been purchased, when the NER clearly considered going to the considerable expense of designing and building its own motive power for the line, when the Hunslet 4-6-0Ts used by the ALR and others were available – one suspects that this would have been a 'Rolls-Royce' narrow gauge offshoot of the NER, with everything provided new, and to the highest quality, as a matter of prestige.

Had the line been built as planned, and then succumbed to motor competition (or simply been regauged to standard) in the 1930s, it is also quite possible that these locomotives (and any accompanying stock) would have been available economically to other 2' gauge operators, since the LNER would almost certainly have had no further use for them. Being built to such a modest loading gauge, they would probably be suitable for any 2' gauge line that could accept their axle-loading, although the fastidious might want to check the detail of their loading gauge.

Notes on the drawing

Those able to compare the drawing with Robin Barnes' painting will note some differences. The locomotive is equipped with plain cylinder covers in normal NER style. I have also eschewed the larger motion bracket in place of a smaller and simpler style, more in keeping with the size of the cylinders and the sideloads to be resisted by the slidebars.

I have retained Barnes' lightening/access hole in the frames between the 2nd and 3rd axles, since I feel it adds to the character of the engine, as well as being a not unreasonable assumption. As a result the layout of the brake

gear is somewhat limited – the cylinders and valves are an obstruction at the front end, and the firebox and lightening holes constrain things somewhat further back. Consequently brake shoes apply to the rear sides of the leading and trailing wheels only, which seems to be a reasonable arrangement.

Sanding gear is as per the painting, with the exception that the pipes run outside the frames by the only reasonable route. No sanding to the rear axle is shown, though an approximately symmetrical arrangement is possible from sandboxes mounted on the cab footplate alongside the firebox.

A further area of difference is that the tank balance pipe is visible as I have drawn the loco, a feature cribbed from Raven's contemporary 4-8-0T shunting tanks. This perhaps could run out of sight and further back between the inner faces of the tanks. If so, the Westinghouse pump could then be mounted lower. However, the arrangement as drawn would be more flexible (a useful factor), and again, I feel adds to the appearance of the engine.

Couplings and lamp brackets are omitted – the former would surely have been some form of chopper coupling, perhaps with additional side chains, while the lamp brackets (if fitted –

this was to be a light railway) would be in the obvious places. Note also that the right hand side (left as viewed) sandbox is also absent in the front elevation, to avoid obscuring the Westinghouse pump, it should be a mirror image of its partner on the other side.

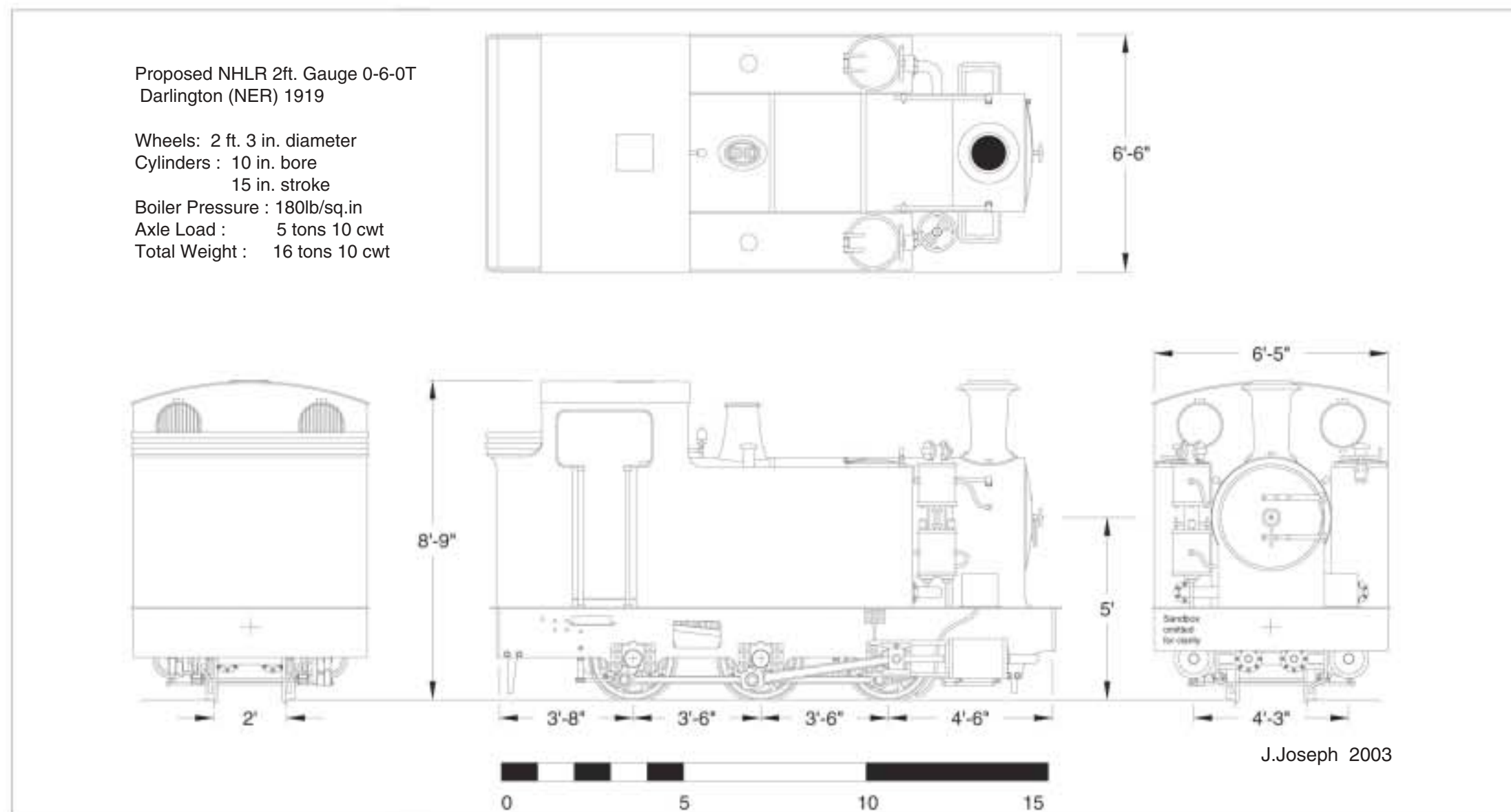
Wherever possible, suitable contemporary NER details have been incorporated. The chimney is the same basic pattern as that of the smallest of the NER standard gauge machines, the Y8 0-4-0T, though shortened 2" in height, and sitting atop a boiler 8" smaller in diameter than even that of the Y8.

Cab windows are the standard circular 'port-hole' type as indicated on the weight diagram, though there is some argument that larger, shaped windows should be fitted to improve visibility as per some of the main line classes. I have added a small ventilator to the cab roof – this was not universal Darlington practice, but in view of the confined dimensions of the space, I suspect it would have been a necessary addition. Indeed, given the size of the locomotive overall, there is a reasonable case for having only a single man crew if the relevant light railway regulations would permit this.

Other items are simply likely arrangements – Darlington never built an outside cylinder

outside frame tank in the 20th century, let alone one this small, so the axleboxes are a best guess. Similarly, I have fitted plain outside cranks (assuming therefore the presence of balance weights on the wheels) as painted by Barnes, since I feel these are more probable than the combined crank and counterweight found on some narrow gauge designs. The 2'3" diameter wheels (or rather, what little of them is visible) are shown as an eight spoke pattern, again the most likely number, but since it was not a diameter that was used anywhere else on the NER, there is no standard part available.

The valves were to be inside the frames, and the weight diagram gives no indication of whether they were intended to be slide or piston ones, though the gear would undoubtedly have been Stephenson's link motion. At the time, most new Darlington machinery was being equipped with outside admission piston valves (whether superheated or not), and so on the front view I have given an indication of generously sized (for the period) piston valves, but there is no guarantee that this assumption is correct. The valves are substantially inset from the cylinders, resulting in fairly long steam passages, but this is unavoidable given the combination of outside frames, outside cylinders and inside valves.





Above: if the North Holderness had been built, it might have looked something like this. A Leek & Manifold 2-6-4T rolls into Jingling Gate station with a goods train on the North Tyne Light Railway in 009, built by Willie Smith; see RM June 2002 for the full article.

Photograph: Steve Flint, Peco Studio.

Similarly, no indication is given as to whether the boilers were intended to be superheated. Given the size of the engine, and its likely duties, I suspect not, particularly given the short (2') length of the smokebox.

One final point. As drawn the locomotive 'works' mechanically, but some clearances (notably the clearance between the slidebars and connecting rods at top/bottom dead centre), the positioning of the cab step relative to the coupling rod swing, and the relationship of the right hand tank filler handle and the Westinghouse pump (the last is probably only really relevant to live steam models where the tank filler is functional) are relatively tight in model terms. Modellers deviating from the exact scale dimension for whatever reason – use of donor chassis in the smaller gauges, and standard parts perhaps in SM32 etc, may have to make some alterations to cope with larger crank throws etc.

Notes for modellers

As noted above, the 'prototype' is a comparatively small machine, even by UK narrow gauge standards (one by-product of this is that the internal height of the cab at the peak of the roof is less than 5'6"), but not so much so as to make modelling impractical.

In the smaller, 'electrical' gauges, there is something of a dearth of suitable donor chassis, ready-to-run outside framed and outside cylindered six-coupled locomotives not being available from the trade, as far as I am aware. Indeed the only RTR outside framed loco generally available is the 08 (diesel) shunter, or 'Gronk' to its friends. Needless to say, this lacks outside cylinders, which will have to be added. Some dimensional compromises will probably also be required.

In 009 (or similar), the Farish (now Bachmann) 08 is really the only option, though being based on the standard 0-6-0 chassis it does not possess outside frames. Those willing to attempt a conversion may

find an article on adding these to the 08 in the December 2000 issue of RM a help – obviously some dimensions will be different, but with luck the general principles will still hold. Cylinders and connecting rods are also of course needed.

In 0-16.5 (7mm/ft) and 8mm/ft scales, a much greater choice of 'gronks' is available, although the intending modeller should beware, since some share the Farish model's deficiencies, and are based on inside framed chassis. Restricting the choice to outside framed models leaves the Lima (discontinued, I believe), and Bachmann versions, though I suspect that both of these would better suit an 8mm/foot model (where the wheel diameter and gauge are close to correct, but the wheelbase is too short). For 0-16.5 an H0 donor offers correct wheel diameter, but 00 would give a better approximation to the wheelbase requirements, so a choice will need to be made. If an H0 chassis is required, one is available from the Roco range. Fortunately the basic EE diesel type was exported to Holland, and so the Roco range has included one for many years, the latest versions coming flywheel equipped. Those needing to add cylinders to the Lima chassis may find an article in October 1991 useful.

Modelers working in the various scales up to 10mm should be able to make use of at least some commercial parts if they wish. Where standard NER fittings are employed the Y8 chimney is noted above, and those working in 8mm scale/16.5mm gauge should be able to use a 7mm scale J72 casting without deviating too far from scale. Standard (NER/LNER)

gauge modellers need not feel entirely left out – the locomotive is sufficiently small to be loaded complete onto a standard gauge wagon, which would have been the only practicable way to transport it both to the line for the opening, and then to and from Darlington for overhaul and repairs. A suitable NER 20 ton well wagon was drawn and described in the February issue.

The size of the locomotive is such that a live steam version in SM32 or one of the other larger gauges seems a reasonable proposition. Those working in 45mm gauge (but still 16mm scale) should note that there is not enough room between the frames to accommodate running gear to suit this scale/gauge combination, so some subterfuge (moving the frames and cylinders outwards, or perhaps even inside frames, which would surely make the locomotive look even more like a half-scale J72) will need to be resorted to. Unfortunately, as far as I am aware, there is no immediately suitable RTR electric chassis in either 32mm or 45mm gauges. For live steam applications, various manufacturers offer pre-machined components, chassis, boilers etc, some of which could doubtless be used.

Anyone working in 7/sn2 (surely a rare scale in this country, representing 2' prototype gauge accurately on 45mm track), might like to note that the leading dimensions of the engine in this scale are quite close to those of the G1MRA's 'project' 4F 0-6-0, though obviously this is an inside frame, inside cylinder prototype, so dummy cylinders and some other modifications would be required if the plans were used as a basis for construction.

Bibliography

Locomotives That Never Were by Robin Barnes (Janes, ISBN 0 7106 0326 6).
North Road Locomotive Works Darlington 1863-1966 by K Hoole (Roundhouse, 1967).
An Illustrated History of NER Locomotives by K Hoole (OPC, ISBN 0-86093-323-7).

Plan of the month

Stanton Gate

A 20' x 9' 00 layout by the North Fylde Model Railway Club

Graham Schofield relates how skills were passed on as each member lent a hand.

A model railway club isn't everyone's cup of tea but, one has to admit that for beginners and many experienced modellers, clubs have an 'experience' for everyone to tap into. The skills of fellow members allow modellers to learn new talents. With this in mind the North Fylde Model Railway club set about building *Stanton Gate*.

It was club member Terry Tracey who convinced fellow members that the *Stanton Gate* location would be a useful one. It concentrated on the London Midland Region, a region close to North West hearts, and it had the capacity to sustain express and goods traffic including interesting coal and oil trains, and it had a river and a canal for added interest.

After a 'pow-wow' over planning, the skills associated with woodworking came to the fore and members made a variety of 3" x 1" softwood supported baseboards, sturdy enough to be manhandled around exhibitions – if invited. Simple bolt-through end pieces joined the boards. The track used is Peco code 100 throughout and this was pinned, train-tested and then secured more firmly with the application of Woodland Scenics fine ballast set in a PVA water mix of very approximately 5-1. This mixture, aided by a drop or two of soap liquid to break water tension and ease its flow, was applied through a pipette and similar controllable aids such as hair-colouring con-



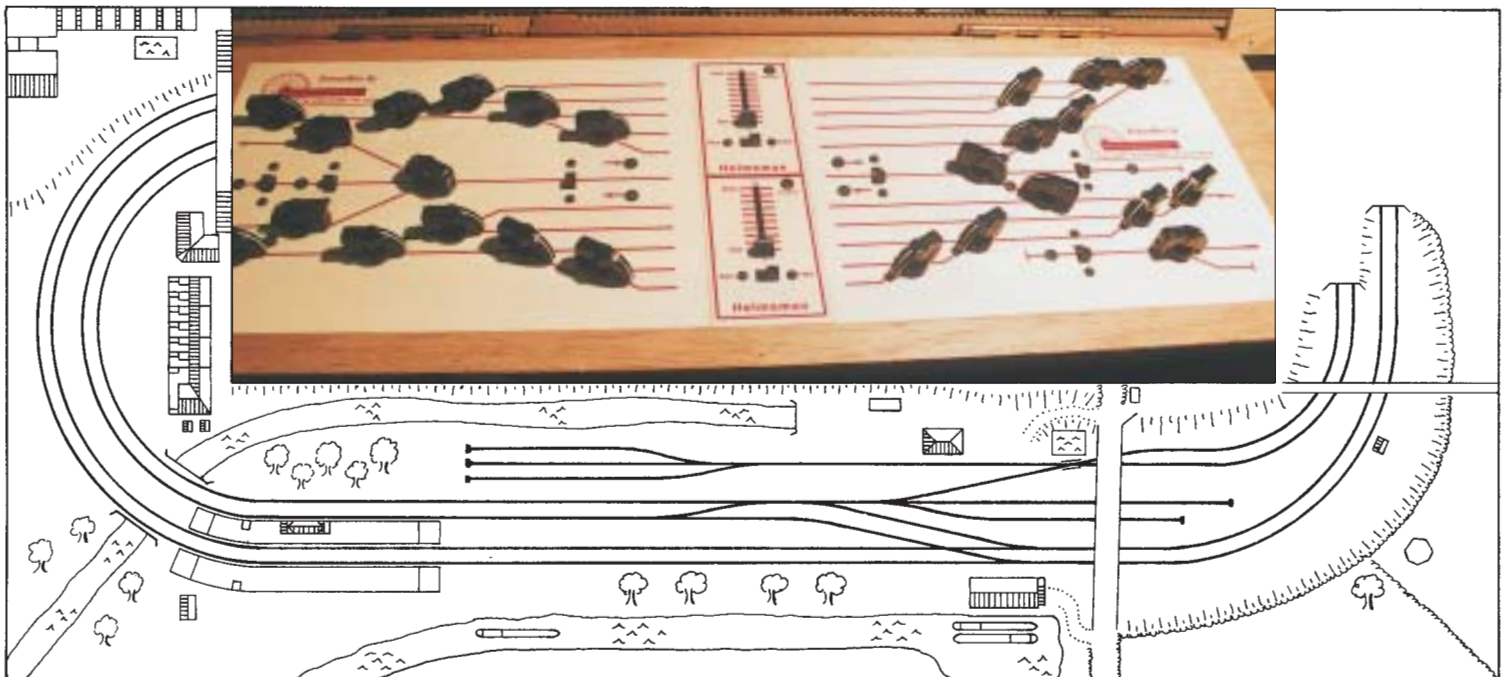
tainers. See even our wives help out. Once dry, the mixture bonded the trackwork to the board, after which any prominent pins were plucked out of the sleeper with long-nosed pliers. Member Nick Rapkin applied most of the ballast taking great care, as one has to, around the pointwork.

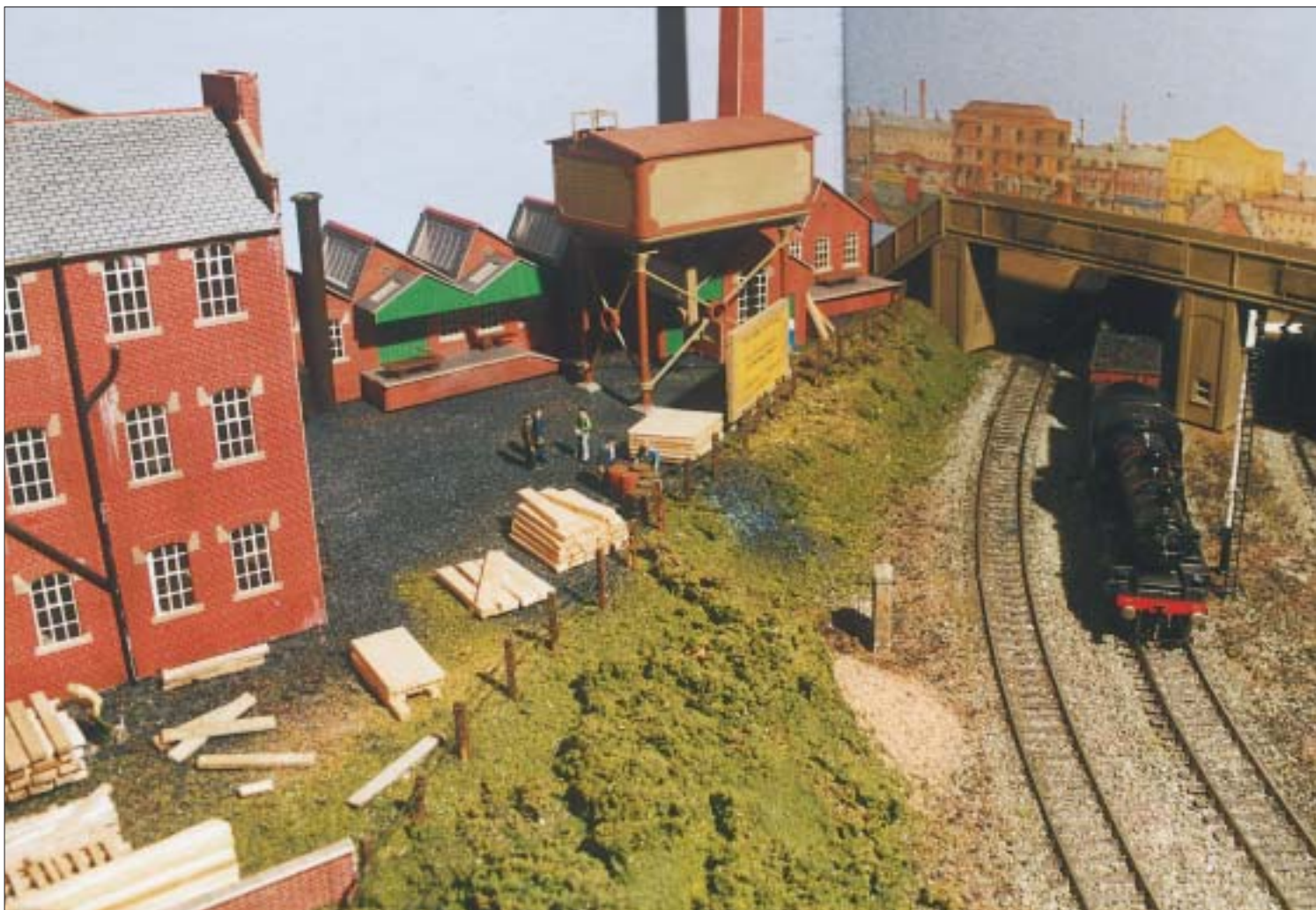
Geoff Helm, known to some readers for his quality electronic Helmsman controllers, organised the wiring which, we must admit, is

a little more complex than that of the average layout. Geoff also made the very professional looking control boxes which give an opportunity for operators to run a number a trains

Above: Bachmann Standard 4 cruises down the canal straight.

Below: one of the two Geoff Helm (Helmsman Electronics) controllers. Photographs by the author.





from branch to the 'up' and 'down' lines, run through traffic and attempt shunting operations in the sidings. Several members helped in the soldering of joints and the connection of the power to each of the boards, which is done via multi-pin 'D' type connectors, which are readily available at computer fairs and on the high street.

Adhering to the sound advice that it is 'best to run a layout' before going to town on the top scenic dressing, a period of testing followed. At it happens several months. Several teething problems were put right and in some cases the track or points re-laid as the different locomotives, from kit-made to ready-to-run varieties, found problems. The non-waterproof PVA track mix at 5-1 was easily softened by near-boiling water. After several other club and private projects had been completed at the clubroom the opportunity to scenic the layout presented itself.

Jim Power set about making the fencing from matchsticks set into drilled holes and linked with strong cotton, each held with a small blob of neat PVA – it doesn't 'string'. Dave Steel made signals from Ratio kits utilising all spare parts in additional trackside accessories. Jonathan Cadd made the scratch-

Above: DJH kit 'Mickey Mouse' with a train of coal passes the mill complex (Metcalfe Models).

Left: Bachmann WD bringing a train of oil tanks around the town curve.

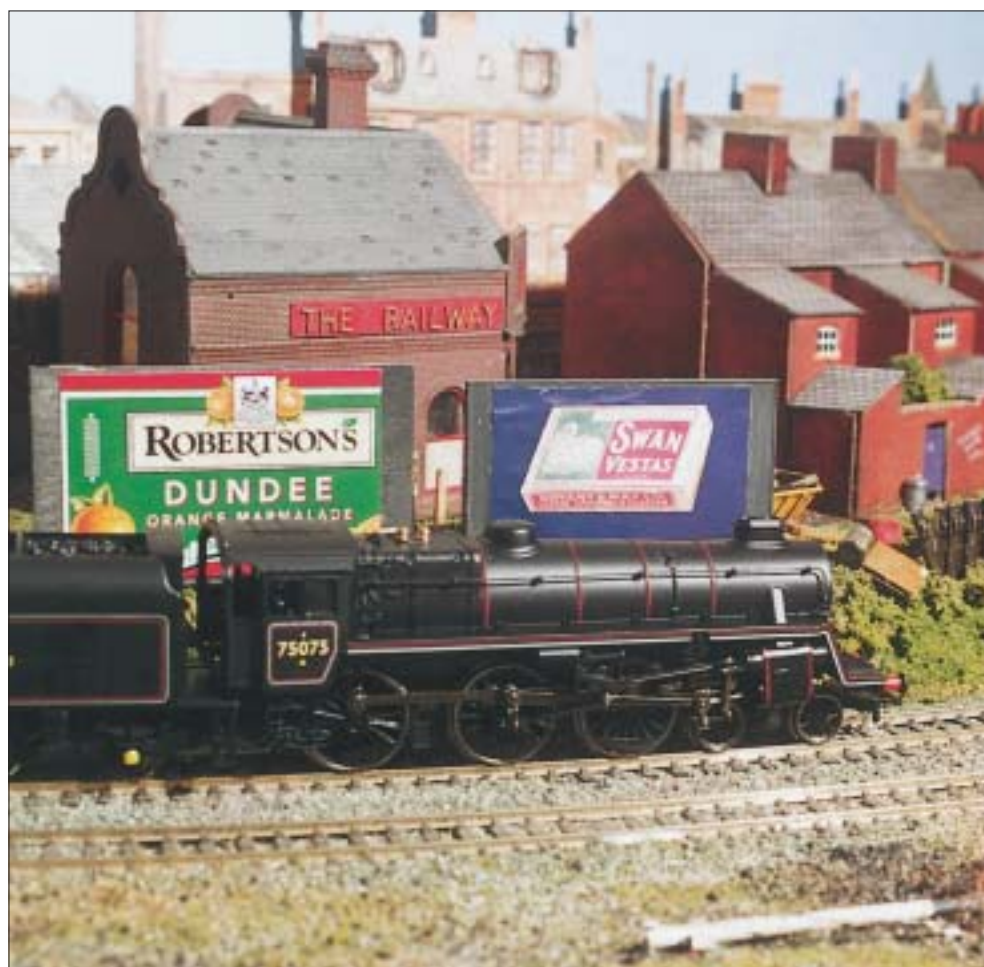


built main road bridge by facing a few blocks of wood with Metcalfe and other printed card.

The buildings are a variety of proprietary models including a couple of Metcalfe factory units and several Metcalfe terraced houses suitably embellished with cameo scenes and adorned with posters etc. The factory was constructed by Jonathan Cadd and the terracing by the author. A resin barn is used as a canal-side store and it is accompanied by paraphernalia rescued from rummage boxes here and there. A Superquick water tower is heavily weathered and hides a point motor, which just had to be set above the baseboard in a 'tricky' area. The backscene at the 'town end' is a couple of Peco backscenes and a Townscene sheet, part of which is cut-out and 'lifted' from the backscene by pasting on some shaped stiff card. Other bits and pieces are second-hand units given some attention and further weathering, making sure to hide the scuffs and breaks of former owners. The derelict station was the work of the author who took a scalpel to a second-hand scratch-built station and set about creating the dereliction and decay. The layout shows one station building removed, the Dapol footbridge partly dismantled and the platform edging stones lifted for disposal.

Above: lined BR maroon 'Duchess' Pacific No.46245 City of London enters canal straight on a sunny day.

Right: Bachmann Standard class 4 No.75075 cautiously passes the old town.





Metcalf paving slabs have been added to give texture but were pasted with PVA for longer lasting adhesion.

A derelict canal was originally 'excavated' by Terry Tracey and later detailed by the author. Two balsa wood models and a third scratch-built card model add cameo scenes to the water and swans arrived later courtesy of Langley Models. Kitchen foil was used to 'tarpaulin' the covered narrow boat which gently chugs along varnished water. The base of the canal was coloured and Woodland Scenics scatter material laid onto it to indicate deeper weeds. Then several more layers of varnish – one each week and last thing at night on club nights – were applied avoiding the 'pouring' of varnish, a method which invariably leads to 'crusting' over a still wet interior. A river was created in the same way but with a number of small pebbles added for rocks, so welcoming that a group of anglers have shown up to fish.

The author created most of the scenics. A large volume of PVA was used with mainly Woodland Scenics and all were applied by firstly spraying each area with a 7-1 (approx) PVA/water solution, then sprinkling scatter followed quickly by further similar applications of PVA and scatter. Different colours were blended in whilst the area was still wet and nowhere are there any large areas of plain colour. Besides the common Woodland green blend, different hues of green and brown have been added. Importantly, all applications were finished with a spray of 7-1 so that all of the tones blended and stuck well. Trees are mainly of the sea grass variety which are sprinkled

Top left: a DJH 'Mickey Mouse' cautiously negotiates the station during demolition.

Top right: narrow boats await unloading at the canal basin.

Middle left: Stanton Gate station's remaining waiting rooms (scratch-built) await their demolition.

Above left: part of Stanton Gate station has already been demolished. The tricky part lies over the line.

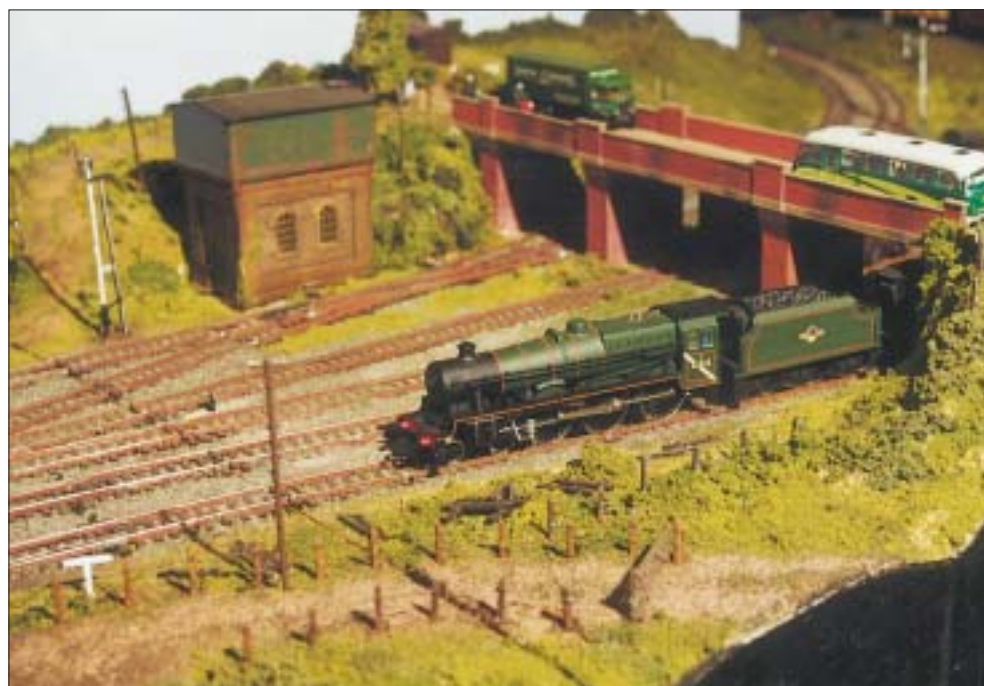
Left: the farmer guides his sheep over the occupation bridge as ore hoppers are drawn past below.

Right: Hornby 9F sits it out on Stanton Gate's canal straight.



with Woodland Scenics scatter but there are also Gaugemaster trees cut into erratic shapes and some dried buddleia flowers trimmed to size and similarly sprinkled. In each case an economic spray glue was used.

Little cameos make a layout more interesting. A group of disused wagons stands in a siding with weeds taking over and children playing on a flat bogie wagon – naughty. A line of



Above left: gossips catch up on the news at the 'old town' (Metcalf Models).

Above: Stanier 'Jubilee' No.45552 Silver Jubilee passes the old water tower before entering canal straight.

and a forlorn 3F 0-6-0 stands in a siding awaiting its fate. There is some hope; at least they have covered the chimney.

Such a project as *Stanton Gate* has not only provided the Club with a layout on which members can run their little treasures but has also passed on and developed skills as each member lent a hand and either demonstrated old or practised new skills.



Sandsend

On the Whitby to Middlesbrough line, set in the 1950s, and modelled in 00

John Fletcher and Stuart Hudson combine skills, memories and thorough research.

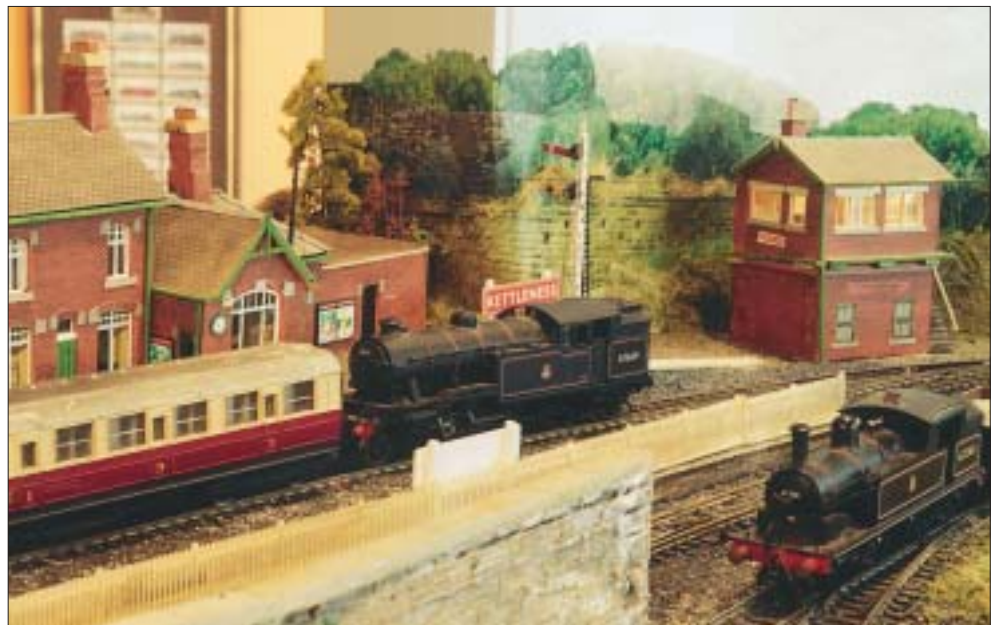
John Fletcher writes:

Many years ago, when steam engines roamed the earth, I was a young train spotter living near the West Coast main line at Preston. I had dreams of joining the railway and becoming an engine driver just like my uncle Bob who was based at Lostock Hall Depot. If he saw me on Preston station, and there were no inspectors about, he would take me with him on the footplate working passenger trains all over East Lancashire. I would return home at night and re-enact the scene on my Triang model railway layout, which I had based on an imaginary section of main line in the northwest.

I did achieve my ambition: I joined the railways and stayed right until the end of steam in 1968, working from Lostock Hall depot. I have always been at my happiest when near a railway and it does not matter whether it is a model railway, narrow gauge railway, 5" gauge steam or, as I have done recently, firing a Duchess on the main line over Aisgill.

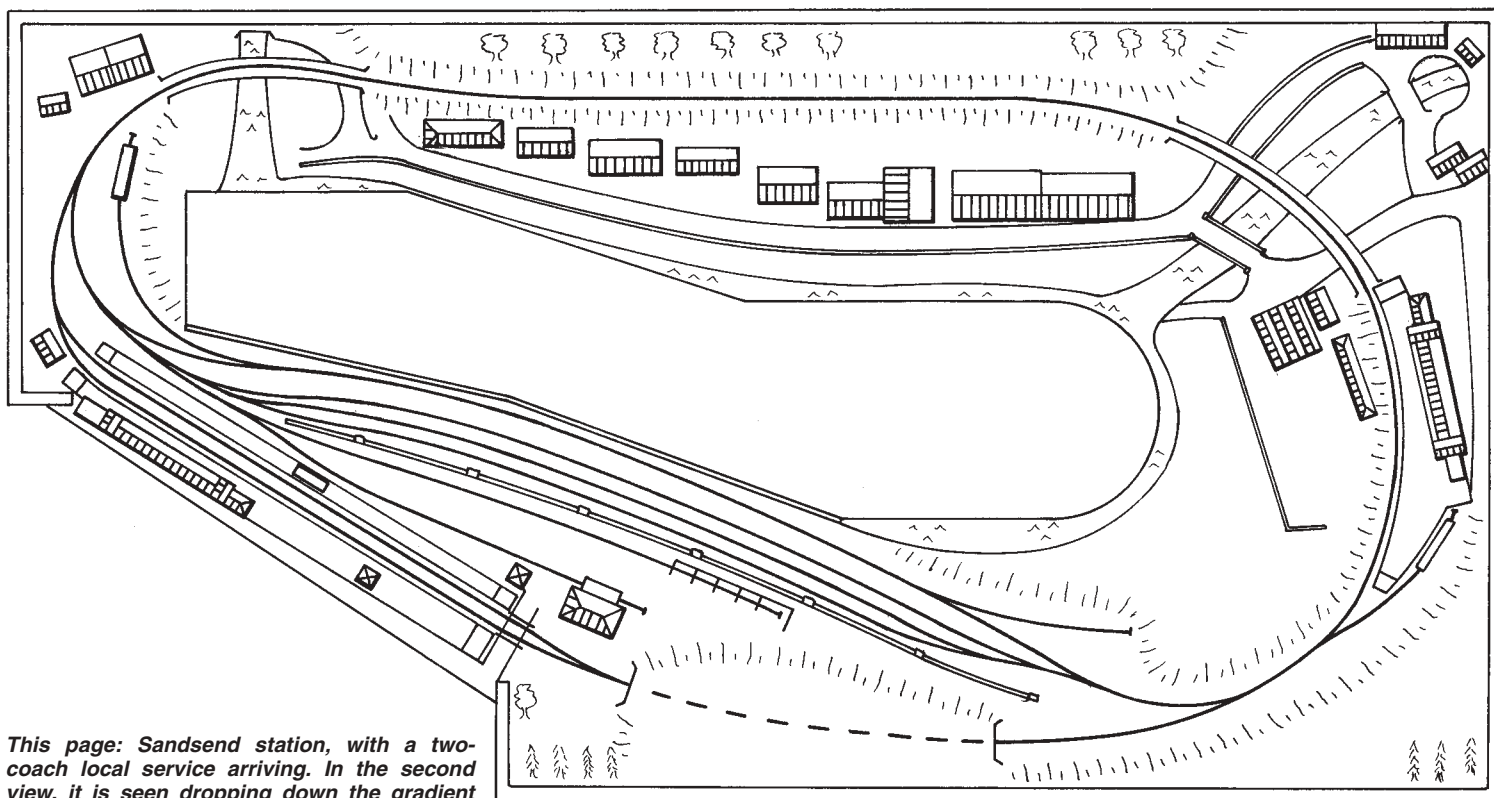
When I came to live here, in North Yorkshire, some five years ago, having taken up employment with the North Yorkshire Moors Railway, I soon discovered the beautiful and unspoilt coastline, and particularly, the area around Sandsend and Kettleness. To me it is like a 1950s time warp to stroll along Sandsend beach and look up to the lofty elevation of the trackbed of the former Whitby to Loftus railway line, which is famous for its tubular steel viaducts. Four of these existed in the short section between Whitby and Sandsend. This inspired me with the determination to create this magical setting in model form, so that once again trains could run over the viaducts that once dominated Sandsend. I had the ideas and some modelling ability, having constructed a few layouts in my past, but this was going to be something special, and it required someone of special talent to help me build it.

I had always admired the work of a local artist Stuart Rowell Hudson. We stock most of his works in the railway shops, and I discovered he was also a model railway enthusiast. We agreed to meet and discuss the proposed project. Stuart had on display some of his prototype models of North Eastern origin for a client who was creating a section of the



Pickering to Scarborough line. The standard of his modelling convinced me that here was my partner for this project.

From top: beach, Sandsend Hotel and viaduct; V3 2-6-2T No.67669 and G5 0-4-4T No.67248 meet at Kettleness; Kettleness goods yard, with the coal drops visible in the background.



This page: Sandsend station, with a two-coach local service arriving. In the second view, it is seen dropping down the gradient from Sandsend station.

Stuart Rowell Hudson writes:

John first approached me in November 2001 to design and build a model railway in his spare room, the subject in question being Sandsend, on the line which ran from Middlesbrough to Whitby/Scarborough via the coast. I remember as a boy, around 1954/55, seeing the trains rattling over those tubular viaducts, a mere 30' above beach level.

My railway interests go back at least fifty years, as I come from a family with long established railway associations dating back to 1881 until just before closure, in a area from Gateshead works to Darlington North Road. Being involved with artwork, design and illustration professionally for over forty years involving all aspects of period transport subjects, John offered me the challenge.

Sandsend Station closed in May 1958, although thankfully, traces remain today, such as station buildings, platforms and certain out-buildings as the line was quite a major engineering feat. Tunnels remain, although nature has all but taken over.

We had to have a plan of action, so our first step was to arrange site visits, armed with camera and note pad. We clambered around the remains photographing everything and measuring existing structures. This was covered in two or three visits to obtain the atmosphere and chat to locals who remember the railway being there.

Having taken our references, which included all major infrastructure, overall scenery and buildings from Sandsend Station site to East Row, I then began to form a plan of action.

The railway, housed in a room measuring 14' x 7', employs varying levels in the baseboard construction. These I worked out to scale together with measurements taken on site to





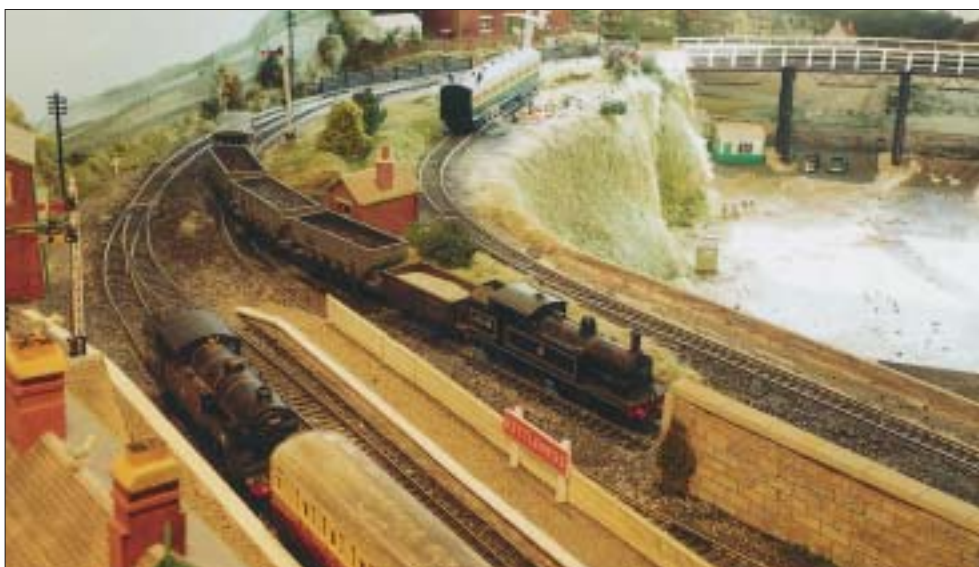
Top left: looking up the bank.

Middle left: 62396 passing the terraced gardens of the Sandsend Hotel.

Bottom left: view of the station, fiddle yard entrance and camping coach.

build the layout to 4mm scale to occupy the room size available and the amount of scenery required. John wanted the scenic aspect to be a feature of the layout. John built

the baseboards to measurements given and I started on the first part, which would be the tubular viaducts, starting first at Sandsend and then working around to East Row.



I had drawn up plans of the layout first, together with drawings to size of all the structures such as column bases from site, retaining walls and buildings. These and the on-site colour pictures were combined with black and white photos in my extensive archive collection of books.

This was the first layout I was building which was based on a factual rather than a fictional subject and therefore the detailing had to be correct visually.

The viaducts, I decided, needed to be balanced visually and because I had to build two of the same construction, but differing heights, I first made a balsa grid of the tallest columns to obtain consistency in construction as these taper towards the top. The main columns are made from scale size dowels cut to size and then the tops glued in position in balsa. The bases are then modelled to size using card, balsa and Slater's Plastikard brick sheets filled with a mixture of wood glue and fine clay to form concrete tops. The cross-bracing was then cut from card and fastened on using my balsa grid as a spacer to keep them all the same. The columns were checked to make sure they were vertical. These were made at the studio and then transported to the layout and positioned.

My opinion on modelling, as an artist, is all about textures, obtaining the feel of the subject. I am quite obsessed about stonework, so I decided to model all the elements that appear in stone as follows. Mounting board forms a basic shell for all the cosmetic structure elements such as all buildings, walls, tunnels, platforms etc. When cut to size, this was covered with PVA glue and coated with fire clay. The layer depends on the type of stonework required. To obtain the right effect, the courses were scored slightly more deeply; this I did using a small kitchen knife.

When dry, I used water-based paints to 'wash' on the individual stone effect. The tunnel mouths are an example of this; all the buildings are cut to size first and then either coated in 'stone' or covered in plastic and brick sheets and then assembled together with the interiors.

The embankments were made using Sundeala spacers of varying shapes glued down; newspaper filled the spaces in between. They were then covered in chicken wire then, using a spray, I coloured carpet underlay in tones of green and brown. When this was dry, I laid it over the top and glued it down. I then 'tufted up' for texture using a fine wire brush and sprinkled numerous textures over to obtain the effect. A final coat of watered down PVA was applied to 'hold' it all.

The Peco Streamline trackwork was fastened with 2" double-sided adhesive tape (this is useful for ballasting purposes) and also pinned.

Top right: Sandsend beach.

Middle right: East Row viaduct.

Bottom right: Kettleiness yard and the tunnel mouth.

Photographs by the authors.

The backscene was obtained by taking panoramic pictures on site, as basically not a lot has changed since the railway's demise. These were then colour copied to size and pasted on a pre-painted (emulsion based) 'sky and cloud' effect. I believe in trying to blend in from background to foreground to create an illusion of space. So certain parts of the backscene were superimposed over each other and then half-relief buildings made to flow from back to front and blended in with foliage.

Due to the space available, the scale distance from Sandsend to East Row had to be reduced. I worked on the buildings taking references, using colour pictures and measurements from outer ends and picked out the architecture that differed from one building to another. Sandsend viaduct is about 50% higher than East Row, so the railway has a fair climb, just as it had in real life. The viaduct rails on top had to be cut individually as they were a feature of this particular style. I must have cut out at least 120 of these and glued them in position measuring equal distances, painting and wiring through for the handrails and then painting in position. There is a distinctive rattle as the trains run over the viaducts – spot on!

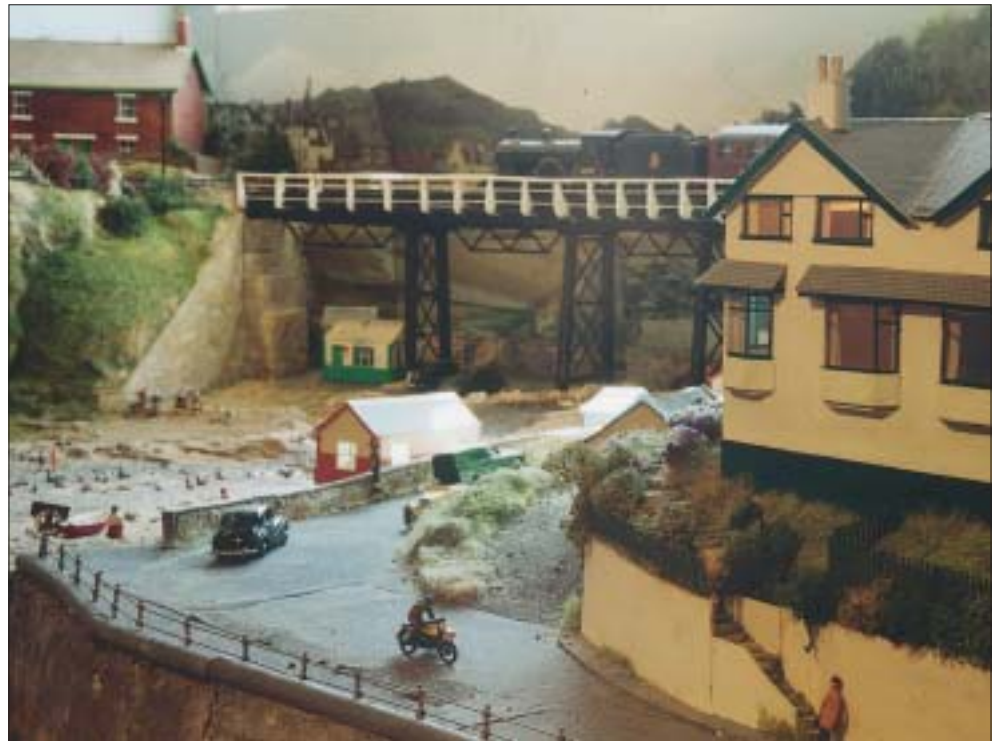
The trackwork has been made as simple as possible for ease of operation with sidings provided at the Kettleiness Station end. Five trains plus additional 'summer visitors' can be run.

The motive power consists of a Standard Tank (Whitby based), G5, D20, V3 and J39. These handle through traffic as well, as larger locomotives – such as a B1 – are precluded due to the curves on the layout. Proprietary locos are preferred, but it is nice to borrow locos from other modellers if they are in keeping with the period i.e. A8, L1 and A5 tank locos and LMS Ivatt 4s (Doodlebugs).

When making a layout, I believe we are creating a piece of social history so planning at the early stages is important. It can take time but believe me, it does work out better in producing an end result that takes you back fifty-plus years to the days when transport had character. What you are doing is creating a three-dimensional picture of the past, either factual or fictional.

The time taken to build *Sandsend* was approximately eighteen months, but as we know, you are never totally finished. When I visit the layout I can always add small details, such as extra people, cars and interior and exterior lighting. Soak up that 50s atmosphere and also some sea air!

In my opinion, to obtain the results required, it helps to have a passion for the past, in my case, period architecture. Look at what other people are doing and the methods they use in magazines and books. Visit exhibitions, there is always something to learn about any aspect of modelling.



Industrials at Bromley By Bow gasworks

A small snapshot of life at a gasworks of the past

Denis Richards was there on a misty October day in 1961.



It all started when I was seconded from London Research Station at North Thames works at Fulham to Bromley By Bow gasworks in East London. This was on a typical October day in 1961, overcast with mist but no rain, when I had to carry out a number of chemical tests on an experimental chemical plant then situated in the Bromley works.

On my first visit I was intrigued by a couple of 0-4-0 saddle tanks shunting close by, so the next time I went there I took my camera and decided to get some photographs of these. As I had only one hour for lunch I went out and got all the shots I could. Fortunately the engine shed was fairly near so I managed to get in there as well. The shed was empty of course, so

Above left: No.5 arrives with coal train from the BR sidings.

Above right: No.2 preparing to empty road of empty coal wagons.

Below left: No.2 has removed empties to adjacent siding. Note coke handling plant in background.

Below right: Nos.5 and 2 return to shed.

I could look around at will.

Saddle tank No.5 arrived with the morning coal train, no doubt picked up at the nearby BR sidings. This then pulled into a siding already partially filled with loaded coal wagons, then the driver left to consult his col-

league on loco No.2 nearby. No.2 was waiting to clear the main siding of empty wagons which it then shunted into an adjacent siding. It then backed on to the arrived coal train and shunted it into the now empty main siding to the covered coal stores. The two locomotives then retired to the engine shed where the drivers took their lunch break.

I then visited the small engine shed. Inside at the end of the left-hand road in the rear of the shed was No.3 with its cast numberplate. No.3 seemed to have suffered damage to its cylinder casing so, it could have had a cracked cylinder.

Next in line was No.1, with its cast numberplate the oldest engine. This was the engine in





Above: a view inside the shed, showing Neilson No.1 from the front.

Above right: No.3, with damaged cylinder cladding, was found at the far end of shed.

Below: rear view of Nos.1 and 4.

Below right: No.4 at the end of the shed, with No.5 just visible outside.

Photographs by the author.

which I was most interested. I did look for the maker's plate but failed to spot it in view of the dirt and darkness, but it later appeared as a small circle by the cab. Because of its very low profile, ie very low boiler, cab and fittings, this was a retort house locomotive, able to negotiate low and narrow entrances to buildings.

Last in the line near the entrance was No.4, the number of which was very dirty and difficult to make out. This and the other Barclay, No.5, were also low-profile retort house area locomotives.

Most of these locomotives would appear to have their numbers painted on their tanks.

In the first retort house in the gasworks the retort was D shaped and arranged in horizon-

Industrials at Bromley By Bow, October 1961

No.	Wheel Arrangement	Built	Works No./Date	See Note(s)
1	0-4-0T	Neilson	4397 of 1891	1 & 2
2	0-4-0ST	Peckett	2135 of 1953	3
3	0-4-0ST	Robert Stephenson & Hawthorn	7309 of 1946	2
4	0-4-0ST	Andrew Barclay	1666 of 1920	2
5	0-4-0ST	Andrew Barclay	1674 of 1920	3

Notes

1. Ex-Kensal Green Gasworks, date unknown; all others supplied new.
2. To Mayer Newman, Canning Town for scrap 1963.
3. Sold/scrapped 1966.

tal rows rather like a row of ovens, so coal was stoked in from the front and coke, gas and by-products came out from the other end.

Note the usual clutter in the engine shed with hoses, fire irons and the shed wheelbarrow. In the foreground is the inspection pit.

The gasworks remained 'all steam' until 1966 when a Hibberd diesel was supplied: the last two steam locomotives were disposed of, and sadly none was preserved.

This is perhaps a small snapshot of life in

the gasworks of the past, when at one time most towns and cities in the country had their own gasworks some large, some small.

Editor's note. We acknowledge the kind assistance given by Bob Darvill of the Industrial Railway Society in the provision of the locomotive fleet details. Readers interested in the IRS can find out more by sending two first class stamps to Bernard Mettham, 27 Glenfield Crescent, Newbold, Chesterfield S41 8SF





...an exchange of railway modelling ideas for beginners of all ages

Marston

An OO layout around 7'6" square

Brian J. Cutting describes his first ever model railway.

My layout is called *Marston* and is now nearing completion after just over two years in the making. It is the first layout I have ever built, and it is purely for my own pleasure.

I am aware that there are many modellers like myself who enjoy model railways and having a go at making something a bit realistic in appearance, if not strictly accurate in every detail. It is for these people that I submit the following details of *Marston*, to show what can be done in a small area by a keen if not experienced modeller.

The layout is based in a small room in our semi. The room measures approx 7'6" x 9'. The layout takes up most of this and is about 7'6" square with a cut-out where the operator sits. It consists of two largish ring circuits which are in fact more or less 'L' shaped. One I call the blue circuit and one the black circuit. Quite some time was spent and the planning stage and to aid me in this work I obtained a book of track plans. Having read and re-read this several times, I still had to draw my original plans three or four times before I produced something workable. Even then I had to modify the plan several times as I went along.

The layout is set loosely in the 1930s/40s. This meant that all the engines would be steam-outline, with rolling stock and buildings suitable for the period. The location is some-



where in the west country, and all the locos are Great Western. The layout is completely fictitious and the name *Marston* comes from the road I live in.

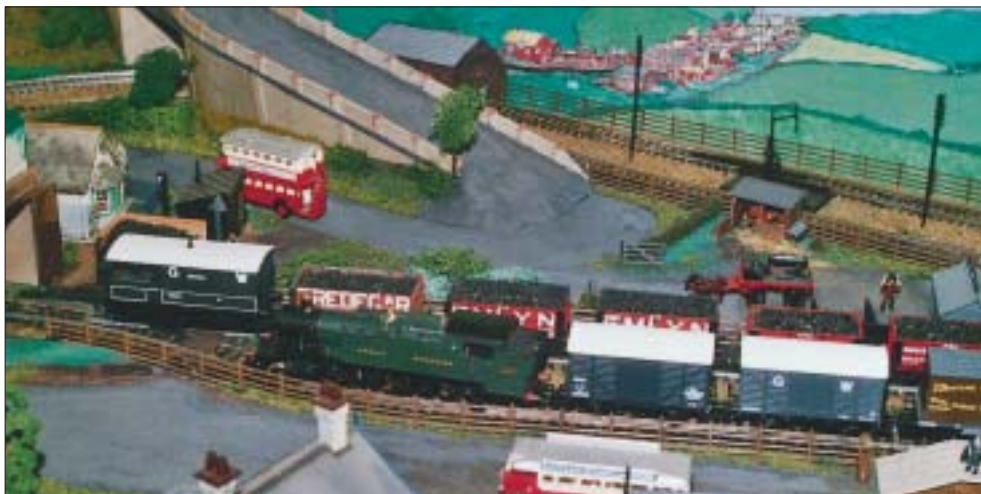
Side- and backscenes come in three themes. First side is a harbour and bay seaside

view. Along this side is the station named Marston. Trains access this station from the outside circuit or loop. Upon leaving this station, trains climb on to a raised embankment which runs over the moors. This is my second back drop, devoid of trees and consists of rocky outcrops and rolling green slopes. This was fairly easy to paint, I found. I used children's water paints for all my background scenes.

After the train has run the length of the embankment it begins to descend and enters the stretch of my third and last backscene. This is a depiction of farming countryside with a small village towards the end. All this scenery is painted on 2mm card. I did not have room for anything thicker.

Above: a 'Castle' pulls into Marston Moor on the main up line. A B-set behind a small tank stands in the local platform.

Left: corner bridge with main lines under, siding and coal yard. Engine shed is just visible on the left. 61xx Large Prairie and goods wagons in siding.





The front of the layout is open.

There are three sets of sidings running off the inner circuit. One of these crosses the outer circuit via a diamond crossing and runs parallel to Marston station alongside the road which serves the station, goods bay, maintenance area and oil depot. The second siding has a goods shed and a spur used by my track cleaning coach and a small pannier tank.

The third siding is located on the left side of the layout. This splits into two tracks, one known as the coal siding. The other serves another goods shed. A run-round can be effected on these sidings as they have points at each end.

Also located on this side of the layout is my second station, Marston Moor. This station is short of a main down line platform as the cut-out for the operator uses the space where it should have been.

Medium Density Fibreboard was used as a base for the track. This board sits on strips of cork on top of a softwood frame to help keep

the noise down. I found MDF board very useful in areas needing a little height, and also for the main bulk in my coal wagons which have only a thin layer of real coal on top. This method of making loads for wagons also adds a little weight.

There is no fiddle yard on my layout. All my locomotives and rolling stock can be seen at all times, whether moving or not. I think that it adds to the realism to see trains stopped in stations and other waiting in sidings.

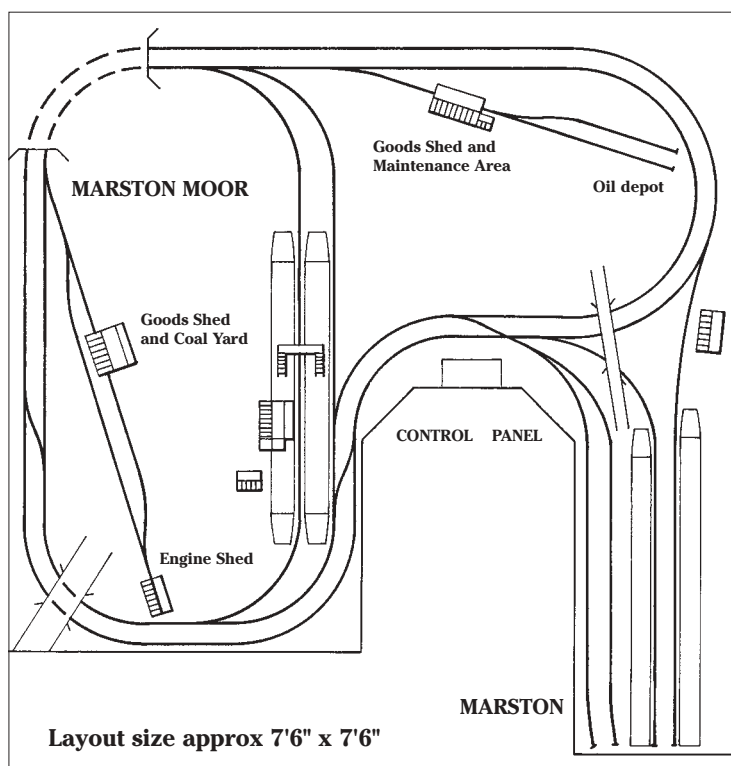
My inner circuit breaks down into three sub-loops which provide access to the local and main lines at Marston Moor station. These have home/starter signals which are wired into the points controlling these sub-loops. There are at the moment five of these signals, all worked by above-board point motors which are wired with their relevant points. There are seventeen sets of points on the layout, all motors for which are mounted below the baseboard with Peco bases. Ten of these act in pairs, controlling the various loops plus exit from and

access to the circuits. I managed to get a total of about 22 metres of track into the layout.

Nearly all my locomotives and rolling stock are ready-to-run Hornby, with just a few smaller Bachmann engines. The latter manufacturer's bigger locos do not like my tighter curves.

During the course of building *Marston* I made a lot of mistakes, many of which I could possibly have avoided had I waited and gained more knowledge. Reading this magazine has added greatly to my know-how since I started. However there is no surer way of learning than the hard way! If I could turn the clock back I would probably do the same again. I've enjoyed every second of it.

Now that the layout is virtually finished I spend hours just shunting goods wagons about in the sidings, adding a few vehicles or taking some off, making up longish rakes (16 wagons is long on *Marston*) and changing engines. All sidings and a couple of station tracks have uncoupling ramps so I have plenty of scope in these areas.



Above left: maintenance area with tank engine and cleaning coach. Front right oil depot, left goods shed, moors in background.

Above right: coal wagons in siding, coal yard behind and goods shed to the right.

Below: Marston bay with Marston signal box centre, water tower with main bridge to station.

Photographs by the author.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the letter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

UNWANTED DECALS

I refer to George Macleod's letter in the January RM regarding the removal of unwanted decals, in his case, overhead electric warning flashes. As a modeller of the Scottish end of the LNER I am quite happy to use RTR models but often have to re-number individual locos to represent one allocated to Scotland. The detail and finish of current models is so good that it can be difficult to achieve the desired removal without damaging the surrounding artwork.

My method requires a small quantity of methylated spirit and cotton buds, both available from your local chemist, although you may have to explain why you want the meths! Using one end of the cotton bud, apply a small quantity to the unwanted decal and leave to work for a few minutes. Using the dry end of the cotton bud gently rub over the decal which should now be soft. Repeat until all traces have been removed. Remember, twice the meths does not halve the time.

Dry the area well, then buff up with a dry cloth and there you have it. To anticipate the question, yes, you can use white spirit but when left to soak it can creep and may soften the surface.

Congratulations on a fine magazine.
R.D.A. JOHNSTON

HUDSON ROAD

Poignant is the only word that can describe the picture of the first world war tanks being transported through the snow in Jon Grant's article *Hudson Road* (January RAILWAY MODELLER).

This is probably the most atmospheric layouts that I have seen in print.
CHRIS BOWE

BACHMANN GW 45xx CLASS LOCO

I would like to comment on the Bachmann GW 45xx Class locomotive which was reviewed in the January issue of RM.

No.4550 was one of eighteen 45xx Classes never to have outside steam pipes and the livery depicted is 1940s. By 1935 the 4550 had the small spectacle windows plated over, as did all the 45xx class. Only in preservation have these windows re-appeared. Some other items which are incorrect are the whistles, no tread plates on the buffers and the crossheads appear to be outside the slidebars.

Bachmann are not alone in getting GW locos wrong. Hornby for example models a King Class 6000-6019 in GWR livery with BR front end and vents in the cab roof. *Hogwarts Castle* in the film is a Hall not a Castle. The firm also produces a Castle in the 4073-5012 range of names, all these had the Vauxhall front end until, in some instances, a double chimney was fitted.

I realise that both companies are

aiming at the toy market and perhaps they believe it does not matter to youngsters but a little better research could preclude many of these errors.

I feel that in your reviews of new products, reference should be made to these errors. Many people believe that all GW locomotives are alike – certainly in the same class – but this is not the case. I have spent many hours researching a particular class for friends and they have been amazed at the variations I have discovered.

KENNETH A. WILLIAMS

LMS FOWLER CLASS 4P 2-6-4T

Rather belatedly, can I add a few comments to Jonathan Joseph's Fowler tank article which appeared in the January issue of RM.

This article was of great interest to me as I am completing a JM 7mm kit for the 2-6-4 tank and found the drawings and description most helpful.

The Fowler tank is one of the few steam engines which I am sure I saw in my youth and it is a great pity that no members of this successful class survive. As regards models, 4mm etched kits for both cab versions can be obtained from Alan Gibson. The old Chowbent company (now taken over by Just Like The Real Thing) were to have made 7mm scale versions of the Alan Gibson kit but these never materialised, leaving JM as the only 7mm manufacturer of both cab versions.

In 2mm scale, Gem used to produce a simple white metal body kit to fit a Farish Black 5 chassis. This was a little crude by modern standards but would suffice in the absence of anything better, an advert in the RM wanted section or a society magazine may locate one.

The Fowler 2-6-4 tank has been a rather neglected prototype as far as the trade is concerned and it is good to see that Hornby are now providing such a good ready to run model, perhaps Dapol could consider doing the same for the N gauge enthusiasts?

PAUL CLARKE

WARLEY SHOW

In recent years my son, Andrew and I have been visitors to the excellent exhibitions organised by the Warley club and held at the NEC.

Having bought advance tickets for the December 2003 event, and pre-ordered one of the limited edition Bachmann wagons, we looked forward to our annual visit.

Unfortunately, a few days before the exhibition I was admitted to hospital with a serious kidney problem and subsequently we were unable to attend the NEC. My wife telephoned Alf Claverley to enquire whether or not I could get hold of the limited edition wagon that I had reserved, explaining the situation I was in and why we could not attend. He was very sympathetic and not only agreed to arrange delivery of the wagon by post, but also offered a refund on the advanced tickets without any prompting, hesitation or proof that I was 'otherwise engaged'. The wagon arrived by post a few days ago with the balance of the ticket refunded.

Please may I express my thanks to all concerned at the Warley club, you are a credit to this excellent pastime. See you later this year!

MARTYN HILBERT

EXPERIMENTAL STREAMLINED TUBE STOCK

I am seeking drawings for the two-car experimental streamlined tube stock built for London Transport passenger board in 1935. I wish to build a 00 scale working model of this stock using parts from the Harrow Model Shop kit for 1938 tube stock. Neither Harrow Models or myself have succeeded in a search for such drawings, although a few photographs have come to light.

Unfortunately London Underground, at Acton, has been unable to help, as its old drawings have yet to be examined and catalogued. Any help would be much appreciated and I will be



happy to reimburse reasonable costs for copying such drawings and postage.

ALISTAIR J. LANGLANDS,
37 Finlarig Terrace, Dundee, DD4 9JF.
Email: ailanlands@onet.co.uk

BASINGSTOKE TO SOUTH WALES

Further to Ian Futers' interesting account of his experiences at Basingstoke in his article (February RAILWAY MODELLER), readers might like to know more about the Carmarthen service which Ian mentions.

Direct services run from South Wales to Waterloo via the Severn Tunnel, Bristol Temple Meads, Bath, turning south at Bathampton Junction on to the Portsmouth line through West Wiltshire to Salisbury, where they join the West of England line on to Waterloo, were started as recently as 1993 by BR Regional Railways to provide a connection with Eurostar at Waterloo. Through passengers are thus able to enjoy a cross-platform change at Waterloo avoiding the inconvenience of the usual route from South Wales, Bristol and Wiltshire via Paddington and the Underground, bus or taxi across London.

The service operates three times a day weekdays and once on Sundays and has gained considerable popularity over the years. It is a limited service east of Bath in that compulsory seat reservations are required. The service isn't scheduled to stop at Salisbury and there is setting down only at Basingstoke and Woking. The service stops at Clapham Junction where there are connections for Gatwick airport, Watford Junction for the West Coast Main Line, and Woking for the Heathrow bus-rail link.

Since inception, the trains have been 158 units, operated by BR, after privatisation, successively South Wales and West Trains; Wales and West; Wales and The Borders, and now ARRIVA trains. The service stops at Basingstoke for setting down only except on Saturday afternoons when the train runs non-stop from Woking to Warminster in a scheduled sixty eight minutes (a distance of some seventy five miles) – perhaps the longest non-stop scheduled run by a 158 unit in the country. The timing includes a speed restriction through Salisbury.

The liveries of the 158 units reflect the train operator but recently some have been painted in Ginsters Cornish Pasty livery following a sponsorship arrangement with Wales and The Borders trains for supply of the on-board trolley service. The livery includes the Ginsters logo and the effect of a cornish pasty train stopping at Basingstoke is quite startling!

I have not yet seen a 158 model in Ginsters livery advertised but I am sure it would make a most interesting addition to any layout or collection.

Notwithstanding the popularity of the service, its future is in doubt as ARRIVA Trains have not been granted a franchise beyond May 2004. It is hoped that South West Trains may take it up.

JOHN INGRAM

Left: off to the west – No.158 818 captured at Woking on 17 March 2000.

Photograph: Frank Hornby.

GLEN LOVAT LIGHT RAILWAY

I was intrigued by John Simm's attractive little 09 layout *Glen Lovat Light Railway* (in the December 2003 issue of RM). You may be interested to learn that there was actually a narrow gauge railway (probably 2' gauge) on the Lovat Estate sometime from the end of the first world war until the early 1920s.

It was used for hauling timber to Lord Lovat's sawmills at Beauly. I have no other details, but the line can't have been very lengthy. The sole motive power was a 20hp Motor Rail loco.

DAVID COX

HELTFORD

I would like to make the following comments in response to George Cooper's letter on shunting at Helford (RM February).

Helford could very well be a terminus at the end of an extended Helston branch. As a child I spent many a happy day at Helston station in the 1950s watching the shunting and enjoying an occasional ride along the branch as far as Nancegollan in the 'Toad' brake van or on the footplate of a 45xx tank.

Helston did not have a head shunt so all shunting took place along the branch. This was protected by a shunt signal, which from memory consisted of a start signal with a short arm with a large white S on the face and situated just before the road bridge. Locomotives were permitted along the branch as far as a 'Limit of Shunt' board some distance beyond the bridge. As the loco was often out of sight of the yard, instructions were given by way of horns along the line, operated by the shunter pressing a button in a cabinet in the yard.

There was considerable goods traffic of live cattle exports on Mondays (market day) meat from Sturgess' abattoir (which was adjacent to the yard), in both BR and long wheelbase continental vans (Dutch from memory), coal, general goods, which included stock for the local Woolworths (delivered by Scarab & trailer) and a lot of supplies for the Navy at RNAS Culdrose. The shunter was generally proved by the goods side staff, whereas the fireman performed this duty when running round the 'B set'.

My memories of half a century ago are a little hazy, but I seem to remember that the 'Toads' were marked 'Marazion RU, not in common use, to work between Helston, Gwinear Road & Drump Lane' (Drump Lane was the goods yard at Redruth).

Most of the 45xxs worked with the chimney towards the main line at Gwinear Road and I have only ever seen one photo of one facing the other way. At least two of the regular Helston locos have survived (4566 and 4588).

An interesting train which would qualify in the prototype for anything category is the RNAS Culdrose leave train, this ran after the last scheduled train of the day. I have been told that it consisted of up to ten coaches with two or possibly three tank engines. Although I never actually saw it (it was well after my bedtime) I can clearly remember the engines whistling to each other and later hearing them working hard up the bank to Truthall Halt from the Lowertown Viaduct despite being two or three miles from my home.

I have recently returned to the hobby after a break of nearly thirty years and am trying to create a model of Polby – a truncated West Country Network Rail branch, alongside a heritage railway. A good excuse to run anything, but that's another story.

ERIC BUSBY

RANSOMES STEAM CRANE

Thank you for your helpful and useful publications RAILWAY MODELLER and CONTINENTAL MODELLER, both of which I have found to be informative, surprisingly neutral in your reporting and invaluable in finding those hard to track down suppliers and obscure parts – please keep up the good work.

I am currently working on a British layout, circa 1950, and have decided to build a model of the Ransomes & Rapier 75 ton steam crane. Unfortunately I cannot find plans, blueprints or good enough photographs to get accurate drawings from.

I would be most grateful to anyone who can supply information on this.

JON WEIL,

16 Purslane, Abingdon, OX14 3TR.

BECKINGTON

Can I, through your pages, thank yourselves and Gerald Godfrey for *Beckington*, which is based loosely on Weymouth and the surrounding area (RM September and November 2003).

It was a joy to see and read about. I for one felt here was a railway modeller enjoying the hobby at a level he thinks best doing what he thinks is right – great! I am sure it is articles of this nature which give other modellers inspiration and motivation.

R. KENNING

4mm SCALE ROAD VEHICLES

Having just read the December 2003 edition may I say how pleased I was to see the article on *4mm Scale Road Vehicles* by Phil Parker.

These days I don't think enough time (and space) is given to related model subjects such as scale road vehicles.

I remember, as I am sure you do, those articles which used to appear in *Model Railway Constructor*, usually under the name of the then editor of

the magazine. They were always useful and kept one up to date on the wide variety of suitable scale models available on the market. More of the same would be good!

GEORGE W. CHATHAM

It was interesting to read Mr Leech's letter in the February issue regarding 4mm scale vehicles and his mention of Cararama cars.

I have been to many shows and swapmeets in the North West of England and never come across ready-made diecast 4mm scale car models. I have many coaches and lorries on my layout in 4mm scale but as yet no exact 4mm cars, although, yes I agree there are many kits about.

I first came across 1/2 scale Cararama cars in my local model shop at a cost of £1.99 each. I decided to try one on my layout and was more than pleased. Within days of this purchase, I came across packs of five cars for £1.99 in the local bargain shop. I am pleased to say my layout is now graced with twenty one of these cars and they do not look out of place against the 4mm coaches or lorries.

In my work as a refined technical dyer we were allowed a margin of ten per cent below the shade required by a customer, so how anyone can see 3mm in a model side by side is very questionable to say the least.

Finally, have you seen the price of 4mm car kits – with an average cost of £8.50 plus your glue, paint and time – no thanks, I'll stick with Cararama.

D. TALBOT

In the February issue I was struck by the view expressed by Mr. Leech in his letter that modern image 00 scale modellers have a hard time sourcing suitable cars for layouts.

I agree that this is so in strict scale terms and also that Cararama models are a worthy 00 compatible product, but if he thinks he has a hard time he should try and source a £2.00 out of the box Ford Zephyr, Vauxhall P.A Cresta or a Hillman Minx etc.

In contrast to the bus and commercial situation for the BR steam era, cars are virtually non-existent, so come on Cararama and give us something var-

ied for our car parks and flat wagons!

I feel the market potential would be vast, and in addition a range of industrial and plant machinery would sell well, both inside and out with our hobby.

D. HANMER

CASTLE QUAY

Surely the hill leading to the castle on John Wiscombe's *Castle Quay* (January RM) is the same as John Ahern's Gammon Magna on the *Madder Valley Railway*.

Thankfully the *Madder Valley Railway* has been saved and is in the safe hands of the Pendon Museum Trust Limited, at Long Wittenham, Abingdon, Oxon. Well worth a visit!

RAY JENKINSON

STEAM ERA GOODS TRAINS

As a result of many letters received following the publication of my article in the January RM (which is usual after sharing ones railway in print), I would like to thank all those concerned.

I was pleased that this article and others written over the years have given pleasure and inspiration. One point several people inquired about was speed of trains with different classifications.

This information is contained in the General Appendix to Rules and Regulations and Working Timetables with Sectional Appendix.

For my period I used the information contained in the edition printed by the LNER for the Southern Area dated 1 November 1947 just prior to nationalisation which means the LNER train classifications are used. BR(E) were very slow to amend these with a special notice, issued on 5 June 1950, which stated that a standard classification for passenger and freight trains (shown below) will be introduced from that date and the existing headlamp and block bell codes will be superseded.

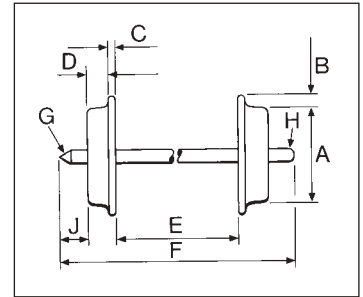
Many other conditions apply, too numerous to list here for these people interested in these I suggest a visit to the PRO at Kew where copies of all these publications are held. Friends can ask to look at my copy.

BARRIE C. WALLS

LNOR Classification	BR Class of train	Average speed	Conditions
No. 1 Express Goods	Class C	50mph	Vehicles with through pipes only may be in any position in the train provided that not more than two such vehicles are coupled together. Numbers allowed varied according to length of train. Guide: Not to exceed 25% of total number of wagons in any train.
No. 2 Express Goods	Class D	40mph	Again the number of fitted wagons at the head varies with train length. Guide: 1/3rd must be vacuum braked.
No. 3 Express (Braked) Goods	Class E	35mph	Number of fully braked wagons again varied with train length. Guide: At least four fitted vehicles at head.
No. 3 Express (Unbraked Goods)	Class F	35mph	Load limited - 45 loaded or 50 empty wagons.
Class B Goods Through train	Class H	30mph	Through train.
Class C Goods	Class J	30mph	Mineral, coal or empty wagon train.
Class D Goods	Class K	25mph	Pick up goods, ballast or branch goods.

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'Intermediate' Class 47s in 4mm scale from Heljan

These three new Class 47s represent the locos as running in the middle years of the Class, between the original versions and the life extended condition as represented in the first batch of Heljan models described in our October 2001 issue.

The newcomers are: 47 591 in 'large-logo' blue with full yellow cabs with black window surrounds and grey roof – surely one of the most attractive BR diesel liveries? – 47 829 in the recent safety promotional Transport Police livery with crest and legible inscriptions, and 47 334 P&O Nedlloyd in Freightliner two-tone grey.

The main specification of the models is unchanged from that described in October 2001, with heavy diecast chassis block, centrally mounted Bühler can motor and shaft drive to the outer axles of both bogies.

A noticeable new feature on the body is the use of wire rather than plastic for the cab door handrails and the short vertical handrails on the nose. A note from the factory included with each model reports that many bufferbeams and steps have been broken during shipping and are therefore now packed separately for the owner to install. Fortunately they are a simple push-fit into position.

Further details, some optional, are also supplied separately for the owner to fit, including dummy screw coupling, air brake and main reservoir pipes, vacuum brake and steam heating pipes and ETH cable and socket. Green spot multiple working sockets



are supplied for fitting if you wish, as are push pull TDM cables if you want to make a 47/7.

A three-piece miniature snowplough can be fitted by sliding it into the two

recesses behind the bufferbeam. The plough is neatly held in place by the stems of the buffers.

When it comes to adding these separate detail parts, modellers are rec-

ommended to make many prototype observations and photographic references before fitting anything – diesel locomotives are every bit as diverse, complicated and unpredictable as steamers ever were.

The models can be converted to DCC operation by installing a decoder into the NEM652 eight-pin socket mounted over the motor.

These Class 47s are very nicely built and finished and cannot fail to please the large number of UK enthusiasts who were active during the 1980s.

For 00

SAMPLES SUPPLIED BY
Heljan (UK) PO Box 474,
Peterborough PE8 6FF.

PRICE £89.00ea

WHEEL DATA
B. 0.8mm, C. 0.9mm, D. 1.9mm,
E. 14.4mm.

Latest Hornby Virgin HST in 00

Hot on the heels of our 'Broadstairs' report (last month!) the year's new releases from the irrepressible Thanet-based manufacturer are already arriving in Beer.

First is the Virgin HST Train Pack illustrated. The train consists of two scale length Mk 3 coaches, Class 43 Power Car and Dummy. As with all Hornby Train Packs the coaches have specially produced running numbers and the power cars have wheels in the same chemically blackened finish as the coaches. Working directional headlights are a feature, and curves of second radius or greater are required.

The operator's now familiar bold red, black and white livery has been immaculately printed, including even the red bogie coil springs and yellow edged stepboards.

By the same post as this classic High Speed train came three Mk 2d

coaches, also in Virgin Trains livery, namely the First, Standard and Brake Standard. Again, the livery is neatly replicated and the class insignia, including short yellow cantrail stripe, for the First has not been forgotten.

For 00

SAMPLES SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4JX.

PRICES

Virgin HST set (R2298A) – £90.00
Virgin Mk II First (R4088C) – £18.00
Virgin Mk II Std (R4086D) – £18.00
Virgin Mk II Brake Std (R4087D) –
£18.00

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Plasser & Theurer track machines for 00 from Bachmann

Many track maintenance machines in use in the UK are built and supplied by the Austrian firm of Plasser & Theurer. Some were actually built at Plasser's West Ealing outpost.

The two Bachmann models illustrated here represent the Tamper Machine and the OWB10 Track Maintenance Machine. Both are based on P&T prototypes. In model form the OWB10 is motorized with a central motor driving both axles and the Tamper is available motorized or not.

The OWB10 is a multi-purpose permanent way vehicle with an Atlas jib and a small storage skip capable of carrying 8 tons of cargo. This is where the motor resides on the model. The prototypes are used on small sites where a full engineers' train is not required.

The model is nicely painted and detailed, like all Bachmann products. Particularly convincing are the flush-glazed, bright-framed cab windows and the chequerplate footplate. The jib is a highly detailed unjointed one-piece moulding and can be slewed but will not luff. The grey 'aggregate' load which hides the motor is a metal casting, adding useful weight and bulk to this otherwise rather slender model. Tension-lock couplers are fitted front



and rear, and the buffers are sprung.

The various inscriptions are crisp and legible. The cabsides carry the BR corporate logo and the Departmental number DX 68200, which vehicle at one time was operating on Southern Region Central Division.

The Tamper is based on the P&T 07-16 type which can level, line and tamp with just one passing of line. The characteristic high frame has been faithfully modelled and the various tools at the 'tamping end' are exquisite reproductions of the complex and fearsome looking originals. On the motorized version of the model the motor is actually in the engine compartment, driving both axles of the adjacent tiny 18mm wheelbase bogie. Electrical pickup is from all eight wheels. Again, buffers

are sprung and tension-lock couplers are fitted fore and aft. Both models performed well, if a little noisily. Although couplers are fitted, tail traffic is not likely to be heavy enough to make tractive effort an issue.

In the Bachmann price list these models are listed under Accessories, but they are really rather more than that, being excellent models for a CCE's depot and possessions out on the line.

SAMPLES SUPPLIED BY
Bachmann Industries Europe Ltd,
Moat Way, Barwell, Leics. LE9 8EY.

PRICES
OWB10 (motorized) £29.95
Tamper (motorized) £39.95
Tamper (not) £16.95

WHEEL DATA
B. 0.8mm, C. 0.8mm, D. 2.4mm,
E. 14.2mm.



Latest from CCT in 4mm scale

Cambridge Custom Transfers' latest release is a sheet of waterslide transfers for the BR Type AFP container now in production from Genesis Kits. The sheet also includes transfers for the Conflat Bs which transported the containers. The sheet contains sufficient for one wagon and two containers: ten variant sheets are offered, with different numbers, refs.BL52a-j.

SAMPLES SUPPLIED BY
Cambridge Custom Transfers, 206
Nuns Way, Cambridge CB4 2NS.

PRICES
2/3/3.5/4mm scale £5.50; 7mm scale
£16.50. Prices include UK postage.



Precision Labels packs for new Hornby 'Super Detail' Pullman cars

Precision Labels has released further packs of self-adhesive panels and other details for the new 4mm scale Hornby 'Super Detail' Pullman cars.

Working from the prototypes, the panels include such fine points as correct matchboarding, complete lettering and, on the smooth-sided vehicles, panel joints as per prototype. (These can just be made out in our photographs.)

Several items were received for review. Firstly is a finished sample of *Trianon* (from pack L15A, the *Golden Arrow* 1946-49; £22.99) with its 'Trianon Bar' conversion; Parlour First *Niobe* from the same train; and Leghorn, also a Parlour First, belonging to pack L13C, the *Queen of Scots* 1955-60 (£21.99). The latter two names are also available as part of the custom-order range of lower sides (£2.50 per pair) - smooth, matchboard, original or late Pullman crest - with customer-specified names.

Secondly, new to the range is L19A, the *South Wales Pullman* (£22.99). This pack contains sufficient panels to treat six cars: Parlour Second *Car No.35*,



Brake Seconds *Car No.54* and *Car No.27*, and Kitchen Firsts *Cecilia*, *Chloria* and *Diamond*, the latter complete with its additional window pan-

elling to produce 'The Daffodil Bar'. Also provided are loco headboard, and two styles of roof board: scale 11' (BR(WR)) and 17' (ex-GWR).

Precision Labels are stocked by retailers such as Alton Model Centre and Frizinghall Models & Railways of Bradford.



'Scratch aid' Glyn Valley coaches in 4mm from Worsley Works

Worsley Works has recently added three Glyn Valley Tramway four-wheelers to its range of 'scratch aid' etched brass body kits in 4mm scale: an all third, and open third, and (illustrated) the unique clerestory-roofed first class saloon of 1891, depicted in its later form.

As usual, the kit consists of sides, ends, and floor unit, plus body mounting brackets. The intention is that the roof should be fixed and the floor with interior detail removable. Two sets of slatted seats and their supports are included: however, note that these seem to be too long – if mounted longitudinally on the centre line they would meet in the centre rather than leaving an aisle. Adjusting them to length is no great problem, but is best done in the flat before they are assembled. Further, as they butt up against the inside of the end walls, the standard body mounting brackets, which run the full width of the end, will need to be modified.

The clerestory has to be built up from two sides, two ends, and a top.



The supplied roof also has to be bent to shape, and has rain strips etched in place but no markings to locate the assembled clerestory.

A very fine handbrake lever is included, but the kit does not include glazing nor any 'solid' details as castings. The builder must also supply wire for handrails and door handles, though the fixing holes are present, along with brake shoes and rigging, the footstep

under one door (one side only, apparently), and the lamp top.

Wheels and bearings are available separately from Worsley.

The components have been very nicely etched – panelling and beading is well defined and the half-etched areas are very even, but very thin, making for fragile parts. The fine strips over the doors are particularly vulnerable.

The sides and ends are separate, with no form of location, but they can be accurately soldered together if care is taken, standing them on a true flat surface. It is worth reinforcing the corners with a fillet of solder, though take care not to impede the fitting of the floor unit or windows. It is assumed that the builder will understand the techniques required, and follow drawings and photos to add appropriate details: this does not seem unreasonable for something sold as an aid to scratchbuilding rather than a complete kit.

For 4mm scale narrow gauge

MANUFACTURED BY
Allen Doherty, Worsley Works NG,
19 Douglas Road, Worsley, M28 2SR.

PRICE
£11.00 each.
Please add £1.00 per order
for postage & packing, and make
cheques payable to A.Doherty.

LSWR 8-plank wagon kit in N



Parkwood Models has reworked its kit ref.11, the LSWR 8-plank open, to provide a full buffer beam. Originally this and some others in the range had partial buffer beams, which mated with the notch at the ends of the Peco 10' chassis on which it sits. Parkside buffer heads (not supplied) are intended to be fitted to the moulded shanks.

The kit, as with most in the Parkwood range, can be obtained in bulk at advantageous prices.

As well as the 10' wheelbase chassis, the kit can be placed on a Peco 9' steel chassis, also not supplied.

For N

AVAILABLE FROM
Parkwood Models, 31 Elmwood Close,
Retford, Notts. DN22 6SL.

PRICES
£1.75 each, £5.00 for 3, £15.50 for 10.

Roger Smith sand house, tarps



This simple card kit in 4mm scale (Ref CKIT02) from Roger Smith represents a GWR structure built at Banbury loco shed in the early 1940s, a slightly wider version of the 1930s type. The structure's function was to dry and store sand for locomotives. A high level bin with a metal door in the back wall allowed sand to be shovelled from an open wagon into the bin for bulk storage whence it was drawn off and scooped through a small stove into a lower bin for drying and use.

The kit (£3.99) is printed in appropriate colours and gives a good representation of this building with its steel frame with brick infill and corrugated asbestos roof.

Construction is simple enough using the usual card modellers' tools of sharp scalpel, steel rule and glue. Roger does not use tabs for corners, but double-layer walls of slightly unequal length give a rebate which, with careful gluing, can result in very neat corners. Triangular card supports are provided for fitting internally, finally to strengthen the corners.

A short length of soft alloy rod is provided for the chimney, and a small coal bunker, for storing the fuel for the sand furnace, can also be built from the kit.

Roger can also supply tarpaulins in 7mm scale lettered for British Railways, the Big Four and various pre-Group companies. These come in packs of four, priced at £3.99 per pack, for the following:

ref	railway
TARP701	LMS
TARP702	GWR
TARP703	LNOR
TARP704	SR
TARP705	Lancashire & Yorkshire
TARP706	Great North of Scotland
TARP707	Somerset & Dorset Joint
TARP708	London & North Western
TARP709	Cheshire Lines
TARP710	London & South Western
TARP711	Midland & South Western Jt
TARP712	Midland
TARP713	Great Northern
TARP714	North Staffordshire
TARP715	Caledonian
TARP716	Great Eastern
TARP717	Great Central
TARP718	Cambrian
TARP719	British Railways

The sheets measure 145mm x 99mm, and at 4thou seemed just a little thick: they took a bit of careful crumpling to achieve the 'used' look. Drill positions for the holes which accept the tie-down ropes are marked on each tarpaulin. The tarp' on our sample wagon has been secured with Green Scene fine wire.

For 4mm & 7mm scales

AVAILABLE FROM
Roger Smith, 121 Wellsford Avenue,
Solihull, West Midlands B92 8HB.

PRICES
In text.



Class 4 in N from Graham Farish



The Bachmann engineers, working steadily through the Graham Farish range, have reached the Standard Class 4 tank.

Our sample represents No.80032 in lined black with early BR emblem, representative therefore of the 2-6-4T as it was outshopped from Brighton works in February 1952. Although intended for the north east, it stayed a Southern machine – indeed a Central Section loco for most of the time – for its short career, being condemned at Bournemouth Central in January 1967. Its final journey was to Cashmore's Newport, a yard which dispatched 18 of the big Class 4 tanks.

The new, larger diameter wheels boost the model's appearance over the old versions, as they help to fill the space beneath the bunker and cab floor area. The trailing truck has frame detail moulded on.

Performance is good straight from the box, and will doubtless improve once the loco has 'stretched its wheels' on the layout.

The livery is, as expected, applied very well. The lining is crisp, and the 75A (Brighton) shedplate and bunker rear water capacity plate (2000-gallons) are both legible. Well done!

All that's really required is to glaze the cab windows and add some crew figures, and this smart tank will be ready for the road.

*SAMPLE SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.*

PRICE ref.372-526, £62.95

*B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.*

Flexi-Grip for all scales

An often discussed dilemma, particularly for those who exhibit their layouts, is whether or not to fix down the small scenic accessories such as human figures and road vehicles. Gluing them down with most adhesives seems an irreversible process and subsequent removal, particularly of vehicles, inevitably causes damage to both model and road surface.

Flexi-Grip is a new semi-permanent adhesive which nicely solves this dilemma. Available in 30ml jars, it is inconspicuous in colour, non-hazardous and will not cause damage to model or surface. A small application of Easy-Grip under each wheel of a car, or each foot of an animal, for instance, will hold that model quite

securely during transport and exhibition. If it is desired to remove the item, this is easily done and any remaining adhesive is simply wiped away, leaving no damage. This is one of those modelling products which also has many domestic uses such as sticking stamps into albums, furniture into dolls houses, posters on to windows, post-cards on to walls etc.

*AVAILABLE FROM
Flexi-Grip, 65 Grosvenor Crescent,
Dartford, Kent DA1 5AP.*

*PRICE £3.99 per jar, or two for £7.00
plus £1.50 P&P (mentioning this
review). Please make cheques
payable to KL Miniatures.*

Static Sentinel in 4mm scale

Knightwing has released an injection moulded plastic kit for the stylish Rolls-Royce powered Sentinel 48-ton industrial shunter of the early 1960s in 4mm scale. The kit is static, but both Branchlines of Exeter and Roxey Mouldings of Walton-on-Thames offer motorising and detailing packs.

The instructions take the form of exploded views, which are easy to follow. Assembly was not too difficult, although we noticed that a couple of the parts exhibited traces of imperfections in the moulding process.

Modellers interested in more on these snappy diesels should consult Dave Purvis' article, published in RM September 2000.



*AVAILABLE FROM
Knightwing Models International,
1 Wood Street, Huddersfield HD1 1BT.*

*PRICE
£14.99.*

Book Reviews

LMS Locomotive Profiles No.4

The 'Princess Royal' Pacifics

David Hunt, Bob Essery
and Fred James

Wild Swan Publications, 1-3
Hagbourne Road, Didcot, Oxon
OX11 8DP

273mm x 215mm 112pp
Softback £14.95
ISBN 1 874103 86 0

It is good that two Princesses are preserved, 6201 *Princess Elizabeth* and 46203 *Princess Margaret Rose*; it gives us a chance actually to see some of the detail described so comprehensively in this publication.

The thoroughness of the research and the authority of the three writers is way beyond doubt. If criticism were ever to be levelled by anyone, then that person should attempt to write a book of their own and attempt to discover even one significant fact that might be omitted from the 'Princess Royal' story.

A finely honed engineering profile is related in meticulous detail using text references and working diagrams from sources not least of which is the National Railway Museum; the authors having contributed enormous amounts of knowledge to this source.

The sense of evolution is well portrayed as improvements were developed from the correction of both major and minor faults, using the practical experiences drawn from drivers, firemen and repair shops.

The engineer who reads this book will find a wealth of information about the practices of the time and the approach to problem solving that was derived from experimentation and learning from practical experience. Advances in design were consequential and it is fascinating to plot the course of the refinements that took place and the huge number of modifications that ensued.

Copious engineering drawings provide delight for the technically minded, but for the reader who enjoys a lighter approach, they also provide the context and background necessary to gain full value from the book. Some of the drawings open out to several pages to accommodate views of the whole locomotive whilst good quality black and white photographs enhance the text and establish images of the class in its daily role.

Every aspect of this very small class of twelve locomotives is discussed and it is astounding to find out how many differences there were between its members. This is not just a catalogue of the history and construction of each loco, but a comparison of all the many changes made and the reasons behind them.

The book has a great relevance to modellers, particularly if interested in live steam. But, so much more can also be enjoyed by enthusiasts of smaller scales who would like a thorough background and technical knowledge of the Princesses.

As part of a series of books, it is a



Above: one of two 'Lizzies' to survive into preservation, No.6201 Princess Elizabeth was captured on film at Wolverton 150 on 1 October 1988.

Photograph: Alan Pike.

superb way of starting a collection of 'Profiles' or of adding to an established series of distinction.

A History of the Steam Locomotive

David Ross

Tempus Publishing Ltd., The
Mill, Brimscombe Port,
Gloucester GL5 2QG

248mm x 172mm 352pp
Hardback £25.00
ISBN 0 7524 2986 8

This is something a little different from the norm. It is not really a coffee-table book and it is not really a book for those who just want technical information, but there are elements of both book styles in this title.

Transport historian David Ross has brought together the history, technical background and cultural influences surrounding steam locomotives. It has been written to celebrate 'two centuries of man's love affair with the steam locomotive' as it says on the back of the dust jacket. On the front and spine is the phrase 'The willing servant', but it could be said that it was a servant that had to be cultivated and tamed.

The historical background of railways is well researched, whilst anecdotes, quotations and reports of incidents add an endearing human touch and introduce the social and cultural aspect. Technical details are used to great effect to illustrate specific developments. Surrounding these points are the justifications that were put forward at the time and these make fascinating reading.

Well positioned, at the half-way point in the book, Chapter seventeen deals admirably with progress 'A hundred years on'. American and Far Eastern activities created strong forces that broadened the commercial horizons and opportunities for railway expansion. The adoption of what could be regarded as new industry standards such as the Walschaerts valve gear and the introduction of superheaters concentrated technical expertise to fulfil the needs of new kinds of customer.

There were rich cultural influences from film, art, music and literary sources in the nineteenth and twentieth centuries. Chapter nine reflects this and provides a refreshing interlude as does chapter twenty-three that is entitled 'Engines of the imagination'. These chapters, far from being a distraction from actual train matters, help to put the history of the railways into the context of the times. The legacy of steam lives on and references to the Rev. Awdry and even Harry Potter have their importance in the scheme of things.

The 'wow factor' is continued with chapters called 'The biggest engines' and 'Record breakers', but instead of being sensationalist, their content helps to bind the story together and realise the goals of achievement set from within and outside the railway industry.

The author clearly likes writing and loves words; indeed a dictionary might be a welcome companion when encountering the occasional unfamiliar word. At the end, a sense of unfinished railway business remains and maybe it should, or enjoy reading about one of the greatest industrial influences on the world, try this title.

Two sixteen-page photograph sections provide over fifty historic illustrations, fifteen in colour.

This is a very satisfying read that adopts a broad approach to the subject. It informs, amuses and educates but never in a patronising way. If you are knowledgeable on the subject, new to railways and want to find out more, or enjoy reading about one of the greatest industrial influences on the world, try this title.

Brecon to Newport

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ

240mm x 175mm 96pp
Hardback £14.95
ISBN 1 904474 16 0

The first page of this recent Middleton Press publication establishes the 'what' and 'where' of the book straight away; a map of the area that is covered and the index. Thirty-one locations are specifically covered with a useful amount of substantive background information to set the scene. The book formula of this series is continued with the geographical setting and historical background sections. The formula is not, however, a recipe for dullness.

The contents of historic photographs and large-scale maps act as pieces in a jigsaw. Reading the captions, looking at the photographs and referring to the many maps create the whole fascinating picture. The casual reader or the serious researcher will find plenty of meat in the text and solid graphic content if they plan to do some modelling or perhaps reminisce about an area of Wales they once knew.

Within living memory for some, so much changed along this route, the machinery, the people and the style of life. It would be well worth taking this book on a visit to the district. It covers a relatively small area in good detail and is economical entertainment.



Left: an overview of Dingle station, as modelled in 4mm scale by the Chester MRC. The layout was described fully in our December 2002, January and February 2003 editions.

Photograph: Len Weal, Peco Studio.

were conjured up using existing items of rolling stock brought together in unusual combinations without, seemingly, much regard for the safety of the operating crews. But weedkilling was necessary and vehicles and funds were limited, so their efforts were to be commended.

The stunning overall impression is one of huge change during the steam era. The railways both caused and reflected social and technological changes, many of which are in the living memory of many. Parents and grandparents today will recognise locations, vehicles, buildings and railway practices put forth in these pages.

The black and white photographs are historic and their quality is a reflection of their age, but the content is irreplaceable and represents captured moments that have helped to form the foundations of today's railway and the society it serves.

It is perhaps a good idea to read each chapter in a separate session and take time to digest its contents. The next chapter will be a great contrast and give equal pleasure.

The Irish Narrow Gauge in colour

Norman Johnston
Colourpoint Books, Jubilee
Business Park, 21 Jubilee
Road, Newtownards Co Down
BT23 4YH.

295mm x 200mm 108pp
Hardback £19.99
ISBN 1 904242 13 8

This is the first full-colour album of Irish narrow gauge railways, including material dating from 1949 to the present day preservation scene. Many of the photographs are very rare and have not been published before. The lines visited are Giant's Causeway Electric Tramway, Londonderry & Lough Swilly, Tralee and Dingle, Cavan and Leitrim, West Clare, and County Donegal.

The book also covers industrial lines such as Guinness and Bord na Mona, and looks at today's preserved lines.

The photographs are the work of various photographers but are without exception gems of railway and social history. Some tell a story when viewed in sequence – don't miss the parcel collection which wasn't, near Kiltubrid on the C&L, nor the reason why Drumshanbo on the same railway is so often misspelt in railway books.

Ireland was not an affluent country in those early postwar years and, for all their charm, the photographs present a picture of mechanical decrepitude and a very simple lifestyle which at times must have bordered on poverty. One cannot help wondering whether the locals felt patronized by the prosperous camera wielding LRTL (and other) visitors on their seemingly frequent visits. It is to be hoped that they were not too offended, for the unrepeatable photographs taken on those tours are among our best reminders of a vanished era. Not so very many years later, a very comparable situation arose in Eastern Europe and here, again it was the surviving country railways which were the real stars of the show and affection for them that brought together very different cultures and circumstances.

Although this is predominantly a photo album, the captions provide much information which is further

enhanced by the well prepared maps and trackplans.

We can only hope that there are more photos in the drawer and that this will not be the last delightful Irish collection from this publisher.

Odd Corners of the GWR

from the Days of Steam

Kevin Robertson
Sutton Publishing, an imprint of
Haynes Publishing, Phoenix Mill
Thrupp, Stroud, Glos. GL5 2BU.
264mm x 195mm 150pp
Softback £12.99
ISBN 0 7509 3458 1

A *pot pourri* such as this is a welcome change from intense technical tomes and purely photographic books with captions. It is hard to know what to expect from such a title, but there is something there to interest and intrigue those with even the mildest curiosity in railways. This is the softback edition of Mr Robertson's book, the hardback version of which was published in 1999.

It has a feeling of being several short books in one cover with diverse styles, but this characteristic adds to the sense of variety and enhances its charm.

For the more serious reader, there is much well researched documentation of events, geographical locations, rolling stock and incidents. In fact, the more you peruse the pages, the greater the sense of discovery of the less obvious and less publicised aspects of the GWR; the intended purpose of the book.

With the holiday season approaching, the section on Camp coaches seemed appealing. The use of these coaches has many implications about the 'waste-not' attitude of the GWR, the social aspect of holidays in England and the attempt to make the most of all circumstances between and after the two world wars. Pictures of dad wearing a tie and sitting in a deckchair with his wife (we presume) handing him a cup of tea tell their own silent story.

It would be easy to mock the attempts at trackside weedkilling that

Locomotive Boiler Explosions

C.H. Hewison
David & Charles Ltd., Brunel
House, Forde Close, Newton
Abbot, Devon TQ12 4PU
214mm x 135mm 144pp
Hardback £12.99
ISBN 0 7153 8305 1

This is a hardback re-issue of a perennial book. The title describes exactly what is in the book and recounts boiler explosion events, their causes and consequences from the beginning of steam power to 1962.

To help understand the accounts, a chapter about boiler construction sets the scene. The reader soon becomes familiar with the technical terms and the concept of how a boiler should work safely.

The seven chapters that follow capture the incidents that occurred in groups of decades. The stories of each incident describe the circumstances, personnel involved and the technical reasons for the explosion. Victorian safety was not all that it could have been and some of the shortcomings carried on well into the twentieth century.

The style of writing tends to be a little old-fashioned, but it is delightfully correct and reminiscent of the times depicted in the book. It is, however, easy to read and not at all school 'text-book'. The content makes compelling reading and the few photographs that are included at intervals add some spice and confirm the reality of the situations. It is principally a book of text and does not pretend to be fully illustrated.

If you like literature about disasters, *Locomotive Boiler Explosions* will provide good reading material.

New items of UK interest at Nürnberg

The Nürnberg International Toy Fair is the highlight of the European trade fairs, especially so for the model railway industry. Every year our sister magazine *CONTINENTAL MODELLER* has reported at length the new and proposed projects in its April and May editions, and traditionally we have pointed readers to the second part of each report, the section dealing with scenic items, in our May editorials as the scenic products will of course have greater appeal to our readership than the purely 'foreign' locomotives and rolling stock. This year we have decided to bring you a taste of this section in the coverage here.

It is of necessity selective: many of the products quoted are for H0 (1:87) and continental TT (1:120) and N (1:160) scales, but subjects such as trees and scenic materials are featured in greater depth as there is no 'scale size' for a tree! Where the products will be well-known, and distributed widely in the UK, we will not give addresses, but refer readers to the advertisers in this magazine – and CM – for the product names. Firms such as Gaugemaster, Model Masters, MDR Direct and International Models are distributors/stockists of much of the ranges which follow, and there are of course others in this sector of the hobby. Where firms have less high a profile in this country, the contact details will be found at the end of this report.

It is broadly in three sections: motive power and wagon loads; trackwork and structures; and 'nature'.



Motive power and wagon loads

Highlight of the show – from a UK perspective – for many is the progress being made by **Heljan** with its Class 52 'Western' in 00. The accompanying photograph shows how far the big hydraulic has come since the plan to produce it was made public at Warley in December. The four first identities are listed in the latest catalogue as D1007 *Western Talisman*; D1037 *Western Empress*; D1067 *Western Druid*; and D1015 *Western Champion*. No liveries are quoted, but they are to be BR maroon, BR green, BR blue and experimental orange (as preserved) respectively. The Class 66 is also seen in the catalogue, but whether Heljan progresses this project as speedily as the 'Western' remains to be seen.

The Class 66 is of course a familiar sight on the open access rails of continental Europe, and noted Slovenian

manufacturer **Mehano** has plans for one in H0. (The **Bachmann** 00 proposal was reported in full in last month's issue, in the news from the British Toy & Hobby Fair.) It will boast such refinements as close coupling, DCC capability, directional lighting, a five pole motor and even four traction tyres. First liveries will be DLC, HGK and ERS Railways, and delivery is anticipated for December. A development study was seen (*below left*).

The Class 66 – known overseas and in the EMD catalogue as a JT42CWR – is also proposed for H0 by Hungarian specialists **Deák Modellsport**. GB Railfreight is listed as one of the five first liveries for this model (*foot of page*), the others being HGK, ERS, CargoNet and Scandinavian operator TGOJ.

Railex proposes to model the Rainhill Trials contenders – in N and Z!

Rocket, *Novelty* and *Sans Pareil* are planned to be produced, in limited numbers and at a price, in brass, with stock to match. The locomotives will be unpowered: in usual Railex style a luggage van will have the drive unit. Painted and unpainted versions will be available.

ETS from the Czech Republic had a couple of Class 20s (*below*) running around the firm's 0 gauge display. Its products should be available via Kittle Hobby.

Wagon loads are an expanding facet of the continental scene, often tailor-made to specific wagons or lorries from specific manufacturers. **Ladegüter Bauer** had, amongst its steel plate, wooden roof trusses, scrap, coal, steel coil and H-section girders loads, several items designed to fit **Hornby** 00 wagons. Barrels, crates, hardcore and scrap were seen,



the latter load fitted within a tippler wagon, as illustrated. We understand that Ladegüter Bauer will not be marketing these British items itself, but will welcome trade enquiries from the UK.

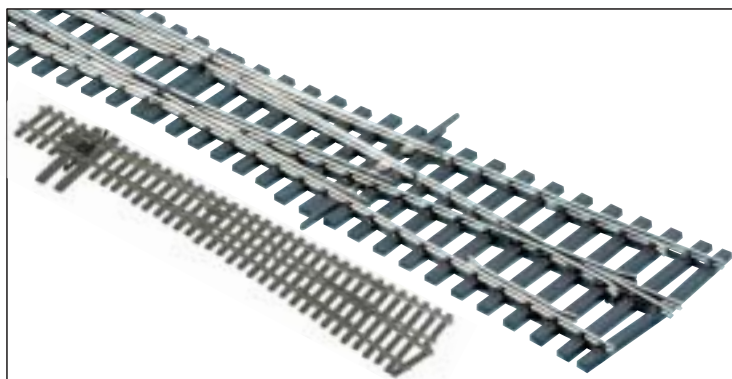
In a similar vein, **Heico** offers H0 loads for wagons and road vehicles ranging from the small (cable drums) to some immense heavy-haul loads such as transformers, industrial pressure vessels and so on, for the multi-wheeled articulated lorries in the **Herpa** H0 range.

Trackwork and structures

A totally new US profile track system will be introduced from June 2004 by **Peco**. Code 83 does not replace any of the currently available track, but is an important additional range to provide an authentic H0 scale system for modellers of the North American prototype.

The rail profile and sleeper spacing will reflect US practice, there will be extended sleepers for point levers, and the rail fixings, baseplates with spikes and sliderail fixings with cast cleats all add to the realism. Checkrail and frog clearances will be to NMRA standard and flange support in the frog area will give smooth passage over points. Live frog and Insulfrog points, to NMRA classifications Nos.5 and 6 (below, inset), and a No.6 diamond crossing will be part of the range.

Flexible track in yard lengths will be available too. It is, of course, totally compatible for use with DCC.



Modellers using 0 gauge will welcome the new double slip that is anticipated for availability at the end of the summer (above).

H0m/00n3 enthusiasts will welcome the new double slip added to the current range. The dimensions of these slips will match the diamond crossing. It is planned to introduce this by the end of the year.

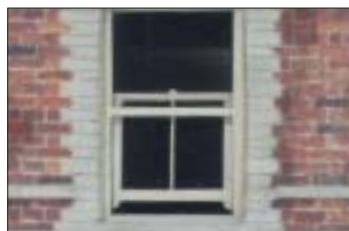
Ratio Plastic Models, part of Peco, had huge success with the 00/H0 coaling tower and this spring will introduce the N scale version. The Wills Materials Packs series of modelling building sheets offer limitless possibilities whilst the latest members of the Craftsman's Kits range feature a shop building, brick goods depot and a rural post office.

In the realm of structures, one item in particular caught the eye: noted German card kit manufacturers **Casalux** had on display a 4mm **Howard Scenics** cottage, fitted with finely detailed sash windows, as an example of the quality work it can carry out. We understand that Casalux will welcome potential UK partners who might be interested in including such components in their structure kits.

New kits in the **Faller** H0 range that will have the most UK appeal are as follows. There is a set (ref.120225) for a track maintenance unit, comprising a timber PW hut, small electricity transformer, pump trolley (non-working) plus signs and accessories: both these aspects of the kit can be 'anglicised'. There will be a cattle loading ramp, 36.5cm long (ref.120030), though obviously it could be used as any kind of end loading ramp. The 'exclusive model' for 2004 – i.e. only to be produced this year – is a working model of a construction site. A crane lowers and swings; a shovel loader raises and lowers its jib and can also swing; a bulldozer moves about its business; and a tippler lorry can have its loadbed tipped. These are Wiking and Brekina models, adapted by Faller for this scene. Accessories and a control panel, ready for connection to a 16v AC outlet are included (ref. 130984). The fastidious will not doubt want to try and substitute British lorries and plant, but for many this will be an eye-catcher on the layout when no trains are running. A short (45cm) bascule bridge (ref.120490, right) comes complete with control tower, which hides the 12-16v AC drive mechanism. A section of four shallow-arched ashlar stone retaining walls, 37cm long, is offered with rock detail behind the arches (ref.170893) or clear, as used in mountainous areas as rock slide or avalanche protection.

For TT, there are single and double track tunnel portals, and stone retaining wall sections 30cm long.

The cattle dock crops up again in the N range, and the coal-tipping platform (ref.222148), intended as part of a loco shed coaling facility, might intrigue narrow gauge modellers working in 009: an interchange platform with a standard gauge line, perhaps? Double-track straight and curved viaducts are planned, the piers of which are variable in height. The ashlar stone retaining arches/gallery sections are repeated from the H0 programme. From Noch in H0 will come single and double track tunnel portals, in dressed stone and with wing walls and plain section walling to match. The portals have clearance for overhead live wires.



The **Auhagen** H0 plans for 2004 include a steel girder bridge, 327mm long with stone abutments: rail level is 110mm above the base of these dressed structures. In its TT selection, there will be a conveyor loader of the portable type, on a single axle, with associated weighbridge for lorries to be checked before they discharge their load into the wagon.

Haberl & Partner (H&P) will offer two turntables for H0: one big enough (scale 125') for an American 'Big Boy' 4-8-8-4, and the other a scale 60' table. These lengths in 4mm scale are about 110' and 52'6" respectively. Away from the railway fence there is a forestry-commission style inspection tower in nickel silver, and marquees such as are seen at events in corporate hospitality use. For N – and Z! – is a British-looking coal mine, with twin headframe wheels alongside each other. The kit is in brass.

Belgian manufacturers **ER Decor** offer, in H0, tunnel mouths for single and double track with odd-shaped portals, as if the tunnel has been blasted out of unyielding rock in mountainous terrain, the resulting 'hole' then being faced with dressed stone.

Modellers wishing to construct their own civil engineering projects, the **bloxxs** (think Linka) system might be of interest: real stone segments are fixed to a foam base, which the modeller has carved previously to shape. Bridges and revetments are simple structures to finish using this method.

Landscape materials and accessories

This section will doubtless be of greatest interest to UK modellers. Tree sizes in this part of the report are in millimetres, with 4mm scale equivalents in brackets.

K&M Trees, part of the Peco group, has relaunched its scatter products: they are now known as the **K&M Countryscene** range. The fade resistant, fine grade granulated cork scatter materials are now supplied in resealable plastic bags; a simple improvement but one that makes for greater convenience and more secure stor-

age. The K&M range of hand-made deciduous, fir and poplar trees complement any layout and make an effective accompaniment to the hedges that can provide great scenic interest.

Heki for 2004 will have its 'rock foil' stone sheets in the range of flexible landform sheets measuring approx 180mm x 400mm, and also a larger sheet measuring 350mm x 800mm. It is described as a quick and easy way of creating effective stone rock faces, and the leaflet shows a sheet fixed to four wooden uprights surrounding a tunnel portal: the effect of a high mountainous railway pass is convincing. The stone sheet is also suitable for use as the course of a mountain stream, cascading over rocks in its bed. The possibilities are far-ranging.

Its tree range has been increased by bulk packs of 'bottle brush' firs, supplied 100 a time at 50-70mm high (12'6"-17'6", so more suited to N or background use), and also in a pack of 100 trees 50mm-140mm high (an upper limit of approx. 35' in 4mm). Heki is also offering two scenery 'kits', one with 15 'bottle brush' firs, a sheet of 'meadow grass' and a wayside shelter; the other comprises the first two elements of the first set but substitutes an elevated watchtower in place of the shelter.



Heki plans to release boxed selections of trees, the basis of which is 'sea foam', in the manner similar to UK bulk packs of this nature. The difference is that the sea foam has been factory-treated with Heki foliage material, and so is 'ready-to-plant'. 15 trees are in each pack, described as light green, middle green and dark green. Heights are not stated but will be of typical dimensions of trees using this material.



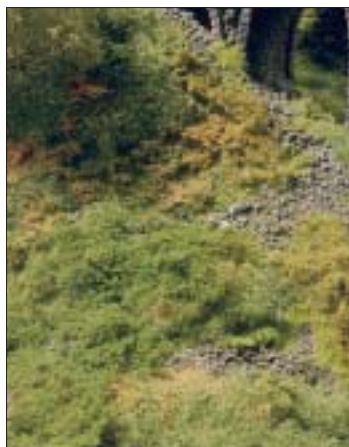
'Tree of the year' for 2004 from Heki is the pine. They are offered in fours in low relief and twos ('northern firs', above), all 180mm tall (45').

ER Decor had a pleasant surprise for the Peco team: its new items leaflet includes part of the Swiss HOm layout here at Pecorama, featuring a river made with **Deluxe Materials** products, which ER is selling in Belgium. The firm has an extensive new range of hedging, trees of various sizes, types and quantities – typical examples being four dark green trees in full leaf 170mm tall (42'6"), an apple tree 100mm high (25'), and an olive tree in flower 90mm tall (22'6"). Items in its collection of stone features – broken down walls, piles of logs and natural rock outcrops – might be of use to railway modellers, but they are clearly intended primarily for the wargaming/fantasy market, to judge by the leaflet!

In the 'top series' range of trees from **Faller** are an ash 150mm tall (37'6"); three rounded beech trees 160mm tall (40'); three pines about the same height; three pines 100mm tall (25'); and four fruit trees around the 60mm mark (15'). Delivery for all four sets is anticipated to be June.

Faller this year will release trees in its new 'premium' range, consisting initially of the following packs/number of trees in each: 1 horse chestnut; 3 silver birches; 2 plane maples; 2 grey alders; 3 common maples; 3 white birches; 3 rowan trees; 2 pollarded willows; 5 deciduous trees; 1 lime; 1 ash; 3 black alders; 3 white birches, taller than previous; 2 plane trees; 1 silver birch, again taller than those in the pack of three; 3 swamp cypresses; and 3 lombardy poplars. Heights range from approx 70mm of the willows (right, 17'6") to the single ash at 200mm (50'). Delivery for all is expected to be in May. Hedges are also planned, in threes 160mm long and fours 100mm long, in two 'designs': light green and with red blooms.

Noch for 2004 also offers 'sea foam', though in its raw state, to which foliage can be added by the modeller, and a selection of pines, 6 at 170mm tall (42'6") and 4 at 200mm (50'), in



bulk packs of 10 each. The 'professional' series of ground cover mats (above, foliage on thin netting, which can be teased gently to the shape and configuration required) gain eight shades – from dark green through brown to beige – in three grades, fine, medium and 'foliage', the last category only covering olive, light, middle and dark green. Noch also has foliage mats designed to represent wild grass and (coarser leaves) wild grass foliage. Beige, and light and dark green are the options here. Ivy, and similar creepers can be modelled using the new packs. Noch will release for the purpose: again fine and coarser leaved packs are offered, in olive, light, middle and dark green, plus yellow and red in the fine-leaf variety only. Rustic fencing of various kinds, farm implements etc round off the programme.

Some very fine etched metal railings, quite ornamental in places, are in the **Haberl & Partner** programme for N and Z in 2004. They are intended for municipal parks and so on, but could equally be used in a stately home environment. Also in the range are etched metal shopfront sign brackets – for pubs and locksmiths etc – in N. Etched 'hole covers' for urban trees on pavements are also offered, for N and Z. 12 of different sizes and shapes are in the former pack, 15 ditto the latter.

Auhagen has in its new programme bulk packs of trees based on 'sea foam' and factory-decorated in light green or 'May green' foliage. Ten are in each pack, ranging between 120mm (30') and 200mm (50') in height. Delivery is slated for May, appropriately enough! Three types of grass matting (15cm x 25cm) should appear at the same time, representing ground cover in light green, 'May green' and green with yellow blossom (right). A kit for deciduous trees, based around sea foam and supplied with foliage packs from the Auhagen range will produce a trio approx. 190mm high (47'6").



Busch has some interesting new scenic products for this year. A roll of self-adhesive grass matting 100cm x 80cm in total in 'May green', has a smaller brother measuring 39cm x 26.5cm. In each case the modeller simply marks off the shape of 'field' required, cuts to shape, peels off the backing paper and positions in place.



Specifically for HO, Busch offers a pumpkin patch (above), comprising 80 individual pumpkins plus five leafy tubers approx. 40mm long, on which more pumpkins are growing. Also new are vines, 15 in a pack with over 100 bunches of grapes. To complete the vineyard scene, two huts are also available, representing on-site wine sellers' premises. 'Dry trees' are also in the range, representing those water-retainers that exist in hot climates. A foliated one suitable for its Mediterranean square location can be developed from these models, as illustrated in the Busch new items leaflet.

Dr Schroll has four new types of tree in his range: Chinese palms, a Christmas-tree-type fir; an acacia tree; and a silver willow.

The **MiniNatur** (formerly **Silhouette**) range of top-drawer scenic materials and trees has been enlarged with ground cover matting of goldenrod, in spring, summer, early autumn and late autumn finishes, and flowers in white, gold, red and violet.

Although the assortment of scenic producers' backscenes is recognisably continental (some are very recognisable!) the **MZZ** industrial backscenes for N, depicting petroleum refineries (right), steel plants and other such heavy industries, could well have UK applications. They are understood to be limited in production.



Finally, figures. **Preiser** is known the world over for its excellent HO, TT, N, Z and large scale animals and human beings in characterful and characteristic poses. The HO releases for this year are too numerous to mention, but those – apart from general 'civilians', passengers and passers-by, of course – with UK potential are equestrians, mounted and standing; fire crew in flame-retardant gear (above); rail workers in hi-vis clothing; more equestrians in N this time; and site workers in hard hats for O scale (1:43). Associated company **Merten** offers in HO track crews in various sets, carrying rails and so on; railway personnel (including German Shepherd dog); petrol station attendants; ice skaters, various; fallow deer; athletes and footballers; fire brigade frogmen on land and in a boat; and in N table-tennis players.

SAI includes spectators, farm workers and maintenance men in its HO selection.

Busch offers cameos in its new programme, generally consisting of two or so figures, associated furniture and a vehicle. Typical of the collection: a taxi driver about to help his injured fare into his Audi; and a traffic warden booking a protesting motorist for parking his Mercedes estate on the pavement.

Noch figures include mechanics and accessories (HO); railway personnel (HO/N); dog walkers (N); horses and stable lads (HO/TT/N); dogs and scared cat on dustbin (TT and N only); and golfers (HO).

Faller figures for HO include football teams and officials: one set features players in white with black shorts, and the other in red with white shorts.



Addresses

As stated, products such as those from Faller, Heki, Noch and so on are widely available from advertisers in the magazine. Here are the addresses of those firms which do not have such a high UK profile or, as mentioned in the report, would welcome UK trade enquiries.

- Ladegüter Bauer**, Kirchenstr. 6, D-93142 Maxhütte-Haidhof, Germany
- bloxxs**, Scambachring 5, D-93155 Hernau, Germany
- Casalux**, Mainzerstr. 50, D-66121 Saarbrücken, Germany
- Déak ModellSport**, Németh utca. 10, H-1084 Budapest, Hungary
- Haberl & Partner**, Ulmer str. 160a, D-86156 Augsburg, Germany
- Heico**, Steinschrotsweg 7, D-96450 Coburg, Germany
- MiniNatur**, Industriestr.48, D-82194 Gröbenzell, Germany
- MZZ**, Hohenstoffelstr. 19, CH-8200 Schaffhausen, Switzerland
- Railex**, Falkerstr. 73, D-70176 Stuttgart, Germany
- SAI**, BP27, F-45730 Saint Benoit sur Loire, France
- Dr Schroll**, Am Birkenberg 3, D-86551 Aichach, Germany

York Show 2004

This year's Show will be the forty-second – how time flies! The venue will again be the Knavesmire Stand at York Racecourse over the Easter Saturday, Sunday and Monday. A regular special bus service (approx every 25 minutes) will connect York station with the Show, first bus departing around 0930. Disabled visitors may wish to choose Sunday or Monday, on which days 'disabled friendly' buses will set down right outside the show entrance instead of at little distance away. As usual, the Show is multi-level but facilities are provided for the disabled, including a special lift serving first, second and mezzanine levels. Third floor is reached only by the main lifts.

Forty-four layouts are expected to attend this year, including the following: *Pendragon – Dragons' Roost* (7mm ng), *Columbia & Western RR – Cascade Yard* (0n3), *Sutton Wharf* (1:25, RM Jul & Aug 03), *Smokey Mountain & Soggy Bottom* (0-16.5), *Heckerslyke Mill* (0-16.5), *Hollies End* (0-16.5), *Botterill Street Yard Mk II* (7mm), *Bough Beech* (7mm), *Dutch River Dock* (7mm), *Otterburn* (7mm,

this issue), *The Iron Bridge* (7mm), *Sykes Bridge MPD* (7mm), *Hadley Road* (7mm, RM Sept 97), *Adavoyle* (4mm), *Cleckleyke* (4mm), *Halifax Kings Cross* (4mm), *Chessington Chalk Lane* (4mm, RM May 03), *Lakey Hill* (4mm Nov 97), *Aire Main Yard* (4mm), *Alloa Goods* (4mm), *Charwelton* (4mm), *Blagdon* (4mm), *Blea Moor* (4mm), *Grove Ferry & Upstreet* (4mm), *Rhyd y Clafdy* (4mm), *Severn Beach* (4mm, RM Nov 02), *Tebay* (4mm), *Hewisbridge* (4mm), *Tilford Road* (4mm), *Upper Hill* (4mm), *Thomas The Tank Engine* (4mm), *Waterhulme* (009), *Buccabury* (009), *Llanfairish* (009), *Dovey Valley* (009), *Perriswill* (3.5mm, CM April 04), *Roarkes Landing* (3.5mm, CM April 04), *Linton Cement Works* (3mm), *Queen Street Goods* (2mm), *Moorcock Junction* (N), *West Brent* (N), *Sandwell County* (N), *Bethany Wells RR* (N).

The layouts will be supported by demonstrations, scale and preservation societies and a good selection of traders.

Full details can be found in *Societies & Clubs*.



Severn Beach, by the Bristol East MRC. See it at York and Thornbury. Photo: Peco.

Epsom & Ewell Show 2004

North East Surrey College of Technology (NESCOLT), Reigate Road, Ewell, Surrey will be the venue for this year's Epsom & Ewell MRC show, to be held over the weekend of April 3 and 4.

A great variety of layouts will be present including the 65' long *Bath Green Park* from the Taunton MRC. Other visiting layouts include Trevor Nunn's East Lynn (S) and the well-known GWR ter-

minus at *Kingswear* (2mm) portrayed during the 1940s. There will be others in a large range of scales such as OO9 live steam models running on the *Mountain Railway* layout.

Epsom themselves will be showing *Horton Regis* (O); this LSWR layout was voted 'best in show' at last year's Gauge O convention at Telford.

Full details in *Societies & Clubs*.

Bath Green Park exhibition dates

Harvey Godber of the Taunton Model Railway Group has informed us that their 20m long Bath Green Park layout is now nearing completion.

The idea is to present the public with a layout where realism of operation is of prime importance together with scenery that depicts the grit and grime of a busy station. Something will be happening all the time on the scene and a realistic atmosphere created.

The first public exhibition will be at the Epsom and Ewell Model Railway exhibition on Saturday and Sunday, 3 and 4 April when the full layout will be on show.

The *Connected* layout, linked to their permanent home layout *Tamerig* (on platform 1 at Bishops Lydeard station) will be open to the public in support of galas organised by the West Somerset Railway on the following dates:

Spring Steam Gala	26-28 March
Epsom and Ewell	3-4 April
Diesel Gala	8-9 May
Vintage Steam Fayre	7-8 August
Autumn Steam Gala	1-3 October
Winter Festival	29 December

For more details, contact Harvey Godber on 01823 337460 or look at the website www.bathgreenpark.co.uk

Bristol show at Thornbury, 2004

The Thornbury Leisure Centre, Alveston Hill, Thornbury, Bristol is the place and April 30 to May 2 are the dates for the Bristol Model Railway exhibition.

On show will be a large selection of layouts in a variety of scales, gauges and periods. One of the layouts will be the new one from the North Devon MRC; frequently, their efforts have been voted 'best in show' at Bristol.

Making its final appearance will be Bristol area interest layout *Severn Beach*. From France there will be a 19th century Gauge 1 *Port Opale*, US

narrow gauge HO_{N3} *Segaro Valley*, a Welsh narrow gauge line in 5.5mm/ft scale *Llugwy Valley Railway* and *Porkington*, an early BR Southern Region layout in N gauge. Many other layouts will be there including *Williton*, again of interest to west country visitors.

There will be plenty of trade support, preservation societies and modellers demonstrating techniques and providing solutions to your modelling problems.

For full details see *Societies & Clubs*.

More modelling courses at Peco

Dr. Michael Watts is presenting extended weekend courses at Pecorama in Devon.

Two newly developed courses, 'Track & control' and 'Baseboards and scenics' are offered during three weekends: June 4, September 3 and October 22.

A course taster was provided free with the December RAILWAY MODELLER

and CONTINENTAL MODELLER on the CD-ROM.

The tutor, Dr. Michael Watts is a qualified and experienced teacher. The active training time for each course is about twenty hours.

Places on these courses are being booked rapidly. For full details and to book a place contact Peco on 01297 21542.

3-ton Scammell mechanical horse in O

Roadcraft Models are announcing a forthcoming 7mm scale kit of the Scammell 3-ton mechanical horse, without which no 1950s urban goods yard or street scene would really be complete.

The kit is cast in white metal with etched brass details and (with trailer) makes up into a model 5³/₄" long by 2" high. For the first time in a Roadcraft kit, transfers will be included; there are five options: LMS, GWR, SR, LNER and BR.

The widely used vertical windscreen version is depicted, but a number of body style options will be available such as early or late pattern front ends and type of doors; two types of wind-

screen and five kinds of sidelights and so on.

Three types of trailer will be offered, 13' flat (illustrated), 13' dropside and 15' flat. Two sets of coupling gear will be supplied, one to allow the trailer to be free-standing and the other for use when coupled to the horse.

Comprehensive instructions will be included that assume no prior knowledge of the prototype or model making.

Prices are yet to be finalised but are expected to be around £17 for the tractor unit and £13 for the trailer.

Roadcraft Models, 87 Sandy Lane, Prestwich, Manchester M25 9PS. Tel: 0161 773 1518.



Comet Mk 1 Pullman parlour second



Hot on the heels of the recently released parlour first – the fourth type of Mk 1 Pullman in the Comet range – Comet Models has now released the fifth and final BR Mk1 Pullman kit in 4mm, the parlour 2nd. Seven parlour seconds were built and initially carried the full Pullman number and cream livery. In the late 1960s, they were reclassified as open firsts and reliveried into corporate blue/grey (as above): the livery style reflected the original, but omitted the Pullman crests.

The kit construction is the same as the previous Mk1 Pullman releases and the sides pack includes the special underframe equipment and air conditioning ducts.

Prices: kit £36.00, sides only pack for conversions of ready-to-run coaches £10.00, end door pack for r.t.r conversions £4.50, Markits wheels and bearings £3.95.

Comet Models, 105 Mossfield Road, Kings Heath Birmingham B14 7JE. Tel: 0121 242 2233.

New EMUs from Bratchell Models

Bratchell Models has launched three new products, the Class 321/3, Class 321/4 and Class 322 four-car EMUs.

In line with the tooling method used with the Class 320 and 321/9 models, these new models are also injection moulded in top-quality ABS plastic, have flush glazing, bogies and Romford brass wheels and bearings. Each model can be purchased in kit form or you could take advantage of the ready-to-motorise (RTM) service. A feature of this service is that the power bogie frame below the pantograph end is deliberately left open, allowing the modeller to position their own motor. For a limited period, a pantograph kit will be included free-of-charge with these kits.

Bratchell Models has also released the EM and P4 gauge versions which are essentially the same as the others but do not have the 16.5mm Romford wheels and bearings, standard couplings and pantograph kit.

The RTM service for the wheeled kits offers NSE, Silverlink, two versions of First Great Eastern, Stansted Express and ScotRail 322 livery, including transfers.

Prices for these mail order four-car units are £122.00 or the non-wheeled EM and P4 and £146.00 for the wheeled kits. The RTM service for all four cars is £330.00 plus the kit cost. Full details from:

Bratchell Models, PO Box 22, Watford, WD17 3WA.

News from DJH Engineering

A selection of new products, kits and ready-to-run models are now available from DJH in 7mm scale.

In kit and r-t-r from Piercy Model Products, there is an LNER/BR Thompson B1 4-6-0 ex-stock, an NER/LNER/BR Q6 0-8-0 (Spring), an LNER/BR Gresley A4 4-6-0 (Winter).

Also in 0 scale from DJH are a BR

Brush Type 2 (Class 31) diesel (Summer), BR Standard Class 5 4-6-0 (Autumn), motor/gearboxes 20:1 for small engines and 24.2:1 three-stage for larger engines (Spring).

DJH Engineering Ltd., Project House, Consett Business Park, Villa Real, Consett, Co. Durham DH8 6BP. Tel: 01207 500050.

Enthusiasts' evening at Challis Models

On Wednesday 31 March from 19.30 there will be an enthusiasts' evening at Challis Models. The demonstrator for the evening will be Steffan Lewis who will be bringing his new layout *Maindee East Loco Shed*. This Welsh shed has all the dirt, muck and grime you would find in steam days, so the demonstration is all about creating atmosphere on your layout.

Steffan is very willing to talk about how to create different effects including painting backscenes to weathering locomotives.

Admission free: refreshments will include coffee and home-made cakes. **Challis Models and Hobbies, 50B High Street, Shepton Mallet, Somerset BA4 5AS. Telephone: 01749 343527.**

RAILWAY MODELLER price increase

We last increased the cover price of RAILWAY MODELLER back in October 2002 to £2.60, but since then, as in many industries, production costs have risen. We therefore have to announce a modest increase of 20p to

£2.80 from the May issue.

At the same time, there have recently been a number of content, quality and design improvements which we hope still makes the magazine great value.

SHOP NEWS

OPEN

Sanda Games, Telford

2004 sees the fifth anniversary of Sanda Games in Telford. The shop started out supplying the wargames and board games market, but has diversified into model trains stocking Hornby and Peco.

During the next twelve to eighteen months Steve and Angela

Reeve, the proprietors, plan to expand to meet demand. They are open seven days a week with their daughter Nicola running the shop on Sundays.

Sanda Games, 4 Albert Place, Donnington, Telford, Shropshire TF2 8AF. Tel: 01952 676722.

M.I.B. Models, Porthcawl

The first anniversary of a model business is always a significant milestone and M.I.B. Models of Porthcawl is now celebrating one year of trading as a shop. Alan Jenkins set up in 2001 as an internet company which originally sold second-hand model railway items, but in order to further the business he decided to open retail premises.

Big names like Bachmann, Hornby, Dapol, Woodland Scenics, Airfix and now Peco are in stock. Alan's wife, son and daughter help in the shop and you

are assured of a friendly welcome with knowledgeable service. Alan also says that the kettle is on most of the time, so you might be lucky and get a cuppa!

Opening hours are Wednesday to Friday 16:30 to 20:00 and Saturday 09:00 to 17:00. You can contact Alan on 01656 771121 or by e-mail alan@mibmodels.co.uk. There is also a website at www.mibmodels.co.uk

M.I.B. Models, 1 Lewis Buildings, Newton Nottage Road, Newton, Porthcawl, Mid Glamorgan CF36 5PE.

Hendford Halt silver jubilee show

Peter Farr of Hendford Halt is celebrating twenty five years in the model railway (and Scalextric) trade.

He left Ratio in 1979 to start his own shop called Hendford Halt in Yeovil, Somerset where he stocks OO, N and some O gauge products. The shop is open five days a week.

On March 28, there will be a

model railway show at Yeovil Junction station, Stoford, Yeovil, Somerset where you can meet Peter and see the show that he has organised. It is not a huge show, but there will be plenty to see with layouts in several different scales.

Hendford Halt, 43 West Coker Road, Yeovil, Somerset BA20 2LZ. Tel: 01935 427983.

Loco Notion Models, Peacehaven

David Young has recently moved Loco Notion Models to new premises in Peacehaven where he sells the latest Hornby, Bachmann and Graham Farish products, plus Wills, Ratio, Peco, all major kits and a full stock of Corgi. He also has a range of second-hand model railway products and dis-

count diecasts.

David has a disabled wife and the shop is, at present, open on Fridays and Saturdays only.

He is an active member of the Newhaven Railway Society.

Loco Notion Models, 131 Coast Road, Peacehaven, East Sussex BN10 8UR. Tel: 07710 215566.

Harburn Hobbies refit complete

It has been 'business as usual' despite the upheaval for Bob Baird and the crew at Harburn Hobbies during the last few months as the original section of the shop has been refitted.

The layout of the shop is now improved by increasing the extent of the wall display space while creating a brighter feel by exposing the building's original 1890s ceiling with its ornate cornice.

Extra floor space has been made available and new displays added, giving customers a comfortable environment.



Harburn Hobbies, 67 Elm Row, Leith Walk, Edinburgh EH7 4AQ. Tel: 0131 556 3233.

Liskeard & Looe *Lady Margaret* in 4mm

N Brass Locomotives has introduced a new 4mm scale kit of the Liskeard & Looe Railway 2-4-0T *Lady Margaret*.

The engine remained on the railway when it was taken over by the GWR, in 1909, until the early 1920s when she was transferred to the Tanat Valley Railway to work alongside the ex-Cambrian 2-4-0Ts.

The kit has an etched chassis, with both EM and 00 gauge spacers, and body. It comes with the option of a cast or etched boiler. Name and number-plates, whitmetal and lost wax brass

castings, handrail knobs, scale drawings and a photograph are also provided.

The kit requires motor, gears, gearbox, wheels, pick-ups, paint and transfers.

Lady Margaret is priced £69.00 from the following stockists.

N Brass Locomotives, 32 Crendon Road, Rowley Regis, West Midlands, B65 8LE. Tel: 01384 250478.

Mercian Models, 1a Market Way, Hagley, West Midlands DY9 9LT. Tel: 01562 884800.

Bachmann 00 'Jinty' progresses

We reported in the March 2003 issue from the London Toy Fair that Bachmann was to produce a 'Jinty' 3F 0-6-0T.

Three versions will be available as LMS 7542, and BR early emblem and late crest, numbers 47354 and 47410

respectively. Trial mouldings, to Bachmann's usual high standard, were seen at the Toy Fair this year.

More mature readers might remember the old Tri-ang Jinty, but it will be good to see a new model of these charming locos, to be obtainable soon.

Hornby DCC Class 50 advice

Hornby advises that an error has been found on the DCC PCB in the R2348, R2349 and R2350 Class 50.

The board itself has been printed incorrectly and if a user plugs pin 1 of the decoder into pin 1 of the board, a direct short may occur. To avoid the problem, simply turn the plug 180° and fit to the PCB board. Once fitted, however, you will find that the direction controls of the loco will be reversed and it is therefore recommended that the user adds 1 to the value in CV29. With certain decoders, it may be found that the lights will not operate as they should. If this occurs, changing the

mapping of the white and yellow wires will effect a correction.

If the users do not wish to take corrective actions as above, corrected boards are available from the Hornby Service Department. To receive a replacement, the incorrect circuit board (not the locomotive) may be returned to Hornby, together with the sender's name and address; a replacement will be despatched when available.

Hornby apologises for the inconvenience this may cause, but hopes that the above will help resolve any problems that have occurred.

Stolen locomotives in 4mm scale

The Devon and Cornwall Police has asked us to circulate a list of stolen model railway locomotives. All were in mint condition, were hardly used, and boxed; most were in their original packaging.

Kit built items, LNER:

B19 4-6-0 No.5426 *City of Manchester* in LNER lined green.

C4 4-4-2 No.5262 in LNER black with red lining.

C5 4-4-2 No.5258 *Viscount Cross* in LNER green.

D9 4-4-0 No.62307 *Queen Mary* in BR black.

D10 4-4-0 No.5429 *Prince Henry* in LNER black with red lining.

D11 4-4-0 No.62662 *Prince of Wales* in BR lined black.

P1 2-8-2 No.2393 in LNER black.

C14 4-4-2T No.67445 in BR lined black.

Kit built items, LMS:

1F 0-6-0T No.41702 in BR black.

4P 4-6-2T No.55359 in BR black.

Ready-to-run items:

Bachmann 5XP 4-6-0 No.45552 *Silver Jubilee* in BR lined green.

Hornby A3 4-6-2 No.60052 *Prince Palatine* in BR blue.

Hornby A4 4-6-2 No.60028 *Walter K. Whigham* in BR blue.

Hornby B17 4-6-0 No.61662 *Manchester United* in BR lined green.

Hornby 4P 4-4-0 No.41043 in BR lined black.

Lima 5MT 2-6-0 No.42760 in BR lined black.

Lima 45xx 2-6-2T No.5539 in GWR green.

Tri-ang 3F 0-6-0T No.47440 in BR black.

If you can provide any information about these items, please contact WDC J.C. Exelby on 01326 555173 quoting crime number **AH/04/140**.

Ex-Seaton branch auto pannier restored

Former Western Region 0-6-0T No.6430 returned to steam just prior to Christmas at the Llangollen Railway. During its career it operated on the Seaton branch, just prior to its closure.

The locomotive was purchased for spares by the Dart Valley Railway following its initial sale by British Railways to a scrap merchant in 1965. It was bought to help maintain the Dart Valley's two other Panniers, Nos.6412 and 6435.

The scrap loco was regarded as too incomplete and unsuitable for restoration, but Hugh Shipton thought otherwise and set about obtaining and manufacturing the required parts including a boiler, firebox and pannier tanks.

In mid December, for the first time since 1965, 6430 eased out of the loco yard under its own steam with the owner at the regulator. It will be finished in BR lined green and almost replicate its appearance during its Seaton days.

6430 is scheduled to take part in the Llangollen Railway gala on March 27 and 28, 2004, which will also feature Large Prairie 5199 which was restored last year, and 7754 which was the last ex-Great Western loco to remain in commercial service outside preservation. Also visiting is Ivatt 2-6-2T 41241 from Keighley & Worth Valley Railway.

Telephone 01978 860979 for details.
Photo: George Jones.



Bob Haskins

We were very sorry to hear of the unexpected death of Bob Haskins on 3 January last at the age of 62. Once a member of Huddersfield Railway Modellers, in more recent years he returned to the Bristol area and was largely instrumental in setting up the North West Somerset Area Group of the EM Gauge Society. He was also an enthusiastic member of the Weston-super-Mare Club for a number of years.

Bob was an accomplished modeller and could pass on his skills with wit and enthusiasm either while operating an exhibition layout or through his many articles in the model railway press. He was equally at home constructing etched brass kits of locomotives and rolling stock, or the scenic side of modelling, and excelled in producing stonework from various forms of polystyrene food packaging (see *Meat Trays to Locomotive Shed* RM Feb 2001).

More recent pieces for RM (May

and December 2003) concerned a working siding gate and a control console which were destined for his new EM gauge GWR project *Cornwallis Yard*. This layout was very nearly complete when he passed away and his friends in NW Somerset EMGS and Rochdale MRG have resolved to complete his labours and ultimately to exhibit the layout as he would have wished. We hope that the model will feature in a future issue of RM.

In recent years Bob had attended the annual railway modelling weekend at Missenden Abbey and would relate with affection humorous stories about events which took place at these and other occasions.

Bob will be greatly missed by members of the EMGS and modellers much further afield. Our sincere condolences go to his mother Marion and other members of his family.

We are grateful to Karl Crowther for his help in preparing this obituary - Ed.

Coming next month

Out on Thursday 15 April



KINGS GREEN WHARF

An N gauge exhibition layout by the St Neots Club.

BLAKECASTER

Howard E.S. Clarke's 0-16.5 layout marks the Silver Jubilee of the 7mm Narrow Gauge Association.

BUILDINGS FOR GAUGE 1

Derek Bidwell builds vernacular and railway structures in the largest scenic scale.

HELLIFIELD - 2

Stephen Rabone introduces early diesels to his 00 replica of the famous junction.

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KINGS GREEN WHARF - BUCKINGHAMSHIRE
LNWR SUPER D - KIT
TEN TORS - LUXURY



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RAILWAY MODELLER

May 2004 · Volume 55 · Number 643

Shows you how – every month

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COVER: the Ten Tors Express in situ on John G. Andre's garden line. Photo: author.

BELOW: 7mm NG scene on Blakecaster, by Howard E. S. Clarke; see p.252. Photo: Steve Flint, Peco Studio.

RAILWAY MODELLER

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CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.

Another Jubilee

It appeared in the November 1979 edition of RAILWAY MODELLER, along with a review of an Airfix LMS 4F, *Ashley Bridge* by Bob Tivendale (with photographs by a certain Len Weal), and an intriguing plan to model Liskeard and the Looe branch in 00 by John Glover. 'It' was a short announcement – all $\frac{3}{4}$ of a column inch – announcing a newly-formed society aimed at those modelling narrow gauge prototypes in 7mm scale. Twenty-five years on, the 7mm Narrow Gauge Association is celebrating its silver jubilee, and we have in this issue the first part of Howard Clarke's article on his layout *Blakecaster*, which is booked to appear, *inter alia*, at the association's AGM this month.

Narrow gauge in 7mm scale is an attractive scale/gauge combination, as we must have remarked before. The panoply of 4mm scale parts and mechanisms, allied to the wide support for 7mm scale, means that components are easy to obtain. Equally attractively, a modelling project that might be just too small in 009 becomes a manageable animal in 7mm. (Resize the North Holderness drawing in last month's issue to 4mm scale and see what we mean!)

7mm scale narrow gauge, as with its smaller cousin, encompasses an endearingly non-specific scale/gauge alliance. 0-16.5, 0n3, 0n2 $\frac{1}{2}$, $\frac{1}{4}$ " scale – and many more besides and between. Similarly, the freelance element is stronger here than in most disciplines – look at Howard's diesel fleet for instance – and implausibly plausible railway companies abound. Of course there is a finescale element to 7mm narrow gauge, and we appreciate the sight of it all, whether published by ourselves or in *Narrow Lines*, the 7mm NGA journal which – along with many others – passes across the Editorial bench on its way to our library.

So well done to the 7mm Narrow Gauge Association on reaching this important milestone. Readers interested in the society can contact the membership secretary, Paul Martin, at 19 Briar Avenue, Acomb, York YO26 5BX. Or look at www.7mmnga.org.uk

Although we can't think of one off the top of our heads, 7mm narrow gauge would make a fine subject for a garden railway. 16.5mm gauge has a proven pedigree outdoors, and the greater mass of narrow gauge outline models in 7mm scale, plus the opportunity to introduce tighter radius curves, appropriate to the prototype, means that quite a reasonable system can be modelled in the space required for a modest standard gauge line in 4mm scale. If the thought does inspire, read on!

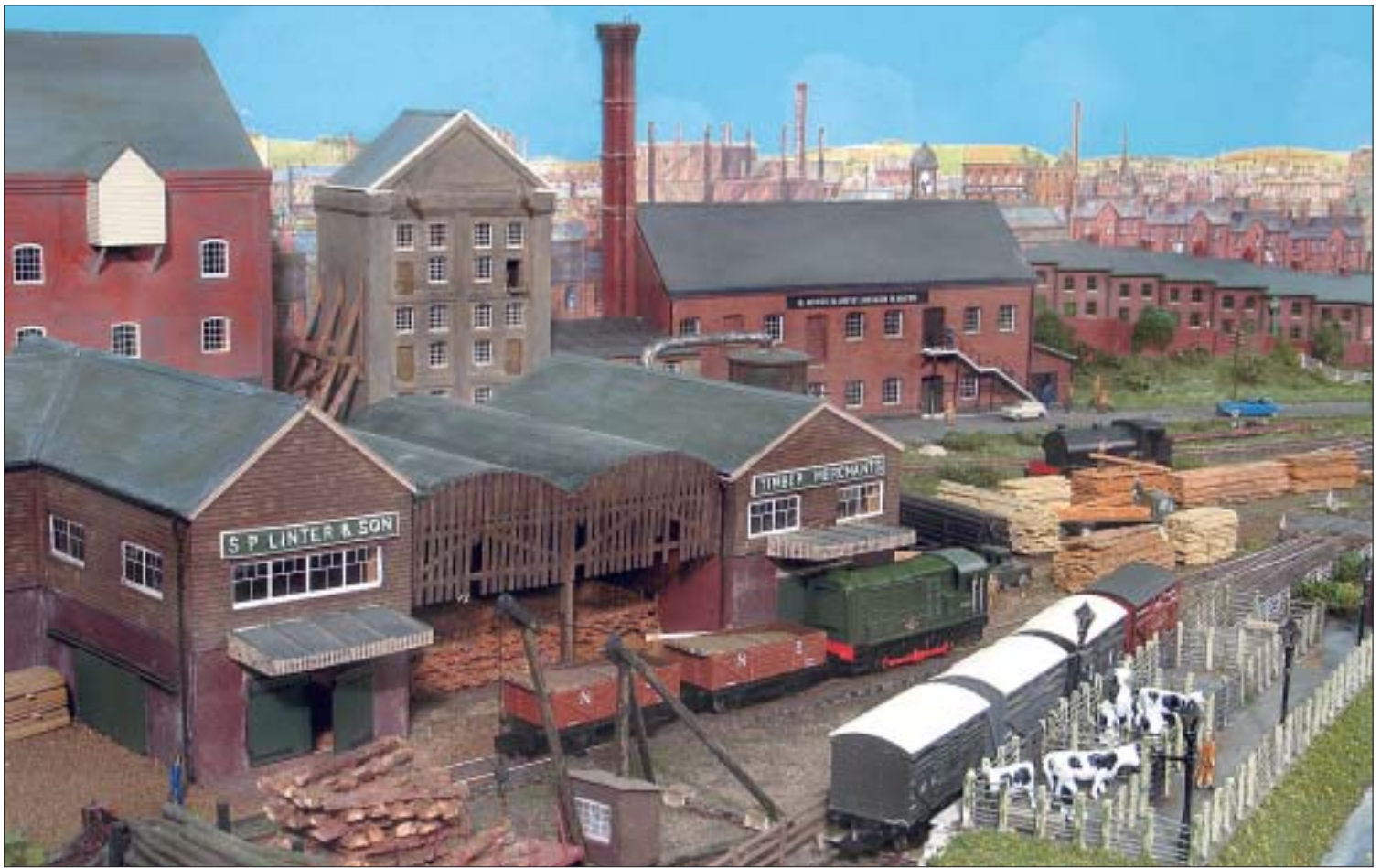
Garden railways – free booklet and another competition!

The second of our two 'shows you how' booklets on garden railways is inside this issue of the magazine. (The first part, dealing with the smaller scales, was in the March issue; copies are available from our Technical Advice Bureau, address alongside.) This booklet covers what we believe is still the more popular format of garden railway modelling.

This is a good moment to remind you of our latest competition, the prize of which is a Cheddar Models 'Samson' worth over £1000! Full details of how to enter are on page 275, and the closing date is 31 May 2004.

So send in *your* entry today: you might be the fortunate one who will be steaming this lovely engine during the coming summer!





Railway of the month

Kings Green Wharf

A canal basin, industrial scene and fiddle yard in N gauge

Steve Page tells all about this compact club layout.

Beer mats are wonderful things; you can flip them and catch them, you can balance increasing numbers of them on your elbow and try to grab the whole stack, you can prop up wobbly table legs, you can mop up spillages of beer and you can jot down flashes of inspiration just before the landlady suggests you try finding your way home. *Kings Green Wharf* is the product of many beer mats and not a little beer.

The concept

About fifteen years ago, having gone down various wrong roads, the N gauge section of St. Neots MRC (all six of them) decided to construct a much smaller, simpler layout than they had previously attempted. It had to be portable, simple, interesting, built to exhibition standard and, most of all, fun. After the consumption of many pints, a layout plan emerged which met all of the design criteria. It

would fit in the back of most cars, it portrayed a canal basin and an agglomeration of industrial sidings running from a hidden fiddle yard to buffer stops and it provided the opportunity for whimsy and humour.

Translating the ideas from beer mats to baseboards took a while and much thought was put into the businesses to be served. An early decision was that there would be no passenger service and no signals, the assumption being that access to *Kings Green Wharf* is under the control of a signal box at the other end of the tunnel. Compromises were to be kept to a minimum, all track was to have a purpose and unnecessary movements were to be avoided. It was also decided that the 'moment in time' was to be left deliberately vague, sometime between the early 1950s and the late 1970s (or as someone said 'mucky black to corporate blue') so that we could run almost anything we had in our collective stock boxes.

Local employment

The largest employer at *Kings Green Wharf* is Rawlings Fabrications which receives both raw materials and partly completed items from up the line and then despatches finished goods using the company's private siding or road transport. Both this large factory complex and the finely-detailed arched gateway were the product of the late Brian Rawlings.

Other businesses along the backscene include D. Jones (marine locker makers), the P. Inter dairy which still deals with milk by rail tanker and another older building which is in an advanced state of decay; demolition is planned before it falls down.

On the other side of the tracks is the canal basin which, apart from the wharf which sees the transhipment of timber and coal, serves the narrowboat repair and conversion yard of Morry & Lucy Tanier. Also to be found close by are the workshops of Arkwright & Cousteau



Opposite: the timber yard, marine locker manufacturer and cattle dock.

Above: diesel, steam and canal traffic outside Kings Green Works.

(underwater welders) the techniques of which were subject to many an existentialist conversation in the pub after club meetings.

Past the coalyard of Burns & Co. the road leads to the cattle pens and holding field and then to the woodyard of S.P. Linter & Son. Like most of the buildings on *Kings Green Wharf* the woodyard was built from scratch. Even every one of the individual planks of timber was cut from card and glued into stacks with spacers in between. Creosote is delivered by rail tanker to a holding tank which feeds a timber pickling plant, whilst the woodyard uses both road and rail transport.

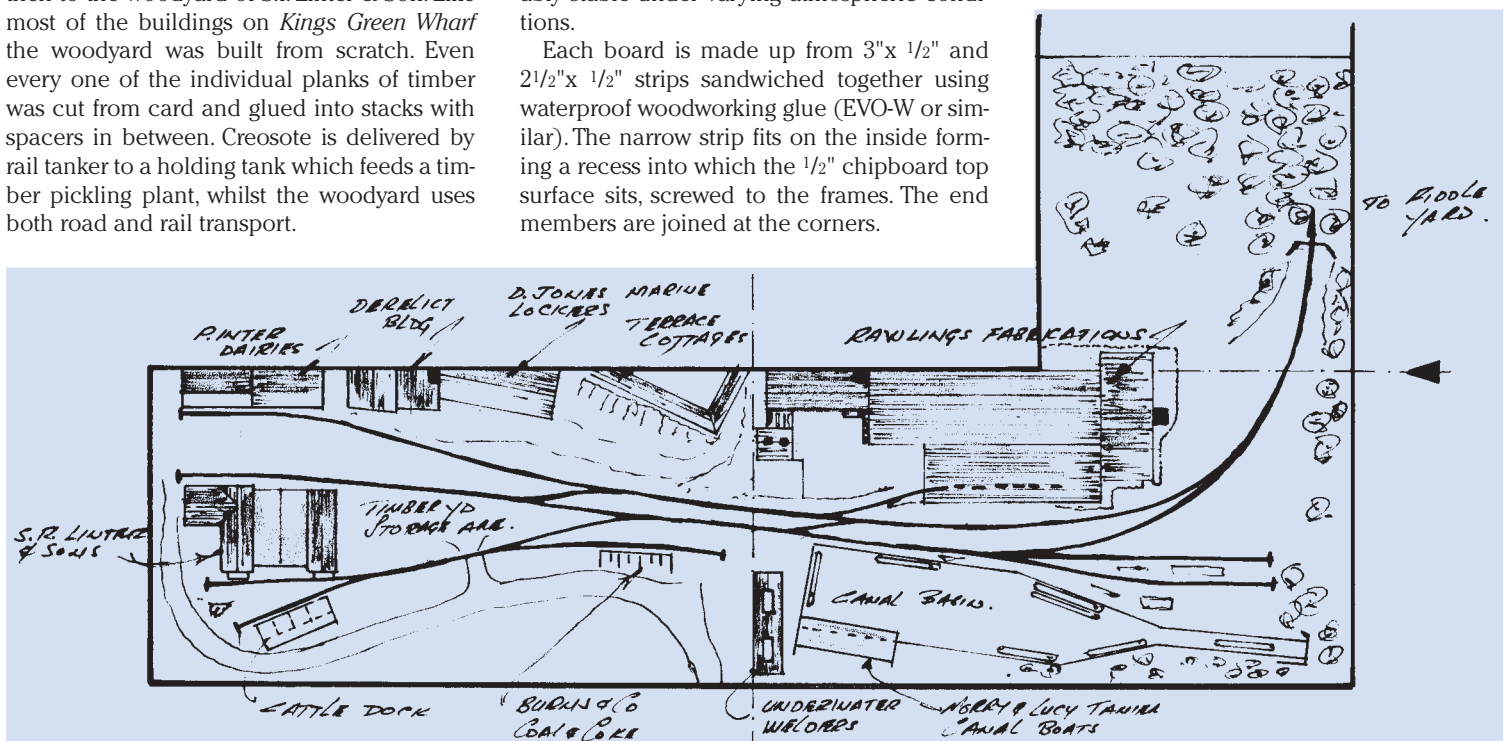
Baseboard construction

Each baseboard measures 42" x 22" which met the predetermined criteria of being easy to handle, would fit into both an average hatchback and the clubroom cupboards.

The construction of the baseboards did not follow what is considered the 'norm' i.e. 2" x 1" planed timber egg box design. *Kings Green Wharf* boards were made from 1/2" resin bonded plywood, a material which remains remarkably stable under varying atmospheric conditions.

Each board is made up from 3" x 1/2" and 2 1/2" x 1/2" strips sandwiched together using waterproof woodworking glue (EVO-W or similar). The narrow strip fits on the inside forming a recess into which the 1/2" chipboard top surface sits, screwed to the frames. The end members are joined at the corners.

Completed boards are joined together using 6mm diameter coach bolts. The holes in the boards, through which the coach bolts pass, are reinforced using 2" x 1" x 1/8" aluminium plates. As the boards are tightened up, the rectangular section at the head of the bolt shank fits into the plate locking it into place which, in turn, prevents the bolt from turning. Each supporting leg is attached to the board using the same bolt which joins the boards.



The supporting legs are made from 2"x1" with cross-braces and additional struts are attached to the legs using back flap hinges with removable pins. Every supporting leg is adjustable using a rubber doorstop which is attached to the base of each leg by a metal plate drilled and tapped M6. The hexagon head of the bolt is force-fitted into a hole drilled into the doorstop and, in turn, screwed into the metal plate. Each bolt is about 1/2" longer than the doorstop, giving at least 1" of adjustment to each leg which has been found to cope with even the most uneven exhibition floor.

Trackwork, buildings and scenery

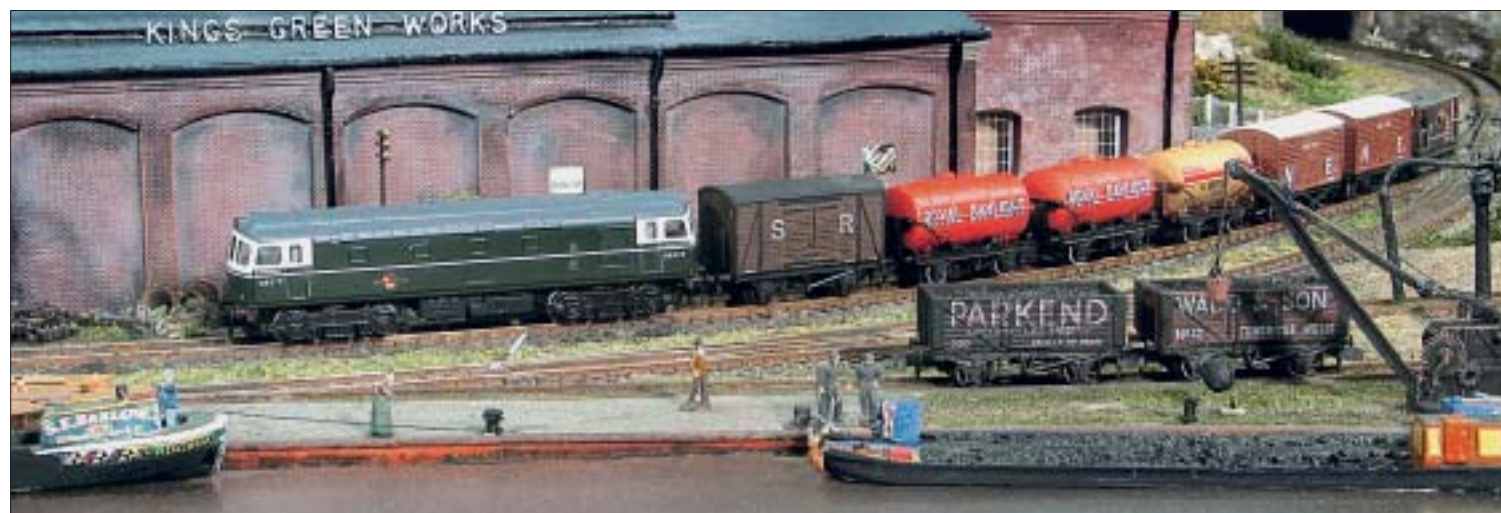
All of the track on *Kings Green Wharf* is Peco Code 80 rail with Peco live frog point work. The track is laid in the normal manner which has been well documented in the model press. Point control is by metal rods running in brass tubes under the baseboards. The metal rods are, in fact, bicycle spokes with wooden beads used as operating knobs. Vertical wires (piano wire) are soldered or glued to the operating rods and these vertical wires pass through slots in the baseboard and the holes in the point tie-bar. Micro-switches, operated by the point rods, have recently been installed to improve the contact between the switch and stock rails. The electronic track cleaner was fitted from the outset and has improved the slow running considerably.

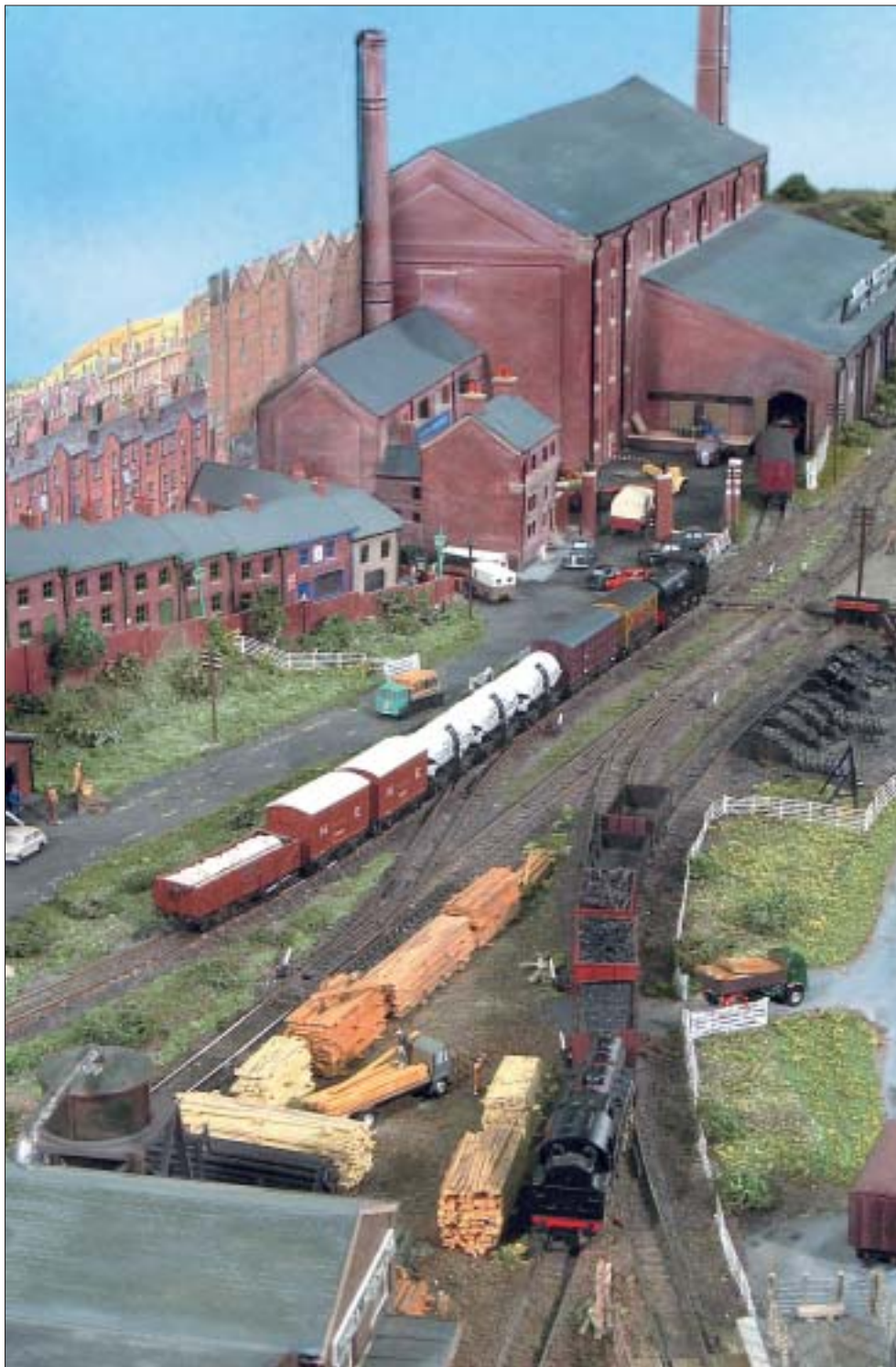
The track has been painted with a mixture of Humbrol track and rust colours to reduce the visible height of the Peco rail, thus helping it to look even more authentic. Where track crosses the baseboard joints, it was soldered to brass screws before being cut with a razor saw ensuring that the track is always in perfect alignment when the layout is assembled.

Almost all of the buildings were built with Plasticard covering a thin plywood inner. They were built by people who learned on the job and, it seems, they learned well without too many cases of collapse or demolition.

Right: Standard Class 4 2-6-4T ambles past Rawlings Fabrications with a short rake of empty private owner wagons.

Below: water-borne freight meets its railed equivalent, the latter behind Class 33 D6572.





Left: the inclined terrace is dwarfed by the Rawlings Fabrications plant. N allows such sizeable structures to be built in a small area.

Below: a clean 0-6-0ST Class J94 on shunting duty behind the coal staitthes.

Heavily bashed kits from a variety of manufacturers were used for the cattle dock, the narrowboat shed and a few other items. Scenery is predominantly Mod-Roc over an expanded polystyrene base with PVA and scatter materials.

The water in the canal basin is several layers of satin varnish over a mixture of poster paint colours giving the effect of water going nowhere very fast. The narrowboats in the basin are from a variety of manufacturers and are shown engaged in loading and unloading coal traffic and timber.

Controllers and wiring

The controller used is a simple twin AGW without any fancy features such as inertia, cruise control or regenerative braking. Isolated sections are available on most sidings and are operated either by toggle or push-to-make button switches. Although the layout is operated most of the time on the 'one engine-in-steam' principle, the controllers and switching of the layout allow for two locos to be in operation simultaneously. All of the wiring is on the KISS system (Keep It Simple, Stupid) thus reducing the time spent problem solving when things go wrong at exhibitions.

Stock

The stock used on *Kings Green Wharf* is from Peco, Farish and N Gauge Society kits with standard couplings. Until a decision is reached upon which style of auto-uncouple to go for, we will not be going for automation.

Most of the stock has been weighted for slightly better running, some judicious weathering has been carried out and realistic loads of Rawlings fabricated items have been added to the open wagons. Small locomotives make up the regular stock and, although the occasional visit by a green 37 does occur, the route is banned to 9Fs. Minitrix 2-6-2Ts are used extensively and have been found to be ultra-reliable over many years of operation on members' individual layouts.





Above: marshalled correctly, another freight arrives behind a Class 37.

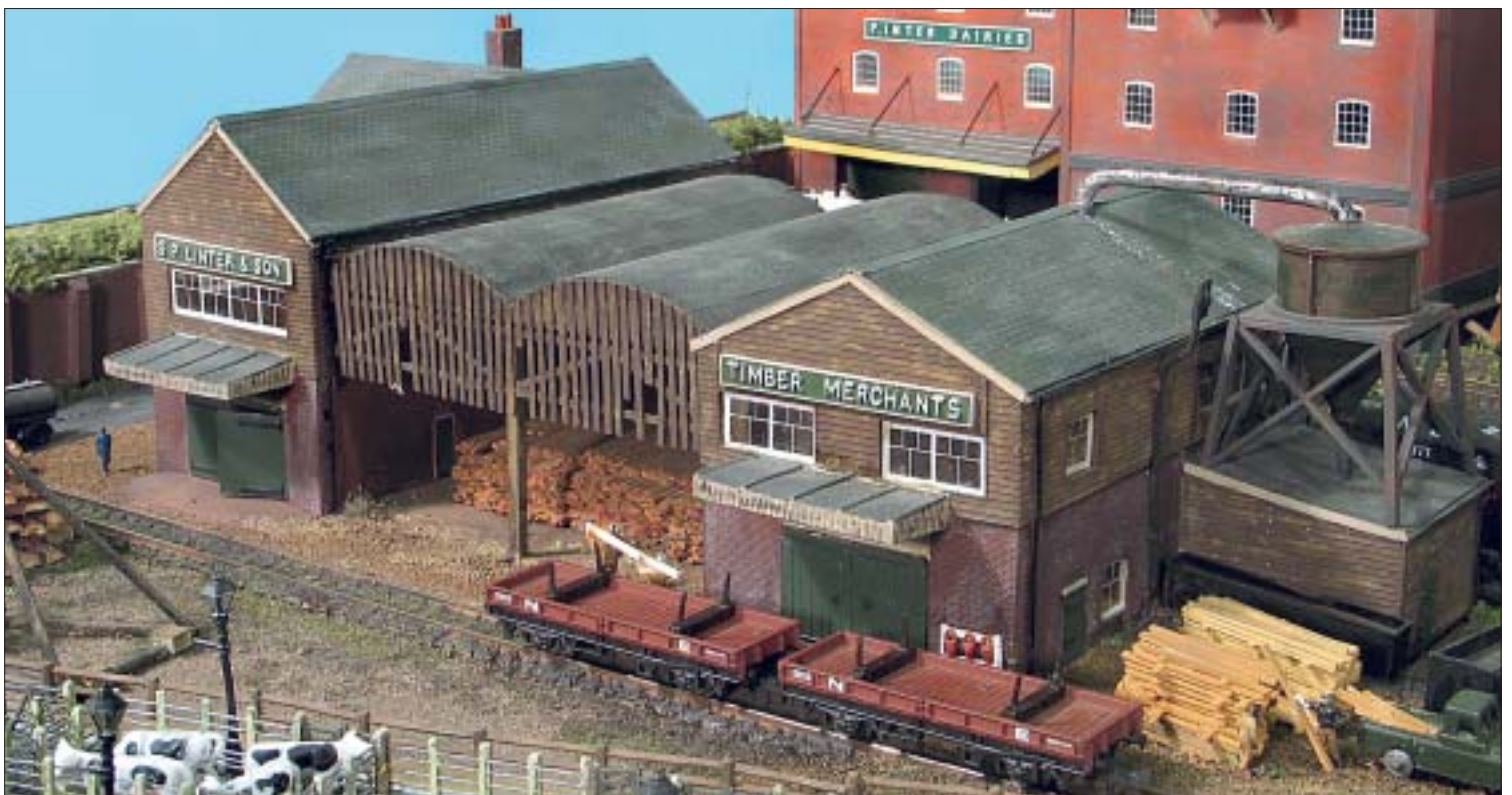
Below: two bolsters await loading with timber.

Opposite page: the near-derelict building awaiting demolition, and beside it the dairy. Photographs by Steve Flint, Peco Studio.

Operating sequence

As mentioned earlier, it was decided that all movements were to have a reason and that realistic prototypical running was the target. To these ends, *Kings Green Wharf* is operated to a written sequence rather than a timetable and requires a fiddle yard operator to ensure that

trains are made up exactly as described on the cards (locos and brake vans at the correct ends and stock in the right order on the correct line). A layout operator then drives the train to the right place and carries out the shunting exactly as described in the instruction.



If the operators do as the instructions say, rather than what they think they say, the day starts with a milk tank movement from the dairy and ends with the milk tanks returning at the end of the sequence with all stock in the right place ready the next complete session.

The 'day' takes the best part of an hour to get through with some fifty-seven individual movements on the cards ranging from coal trains in and out of the wharf and the coal staithes, to mixed goods being shunted to and from their respective private sidings. Although the programme is written for two operators, it can be performed by just one competent operator in virtually the same time provided that there are not too many distractions to break the considerable amount of concentration needed to operate the layout successfully.

Where next?

So, what of the future for *Kings Green Wharf*? In terms of development of the layout only minor details are likely to be added; possibly a very basic platform to facilitate a workmen's train at the start and finish of the day, possibly more cameos to add interest throughout the layout, but we are certainly not looking to extend the layout. Neither are we looking to create a 'Son of Kings Green Wharf' as we have very limited storage space in the clubroom and we have had to adopt a 'nothing new until something goes' policy.

Who did what?

The N Gauge section of the club is, and always has been, small; probably no more than six at any one time. The members involved with *Kings Green Wharf* were:

Brian Rawlings, who sadly died in 1999 and to whom *Kings Green Wharf* is dedicated. Brian is best known for the creation of the *Grumstick* and *Dipplewick Railway* and *Bramble Bottom*, both of which are now on the exhibition circuit in the care of Bev Rawlings and some of the St. Neots MRC club members.

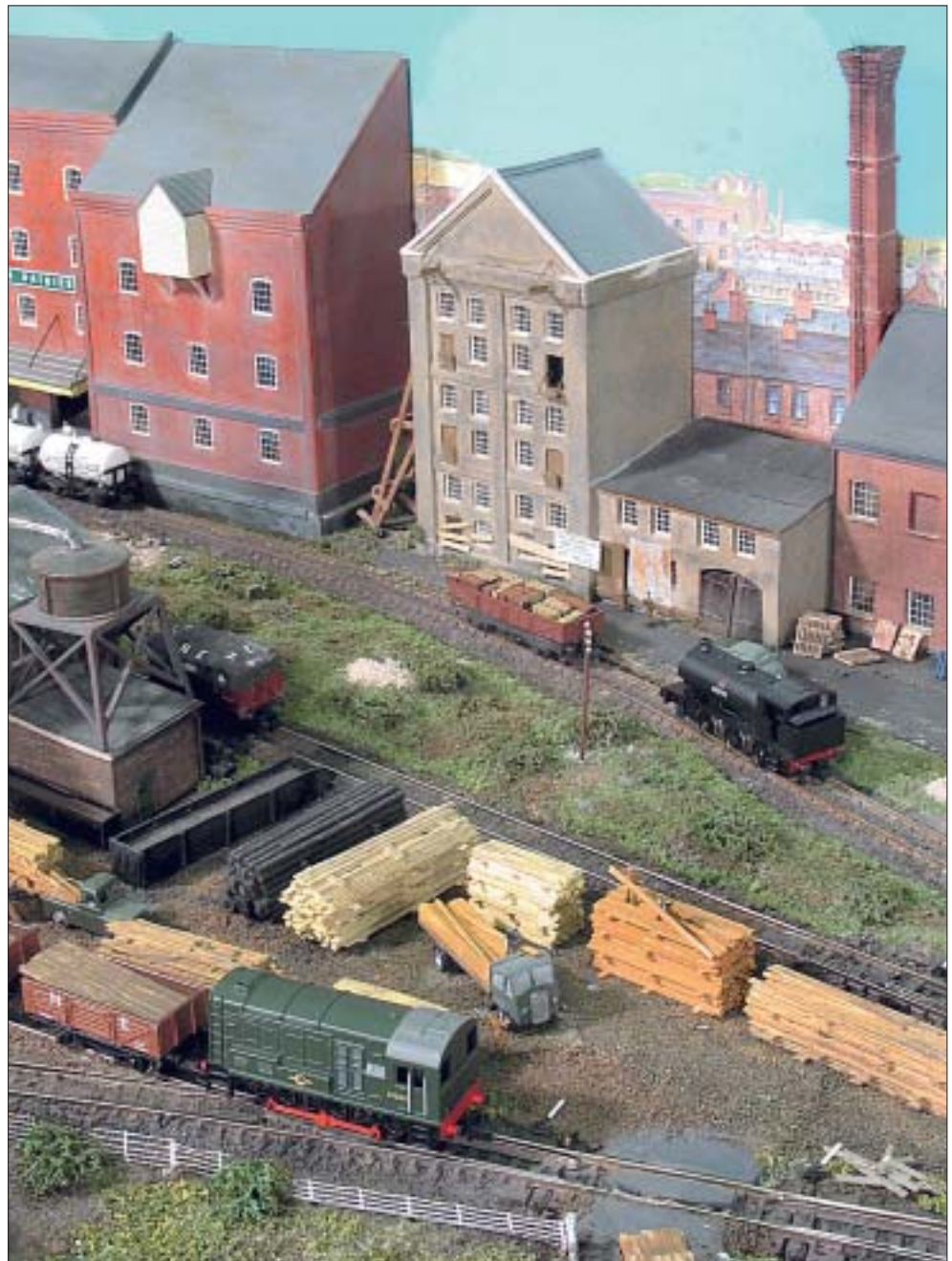
Malcolm Goodger, who is currently in the final stages of his 21-year long international tour with *Priory Hill* which is soon to be replaced with *Hawkesden Road Goods*, although *Priory Hill* will still be available for command performance. Malcolm is also well-known for his research into the best type of cereal box to cut into N gauge planking.

Albert Hayes, who contributed the cattle dock and coal yard in between his duties as a Formula One track marshal.

Derek Andrews, who swore that he could never scratchbuild even a mud hut, but surprised himself by contributing to the line of excellent buildings at the back.

Steve Page, historical and prototypical research, creator of the running sequence and best known for his comments of 'They wouldn't have done it like that' and 'Just do as it says - not what you think it says'... and writing this article. More pictures and information about *Kings Green Wharf* are at www.stneotsmrc.com

The layout is booked to appear at the N Gauge Society show in St. Neots on 22 May; details in 'Societies & Clubs'.





Blakecaster – part 1

7mm scale on 16.5mm gauge

Howard E. S. Clarke of the 7mm scale NGA completed the layout in memory of a late friend.

As a past Committee member of the 7mm Narrow Gauge Association I had access to the membership list and when I found we had a new member living close by I went to pay him a call. The new member was Mervyn Axson and to cut a long story short we became great friends.

Mervyn's family business had been the manufacture of fine quality furniture. He sold the business and obtained a degree in computing,

and with this he went on to lecture at university level in computing. Because of ill health he retired and was looking for a new hobby. He had interests in golf, canals and narrow gauge railways. His health precluded him from playing golf, canals are OK if you have a boat, but he could have a narrow gauge model railway, so he joined the 7mm Narrow Gauge Association.

The two of us along with a few other mem-

bers formed an Area Group of the Association and decided to build a small layout to use at exhibitions as publicity for the Association.

A track plan was agreed upon to fit onto two 4' x 2' boards. Mervyn offered to use his wood-working skills to make the boards and legs on condition we called the layout *Blakecaster!* This is a pun on two town names in Norfolk, I think one was Blakenham; I have forgotten where the 'caster' came from. Mervyn's two



Left: Bo-Bo No.17 (Rebuilt from a Con-Ccor H0 scale MP15) shunts stone wagons under the loading hopper adjacent to Carriage Drive works yard.

Below far left: entrance to the works yard in the foreground with another little argument taking place on the loading dock as to who ordered this thing? From Andy Duncan.

Below left: Moorland Stone Company No.3 enters the yard this is one of my early 'Yellow Peril' diesels with a Piko chassis bought second-hand in East Berlin. The body has a Dapol kit bonnet and the rest is in plasticard. It is heads down and big hammers in the forge.

Right: No.17 drawing loaded stone wagons out of the loading point. Examples of Chivers, Bachmann and butchered Parkside-Dundas wagons can be seen.

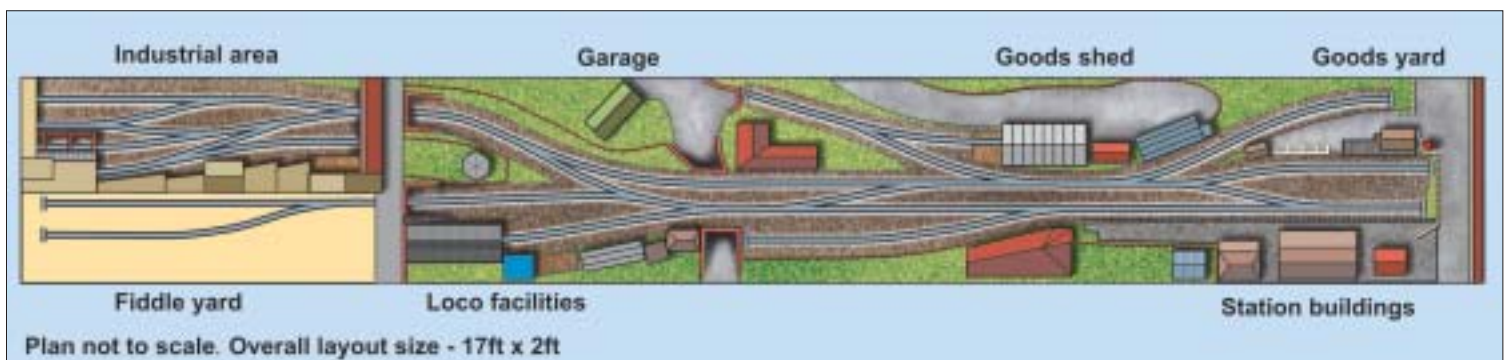
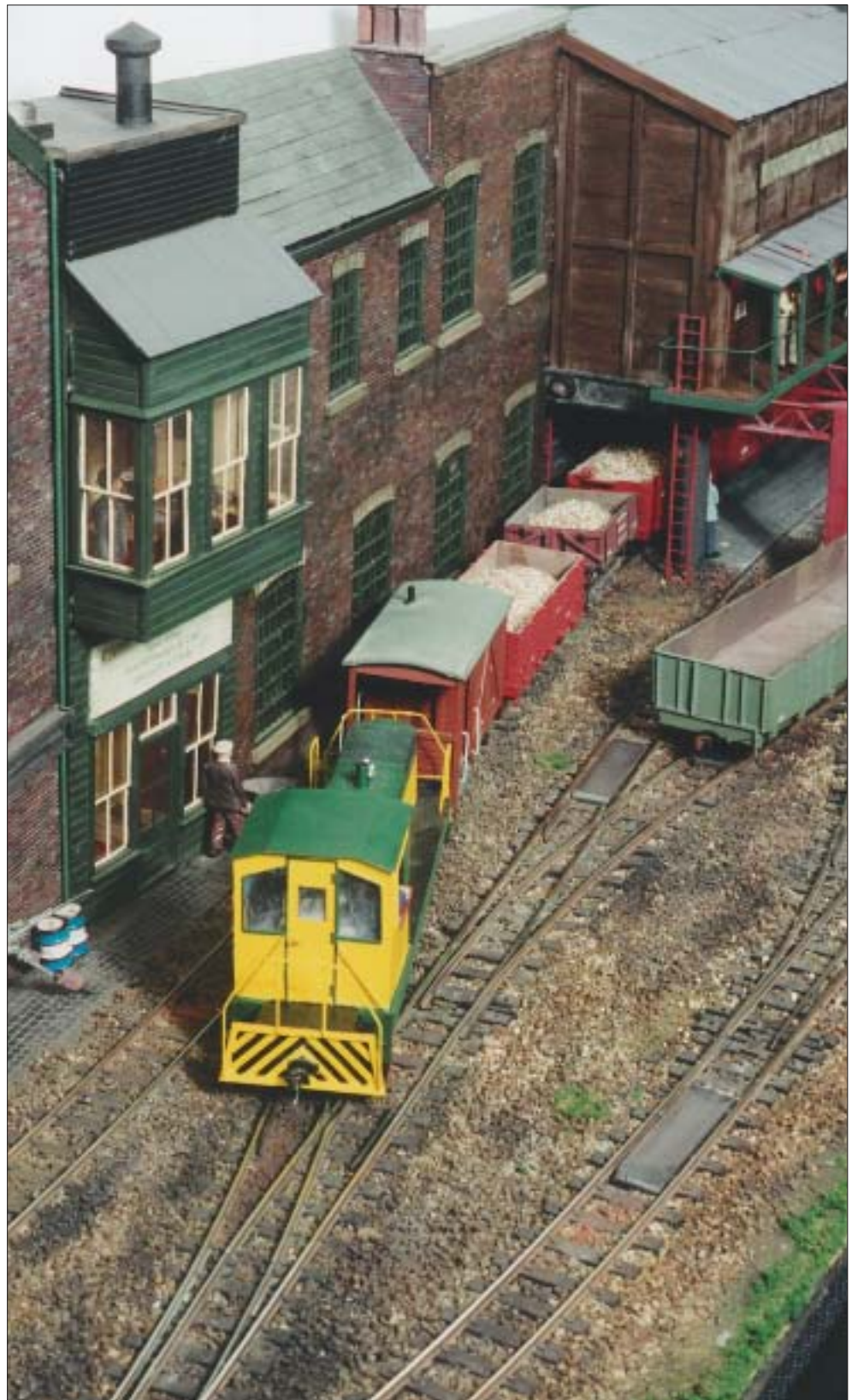
favourite narrow gauge lines were the Southwold and the Leek & Manifold Valley Light Railways, different gauges but lines with similar character. My narrow gauge modelling interests lay in Colonial railways, some employing the Calthrop theories.

Mervyn used 6mm thick best quality ply for the frame, braced at 12" intervals across with a piece mitred in down the centre. All the joints were glued and screwed. The top was covered with Sundeala, in retrospect not the best choice for a portable layout; a plywood top surface would have been better. The joint between the two boards is fitted with pattern-makers dowels purchased from the 7mm Narrow Gauge Association Sales Department. The legs are 2" square timbers secured by bolts.

As a person who could not cut a piece of wood square to save his life, it was good to have someone around with the skills of Mervyn.

As the Group only met once a month, progress on the layout was painfully slow; it was nearly two years before an engine ran over all the trackwork. During this time, Mervyn had also become actively involved in the management of the 7mm NGA, first as Archivist and then until his untimely death as the Sales Officer. He was a dedicated Committee member and as he got more and more involved, the less time there was to work on the layout. Occasionally I would go down to his home and we would set the layout up in the garage and add a bit more.

Mervyn's life was terminated abruptly by a severe stroke in February 1999 and I promised his wife to finish the layout in his memory.





Left: No.14, built for a Cane Train line is seen departing along the main line with a short mixed goods train. No.16, another Con-Cor rebuild, is propelling stone wagons towards the works yard loading point. The small 0-4-0ST Howard on the engine shed road was a gift from the 7mm Narrow Gauge Association for twenty-plus years on the Committee.

Right: steam is still alive at Blakecaster. No.34 Shelduck on the shed road is an ex-Sierra Leone 2-6-2T painted in standard Great Eastern Royal blue and lined red. No.5 arriving with a mixed freight train was actually built and painted for my late friend, Mervyn Axson and when he died I did not have the heart to repaint it.

Below right: the Pill Box gun emplacement started off as a golfing green, then the army took it over and now it is home to a family of local gypsies. Most of the figures in the scene including the Open Lot caravan are Phoenix figures now available from S&D Models.

I have seen many model railways at exhibitions that just ran trains round and round if it was a continuous type of layout. Fine for that style of layout, that is more often than not what the visiting public have paid to come in and see. On an end-to-end layout or end-to-fiddle yard type of layout, such as I intended to build, trains arrive, shunt the stock around and take the *same* stock back to the fiddle yard. This provides some operation but does not appear to give the railway a purpose for its existence.

I have had some experience with a couple of 7mm scale layouts in the Macclesfield Club on which we loaded and unloaded stone from narrow gauge onto standard gauge trains. This has given those railways a purpose for their existence and has proved *very* popular at exhibitions with the viewing public and model railway enthusiasts alike (see *Hammeston Wharf* in RM October 2000).

Blakecaster as originally designed did not incorporate any such ideas and was designed as a publicity layout for the 7mm Narrow Gauge Association. The track plan was laid out to give a simple operation that would involve running passenger and goods trains in and out of fiddle yard, a bit of shunting, but *no real purpose* except just playing trains!

Some changes had to be made.

I love track! We are railway modellers, why bother modelling the other side of the railway fence when you can have more track to run your model trains on? Sounds a weird theory, but that's what a good number of my Macclesfield Club fellow members think I am like, they do have good reasons and are not far wrong! Even my long standing friend, Ken Ball whose railway modelling is there just to have something move in his beautiful scenery, has often given up on me in despair!

I promised to finish *Blakecaster* in Mervyn's memory and that meant that the railway we had built so far together, especially the trackwork, would not be altered, for now anyhow. I did however want to change how the finished layout would be operated. I wanted to give the railway a reason for its existence.

The change I made can be seen better on the track plan. Originally the main line entered the fiddle yard by the line nearest to the front

Now the last time that I had a portable exhibition layout of my own was in the mid 1960s and that was H0 American. Most of my modelling time on layouts had been spent on the various layouts of the Macclesfield Model Railway Group. Being a club member usually gives you experience in layout construction, but in a model railway club there are often members who specialize in specific areas and you tend to concentrate on those areas. As an ex-railwayman, my expertise for what it is worth lies in design, trackwork, signalling and the eventual prototype operation of the various 4mm and 7mm scale layouts we have built in the Macclesfield Club. But today, as a freelance narrow gauger, this now extends to the

wonderful world of scratchbuilding of locomotives, rolling stock and now an exhibition layout.

I had inherited a layout that already had all the track laid, wired and ballasted. It was not intended to have any signals (that might be changed) and as to operation, that was a long way off! I took the two boards home and set them up in my workshop. At this point there was no fiddle yard. In the workshop already I had a partly built 0-16.5 layout. This was dismantled and *Blakecaster* set up in its place. What to do next? Take stock! No pun intended.

If I was to continue and build this as a portable exhibition layout, the railway *had* to have a purpose.



of the layout. This meant that entrance into the fiddle yard would not allow for any scenic extension to the layout to be placed in front of the fiddle yard. This is another pet hate of mine: I do not like layouts where half the viewing side is a blank wall hiding a fiddle yard or you have an open fiddle yard which in my opinion destroys the illusion that the trains have gone somewhere and the area often becomes a club forum of beer guts! A small fiddle yard out of view of the viewing public creates a better illusion and if there are any other beer guts besides mine, nobody sees them!

Alongside the engine shed was a siding meant for carriage storage. If I extended this through the backscene, this could be the main line into the fiddle yard. It would be close enough to the rear of the layout and I could add a scenic extension in front of the fiddle yard. Therefore the whole of the layout would be scenic. I would have kept my promise that the original track plan would not be altered and I could now build a fiddle yard with a working scenic extension that would give the railway a purpose. That purpose – *stone*.

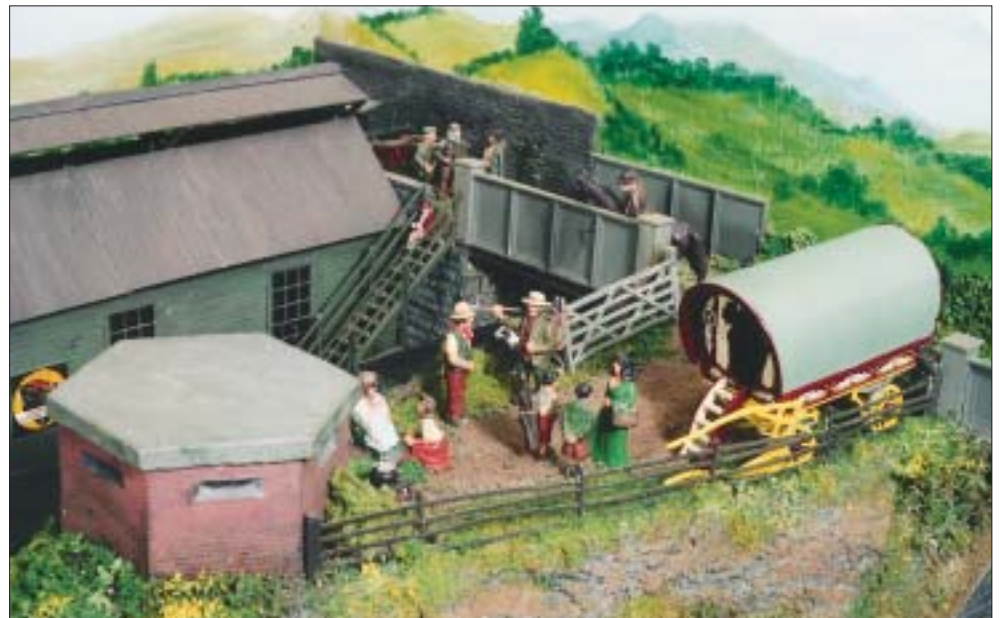
Constraints of my workshop meant that any fiddle yard board could only be 40" long.

In front of the fiddle yard I built a works yard with lots of track. You see what I mean about trackwork, there are as many points on this tiny bit as there are on the rest of the original layout. I added a stone loading point and some industrial buildings as part of the Carriage Drive works, which form a backdrop that conceals the fiddle yard from the viewing side.

The trackwork in the works yard was designed with the front road to act as an extended headshunt for the main layout yard, two roads to be used for loading stone and a siding into the stores area. The small loop in the yard will allow a quarry engine to run round two bogie stone wagons.

The change in the way the layout originally operated meant that trains emerging from the fiddle yard did not have direct access to the goods yard, but this did not detract too much from the layout's operation at the exhibitions we had attended. In fact it has created a few shunting problems that have kept the opera-

tors and viewing public amused, but the operation could be considerably improved by adding another board in the centre with a crossover that would allow trains to enter the goods yard directly and the addition of a couple of extra sidings would create more operating possibilities. This extra board was added between the two existing boards which meant that all the old wiring had to go and the layout was completely rewired. I am grateful to another Macclesfield Club member, Neil Fraser, for his wiring expertise and our N Gauge chaps who had a control panel going spare. Being a Club member does have its benefits.

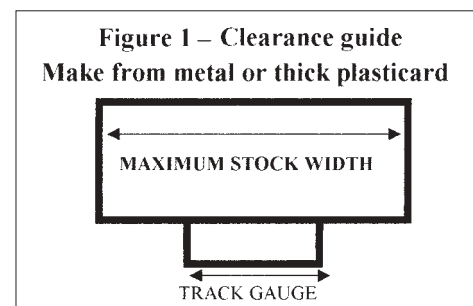




Left: No13 Bo-Bo diesel in Australian cane train colours departs Blakecaster with a goods train. The loco was rebuilt from a Bachmann Spectrum 70-tonner. In the background is Blakecaster 'Hough' Toffee Works.

Photographs by Steve Flint, Peco Studio.

of PVA, diluted 50/50 with water and a little washing up liquid added as a whetting agent. In the areas near to point tiebars I added ballast that had been previously mixed with PVA in an old yoghurt pot, then added a little at a time so as not to get glue near the moving parts of the tiebar. It's messy but worth the extra little effort. It is worth spending as much time as possible on laying the track as, once ballasted, any modifications can be very difficult. The sides of the rails were painted with a rusty coloured paint to give the trackwork a realistic appearance. Areas where engines stand get soaked in oil and dropped ashes. For this effect I used weathering powders, again available from Green Scene, mixed with some coal dust and any other fine grubby materials I could lay my hands on. Narrow gauge trackwork in station areas rarely had the ballast replaced and the ballast would soon clog up with rubbish, I presume most station staff sweeping the platform would brush their dust onto the trackwork. Down the side of the track in siding areas I added darker parts where the staff would have walked. Remember that not all narrow gauge railways look as if they are running through a field of weeds, although I did add a patch or two of green in the areas where feet would rarely tread.



I found that in some places I had been a little too generous with the ballast. It is handy to have a wagon with slightly deeper flanges that would not normally be used on the layout. This vehicle can be gently pushed around all the ballasted track to check for clearance on the inside of the rails. In some places, especially between the rails and raised areas such as platform edges and goods shed platforms, I had added too much ballast and the low bufferbeams on some locomotives were catching the ballast. In order to check these areas I ran a wide 'blade' (piece of scrap metal sheet, see Figure 1) along the top of the rails and up to the raised edges.

To be continued.

Exhibitions

Blakecaster is due to be shown in 2004 at Macclesfield (17 & 18 April), Burton-on-Trent in May (7mm NGA AGM) and at Telford GOG Show in September.

The other addition I made was to add a small extension at the station end. The layout from the start has an 11" high backscene along the rear and across the fiddle yard end, but none at the station terminus end, so I added an 8" wide extension across the end with a backscene fronted with some low-relief shops. This puts the railway into a complete 'frame', after all we railway modellers *are* artists of a type and a picture would not be complete without a frame all the way round.

So much for the theory, now the practical side.

The railway as I got it had a frame, track, wiring and a few buildings. The buildings comprised a station building based on Hulme End on the Leek & Manifold Valley Light Railway, a small goods shed from the same line, a freelance engine shed and a building you would find in a timber merchant's yard. Remember

that furniture manufacture was Mervyn's family business. Much of the ballast fell off with the move.

After testing that everything on the layout was still working, I set about the trackwork. All the track and points are Peco and all points have the 'knob' on the end of the tiebar for above-the-board operation removed. Over many years I have usually made all my own track and pointwork but this layout was originally built to introduce newcomers to the pleasures of 7mm scale narrow gauge modelling and the use of Peco trackwork designed for the 0-16.5 newcomer to this scale was the obvious choice. All the points can easily be motorised using the Peco point-motors and electrics. For ballast I used 00 size ballast available from Green Scene. This was mixed with finer materials of various sources and colours, securely fixed in place with copious amounts

Baseboard construction

A fresh approach

Some thoughts on how to build portable and semi-portable baseboards by Peter G. Woodward.

From reading the model railway magazines over many years it would appear that the construction of baseboards is fairly standard, utilising 50mm x 25mm (2" x 1") timber on 305mm (12") centres up to an overall size of 2.44m x 1.22m (8' x 4'). To my mind this is just too large to be considered as portable when one takes into account the basic timber weight plus the weight of plaster scenery and the difficulty of manoeuvring from place to place.

At present I am building an N gauge American layout with a baseboard measuring 2.39m x 0.895m (7'10" x 2'11¹/₄"), these overall dimensions firstly utilising economically the standard metric lengths of timber and secondly the space available. Bearing in mind that this layout needs to be semi-portable due to the possibility of moving house within the next five years I decided to break down this layout size into three sections as shown in sketch 1.

Having obtained sections that could be handled by one person highlighted a potential weak spot i.e. the stresses imposed on adjacent timbers by the assembly bolts. It would also be difficult to hold these baseboards in

position whilst installing or dismantling unless each was fitted with four legs and this prompted me to review the whole philosophy of baseboard construction and arrive at the idea of divorcing the railway baseboard from the supporting structure. This basic departure from tradition allowed a reduction in the size of the baseboard timbers to 32mm x 18mm (1¹/₄" x 3/4") thus contributing to a reduction in weight to be handled.

The baseboard sections would be supported on an independent frame which could be erected first and levelled and then be available for mounting the three sections in position prior to bolting together. The layout will no doubt have hardboard sheeting around the outer edges for supporting the scenery and this will be extended below the baseboards by some 15mm (1/2") to form a positive overall locating facility between the baseboards and the supporting frame.

Some years ago I purchased some I-section aluminium extrusion from a local scrap merchant for constructing shelves in the greenhouse and having some of this still available realised this would be the ideal material from which to make the base frame, the advantage

over wood being no tendency to warp or twist.

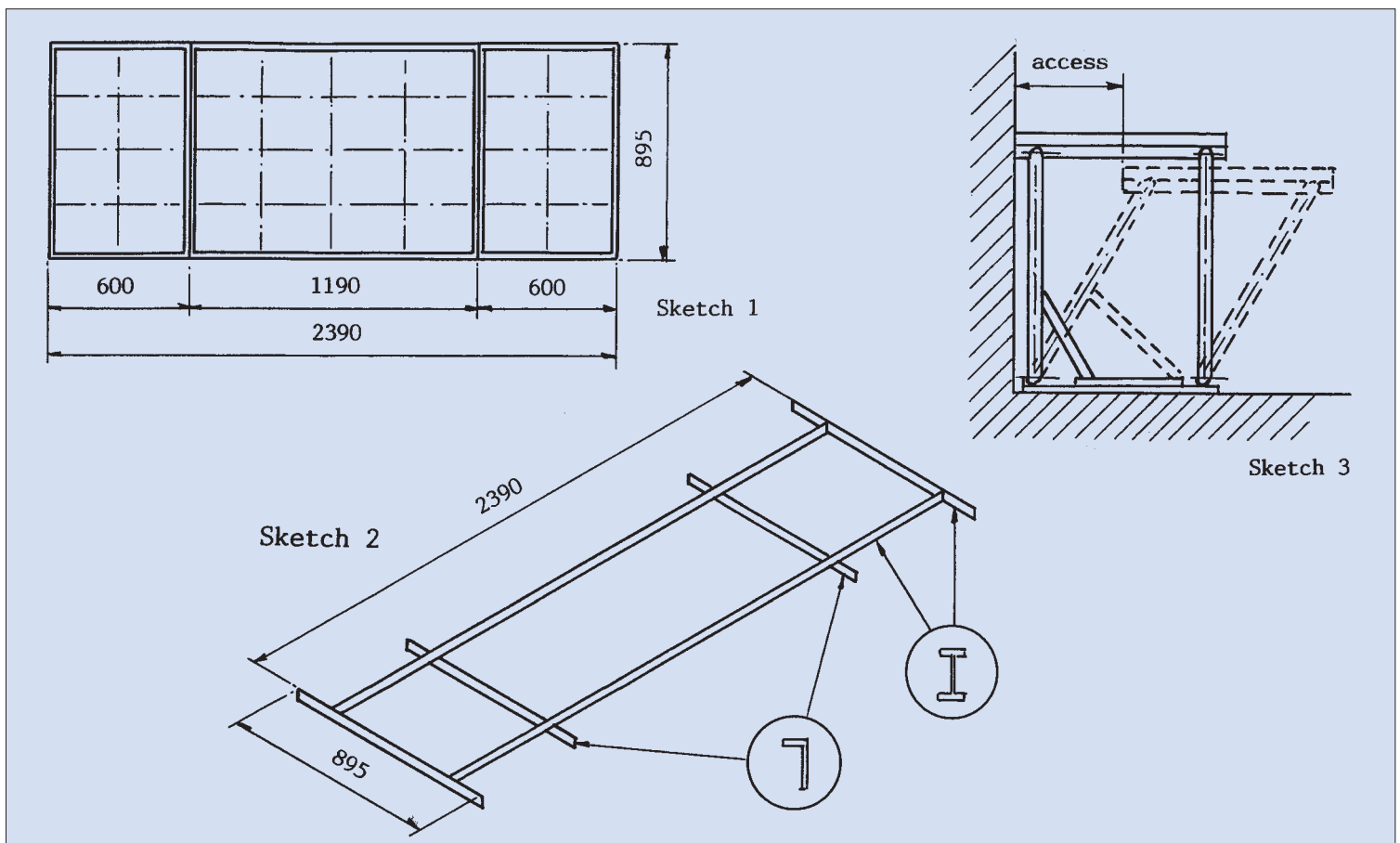
This material, having dimensions of 54mm x 25.4mm (2¹/₈" x 1"), is used I believe in joining sections of office partitions and is probably generally available in scrap lengths.

This is a very nice material with which to work and the separate pieces were bolted together using small brackets cut from 25.4mm x 25.4mm (1" x 1") aluminium angle. The completed supporting frame is shown in sketch 2 which is in turn supported on just four timber legs pivoted from the ends of the two additional L-shaped members bolted to the underside of the frame.

As the long side of the layout is positioned against a wall access was considered necessary from this side and the aforementioned pivoted legs, the lower ends of which are supported on two floor timbers, permit the baseboard to be moved outward, as shown in sketch 3, thus satisfying this requirement, the movement being limited by metal arms sliding in channels mounted on the floor timbers.

I trust the foregoing will be of interest and use to other railway modellers who may have similar limiting parameters to myself.

Sketches by the author.



Plan of the month

Gillingham (Dorset)

A station on the Waterloo to Exeter line

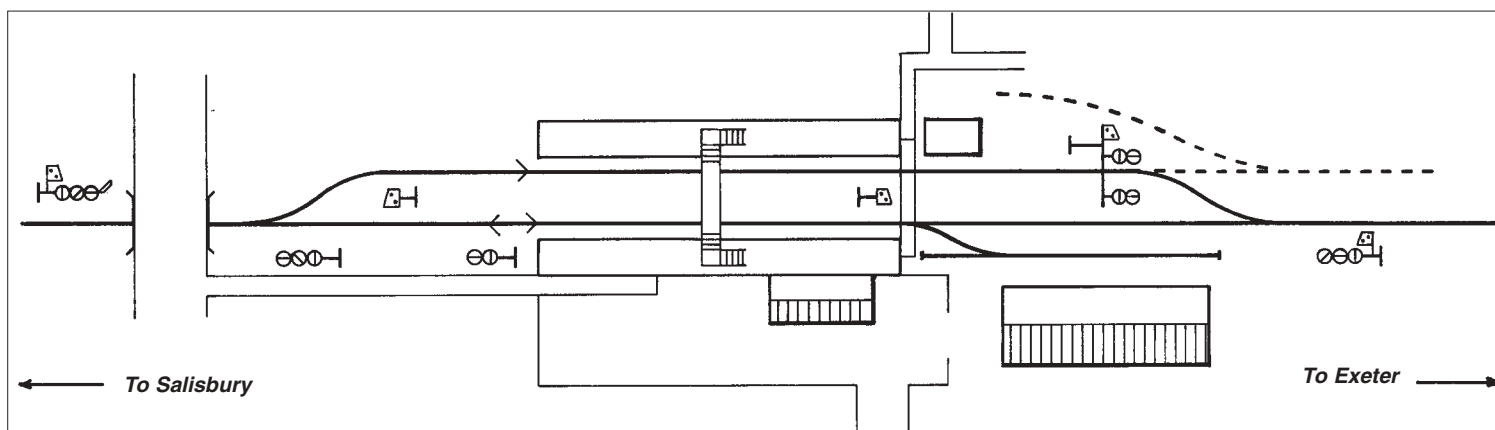
Gerrard Futrall looks at the station in recent times.

Gillingham (Dorset) is one of the intermediate stations on the Salisbury-Exeter section of the Waterloo-Exeter line, which was once a main line of the LSWR, later Southern Railway and BR Southern Region. The line is an alternative route to the West Country. It became a secondary route in the 1960s, under the control of BR Western Region, and was downgraded, with parts of the Salisbury-Exeter section of the line being singled with station closures.

Gillingham became a station on a bi-directionally signalled crossing loop on part of the line that was singled. It retained both platforms, platform 1 being on the old Up main line. This is used regularly for both Up and Down services, trains using platform 2, the old Down main line when crossing is involved.

Two sidings also remain, located at the Exeter end of the station. These are the former Down siding (not in use), and the former Up siding, used to serve a fertilizer depot.

All train movements are under the control of a BR(SR) Type 16 signal box.



Left: the signal box, a BR(SR) Type 16.

Below far left: general view, from the foot-bridge, of the station looking towards Exeter.

Below near left: the station buildings with a connecting bus service to Shaftesbury.

Right: Class 159 No.159 006 at Gillingham with the 11.30 Exeter St Davids-Waterloo service.

Below right: general view of the former fertilizer depot along with a siding.

Bottom left: Class 159 No.159 012 calls with the 11.35 Waterloo-Exeter St Davids.

Bottom right: Class 159 No.159 009 enters Gillingham station with the 12.35 Waterloo-Exeter. Note that both these Down trains are using the Up platform, as is often the case (for passengers' convenience) when there is no Up service booked to cross here.

Photos by the author, on 14 February 2002.

Passenger services calling at Gillingham, at the time of writing are operated by South West Trains: they run between London Waterloo/Salisbury/Yeovil Junction/Exeter St Davids/Paignton/Plymouth and Penzance.

Some passenger services terminate and start from Gillingham station itself. These are operated by Class 159 SouthWestern Turbo 3-car and Class 170 Turbo Star 2-car DMUs. Up until 1993 passenger services calling at Gillingham were locomotive hauled. They were operated by classes 33/47/50 diesel locomotives, hauling Mk 2 coaches; Class 33/1 push-pull fitted diesel locomotives and Class 491 (4-TC) trailer units; or by DEMUs.

Locomotive hauled trains can still be seen on the line today in the form of either steam- or diesel-hauled charter trains, mostly operating to and from the Yeovil Railway Centre at Yeovil Junction. Some are operated by the South West Main Line Steam Company, which is based at the same location. These services usually run via Yeovil Junction/Castle Cary/Westbury and Salsbury but some charters also pass through Gillingham Station.

The Yeovil Junction-Exeter section is also sometimes used as a diversionary route when there is engineering works on the West of England main line, using the same route as the charter services.

The majority of the freight traffic had been diverted from the line in the late 1960s. With



the exception of engineering trains, all that remained, mostly in connection with MoD depots, was gone by the 1990s.

The goods yard at Gillingham closed to freight traffic in 1965, becoming a rail served fertilizer depot until its closure in 1993.

Most of the rolling stock needed to operate the station as it is seen today exists in ready-to-run form. In 00, Bachmann offers Class 159 and Class 170 DMUs, and these, plus 33s, 47s and 50s are also produced in N. In the diesel period, Heljan lists a Class 47/7 in Network South East livery, and the Hornby Class 50 is of course an ideal candidate. Lima included the Class 33s in its range, in both 'standard' 33/0

and push-pull 33/1 formats. The planned Mk 2 range by Bachmann, the reintroduced Mk 2s from Hornby, and the out-of-production Mk 2s from Lima (buy secondhand) will form the passenger trains, a characteristic of which was the pair of BFKs (brake first corridor coaches) placed van-to-van in the middle of the rake.

Any number of late-1980s period freight vehicles would be suitable for the siding, in particular the Lima bogie fertilizer wagons.

Buildings would have to be scratchbuilt, but the footbridge – relocated from Dinton, up the line, when that station closed – is a standard SR concrete structure, and is included in the Ratio range in both 4mm scale and N.



Trafalgar Yard

From diorama to display in EM gauge

Stephen Searson develops a layout idea from a single inspiring photograph.

It is funny how inspiration affects what we do to pass the time. It can be a memory, a photograph or a desire even just to model a particular place in a set time.

For me it was just a photograph of an ES1 (electric shunting) locomotive shunting in Trafalgar Yard coming out of the tunnel to the Quayside. This was in 1993, I already had a few locos and some stock built to EM gauge, but nowhere to run them. Soon I had built the ES1 electric loco and then came the idea to turn the image into a small diorama.

In the beginning

The first *Trafalgar Yard* model was a 3' x 1'6" diorama taken from the inspirational photograph which contained the bridge and tunnel mouth. With rudimentary detail and a backscene, this was shown at the Bassetlaw Railway Society show at Retford in 1994. It remained at this size for a further two years until a space became available to turn it into a fully working diorama of 6'6" x 2' with 4' fiddle yards at each end.

The first *Trafalgar Yard* had only one pair of through-tracks modelled. These were the slow tracks, owing to space restrictions. But these were now designed to operate as part of a shuttle system which can run-in locomotives, as well as having the suburban EMU providing an operational interest whilst there is shunting in the yard. The layout, however, is now attached to a wall and operated from the front, so it cannot be taken to exhibitions.

The Quayside branch

The use of the two ES1 electric locomotives came about when the North Eastern Railway electrified the passenger lines on the north bank of the Tyne out of Newcastle Central station. This route passed Trafalgar Yard after Manors East station heading towards Heaton. The branch to the Quayside was opened in 1870 and, up to electrification in 1905, was operated by steam locomotives passing through the three tunnels, down a 1 in 25 gradient in a semi-circle to reach the quay.



The conditions in the cab must have been awful for the crews when ascending from the Quayside yard. The electric locomotives were supplied by Brush Electrical Engineering, acting as sub-contractors for British Thompson-Houston, which supplied the electrical equipment.

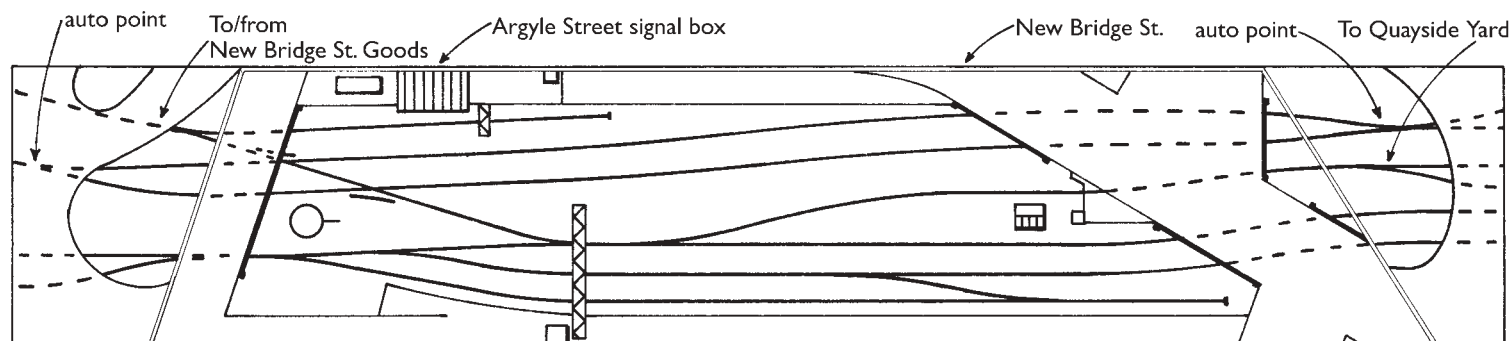
On the Quayside a J71 or J72 0-6-0 would be used to transfer out of the lower yard along the Quayside. This locomotive would be taken down to the quay and returned each day by the duty electric locomotive. The permitted loading for the electric locomotives was 160 tons or sixteen unloaded wagons including the 20-ton brake van which was always at the lower end of the train descending to the quay. At the lower yard, the van was detached and allowed to run into a siding by gravity. The rest of the consist was put into another siding. The outgoing train was collected by the locomotive before it returned to collect the brake van.

At each end of the branch, an overhead supply was installed to ensure the safety of the men that worked in the yards. The tunnels had

insufficient clearance for the overhead equipment, so a live third rail was installed through the tunnels. The changeover from third rail to overhead was accomplished by the use of two large, totally uncovered knife switches. In order to raise and lower the pantograph, a handle attached to it came through the cab roof.

The locomotive crews could change over the supply with the train in motion, but if they did not do this correctly approaching the tunnel, the pantograph could hit the tunnel mouth if it was still in the raised position. The impact marks on the tunnel mouth testify to this. Because the depot for the electric locomotives was Heaton 52B or South Gosforth electric car sheds in later days, the locomotives could travel there using the Tyneside suburban 600 volt third rail supply. They were, however, usually taken there by diesel shunter.

The electric operation on the Quayside branch came to an end in 1964 when class 03/04 diesel shunters took over. All rail operations came to an end in 1969 when the branch closed.



Returning to the layout, I shall not go into a detailed account of its construction, because most of it is constructed using tried and tested methods. For example, the baseboard is a plywood top upon a 2" x 1" softwood frame.

The trackwork is SMP EM gauge with the pointwork coming from the SMP 00 gauge point kits cut in half and extended. The resulting gap is filled and built up with ballast. The ballast is flock powder secured with watered-down PVA adhesive. As an experiment to blend the points in with the plain track, only the pointwork out of the yard across the main line in front of Argyle Street signal box (a modified Heljan box) and the fiddle yard autopoints are built up with copper clad strip and bullhead rail.

The autopoints were developed from a design of fixed point described by Robert Tivendale for use on the exit from the storage loops on his layout *Ashley Bridge*. I have used a version of this in N gauge on my own *Brookside* layout. This saves half the required number of point motors for the storage loops and makes them more reliable once fully set up. The only disadvantage is that you cannot reverse over them. The operation of the other points was also kept as simple as possible using an operating rod under the baseboard with a knob on each end that is also attached to the point tiebar. The electrical switching is achieved through double-pole, double-throw slide switches attached to the operating rod.

The layout fulfils its role as a test track with the through-lines running into a single siding in each of the end fiddle yards. These are reached through the autopoints biased for the outgoing line.

A Gaugemaster shuttle unit provides the power to the rails, the fiddle yards having isolating sections controlled by diodes. I have also used diodes to provide the supply to the autopoints frog.

I have populated the layout with figures from Dapol packs, batch painted with the bases cut off and a headless pin stuck into a leg to secure them into place. The overhead



Opposite: a Class 24 arrives with a van train, passing Argyle Street signal box.

Above: closeup of 00 gauge points, split and re-gauged to EM.

Below: scratchbuilt ES1 No.26501, was the catalyst for Trafalgar Yard. It is seen here with brake van at the Heaton end of the layout.

Photographs by the author.

catenary is scratchbuilt from brass, apart from the large gantry which is two old Tri-ang units put together; the contact wire comes from Tramalan.

Lighting the yard are several lamps, the bulbs of which started life in watches to illuminate the screens. These had their wires extended and twisted together. A shade was added and the whole unit was put into a brass or wood pole.

Signals

I have always viewed the signals as an accessory that should be made to work. The signal system must take into account most, if not all

the possible movements of the trains. This idea goes back to the design of *Brookside* – née *Parkwood Springs* – in 1978 for exhibition use; this allowed a 7'6" x 2'6" N gauge tail-chaser layout to be operated single-handed.

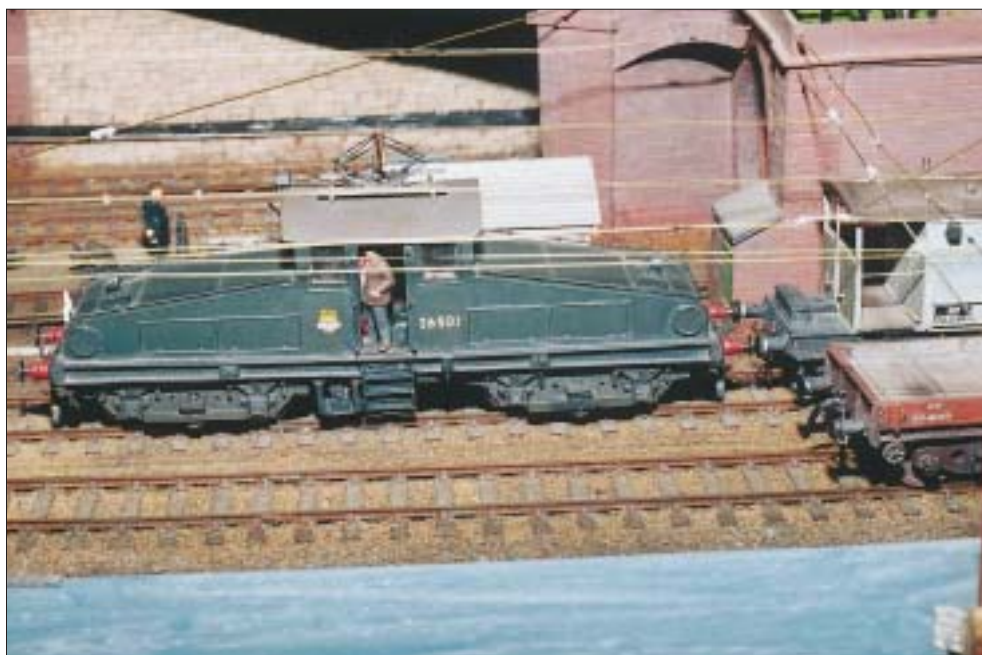
Back in those days, a 15' layout could require up to six operators, which is probably OK for a club layout. With the signals taken care of by relay logic and switches, the main focus is the operation of the trains. If taken together with an automated fiddle yard, the number of operators can be reduced to one or two.

Trafalgar Yard is organised as follows. The four-aspect signal on the main line is totally automatic. The signals for the yard itself are direction-dependent and are therefore operated by switches on the control panel, except the position-light signals which are set by the points. Model Signal Engineering has provided the parts for the semaphores and Eckon supplied the four-aspect and position-light ground signals.

Locomotives

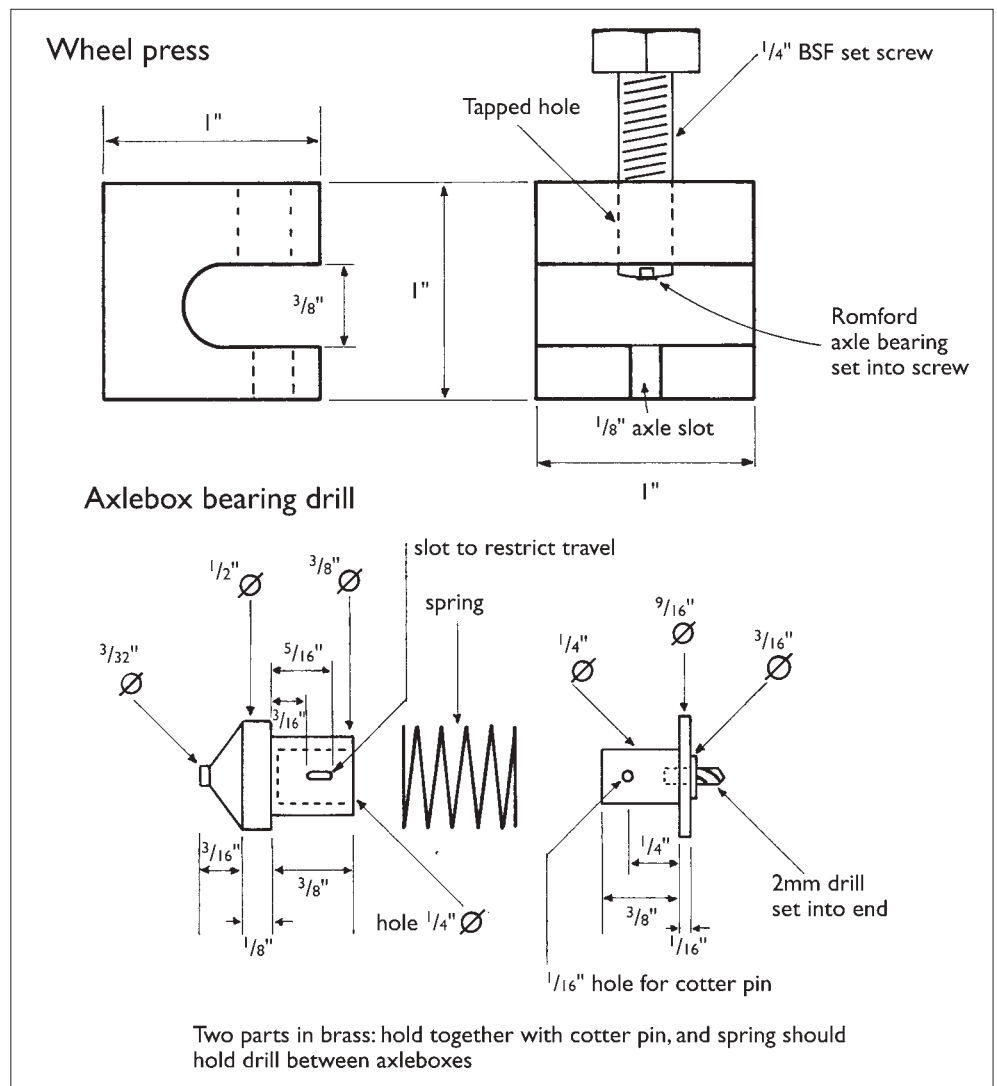
Most of the following items of motive power were built for or adjusted to EM gauge over a number of years as a foil to my N gauge modelling activities (see *RAILWAY MODELLER* October 2000 for *Ryde Esplanade* and July 2001 for *Brookside*). The main reason for *Trafalgar Yard's* reconstruction was, of course, to provide an opportunity to run the locomotives. The Bachmann locomotives have had their wheels altered to EM gauge. In order to maintain a unified look, all the stock has lamp irons, handrail knobs and vacuum pipes of the same type and standard as the first ones built over twenty years ago.

26501 The Class ES1 is the model which started this project: it has a scratchbuilt body in plasticard and is powered by a Tenshodo motor bogie, fitted with the new Type 1 Hornby disc wheels. The locomotive can pick up current in three ways: through the N gauge pantograph on the roof; via the live third rail through the bogie shoes; and conventional two-rail.





- 61399 Bachmann B1 4-6-0, wheels reset to EM gauge.
- 65110 Dave Alexander J21 0-6-0 kit.
- 64963 Bachmann J39 0-6-0, wheels reset to EM gauge.
- 68680 Bachmann J72 0-6-0T, wheels reset to EM gauge.
- 62067 Nu-cast K1 2-6-0 kit.
- 61869 South Eastern Finecast K3 2-6-0 kit.
- 63587 Ks O4 2-8-0 kit with Romford wheels.
- 63431 Dave Alexander Q6 0-8-0 kit with outside lubricator drive.
- 69999 DJH U1 2-8-8-2 Garratt kit, as oil-fired in the 1950s.
- 67691 Bachmann V3 2-6-2T, wheels reset to EM gauge.
- 47392 Hornby 3F 0-6-0T, lowered, detailed and with Romford wheels.
- 43041 Millhome Models LMS Ivatt Class 4MT 2-6-0 kit.
- 44405 Airfix 4F 0-6-0 with loco chassis replaced.
- 42901 DJH Hughes/Fowler 'Crab' 2-6-0 kit.
- 48510 DJH Stanier 8F 2-8-0 kit; represents a Doncaster-built loco.
- 90625 DJH War Department 2-8-0, with boiler details altered to represent an Eastern Region example.
- 78007 DJH BR Standard Class 2 2-6-0 kit.
- 76089 Airfix BR Standard Class 4 2-6-0, first built in the late 1960s on a Tri-ang chassis, and then rebuilt in the late 1980s to EM gauge.
- 70040 *Clive of India*, from a DJH BR Standard Class 7 4-6-2 kit.
- 92132 DJH BR Standard Class 9F 2-10-0 kit.
- EMU The South Tyneside two-car unit is a converted DC Kits 2-EPB, powered by a Southern Pride motor bogie. I know I should have built a Gresley twin set for use on this side of the Tyne, but speed got the better of me. If Dave Alexander comes up with the goods, this will be rectified.
- 12032 LMS/EE/Armstrong Whitworth 0-6-0 with jackshaft drive; an impulse buy. I powered it through the jackshaft.
- D2701 MTK kit for a NBL/Paxman 0-4-0; first whitmetal 4mm loco built.



- D2867 Craftsman Class 02 kit; I just liked the look of it.
- D2195 Bachmann Class 03, wheels reset to EM gauge.
- D3674 Bachmann Class 08; could anybody resist buying one?
- D8594 Dave Alexander Class 17 kit.
- D5103 Bachmann Class 24, altered to freight-only condition for Consett iron ore trains; wheels reset to EM gauge.
- D5707 Converted Hornby Dublo Class 28 (see RAILWAY MODELLER November 1998).
- D5828 Airfix Class 31.
- D6758 Converted Lima Class 37, chassis cemented into body with increased lower tumblehome, fuel tank rebuilt to fit.
- D35 Converted Palitoy Mainline Class 45.
- D1111 Converted Lima Class 47.
- DMU Hornby Class 110.



Opposite: a two-car South Tyneside EMU, patterned on the BR 2-EPBs, hums by.

Above left: wheel press and axlebox drill.

Above right: the K3 hauls a coal train through Trafalgar Yard.

Bottom right: as the ES1 emerges from the Quayside Yard exit, the working bus passes overhead.

Rolling stock

I have a keen interest in freight wagons, so spurred on with the written works of Geoff Kent, Iain Rice and others who provided modelling inspiration, I have been able to produce various vehicles using the ranges of wagon kits now available.

Some old and new ready-to-run wagons have also been adapted. For instance, the brake van used at *Trafalgar Yard* is unusual because it is not what it first seems. The LMS built four of these vans as a proposed RCH standard brake van for all the big four companies to use, but apparently they could not agree on the fitting of sandboxes and so it did not go into quantity production.

As the van used LMS components, my model is a converted Airfix/Dapol LMS 20-ton brake van which is basically a shortened cabin upon a modified underframe which also uses Hornby new type wheelsets. These are a godsend to an EM modeller. The wheelsets were regauged with a wheel press tool. The wheel press and the axlebox bearing drill are constructed as shown in the accompanying drawings. The wheel press is used in conjunction with an EM back-to-back gauge which can deal with a variety of wheelsets from different manufacturers. The axlebox drill is used to adapt old built-up kits (e.g. Airfix) or r-r wagon chassis and bogies to accept Romford/Gibson bearings into the axleboxes. These either improve running or remove wear in the plastic bearings which are part of the Wirons. Some of my wagons, those built some time ago, have been retro fitted with these wheels, replacing their regauged plastic wheels which also run in Romford bearings.

Coaching stock is taken care of by multiple units with the South Tyneside two-car unit and a Class 110 three-car unit although I do have a selection of Gresley and BR Mk 1 coaches for

service on the next layout I hope to build. This will be a tail-chaser again in EM gauge, but more on the lines of *Ashdon and Midport* by Ken Ashberry (see *RAILWAY MODELLER* September 1982).

Operation

As discussed, the main line takes care of itself, which leaves the operator to provide stock for the Quayside and dispose of the returns. Traffic can also go across the main line to the offstage New Bridge Street goods depot past the Argyle Street signal box.

I suppose only a cassette system could help reduce the amount of stock handling in the fiddle yards at each end. With the stock having three-link couplings, it would allow the coupling tasks to be accomplished more easily, although I do like the look of the new Dingham autocouplers now in 4mm scale.

The shunting pole is also used to lift the jewelled tail lamps on and off the irons fitted to the stock as well as for coupling up. The lamps have a hole drilled into their body to facilitate being placed upon the lamp irons.

Roadway

The visible roads also form their own closed circuit and were built with a Faller Car-System guide wire laid in to enable the installation of a moving bus or lorry. This is still being worked

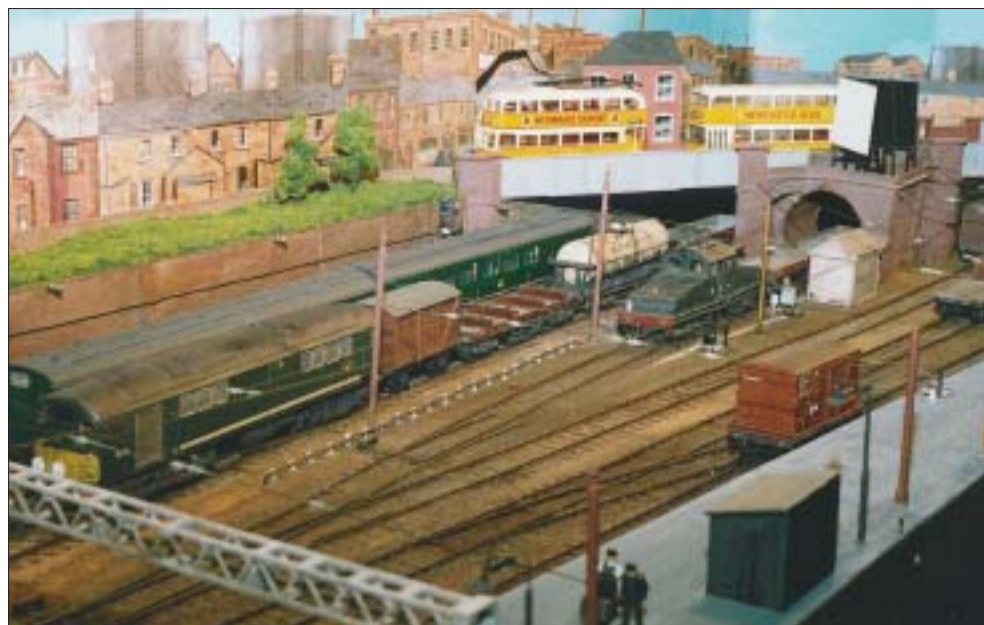
into the scheme of things. The road over the tunnel, in the period modelled, was wired for trolley buses although a fully working trolley system is out of the question owing to space. An EFE Q1 trolley bus has been placed as a view blocker to hide the hole in the backscene for the running road vehicles.

Finale

So to end this piece. I started taking the *RAILWAY MODELLER* from the early 1970s and amongst the layouts presented therein were *Buckingham* by Peter Denny, *The Little Long Drag* by David Jenkinson and *Bakewell* by Stan Roberts. This last source of inspiration recently came to mind during the closing stages of a walk in Derbyshire when we ended up on the remains of Bakewell station which seemed so familiar. After all these years, Stan's guide through the building of his *Bakewell* model made visiting the actual place seem like an old friend, an inspiration indeed. I wonder how many layouts still exist from this time?

Further reading

The Electric Locomotives of the North Eastern Railway – K.Hoole.
The North Eastern Electrics – K.Hoole.
Lost Lines North Eastern – N.Welbourn.
LMS Wagons Volume 1 (brake van).
Roads and Rails of Tyne and Wear – J.Joyce.





Size does make a difference

The story of The Association of Larger Scale Railway Modellers

*A relatively new society introduced by **David Brewer**.*

Steam powered railways first appeared around two hundred years ago with model railways arriving about fifty years later. During the twentieth century the face of model railways changed dramatically. In the inter-war years 0 gauge ruled the roost with gauge 1 being the chosen scale for those modellers with a large budget. After World War II the restraints of space and cost had the same effect on model railways as it did on all other aspects of life. The rise of inexpensive 00 gauge during the 1950s and 1960s virtually destroyed the 0 and 1 scale market. By the 1970s, other than vintage

items, very little was available in the larger scales. LGB™ had the G gauge market to itself, and there were a few small companies producing live steam locomotives in various gauges.

Now in the opening years of the new century we seem to be turning full circle. Bachmann has made G gauge very affordable, USA Trains has a gauge 1 diesel shunter with smoke and lights available for under £90.00, and in 0 gauge, starter kits are available including wheels, gears and motor for around £160.00. With the average age of railway modellers

increasing, it is not surprising that all of these scales are making a serious comeback. As we get older our eyesight fails, making N gauge impractical. Most of us also find that with middle age comes more space around the home and more money in our pockets, especially after the children have left home. The attic, the now vacant bedroom, or the garden free from swings and slides can accommodate a larger scale layout. Furthermore, many model railway clubs now have an 0 gauge layout, so even if there is no space at home, the aspiring modeller can still find somewhere to run his stock.





It was in the light of this growing movement towards bigger scales that a group of friends got together late in 2000. The object of the meeting was to set up an entirely new type of model railway group. There were already a number of societies catering for specific scales such as the G Scale Society, the Gauge 0 Guild, and G1MRA. These groups had been in existence for many years and were doing a good job of promoting these scales. A quick check around the table produced some interesting statistics. The six people present owned models or layouts in 0, 0-16.5, 0n30, G, 1, SM32, 5" and 7 1/4" gauges. Between them they also belonged to six different scale groups.

The question arose as to how they could get all the scales represented in one society. Obviously, everyone would continue to be members of their specific scale groups, but why could we not have a new society that catered for all scales from S up to the largest live steam scales? Could we not also cover all forms of power, be it electric, battery, clockwork, or steam, and make models of all nationalities welcome?

Heading: Festiniog Double Fairlie and train of four-wheel stock heads for the terminus on Eastgate Wharf, an 0-16.5 layout by Ray Clasper; see RM November 1999.
Photo: Steve Flint, Peco Studio.

Far left: miniature railways also fall within ALSRM's remit – this 7 1/4" gauge 'Warship' is a real diesel. Photo: courtesy Express Models.

Left: just like the real thing – a 16mm scale live steam model of a Vale of Rheidol 2-6-2T in a garden setting. You have to look twice!
Photo: Ray Webb.

Right: gauge 1 track maintenance vehicle and Deltic on display at the Reading show in 2002.
Photo: Andy Ross.

Above: double-headed 'Patriots' on the popular Holiday Haunts 7mm scale layout, seen in RM September 2000.
Photo: Len Weal, Peco Studio.

It was also suggested that if we could get sufficient members, a glossy quarterly magazine full of articles, news, reviews, and advertisements could be produced. Furthermore, one or two major exhibitions could be hosted each year, where members could exhibit their layouts and specialist traders could display their wares. If the job was done correctly, it would be possible to charge the general public a reasonable admission fee but members would be admitted free of charge. Furthermore, as all this would not be possible without the assistance of the model trade, it was decided to offer separate membership for retailers and manufacturers. This way, all the experience that the trade can offer could be utilised and good relations between the trade and its customers established from the outset.

Late in 2000 this all sounded like a dream, but by early in 2004 every aim had been achieved. The new society, now named The Association of Larger Scale Railway Modellers Ltd., has held exhibitions in Reading, Leeds, Swindon, and Halifax. Its quarterly magazine, the *Journal*, has established itself as a well-respected publication. The Association website, www.theassociationltd.com, is updated regularly, and the membership is steadily increasing.

Annual membership, with four magazines and free admission to one or two major exhibitions, costs only £10.00 per year – less than twenty pence per week. Furthermore, the Association actually makes a small profit each year and last year managed to raise £1000.00 for charity.

If this sounds of interest and you either model or would like to start in any scale from S scale up to 15" gauge live steam, then come and join us. As a young society we also welcome assistance in many areas – the magazine always needs articles, while stewards, demonstrators, and layouts are required for the exhibitions.

You can join by sending a cheque or postal order for £10.00 payable to ALSM Ltd. to The Secretary, 60 Sandy Lane, Petersham, Richmond, Surrey, TW10 7EL.

Alternatively, if you would like to get an idea of the range of modelling involved, you might like to come along to our exhibition which will be held at the Rivermead Leisure Centre, Richfield Avenue, Reading, RG1 8EQ, on Saturday 8 May from 10.00 to 16.30.

Admission for non-members is £4.00, but if you decide to join the Association on the day the admission charge will be deducted from the cost of membership.





Hellifield – part 2

The concluding part of this 4mm scale Yorkshire junction

Stephen Rabone revamps a layout into a different era.

Readers of the first part of this article (*last month – Ed.*) will remember how I have constructed a layout based upon Hellifield station as it was in the years 1960 to 1965. Inevitably, as the project nears completion, my thoughts turn to the next layout. But just supposing that instead of tearing the layout apart, I adapt what I have into something slightly different. What if events in the railway history of the north-west of England had been different? Perhaps Hellifield might not have gone into near terminal decline after the 1960s. Maybe the London Midland Region had kept open the Blackburn line and the Settle to Carlisle route had not been deliberately run down in the 1980s. Perhaps the diesel age might have turned out to be as interesting as the years I had modelled.

This concept has considerable appeal for a variety of reasons. Most of my adult life I have dreamed about building *Hellifield* and now I have succeeded, I am loath to move on and do something different. My interest in Hellifield is not just the railway, but is bound up with the appeal of the Yorkshire Dales and walking, another of my interests. One of my friends, when I suggested that *Hellifield* might have to make way for something else, said, 'Hell,

Stephen, you're not going to rip it apart are you? You've talked about nothing else for years.'

Another factor is the improved running that is possible with modern diesel outline compared with even the best steam locomotive models. Also, model diesels look correct in a way steam locomotives never can; that is until some genius produces a smoke generator that produces exhaust that looks realistic. This has been brought home to me by comparing the visual impact of my Bachmann Class 24s and 25s as against that of, say, a Class Five when at the head of my Morecambe line trains; the diesel looks more realistic whilst the steam loco clearly has something missing.

Adapting the layout

The starting point for adapting *Hellifield* to a diesel era layout must be to see what British Rail actually did. I can not be absolutely accurate about dates, but changes occurred steadily after the closure of the Blackburn line to passenger traffic in 1962, with the locomotive shed closing in 1963. The shed remained in use for watering and loco turning purposes at least until the dieselisation of the Settle to Carlisle local services in April 1966. Hellifield

then lost its final junction role when the Carlisle to Hellifield and Carlisle to Bradford Forster Square local services were recast to be operated by two-car DMUs running between Carlisle and Skipton. By this time the loco shed was being used to store locomotives awaiting preservation for the future National Railway Museum.

Almost immediately BR started on the track alteration, the tracks to the bay platforms and carriage sidings were lifted and a facing crossover was put in to allow freights from the Leeds line direct access to the Down Goods Loop.

During the late 1960s, Hellifield saw the first signs of its future role. The engineers' department started to use the old High Level Exchange sidings and a tip for ballast spoil was started to the west of the line just north of the station.

By 1969, the use of the loco shed for storage purposes had finished and the entire site was cleared shortly after. The North Junction signal box was closed and Hellifield's trackwork simplified to its present layout, with the South Junction box taking over complete control of the station. It is in this format that the suggested layout plan is drawn.



Adapting the steam era layout

If I eventually decide to move the layout into the diesel age, there is quite a lot of work that will be necessary. Firstly, the demolition of the entire shed and carriage siding area will take place. I intend to leave in place the earthworks and foundations of the buildings which will be portrayed as being overgrown by weeds and bushes. This may not be particularly attractive, but will be characteristic of much of what happened on Britain's railways during the 1960s and 1970s. The Up and Down goods loops will be adapted as in the plan, and since the signalling requirements of the layout will be lessened, this time I think I really will install working signals.

I am, however, intending to make one significant change to reality. I have decided that the

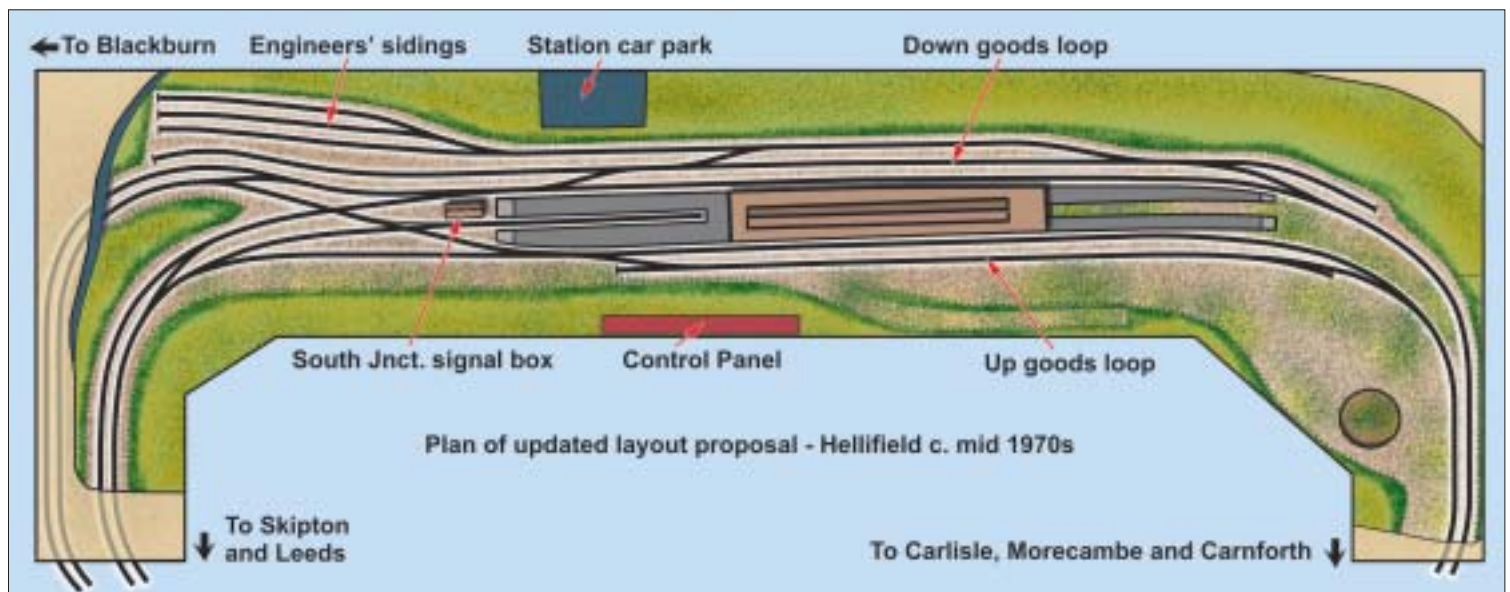
Opposite page: by the late sixties, excursion traffic to Morecambe from the West Riding was in rapid decline. However, on Bank Holiday Mondays there was still a succession of specials. Here we see D5206 (a Hornby body mounted on a Bachmann chassis) leading a return train of ex-LMS coaches to Leeds and Bradford.

Above: it is a Sunday in 1969 and a Brush Type 4 creeps off the Blackburn line on a West Coast Main line diversion. Clearly the crew has forgotten to set the headcode to 1S35. As usual, the signalman has returned the Blackburn line signal to danger very promptly. The new use of the High Level Exchange yard is apparent in this shot. Engineering trains were an important feature of Hellifield in the diesel period.

Photographs by Steve Flint, Peco Studio.

Blackburn line stayed open to passengers. In fact the Blackburn-Clitheroe section reopened in the 1990s and there are calls for the Hellifield-Clitheroe part to follow suit. On Sundays, in summer, this section is used regularly by the 'Dalesrail' service from Preston to Carlisle so maybe the permanent reopening may happen one day. I have decided also to reinstate the Blackburn bay platform; trains arriving will terminate in the northbound platform and then move across to the bay.

Depending on the precise date to be modelled the station will have to be repainted to reflect the BR corporate image, or I may decide on post-privatisation colour schemes. The use of replacement lamp post and station nameboards is probably sufficient to define the exact period being operated.





Above: it is the late sixties and Hellifield has closed. The engineers have parked some vehicles in the yard ready for track lifting, whilst D7645 pulls into the up goods loop with a train of empty bogie bolster wagons bound for Tinsley yard at Sheffield. The days of the North Junction signal box are numbered.

Operational potential

I suspect readers may be thinking that moving the layout's setting into the post-steam era will be boring with little variety. How wrong can initial thoughts be! In reality the thirty or so years after the end of steam at Hellifield in August 1968 has probably seen as much variety as in the British Railways years preceding it. In order to show this, I will break up these years into segments and try to give a flavour of what can be run on the layout with diesel power. My observations are by no means exhaustive, but should give a idea of what could be run. Steam enthusiasts need not despair completely as steam specials have been a feature of the line throughout most of these years!

The 1970s

Initially, traffic levels continued to be quite buoyant in the early years of the diesel period; indeed from 1971, more and more freight traffic was re-routed off the West Coast Main Line as engineering work for the forthcoming electrification limited the capacity of that route north of Preston. A further factor was the banishment of partially-fitted freight trains from the West Coast route after the removal of all catchpoints on the gradients over Shap. The use of the Settle to Carlisle and Blackburn lines for diverted traffic off the West Coast is a theme which runs almost continuously throughout post-steam traffic at Hellifield. It is most certainly a feature that can be built into the operation of the layout.

The principal classes encountered at the beginning of the 1970s were Class 24s and 25s (frequently in pairs) on freight and weekend relief trains to Morecambe. Class 40s worked freights mainly on the Blackburn line at first,

but increasingly on the line to Leeds and Class 45s headed both express passenger and freight on the former Midland lines. Class 47 and Class 50s also appeared on freight trains and diverted West Coast passenger trains. Very occasionally Class 37s, usually Glasgow-based examples, turned up on freight trains.

Apart from the two daytime and one night-time Settle to Carlisle line expresses, all other regular passenger traffic was in the hands of DMUs. Virtually any of the types allocated to Neville Hill depot in Leeds could be found: Metro-Cammells, Derby lightweights, BRCW and Cravens units all appeared in train lengths ranging from two to eight cars. Before withdrawal of the Skipton to Carlisle locals in 1969, these had been worked firstly by the early Derby lightweight units in the 79xxx series and then later by the more modern Cravens and Derby lightweights.

The variety in freight traffic at this time was surprising with tanker trains (both four-wheeled and bogie), chemical tankers, car trains, container trains, minerals of various sorts as well as coal and general merchandise traffic. Even air-braked freight trains in the form of Freightliners and fertiliser vans began to appear. Hellifield's operational importance remained, to some extent, as a crew changing point for the traffic to and from Lancashire.

The 1980s

However, this prosperity was short-lived and, by the 1980s, it appeared that the future for the routes through Hellifield was less than secure. The long distance expresses were cut back to run only between Carlisle and Leeds with short four or five car rakes hauled by Class 25s, 31s, 40s, 45s and 47s. There were some positive developments. The Morecambe line DMUs

were replaced by more suitable stock for long distance travel; Class 31s and five car Mk 1 coaches or long distance DMUs such as the former trans-Pennine and ex-Western Region Inter-City units took over the Hull to Lancaster service, which had by now replaced the old Leeds to Morecambe trains. It was clear, however, that British Rail wanted to close the Settle to Carlisle line and slowly but surely the core freight traffic of the route disappeared. By the mid-eighties, even this had disappeared and the line was now without regular freight traffic. From time to time Hellifield re-awoke as diverted West Coast trains used the line.

However, against all the odds the line survived. By the late 1980s the Carlisle to Leeds locals had mushroomed to trains of ten or more carriages hauled by pairs of Class 31s or a Class 47 as passengers flocked to ride over the threatened Settle to Carlisle. Even the green liveried Class 40 No.40 106 (the former D200) became a regular performer on these trains. Finally, the Government decided that the line was not to be closed, and so it moved into a more hopeful period.

The 1990s until today

British Rail's response to the line's reprieve was to introduce a much improved stopping train service over the Settle to Carlisle line, stopping at most of the reopened wayside stations. These were, and still are, generally operated by Class 156 running either as two- or



Above: it is 1969 and Peak D52, on a southbound express, overtakes a southbound anhydrite train headed by D210. These freights were often held in the loops at Hellifield awaiting the arrival of a crew from Lancashire. Just a few years before, and it would have been a 9F standing in the loop.

four-car sets. Unfortunately sometimes these are replaced or strengthened by the far less suitable Pacer railbuses. Sadly, the Lancaster line service remains in the doldrums with but four trains left and worked either by 150/156 Sprinters or Pacers. Recently, a Leeds to Glasgow express started, operated by Transpennine Express Class 158s. Sadly, this is likely to be short lived as it is due to be withdrawn at the behest of the Strategic Rail Authority.

The real change in the fortune of the lines through Hellifield came not with the passenger services, but with freight. British Gypsum started operating container trains from the desulphurisation plant at Drax power station to Kirkby Thore near Appleby, a traffic which in early 2003 is yielding three trains in each direction. In 2002 GBRf Class 66s operated similar trains from Hull Docks to Kirby Thore. Initially, these were hauled by Class 60s, but are more often Class 66 hauled today. There then followed a period when coal was worked in containers en route from the Selby coalfield to Scotland. This was worked either by pairs of Class 37 or a single 56. Unfortunately, this traffic has disappeared from the line.

The real breakthrough for freight came with the introduction of the long distance coal traffic from Ayrshire to the Yorkshire power stations. Initially powered by Class 60s, the traffic has built up to about half a dozen MGR trains in each direction, nowadays worked by Class 66s. More recently Freightliner Heavy Haul has

started operating one train each way over the line every day, using its new bogie hoppers and green liveried Class 66s. In addition to all this, freight has reappeared on the Blackburn line. Several times a week a coal train using MEA open wagons reverses in Hellifield on its way from Teesport or Immingham Docks to the Castle Cement factory at Clitheroe. A further daily Departmental service now also uses the line on its way from Crewe to Carlisle headed by a Class 56. Rumours abound about possible future traffic; DRS mini-modal container trains and cement from the Hope Valley to Carlisle are among them.

West Coast diversions

The variety of traffic seen on these diverted workings adds to the fascination of diesel era traffic through Hellifield. I have already referred to the regular diversion of freights in the 1970s but, throughout most of the period under consideration, weekend and sometimes even weekday diversions were a regular feature at Hellifield. Frequently these trains stopped at Hellifield to allow passengers to catch connecting services to places such as Lancaster; nowadays coach connections would, of course, be used but back in the 1970s things were different!

Throughout the period, one class stands out above all others as being associated with the weekend diversions; the Class 47. Whether it was passenger, parcels, newspaper trains or Freightliners, they worked them. Appearing in almost every livery imaginable, a familiar sight was one of the class gently easing a long distance diversion over the South Junction. Other types of course appeared regularly especially the Class 40s and Class 25s on parcels trains, whilst in more recent years the HST and, from

2002, the 'Voyager' units became regular visitors to the line in their striking Virgin liveries.

Steam hauled specials

During the 1980s and 1990s the lines through Hellifield became the haunt of numerous steam locomotives working specials such as *The Cumbrian Mountain Express*. Most of the large preserved locomotives, and some smaller ones worked through. Personally, I do not feel these workings have a future on my revamped *Hellifield*. I prefer to remember those grubby 9Fs and Black Fives and the solitude I experienced on Hellifield's lonely platforms. Not for me the hoards who turned out to watch those gleaming machines pitting themselves against the 'Long Drag'!

Modelling this variety

If I convert *Hellifield* to a diesel era layout, two periods stand out as worth modelling; the 1970s before the line went into serious decline and the present day with its more hopeful future beckoning. In the 1970s period, I will be able to use a good proportion of my freight rolling stock and diesel power, but more coaching stock in blue and grey and some blue liveried diesels will be needed. The station will still present a reasonably smart appearance, particularly if I keep it as a manned station to cater for the Blackburn line locals. These will have to be timed to connect with the expresses and Morecambe line locals; after all I want the service to survive!

Coming up-to-date, I will need to dig deeply into my pockets to fund the purchase of models for the current day scene, but herein lies one of the pleasures of model railways. I look forward to going into a model shop and walking out with my first Class 66.



St Jude

A minimum-space layout in 00, inspired by a real location

Both S. Davies and Ian Futers have had their sights trained on Sheringham, in Norfolk.

The idea of modelling a post-Beeching branch consisting of a single line may seem a bit pointless in more ways than one. Set in the latter half of the 60s *St Jude* represents a branch line now reduced to a long siding worked on the 'single engine in steam' principle, *sans* points, signals and practically everything else. There were a number of branches like this at the time but sadly most had succumbed by the mid 70s.

Some have survived, however, and the idea first occurred when I saw Sheringham station in Norfolk a number of years ago. At the time it was just an amusing thought that kept on resurfacing every time I saw something similar in a book or magazine. Then a couple of years ago I was asked to contribute something at a show and the idea suddenly looked like an achievable aim. I was also encouraged by cer-

tain acquaintances who were motivated, I suspect, by the urge to see if I was mad enough to do it.

The size of board was dictated by the biggest I could get in the back of the car in one piece, 64" long by 6" wide. This in turn dictated the maximum train length but fortunately the timing coincided with arrival of the Lima Class 121 unit which solved that problem. The only thing left was the setting and being predisposed towards south west England a vaguely St Ives-ish scenario developed. Progress was fairly rapid and the boards, trackwork, basic scenery were all completed fairly quickly using well tried and documented techniques. Automated control was mooted but eventually manual control was decided upon, partly due to the limitations inherent in automatics and partly due to cost.

Scenic details come from an assortment of well known sources though I am pleased with my home-made chain link fencing of obechi post and net material scrounged from the boss. Scenery was the most time consuming (one weekend out of a total of three!), as with something so small the details had to be right as everything is highly visible. When doing the scenery I tried to aim for a consistent effect. As the stock used is weathered I was keen to try weathering the scenery as well so the whole thing was dragged into the garage and an airbrush full of 'dirt' was turned on it. I am quite happy with the result as it does have a 'blended' look, often a characteristic of this sort of station which had been neglected for a long time. One comment I did have on this aspect was that I might have underdone it – I took that a compliment.





Stock is limited to a pair of 121 units. One is a 'real' Lima 121 finished in lined green, the other a 117 conversion finished in rail blue with small warning panels and white roof domes, one of the better incarnations of the corporate image in my view. Both have been detailed and weathered and have been fitted with rebuilt headcode boxes to take scale sized lettering, a change that makes a great difference.

To reduce the risk of terminal boredom setting in I also have on hand a short engineers train, consisting of a couple of PW wagons and brake vans, hauled by a D63xx or Drewry.

St Jude has had a few outings including one at an MRC show at Keen House which sounded daunting but turned out to be a very enjoyable experience. Viewers' reaction to *St Jude* varies considerably though this was not unexpected as it was aimed more at the modeller than the casual viewer. However at a recent show I did get one rather startled reaction which made it all worth while – 'Good grief, someone's actually done it!' (In fact he said something rather different but this is a magazine for all ages.)

I am pleased with the result and intend to keep *St Jude* on hand for some time even contemplating a few minor developments. As an idea it has lots of possible variations depending on your chosen period and location, one that may appeal to the space starved modeller who wants something a bit more than a bare test track.

Photographs by the author.



The prototype – Sheringham

Although I quite like travelling over the East Suffolk line between Ipswich and Lowestoft (*writes Ian Futers*), my real favourite is the branch to Sheringham. It perhaps has the advantage of also being able to see steam engines on the North Norfolk line which is across the road from the Anglia Railways terminus. Thus I propose that Sheringham station could be modelled quite effectively, despite it being a simple straight piece of track!

It need not be classified as an actual layout but as a diorama which could be simply mounted on a wall as a form of display. In many respects, the trackwork could be the easy part. One could use ready to run trackwork such as Hornby or Peco. It could form the basis of an attempt to move up into EM gauge or 18.83mm. A first attempt in 7mm could also be tried.

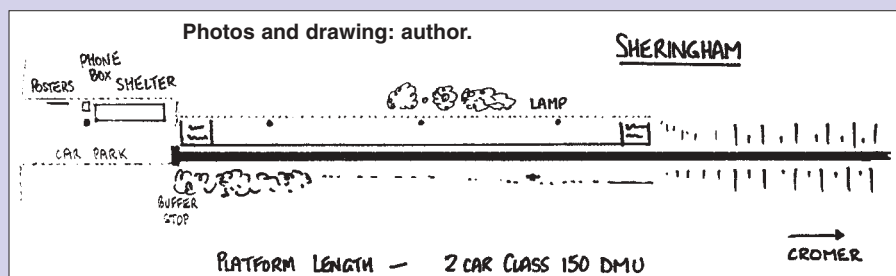
Whilst trogging around Europe recently, I came across a company advertising what looked like a transparent drain pipe. However, a closer look revealed they are display cases, the idea being that you place your models in them just as many of us do in this country. We tend to have more traditional display cases, made for example in antique pine. These square tubes are meant to be placed on the wall singly or in clusters. It is from this idea came the design to display Sheringham station.

I envisage a wooden cabinet about 10cm deep and 10cm high with a length of about one metre and a glass or Perspex front. Within this cabinet one could

model the station and its approach probably as a separate unit. The track could be powered by putting in a 2-pin DIN socket if you wanted to move the train.

The small space would enable you to model everything correctly, down to the last rivet if you wanted. A typical single platform station still has lots of character. There is much platform furniture to model – nameboards, lights, waiting shelter, signs – as well as the texture of the landform, platform and surroundings. The buffer stop itself would be a neat soldering job and the platform supports would be a challenge too. If you decided not to use commercial items, much scratch-building expertise could be gained: it would not surprise me if a fair amount of modelling time would need to be spent in creating the actual diorama.

There are similar stations to be found all over the network; you will know of one near you I am sure.



The Ten Tors Express

Inspired by Swiss metre gauge, set in Devon and modelled in G scale

John G. Andre invites us aboard his garden railway tourist express.

We were lucky enough to take a Ffestiniog Travel escorted tour of the Swiss metre gauge system a few years ago and a lasting memory of the tour has been not only the excellence of the whole holiday thanks to the Ffestiniog people, but also the memory of those immaculately maintained trains running in breath-

taking scenery with no apparent effort being expended on anyone's part. They truly run like clockwork.

The most famous of the trains is probably the *Glacier Express* but there are many other spectacular rides, such as the *Bernina Express*, mostly starting from Chur the hub of the RhB.



If you're into narrow gauge you ought to be in Chur, if you possibly can.

Now I am the first to admit that Dartmoor is not quite in the same league as the Alps but with a stretch of the imagination, I can see a locomotive or one of those powerful railcars hauling a set of coaches gliding its way from say Exeter to Okehampton, then on to Widecombe and down to Plymouth via Tavistock, keeping Princetown at a safe distance and giving spectacular views of the wide open spaces, the rocky tors and the sheltered hamlets, the sheep and the ponies, the walkers and the Military, with occasional glimpses of the sea. But I'm getting carried away again, enough of this imagineering.

So having made up my mind to build the *Ten Tors Express* I reviewed my rolling stock for likely candidates. The obvious choice were the Bachmann coaches bought as kits when they were less than £20 each. I had altered these to form a set to run behind my LGB™ steam locos and they were already in chocolate and cream livery.

The modifications consisted firstly of raising the body by 10 mm to line with my other LGB™ passenger stock. This is a fairly simple refinement and consists of removing the body from the chassis and gluing a 10 mm strip of black plastic to the subframe. This effectively widens the subframe to prevent it sliding up into the bodyshell and at the same time stiffens the frame, so make sure it's square and true before the glue sets! In order to refix, simply find some longer screws and reattach in the old position but 10 mm lower, or higher depending on how you look at it.

Secondly, I don't like clerestory roofs and removing these is a bit more complex. I have tried several different ways including building a completely new roof in plasticard but the latest version, and most successful to date in my view, entailed actually cutting out the clerestory section and lowering it into the roof and

gluing it back in place. The double curved ends were cut down and refitted in place but needed the help of a dollop or two of plastic padding filler to smooth over the joints. When sanded and painted and with a row of Brandbright shell vents, it looked pretty good to me, much better than those clerestory roofs.

Thirdly, I changed the couplings to the Brandbright single buffer and chain type which I am slowly adopting for all my stock.

Finally, wherever I can I change the wheels to steel. These give a much smoother movement and of course add weight exactly where you want it.

The major conversion was in making the locomotive, which would be a diesel for my railway. Once again a Bachmann coach was the basis, this time the combine coach kit, by now an expensive £27.50. If only they were still available. As before the chassis was raised by 10 mm but this time it was also lengthened to allow the driver's cab to be added in place of the balcony end of the baggage section.

Construction of the cab was simply a box made out of plasticard following the shapes and proportions of the coach adapted to include all the things expected in a cab.

I consulted photographs of various railcars and locos going back to the wooden masterpieces of the nineteenth century and forward to the current designs of Swiss railways, out of which I arrived at what I considered to be a pleasing version. In my experience if it looks right, it usually is right.

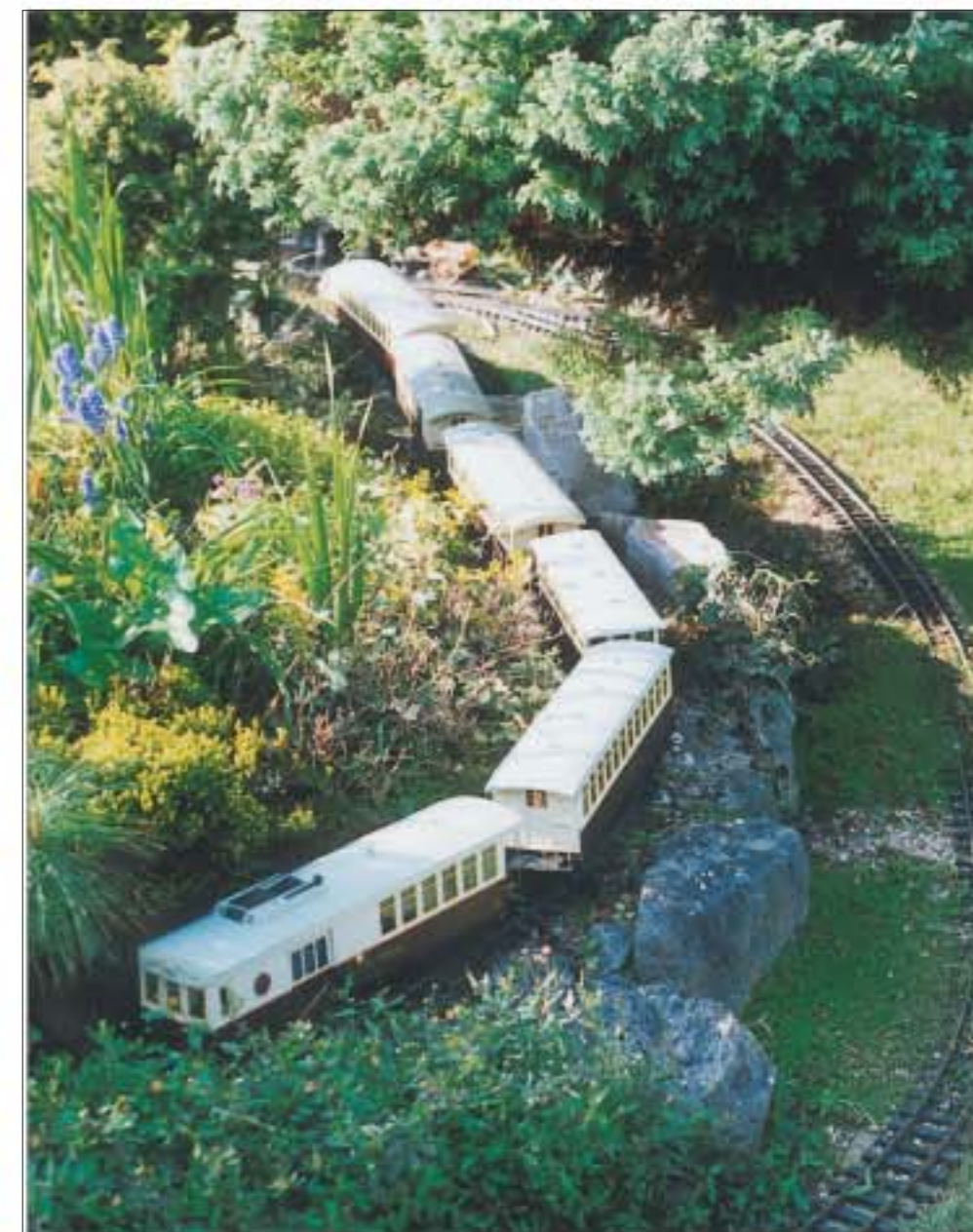
Above: aerial view of the whole train as it winds its way across Frogs Leap bridge.

Above right: the power unit for the rake is locomotive Sir Oliver.

Left: passing through Dewmill Station.

Right: gliding down to Dewmill junction.

Photographs by the author.





Top left: the US Trains motor bogie.

Above: the motor mounting platform.

Left: the electrics in position.

Below: Dewmill at the end of the day.

use in other models. This consists of a standard 2-channel receiver, an electronic speed controller, an on/off switch, a 10 amp cartridge fuse and a pack of nicad batteries producing 14.4 volts or thereabouts. These are loose in the battery compartment so that they can be arranged out of sight with the aerial laid out down the length of the body in as straight a line as possible.

Time for testing. I assembled my *Ten Tors Express* out on the layout, consisting of the locomotive car, four modified Bachmann coaches plus a Garden Railway Specialists coach in the same livery. I must admit to being most impressed. Not only did it look the part snaking its way up the gradients and around the ponds at scale speed but the US Trains motor bogie with its traction tyres was as smooth as the Swiss prototypes.

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Next came the roof and those clerestories. This time, because of the extra length, there was nothing for it but to make a new roof. Or was there? The big advantage of using the Bachmann roof is that it fits down over the bodysides and helps to stiffen the whole unit. If there is no need to access the interior you can screw the roof to the body thus making a very rigid vehicle indeed, which is how the manufacturers intended things to be.

But I will need to get to the innards on a regular basis to service the batteries, radio, fuses etc and so a lift-off roof is a necessity. I decided to use the Bachmann roof so I hacked off the clerestory and lengthened the roof by overlaying a plasticard top, stuck to the roof underneath, and making new 'ends' to fit on to the cab at one end and as the overhang at the balcony end. I added the shell vents, as usual, and an arrangement of shapes to simulate air intakes, radiators and exhaust stacks over where the diesel engines would be, and painted it all as for the coaches.

The only other change to the Bachmann coach body was to invert the sliding doors and to add plastic gauze on the inside instead of the windows. I then added some transfers I found in the bottom of the treasure box under the bench.

With the completion of the body, attention turned to the machinery, except that I had already worked out what to do before the first attack was made on the plastic.

The motive power comes from a US Trains motor bogie. These are made in various sizes. I chose the one with a wheelbase almost the same as the Bachmann bogie. These units ride taller than the original bogie so it is necessary to cut a hole in the floor to allow a new mount to be fixed on top of the old floor. I found that a 6mm thick piece of MDF cut to fit in the baggage compartment and screw fixed up from underneath gave a firm platform for the motor bogie. I adjusted the ride height by adding

washers between the plastic floor and the MDF until the coach sat level on the track.

The motor bogie is supplied with moulded plastic sideframes representing the axleboxes, brakes and other details. These frames are also the means of hanging the motor from the body. I made a 'top hat' out of brass strip which was bolted to the sideframes and has a central hole which takes a screw into the MDF forming the pivot. This is fixed very 'sloppily' to allow maximum flexibility without allowing the body to rock too much.

A pair of wires was soldered to the contacts on the back of the motor and threaded through a hole in the MDF in line astern of the pivot into the baggage compartment which is now the battery compartment. These wires are terminated in a plastic connector which also receives the feed from the headlights. Incidentally these were made from felt pen tubes glued into the front of the cab with grain of wheat bulbs pushed in and held with a piece of Blu-tack on the back.

I wanted to have radio control and so made up a module that could be loaded and unloaded not only for re charging but also for



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Scale drawings

LNWR Heavy Hauler – the ‘Super D’ 0-8-0

In 7mm scale from the David Andrews kit

Model built by **Charlie King**. Drawing (first published July 1993) by the late **Ian Beattie**.

The subject of this model is the Belpaire firebox-fitted version of the G2 0-8-0 that was the ultimate development of the family of ex-LNWR heavy goods engines more commonly known as ‘Super Ds’. Why these engines were referred to thus is not completely clear and even in his outstanding book, *The LNWR Eight-Coupled Goods Engines*, Edward Talbot offers no definitive explanation. However, the most likely reason is that the name came about because under the LNWR engine type classification they were basically D class engines that had been superheated, hence ‘Super D’.

The history and development of these locomotives is complicated to say the least. By the early 1890s the goods traffic on the LNWR was exceeding the capacity of current 0-6-0 tender engines, especially for medium and long distance work. Built in response to this need for a goods engine that could cope with ever increasing demands of the traffic, the origins of this family of engines can be traced back to the prototype LNWR 0-8-0 No.2524 that took to the rails in October 1892. No.2524 was so successful that the LNWR never built another 0-6-0 tender engine.

The ‘Super Ds’ might not have stood much chance in a locomotive beauty contest but what is beyond doubt is that these were one of the most successful locomotives to run in this country. In common with many other LNWR classes, these engines could be found almost anywhere on their extensive system of lines and those of other companies over which they had running powers. Being vacuum fitted they also took a hand with excursion and occasionally some secondary passenger traffic.

In their declining years ‘Super Ds’ could be found on quite humble turns on lines where one would not ordinarily expect to see such a big engine, a point worth bearing in mind by potential modellers. Still more likely would be to find the last survivors carrying out the duties for which they had been originally designed, plodding faithfully along with heavy goods and mineral trains. It is perhaps a testament to their qualities that the last few were not withdrawn until December 1964, over seventy years after the original design had been laid down.

The standard David Andrews kit is for the Belpaire firebox engines. If the earlier, round topped firebox variant is required, an alternative pack with different boiler, firebox cab front, etc is available in exchange for the Belpaire type. The tender cab fitted to some of

the class was a later addition and initially fitted only to engines rostered to take over the duties of the ex-LNWR 0-8-2 and 0-8-4 tank engines all of which had gone by 1951. Indeed, the original tender cabs were made by simply cutting off the back of the cab and part of the roof from the scrapped tank engine and bolting it to the front coal plate of the tender.

In addition to the kit itself, the modeller requires wheels motor and gears. Slaters produces the correct pattern ‘H’ spoke LNWR driving wheels and the firm can also supply the flangeless version needed for the third axle. There is enough space inside the firebox to fit just about any motor/gearbox combination. I have used a Mashima 1883 motor and Branchlines 40:1 gears in this model as the layout on which it is being used is a shed scene and something more powerful is not required. However, an MSC motor gearbox or an ABC gearbox fitted with a Cannon motor would be a viable alternative and would provide ample haulage power for anyone with the space available to run anything like a prototypical freight train.

On opening the box, which is big enough to

Right: there is purposefulness about these engines that shows up in this photograph. It is a tribute to their design and solid construction that the ‘Super Ds’ worked alongside more modern classes of locomotive such as the Stanier 8Fs and outlived the later Midland inspired ‘Austin 7’ 7F 0-8-0s.

Photographs by Trevor Cousins.

The drawing, of the similar but round-top firebox G1 0-8-0, is reproduced to H0 scale.

hold the completed model, you are confronted by an array of frets and bags of castings. You get a lot of kit for your money and it is all very well done. The instructions are in two booklets one each for engine and tender and are well worth carefully reading before starting to build. Although the instructions are comprehensive, I found as always photographs are invaluable for locating detail and cross checking any areas of doubt. While this kit is probably not aimed at the beginner, if I have a criticism of the instructions there are one or two tricky-to-do operations where a few hints and tips for the less experienced modeller would have been useful.



The engine and tender chassis are etched from quite thick 28thou nickel silver which adds weight where it is needed and also reduces any risk of twisting the long side frames. Body parts are of thinner 18thou brass which is easier to form than nickel silver and there are several quite tight bends to make on both engine and tender. One of the things that impressed me about this kit was the cleanliness of the etches, most requiring little more than tidying up. The castings, which are a mix of whitemetal and lost wax brass, are cleanly cast and fit exactly how and where they should. The choice of material to use for the various castings is thoughtful. Finer compo-

nents like the vac pipes and detail parts are cast in brass which is less likely to succumb to accidental damage leaving the heavier, less vulnerable parts such as chimney, dome, axleboxes etc in whitemetal. This might add a bit more to the price of a kit but I have found myself replacing some of the more vulnerable whitemetal castings with cast brass on other models.

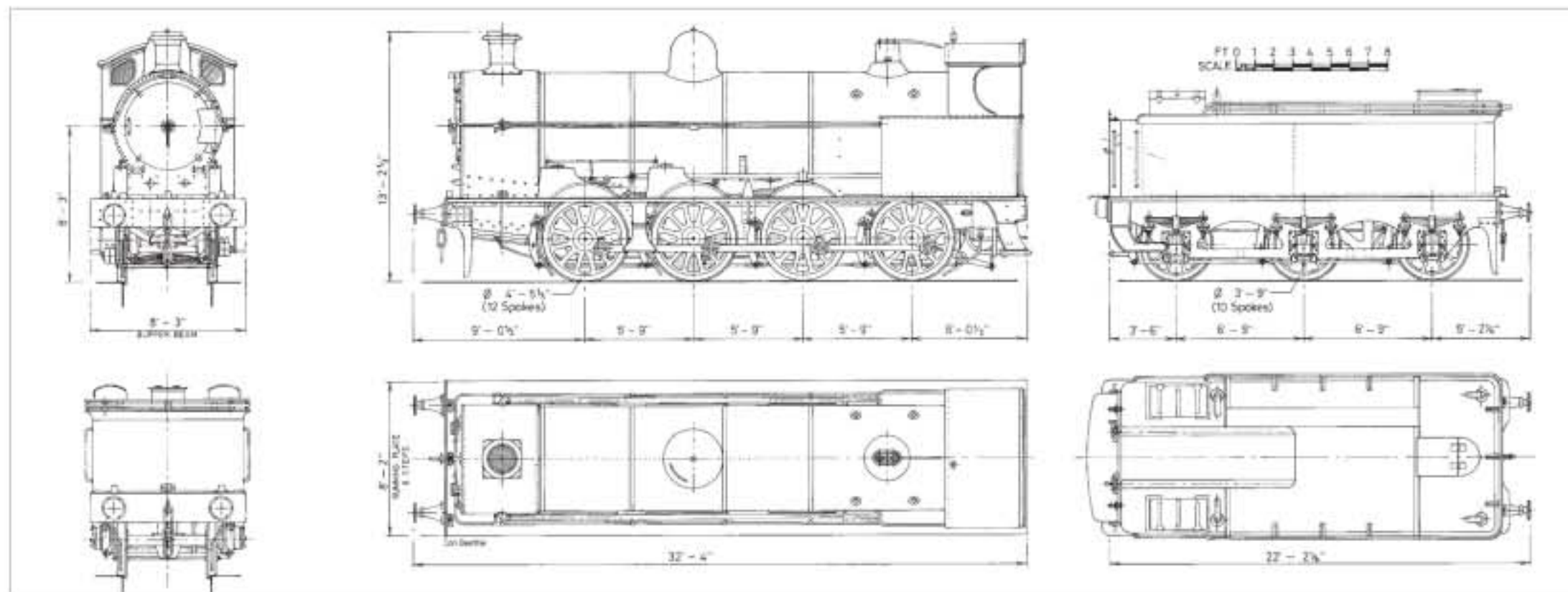
Construction begins with the chassis. A distinctive feature is the row of heavy rivets or bolts at the front end and I chose to drill through the half-etched marks for ‘riveting’ and solder in lengths of 0.9 brass wire instead. When cut back to size they make a much bet-

ter representation of this detail. The remainder of the basic chassis construction is straightforward and all parts fit together with a high degree of accuracy. There is a simple but effective method of allowing a degree of compensation on the third axle that will require the axle holes to be enlarged. There are half etched marks inside the side frames for guidance which aids making this a simple operation.

A feature of the chassis is the representation of the valve gear. It is all there and because the boiler is mounted well clear of the frames it is a time consuming but worthwhile exercise fitting it all in. The instructions contain some useful drawings and the book mentioned above has some good photographs taken between the frames that also help.

The coupling rods were carefully laminated together and the bearing holes opened up with a 2.6mm drill. This gives clearance for Slaters bearings which are 2.5mm diameter. Originally, the rods were arranged as three separate parts with the centre rod overlapping the outer two. The later engines had their coupling rods ‘in-line’ and so the individual rods were jointed together, still allowing some flexibility. On the model this is done with rivets that have been specially made for this purpose. The holes for the rivets were carefully enlarged with small reamers to a diameter of 1.5mm. I was wary of using a drill for this as there is little metal to play with and I preferred to err on the side of caution. There are alternative parts in the kit for the earlier type of coupling rods as these were gradually replaced by the later type but not necessarily at the same time as the conversion to Belpaire firebox took place.

Once a free running chassis is achieved, I added the brake gear and other chassis detail. The brake gear is a faithful reproduction of the LNWR double hanger arrangement with the double cross beams and pull rods all represented. I lost count of how many parts go together for the full brake gear but the end





Left: the inside motion and other detail between the frames. This level of detail is replicated throughout the kit.

Below left: the oil boxes and lubricators on the left hand side of the engine. The pipe runs are made from 28swg copper wire. Also visible are the rows of heavy rivets at the front of the mainframes that were made from 0.9mm wire.

result repays the effort. LNWR engines were notoriously under braked and the LMS added a second vacuum cylinder just behind the third axle and both are provided in the kit.

Wiper pick-up were fitted to the front and rear pair of wheels with the intention being also to pick-up on the tender. There is just enough depth of valance on the footplate to hide the pick-ups. I took the wiring down the inside of the chassis using a couple of split pins fixed through the side frames to keep the wiring run neat and out of the way.

Apart from the constructions described in detail below, the bodywork for the engine is quite straightforward and follows the sequence set out in the instructions. I would advise annealing the firebox wrapper and the

lower cab side sheets just enough to take the springiness out of the brass and to aid forming to shape.

I built the main body parts as sub-assemblies, which is how the designer intended, bringing the smokebox, boiler, firebox and cab together on the footplate when ready. A set of four holes is etched around the centres of all these parts so that correct alignment is obtained by using 6BA screws and bolts to set everything up temporarily before soldering. This well thought out arrangement makes it virtually impossible to get these sub-assemblies out of alignment.

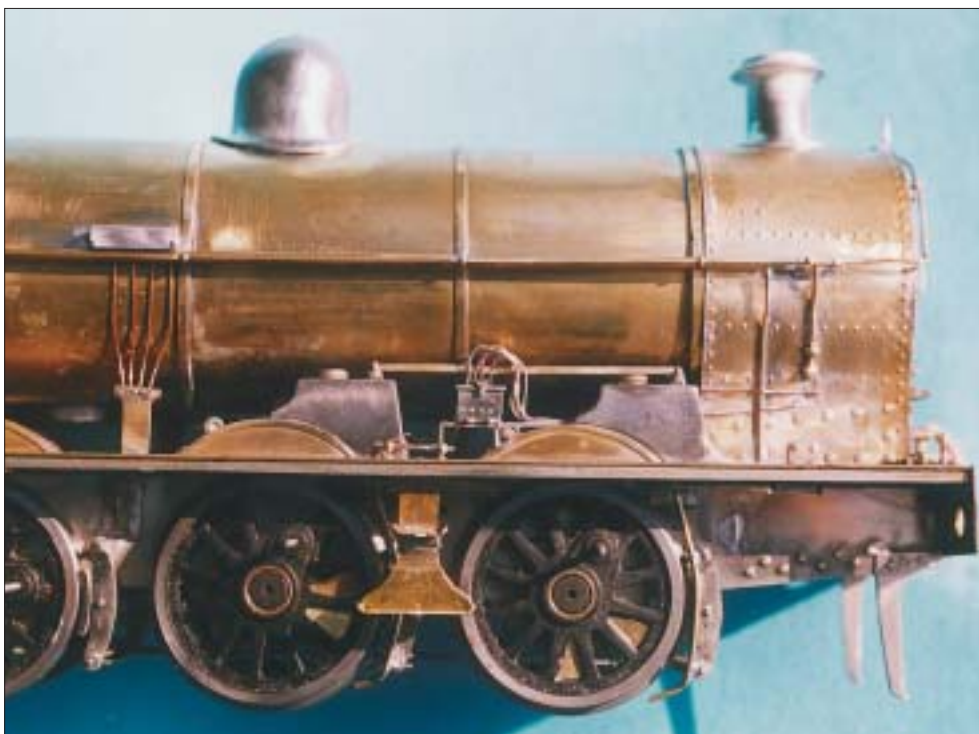
The cab lower side sheets extend forward on these engines and I think that the designer could have helped the builder by putting half

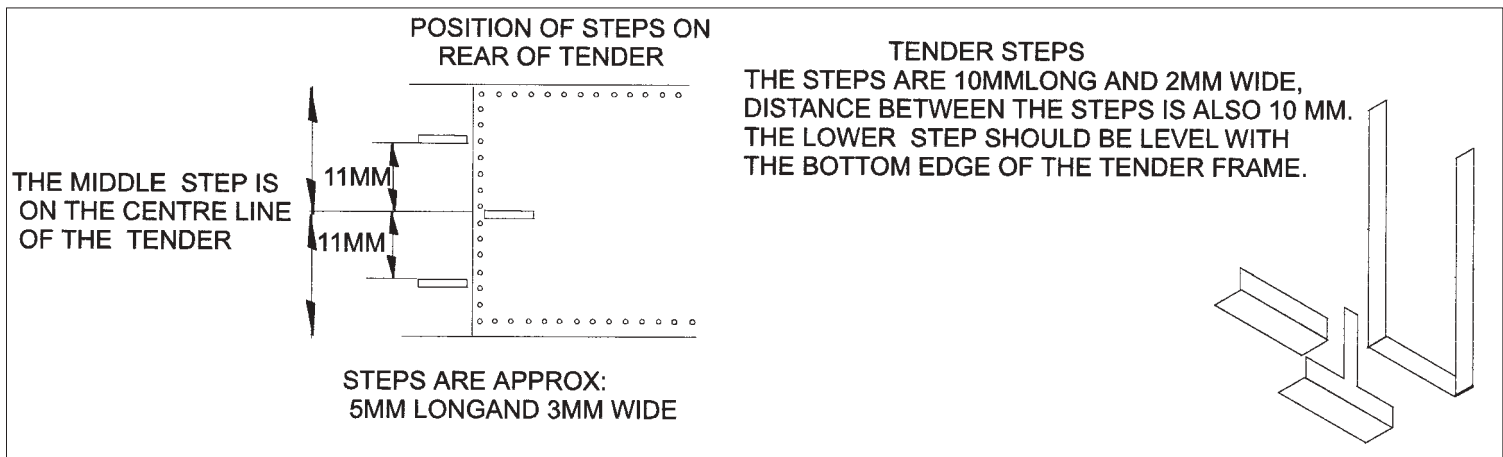
etched lines on the back of this part to aid forming the curve and getting the correct position. My model was from an early batch of kits and I understand that later kits do have this feature. A neat fit is needed between the cab lower side sheets and the side of the firebox and accuracy is important.

Once the main body assembly is complete and the boiler bands are in place, the handrails can be added. These run down the outside of the vacuum pipes of which there are two, one on each side of the boiler. The vacuum pipes are made from 1/16" brass tube, provided in the kit and are simply cut and carefully soldered into position. The handrails are made from 0.7mm wire and I made the handrail knobs from fine split pins. In order to get the handrail knobs in the right place, they line up with the boiler bands, nick the correct position on the brass tube with the edge of a needle file. This forms a flat on the tube that allows a 0.7mm hole to be drilled through the tube and into the boiler. The 'bits box' produced some fine copper split pins that I believe came from Eileen's Emporium. Being softer than brass, it is possible to nip the head of the copper split pin tight up against the 0.7mm brass wire used for the handrail. I opened out the holes in the tube and boiler with a small reamer until the split pins would just push through, fixing them in place with a minimum amount of solder. The handrail knobs on the smokebox are of 'medium' length rather than the 'short' ones supplied in the kit as I find that these give just that extra little clearance past the smokebox door hinges.

Detailing of the bodywork continues with the addition of the various pipe runs. Oil boxes sit on top of the handrails just in front of the firebox. I made the pipe runs to the fixing bracket on the footplate using 28swg copper wire. I soldered the wires to the bracket first then threaded each wire through holes drilled in the oil box casting. Copper wire is soft enough to allow it to be pulled tight into position and then the oil box soldered in place. I trimmed the wires flush with the top of the oil box and added the just discernable lids from a bit of thin scrap brass cut and shaped to suit. There is also a mechanical lubricator fitted just behind the leading wheel splasher on the left hand side. A photograph gave a good idea of where the pipe runs from this lubricator go and these were also made up from 28swg copper wire.

The tender at first glance looks to be plain and simple but actually presents a few challenges. Construction begins with the chassis which is straightforward enough, a degree of compensation is designed into the middle axle using the same method as on the engine. All the brake runs and water scoop apparatus





is there and again is well worth the effort of putting in even though much of it is hidden when the tender is on the track.

The tender body is built up using an inner sub frame to which half etched detail overlays are attached. The tender has a number of curves that have to be formed. At the front, a half-etched guide line on the tender floor would have helped with getting these ones right.

The main challenge on the tender is the forming of the flare. This has to be constructed from two long thin strips of brass plus the wire for beading. The Bowen Cooke tender has a flare that curves out and round the radiused corners. The flare then bends back to the vertical with a beading along the top. I began by carefully marking the centre of the lower part of the flare and lining this up with the centre of the tender back. Using 188° solder, I carefully attached the flare to the tender back and sides being careful not to dwell too long with the soldering iron which of course would have distorted the thin brass of the flare. Once in place, working the brass along a length of $\frac{3}{16}$ " rod gently forms the curve of the lower flare.

Again using 188° solder, I attached the beading from 0.7mm brass wire to the part that makes the vertical section of the flare. Carefully aligning the centres, the top and lower parts of the flare were joined with 145° solder. Sounds straightforward enough but it took much time and patience to get it to look just right. This is not a criticism of the kit, more of the LNWR's design of tender. An alternative may have been to make a casting for this part but that would probably solve one problem at the expense of another. In fairness the designer has more control of the accuracy of etching than that of a casting.

The rest of the tender is not difficult but again a bit more information on the location of some of the parts would have helped things along and I found myself referring to photos as much as the instructions.

The subject of this model was fitted with a tender cab. Reference to photos shows that some of these fitted level with the engine cab roof and on others there was a distinct gap between the two with the tender cab being higher. The subject of this model is one of the latter. The separate parts for the tender cab are easy enough but they will need to be carefully filed to suit the required position.

The kit omits the steps on the back of the tender and BR Standard type steps were fitted to the rear of the tender side to enable the crew to climb onto to the top of the buffer beam that many, but not all, of the tender cab fitted locomotives had. How did the crew get to the water filler without them? I made the ones on this model from scrap etch and 1mm brass strip for the 'ladder' part of the lower steps. Frankly, if you can build this kit, this bit of scratch building is well within your capabilities. I estimated the dimensions of the steps from photographs which also of course give the locations.

With the main construction complete, final detailing is done at this stage. I leave lamp irons, safety valves, anything that can get accidentally knocked off or damaged during handling the model, until last. A final thorough clean with hot water and a bit of washing up liquid and it is time for painting and weathering.

Painting is largely courtesy of Halfords with the buffer beams and inside the frames finished in Humbrol Red. Brightwork is done in Humbrol 'Copper' and 'Gold', the latter to my eye giving a more 'brass' like appearance. I used a photo of an actual 'Super D' to create the weathering effects which were applied by air-brush and dry-brushing to bring out details.

At first glance the 'Super D' gives the impression of being a plain and simple engine which I suppose, compared to more modern proto-

types, it is. However, there is a wealth of detail that can be added so the model exudes character that for me, adds the final touch to the enjoyment I had in building it. This is a kit to savour and not to be hurried. I would estimate that there are about 100 hours' work in this model and the finished result is worth every minute of it.

To anyone contemplating building a 'Super D', I can recommend *The LNWR Eight Coupled Goods Engines* by Edward Talbot which just has to be the definitive work on the type as well as being a good read in itself, and *Locomotives Illustrated 107* which has a number of good photographs and prototype information.

Above: the kit omits tender rear steps and the author made them on this model from scrap etch and 1mm brass strip for the 'ladder' part. Charlie estimated the dimensions of the steps from photographs which also of course gave the locations.

Below: the generally unkempt appearance into which many engines of all classes declined in the closing years of their lives shows up the detail that makes these less of a plain locomotive than they would appear to be at first glance. The tender cab roof sits above the engine cab on some locomotives, on others it was level. The separate parts for the tender cab are easy enough but they will need to be carefully filed to suit the required position.

Drawings by the author.



The Bagnall coach

A carriage of the Rye & Camber Tramway

John Golding continues his account (started March) of building an R&CT train and more in G45.

When the Rye & Camber Tramway (R&CT) commenced operations in 1895, the line was operated by a solitary 3' gauge 2-4-0 tank loco built by Bagnall & Co of Stafford. This same company provided the only passenger coach the fledgling R&CT was to possess for several years – a composite bogie coach of wooden construction on an iron frame, running on sprung 4-wheeled bogies. As delivered, it comprised a snug first-class section that reportedly seated ten passengers, and an exposed, open-sided third class section that accommodated a further twenty. There was no internal connection between the two sections; a footboard and handrail were provided retrospectively on one side between the two balcony ends, so that the conductor could move between class sections by clambering precariously along the outside to collect his fares whilst the train was in motion!

The coach body was reworked several times during its life. The first significant modification was to glaze the open-sided third class section to protect the travellers from the fine, wind-blown sand that was a near permanent feature at the coastal end of the R&CT's 2½ mile route from Rye to Camber. This refers to the original 1895 line. In 1908 the route was extended by ¾ mile to a new station called Camber Sands, chiefly for the benefit of holidaymakers. The original Camber station was renamed Golf Links at the same time.

Several changes to the arrangement of the windows followed over the next few years, each new modification only lasting for a season or so. The coach finally acquired a window configuration that remained in situ for more than a decade – as far as I can ascertain, there were no significant alterations made from 1914 to 1925. During this period the coach ran with near mirror-image window layouts on each side, and still retained its two one-sided balcony entrances. It was further remodelled in 1925; at this rebuild the two balconies were done away with and the ends were enclosed in timber and glass to create a more conventional looking coach. The luxury of sliding doors was provided; these doors – as with the preceding balcony entrances – were located on one side of the carriage only, as all three station platforms on the line were sited on the same side of the track.

The coach then remained fundamentally in this form until its demise during the 'forties – the Admiralty took over the line at the outbreak of war and the coach fell into dilapidation during this period. The line was destined never to reopen to the public, and after the R&CT was wound up the Bagnall coach spent



several years in humiliating retirement as a farmer's shed. Its frames, bogies and part of the roof have latterly been rescued for possible (major!) restoration, and these currently reside at the Amberley industrial and railway museum in Sussex. Well worth a visit if you're ever in the area.

The model

Having built a 1:20 scale model of the Kent Construction Company's 4-wheeled petrol locomotive (RM March) as a precursor to my main project of modelling Rye station, I felt the need to provide it with something more suitable to pull than a rake of Bachmann G scale American coaches. I have modelled the loco in 1937 condition and I suppose I should have selected a contemporaneous period for the coach. However, after studying numerous photos I formed the opinion that the Bagnall carriage gained its most charming and balanced appearance after its 1914 rebuild. I decided to replicate it in this form, complete with the two open balconies that were destined to disappear in 1925.

Basic specification

Those who may have read any of my previous articles – or have seen any of my models – will know that I am not fastidious about every last detail. I haven't got the time or the inclination to worry about accurately sized rivet heads or whether bogie wheelbases are a few scale inches out, it's the impression that matters to me. I want my models to project the essence of what they are meant to represent; if Percy Sheppard, the R&CT's long-serving conductor could come back and see the finished model, would he immediately recognise it as the coach in which he first rode all those decades ago, when Queen Victoria still ruled the Empire upon which the sun never set? If I can convince myself that the answer is yes, then I have achieved my objective.

The above preamble, as you might have expected, is the lead up to my first compromise – the bogies. I had in stock a couple of pairs of LGB™ compensated DB bogies. These were wholly incorrect in appearance but I persuaded myself that if I substituted smaller 24.5mm dia. Bachmann metal wheelsets and



cut off the prominent brake gear that would be left standing well clear of the now under-sized wheels, the inaccuracy would go unnoticed by the casual observer. This ploy did have the disadvantage of lowering the LGB™ couplings several millimetres, so new mountings had to be made up so that they could be refitted at the standard height. A future task is to modify the bogie sides and fit additional pieces to give at least a representation of the original Bagnall plate bogies. This will have the effect of covering up the chunky Bachmann disc wheels to some degree; an advantage when they should, in reality, have elegant curved spokes.

Having sorted out the bogies and wheels, it was time to move on to building the coach body. Construction of this was to be in plasticard; a few white metal and brass fittings such as lamp tops, handrail knobs and ventilator louvres were purchased, along with several cans of car spray paint.

Body parts

I commenced by working out how high and long the sides would be in 1:20 scale, and cut these from 2mm thick plasticard. I obtained the principal dimensions from Laurie A. Cooksey's *Rye and Camber Tramway – A Centenary History*. This book also contains basic line drawings of all the Rye & Camber's primary vehicles and these proved to be very helpful. After cutting the blanks I marked out the positions of all the window apertures on one side and then cut them out. The method I used was to drill a small hole in each window corner and another in the middle. I then scored along each window edge line with a sharp Stanley knife. (You need a good heavy knife for working in thick plasticard; scalpels are fine for the much thinner materials used in the smaller scales, but in my experience they're not man enough once you go above 1mm thick.)

After scoring I used a small side-cutting drill, held in my Minidrill, to cut a rough cross that connected all four corners. Next, the triangles that remained were simply snapped out. The last jobs were to square out the corners with a knife and give the edges a gentle rub with some fine wet and dry. The two sides are mirror images, so I was able quickly to mark out the second side's windows by laying it on top of the first and drawing around the apertures. I then repeated the process described above, making allowances for the thickness of the lines so that the window sizes in both sides were the same.

I then affixed the 2mm thick horizontal 'timbers' using Mek-pak – one length at the top and a narrower one at the waist. Standard lengths of Microstrip are too short, so a scarf joint was used in each to obtain the full length required. After graining, the joint becomes almost invisible. I simulate wood graining by drawing the teeth of an old razor saw over the surface of the plasticard in a random wavy pattern – this is surprisingly convincing when spray-painted afterwards. The vertical planking was added next, using a quick stroke of a brush dipped in Mek-pak to fix each individ-



ual piece. I don't know what width timber was used, so I estimated it from photographs. I used 7 x 2mm Microstrip, making the 'planks' scale out at about 5 1/2" wide.

The sides of the prototype coach were originally constructed in plain tongued and grooved panelling. By 1914 the offside – the side that faced the prevailing southwesterly wind – had received additional beading. This was overlaid on the joins between the vertical planking to keep out the draughts caused by shrinkage of the timbers during the early years. Interestingly, the platform side was never given the same treatment and the coach ran with odd sides for the rest of its existence! The

beading on the model was represented by gluing a strip of 1mm square microstrip between each panel and overlaying a piece of 1mm diameter Microrod. It didn't look right at first because the Microrod was brown and the rest of the side was white, making the beading seem far too prominent. After a spray of grey primer it seemed to sink into the panelling and take on a scale appearance. I leave you to judge the effectiveness from the photographs.

Coach ends were made in the same way as described above, the roof curve being taken from a piece of pre-formed styrene van roof section I got from the Garden Railway Specialists exhibition stand at Kew last year.



Photographs by the author.



The curve on the top of the internal partition was achieved in the same way; this is made from a piece of 1.5mm plasticard scribed horizontally on both sides to represent the planking of the prototype.

As standard plasticard sheets are too short for a model of this length, the floor was made from two pieces of 2mm thick material. These pieces were butt-joined end to end to start with, and reinforced underneath with overlapping pieces of plasticard. It was strengthened further with additional angle sections during later assembly. The accompanying photos should make things clear.

Window frames with recesses and glazing bars were made from Microstrip. This involved cutting many dozens of individually measured pieces, almost all of them requiring mitred ends. I found this process extremely tedious and thanked the stars that the R&CT only ever had two coaches; if I'd had to produce windows for a fourteen-coach main line train by the same method, I am sure I would have lost the will to live!

Body assembly

The two sides were attached to the floor using Finesline hard plastic angle and Mek-pak. The ends were then added, again using angle section to reinforce the joints. Further angle was used to support the partition between first and third classes, and a planked floor of 1mm scribed plasticard was added.

The bogies were fitted 'invisibly' by making up a pair of pivot plates employing 1.5mm

plasticard and 1/4" hexagon head screws with their heads faced off on a lathe to the same thickness. This process requires three pieces of plasticard to encapsulate the screw head and prevent it from turning once installed (see accompanying sketch). These mounting plates were then bonded to the underframe giving a fully swivelling bogie with no screws visible inside the coach. It would have been quicker and easier just to bolt the bogies on through holes drilled in the floor, but I thought that they would be too apparent through the comparatively large windows of this coach. On balance, I think the improved interior appearance with a completely clear floor is well worth the extra effort.

Next, two mirror-image balconies were made up from plasticard. These are not fitted permanently – they just clip securely into place in slots on the platforms and are retained by the ends of small hammer-drive pins that have been inserted to represent rivet heads. The next job was making the roof – side and end valances were added to the GRS pre-curved roof section after its ragged edges had been given a clean-up with a piece of wet and dry. The roof was then retained in place using a small self-tapping screw through each body end, running into a mating bracket bonded onto the inside of the roof. These screws can't be seen once the roof is in place, as they are tucked up right under it. The rooftop was then drilled ready to take the mounting spigots of the GRS injection-moulded lamptops, one in each of the two compartments.

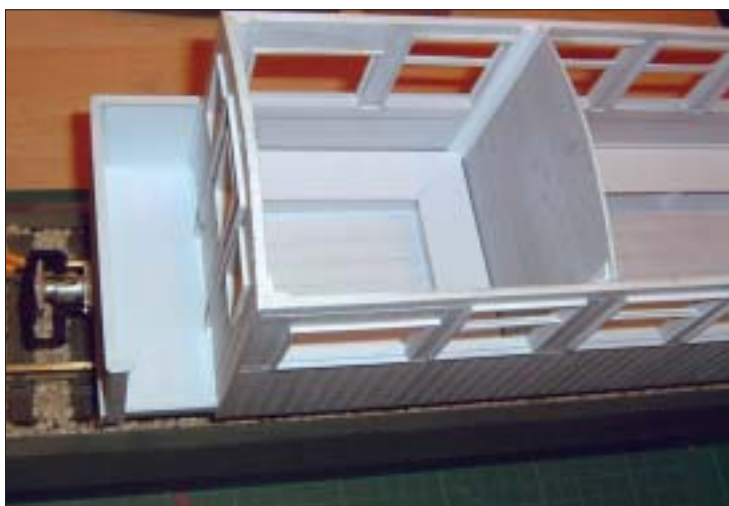
Finishing

All parts were washed in soapy water and then rinsed and dried. They were then wiped over with a cloth dampened with white spirit to remove any remaining traces of lanolin. When thoroughly dry, grey car primer spray was used for the outside surfaces; white primer was applied to the roof and interior. As far as I am aware no colour photos of the coach exist, so the paint shade has had to be something of a guess. In the publications I have read, the coach is variously described as 'reddish brown', 'dark brown', and 'darkish maroon'. In the end I settled for a can of Ford 'Lacquer Red' from Halfords; I think it looks OK. The coach has been finished in ex-works condition, so the window frames are smartly picked out in off-white, although this didn't last for very long on the prototype. The interior is sprayed cream, steps and headstocks are black and the roof white with black valances.

Cosmetic whitemetal buffer couplings from Ron M. Grant have been provided above the working LGB™ couplings. In addition, the headstocks each carry a pair of brass safety chains as per the prototype. Brass handrail knobs and a handrail have been fitted along the platform side of the coach just under the roof valance, and a full-length footstep was added using cast brass brackets from Brandbright. Brake handles were fashioned from brass rod and cast brass door handles were fitted. Louvered whitemetal ventilators were fitted on both sides, above the small window to the first class compartment; these are painted black. All windows are glazed with 1.5mm thick clear acetal sheet. Seats were made up and secured inside; there are representations of hard wooden benches for the third class passengers, whilst nice padded cushion seats are provided for those who can afford to travel first class. As on the real coach, a clock and curtain rails were installed in the passenger compartments as finishing touches.

With a sprinkling of seated passengers and a conductor added, the coach was ready for its acceptance trials. It derailed once or twice to start with; this was traced to the bogie nuts being done up too tight, preventing any flexing to accommodate the twists in the track. These were slackened off by a turn or so, and the coach now rides very well around the





undulating garden circuit at scale speeds well in excess of those achieved by the prototype. It seems pretty stable; I guess that the comparatively light construction combined with the low-down weight of the metal wheelsets is the reason. The model of the R&CT's four-wheeled petrol locomotive I made earlier has no trouble hauling it, and to my eye they look pretty good together; I wonder what Percy Sheppard would think?

Costs and conclusions

As to the financial outlay, the LGB™ bogies and couplings cost around £8.00 for the pair; the Bachmann wheelsets adding a further £9.00. Whitmetal and brass fittings probably cost around ten pounds, although I already had some bits and pieces in stock from previous projects. I suppose I used about a fiver's worth of assorted plasticard, but it's hard to keep track when one is taking just a piece off a sheet here and there. Allow another five pounds for glue, solvent and filler and the total before going into the paint shop comes to about £37.00. As always, the biggest single cost is the paint; five assorted cans of car spray (grey and white primer plus lacquer red, satin black and diamond white topcoats) cost about £25, although to be fair there is still a little left in some cans for use in the future.

It took me about sixty hours to get from the first sketches to the completed model; a long time for just one coach, perhaps, but it is solid-

ly made and should give years of service. Being modelled on an obscure prototype it is also pretty well unique, and that has a value all of its own.

The next project is to build the R&CT's remaining coach, the Rother Ironworks 'Jones' coach. Once this is complete I'll have a full length prototype train to run on my as-yet-unbuilt model of Rye Station. I have been a member of the G Scale Society since the late 'eighties. At the 2003 G-Rail exhibition at

Bletchley I made the mistake of telling the organiser, Steve Warrington, that I hoped to have the planned layout ready for this year's show. There's nothing like a deadline to keep you in the workshop!

Bibliography

Refer to March issue.
The G Scale Society, A. Eccles, 9 Walsgrove Close, Damsonwood, Solihull, West Midlands B92 9PQ.



Modelling buildings for Gauge 1

Working in a scale of 1:32 or $\frac{3}{8}'' = 1'$

Derek Bidwell explains his techniques, using very different structures as his examples.



This is the second idiotic thing I have done in my life. The first was to model Salisbury station in 0 gauge, and I got as far as doing platforms 2 & 3 with canopy, and the 10-road engine shed. Heaven knows how many bricks. Everything was put in the loft, where I thought that a year or two would prove that the techniques I was using were OK. Then I was asked to model some of the buildings at an open air museum, for their diorama, and when that was finished, I could return to Salisbury. The problem was that I built one of these in Gauge 1 (1:32 or $\frac{3}{8}'' = 1'$. See picture above).

It is a timber-frame building, prototype at Dunstable in Hertfordshire, built in the 16th century for a merchant, and as built had no

windows, toilet in the back yard, and one large fireplace. The model is now stored at the museum site. I found working in this large scale was even more rewarding than 0 gauge. Visitors at exhibitions ask 'how long has this taken you to make?' The answer is, a very long time, but so what, this is my hobby. There is an impression that Gauge 1 is only for those who have a large garden, build their track on solid upright concrete posts, have little or no architecture, nor scenics, and watch the live steam rolling stock go around, with a large G&T handy. That's all right, but it's different from the rest of us who toil at precise model-making, with all the goodies. So I thought: would a 'no-steam' Gauge 1 layout to be interesting enough to fit

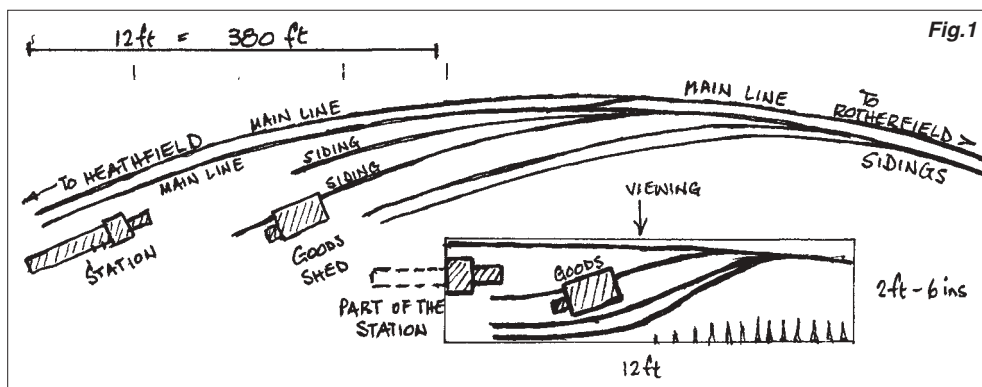
into a room, with one 12' wall, and could it have a station building and a goods shed? Very little movement there you might say, but just sufficient, possibly.

The baseboard should be about 2'-3' deep, all quite conventional, but in a large scale. In 1:32 scale 12' x 2'6" represents a prototype of 384' x 80', and although there will not be any through-train running, there is scope for goods yard movements, at a terminus for example.

The most exciting time is now – deciding what to model, apart from seeing the loco running on the layout. As railway modellers, we are living in dream-world, I think a very necessary pastime, because 1960 or whatever is never going to return. Steam engines are mostly in museums these days, operated by enthusiastic people. My layout will stand at eye-level (me at 5'4" and elderly) because I want to recapture living with buildings filling the immediate horizon, and rolling stock clattering by, as it does, so there must be proper sound effects. I can already hear 'this is going to cost some' and you may be right, but I will build everything myself, and learn a thing or two about myself at the same time. This gauge will not tolerate mistakes, obvious ones that is.

As it happens, I have a book called *The Cuckoo Line* by A.C. Elliott (published by Wild Swan, ISBN 0 906867 63 0), about the railway which went between Tunbridge Wells and Eastbourne in East Sussex. The prototype saw a wide variety of stock in the form of excursions through to Eastbourne. In my 12' format, I cannot follow the prototype station layout, and through running will also be another dream. *The Cuckoo Line* has photographs and 2mm scale drawings of the stations along the line, together with details of the trains and commercial activities taking place. I chose Mayfield, typical of the architecture, and the land behind it rising up a hill helps with the scenics. If and when I add extra track to Mayfield, it will become a portable layout for exhibitions and the garden. This then, is my prototype material. See Fig. 1, left.

Portable? As I demonstrate at exhibitions, the first question is 'what are you bringing next year then Derek?' I have to say that it is in the lap of the gods, and people seem content with that. Apart from myself, the only other partner in crime is an equally elderly car, which has to accommodate everything, and as there isn't a club to help out, it means that everything has to be light-weight. So much so, that there is a fear that I shall have to weigh down the stand with sandbags to stop it toppling over. I think that covers the excuses for eccentricity, so onto the business in hand; modelling architecture in Gauge 1.



Left: 7/9 West Street, Dunstable, Herts. Prototype preserved at the Chiltern Open Air Museum, Chalfont St Giles, Buckinghamshire. Author's photograph.

Below left: Fig.1 – sketches showing the prototype and model layout of the track. Note the drastic changes to the layout, although if there is an extension, the model would be re-built to accommodate the proper plan.

Right: close-up of the walls showing break-points.

Centre right: cutaway photograph showing the wall construction.

Below right: Fig. 2 – the results of drawing brickwork with Microsoft Excel™ technology!

Bottom right: Fig 3 – sketch showing the location of one wall to another, enabling the model to be made in convenient sizes. Photographs by Len Weal, Peco Studio.

In describing the system, I am endeavouring to replicate smaller finescale modelling up to this larger scale. I have to repeat that it will not tolerate errors, which I discovered when building the goods shed. As there is no trade support in the form of plastic brickwork sheets or tiles, everything must be scratchbuilt. In my case, this means drawing and photocopying the brick pattern which is in essence 'wallpaper' and gluing this to the base material. At first, I drew the wallpaper out at my drawing board, and photocopied that, but my draughtsmanship wasn't good enough, because when I did a trial line-up between one copy and another, the courses of bricks just didn't. Then I hit on the idea of using Microsoft Excel™ to draw the brickwork, and this worked so that by the time I was doing the Station Master's house, course line-up improved. Little things that take time and get you going. See Fig.2, below right.

The buildings are essentially made of 4mm plywood and card, a fairly stiff, thickish card sold by art shops under the general title of mounting board. It is 60thou thick, pale cream on one side, and white on the other, and comes in A1-sized sheets. The thickness is handy, as 60thou represents 2" in the prototype, and while on the subject of dimensions, in my world of Gauge 1 each 1/32" (0.79mm) equals 1" (25.4mm). I scaled up the drawings in the book to my scale, and added the dimensions. Then I repeated this job on the A1 sheets of card, and it's at this point that I grant myself permission to move the actual positions of doors and windows a little to accommodate the brickwork on my wallpaper pattern. Next job is to mark out the walls from the A1 sheets, bearing in mind that I need two sides per wall, and all wall heights must be constant. Then I mark out door and window-frame positions and sizes in each wall, keeping the brick pattern in mind. I treat multi-storeys as separate single storeys where possible.

It's wise to consider the distant problem of final assembly at this early stage. I decided in this case that I wanted to break a long building into convenient blocks to carry about, and to pack the parts into standard boxes. These irritations, however, are the exception, not the



rule, and it's possible to construct one complete building. Whatever is done, the manufacture has to be convenient. If you do break it into parts, the mating surfaces have to be located by tongue and groove principles, to ensure accuracy of final assembly.

Now is the time for action! My tools are: Stanley knife and 1992 blades, 12" rule, Vernier gauge, Engineer's square, 24" straight edge, large set-square and worktop. My materials are: card, plywood and Evo-stik wood adhesive. Cut the A1 sheets into manageable sizes, and cut the walls and apertures out carefully.

It's best to number everything now, and remember two sides per wall. The plywood is cut into 7mm strips, each glass-papered square along each edge, because cutting ply with a knife leaves unsquare edges. The aim is to sandwich the 7mm ply between two sides of card, making 10mm walls which, when the brickwork is added will represent a 1'1 1/2" thick prototype wall. See photo left and Fig 3.

Once marked out and cut, it's time for assembly which I do with very mildly watered down Evo-stik wood adhesive. The aim when gluing, is to provide square wooden door and window apertures including doorsteps. Whatever humidity does to the card, these spaces will remain constant, and subsequent fittings (very often plastics) will not suffer. I usually try to do my gluing in the late afternoon to allow the assembly to set overnight. I include strengthening braces inside the walls, otherwise they will go mildly concave during setting. I lay walls on top of each other, with a heavy book on top of everything to stop movement. Upon returning, any movement which may have taken place overnight must be remedied at this point. These days, during such pastimes, I never worry about cutting too much

Fig.2

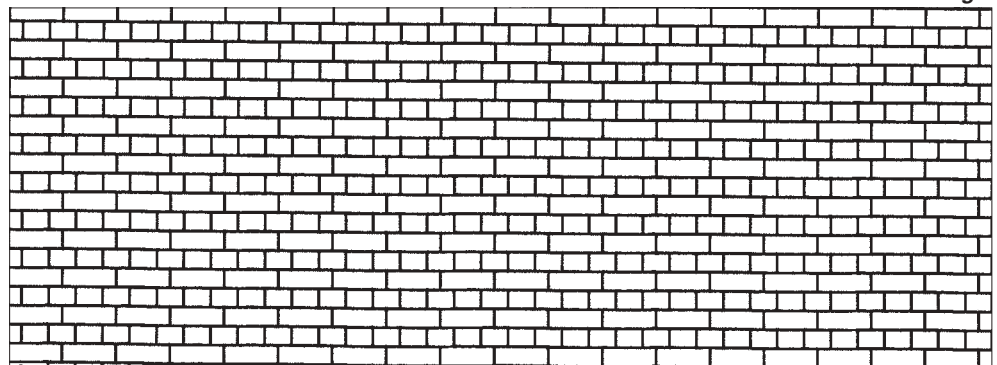
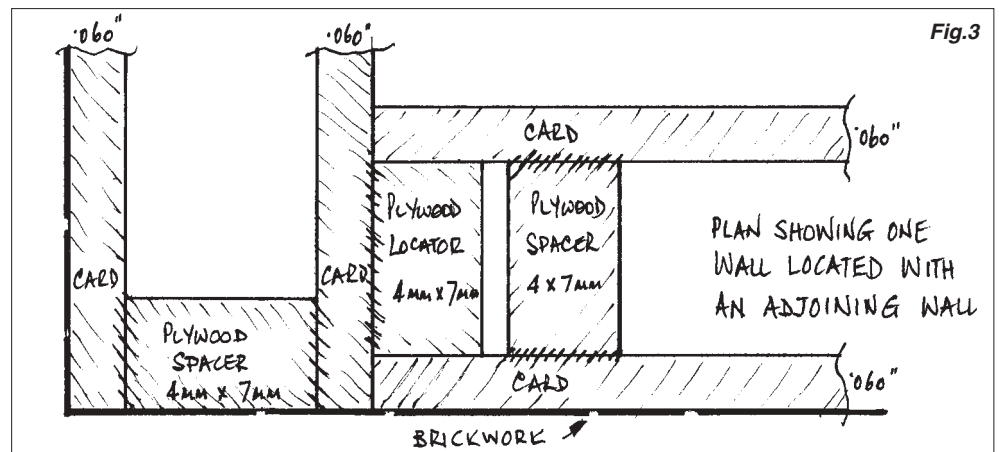


Fig.3





Left: close-up of the wallpapered model.

Below left: close-up of the wall, bricked and undercoated.

Right: overall photograph of the incomplete model.

Lower right: close-up of the brickwork on the goods shed. Author's photograph.

Far right: Fig 4 – CAD print of first floor elevation fancy tiles.

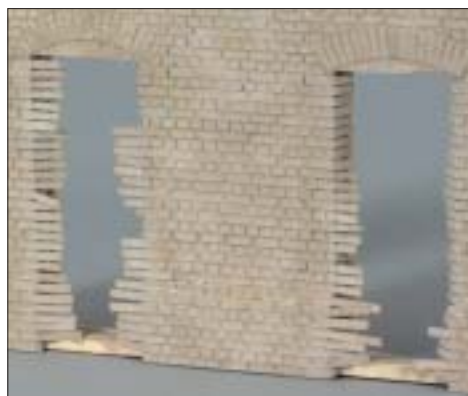
Far right: the goods shed awaiting its roof doors and platform.

Bottom right: model texture on 7/9 West Street. Author's photograph.

away, as this can always be rebuilt to achieve the correct dimensions. If subsequent door and window fittings are made from plastic strip, the solvent will adhere the material to wood better than card, although card will take solvent and plastic sheet quite well, without any immediate difficulties. I have some trial samples which are still OK.

The next job is 'paperhanging' and the adhesive material is quite important. So far, I have used the faithful Evo-stik, but it's a messy business trying to spread large surfaces with a broken metal sawblade. I also tried gluesticks, but they don't spread large areas reliably. The next battle will be waged with old-fashioned paste, which used to be traded as Gloy and comes in a smallish plastic container and a spreader. The job is to hang the selected brick pattern on to the outside surface of the walls. Trying to make sure that I have enough wallpaper to do the job in one go, I align the paper with the apertures while the glue is setting, aiming to get equality around each aperture. I don't mind re-layering paper nowadays, although initially rage had to be controlled without sedation! When each wallpaper has dried out, ensure that adjoining walls' courses align, and if not, re-paper, and get on with the next job: prepare to do some bricklaying. This will be extremely time consuming and boring, but fulfilling in the end.

Bricks are made of thin strips of postcard cut to length. One way is to cut all the bricks first and, using the pattern, position the individuals one at a time. This is perfect for a 500 year-old settled wall, but not however good enough for Mayfeld. All bricks on an industrial building like this one should have even courses and spaces, and this means long thin strips of postcard glued to the pattern and cut to length for each brick. The wallpaper brickwork is $\frac{3}{32}$ " high x either $\frac{9}{32}$ " or $\frac{9}{64}$ " long depending on whether it's a stringer or a header respectively. These dimensions are conventional for the completed wall, so the bricks have to be a prototype $\frac{3}{16}$ " smaller all round. My card strips are cut to 80thou high, with appropriate spaces between lengths. I usually try to cut two or three strips at a time, and if so,



throw out any over/undersized strips. Usually it's quicker to cut individual strips, and I do as many as possible at a time, usually a morning's work.

The essential thing now is to have a supply of suitable blades and I recently bought a Stanley 10-590 knife which has a thin long blade, together with Stanley 10-095 which has snap-off blades; successful up to a point, but card is a highly abrasive material, and everything wears too quickly. Apply glue to each brick space on the wallpaper – not in one continuous spread – with Evostik in its smallest applicator and assemble the card strip using a straight-edge. The reason for gluing individual brick spaces will now be apparent, because when double cutting between each brick, each tiny piece of card must be removed to reproduce the pattern. The consolation is that this is faster than actual bricklaying. Concentrate on the job in hand, and not how much there is to do. I usually take a break every hour or so to relieve the muscles in my shoulders, and do something away from the workbench and I'm often quite pleased when I return, which helps with future work! I expect to be doing this job for several hours/days, gradually accumulating brick walls, each one a little masterpiece! Repeat all the above for the chimney stacks.

Now for some excitement! Decoration is the general term I give any aspect of texturing and colouring my work, and we're about to start decorating. The end result is in sight, and a

burning ambition to present as natural a picture as possible starts consuming me. I have stopped measuring and cutting, and will start painting and tamping. Brushes are: a broad one for undercoat, a very small one for brick painting, a largish puffy one for talcum powder, and a short bristled older affair for tamping. Enamel comes in handy 15ml cans from Humbrol, and my colour scheme is usually made up from 3-5 colours.

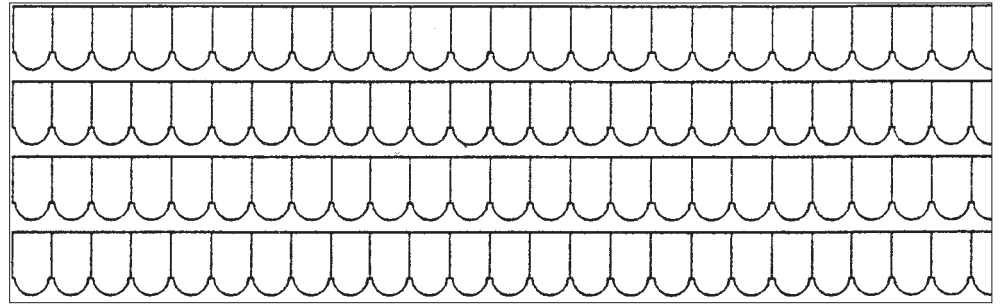
The first colour to go on is the mortar colour, an undercoat of Humbrol 121 stirred for five minutes and applied from the pot together with some white spirit; not too much because whilst the paint is still wet, I sprinkle it with my puffy talc-loaded brush, held above the work, and tapped against my thumb-nail, imitating falling snow. Once the area is covered, my short bristled brush is set to work tamping talc into the paint. The result is, I hope, a hard, rough surface, which will be the brick-like texture I'm after. Dry hard overnight. See picture left.

Before applying the coloured top coat, I stir each pot thoroughly, and load the little tin lid with enamel, before re-sealing to stop any air forming a hard skin over the contents of the pot. Before painting, I cut the point of the bristles square, because I am about to decorate square shapes (bricks). I cover the work under my hand with a soft cloth, to prevent the texture from being damaged, dip the tip of the brush into my 'palette' and start. There may be upwards of 7-10,000 bricks to decorate, and again I do not think about the numbers, there are more important things on my mind, guiding the brush along each brick, changing colours including half-tones, occasionally lightly tamping more talc into the surface: not too much as the talc will change the colour of the brickwork, too little and the brick looks as if it has been decorated with enamel. Stop every hour or so, relax the muscles, have a cup of tea.

Eventually, one day, I think about assembling the walls into a building. It is the time to start trimming excess strips of brickwork, to correct minor mistakes, and generally tidy up. I give myself a boost by provisionally assembling the walls until it is mind's-eye complete, and spend time looking at it – seeing. It is now too late to rectify any serious mistakes, and if there are any, that piece must be discarded (and I have done it in the past; lessons learnt). The



Fig.4



model is now 'in the round', and shows up the unfinished interior, which will eventually be decorated after final assembly.

Mayfield has tile-hung first floor elevations, so time for tile making. Tiles in East Sussex were hand-made, usually $6\frac{1}{2}'' \times 10\frac{1}{2}'' \times \frac{5}{8}''$ thick, and slightly curved to shed rain-water. When roof-laid about 4" of each tile was exposed, and when fixed to walls between 4-5" was exposed. Some of the buildings in East Sussex had 'fancy' tiles, and Mayfield is no exception. These have semicircular bottoms, which are cut out individually. The print was created by a very kind gent I met at an exhibition, who produced them using CAD (computer aided design) and I am eternally grateful to him.

I make them from thin postcard, with a sheet of 80gm A4 glued to it. I glue five sheets together, along the top edge, with the top layer only having tiles photocopied onto it. Before cutting the strips, the exposed tiles are partly separated with my Stanley 1992 blade, then five sets of tiles parted off, then I cut the bottom exposed edge. I usually cut off dozens at a time, probably a morning's work, before settling down to lay the rows of wall-hung or roof tiles. Once again, whether elevation or roof-hung, I have a different wallpaper pattern to work with each. Using the pattern, I cut and lay the strips, gluing the very topmost edge as each course progresses. The reason for this is to allow me eventually to lift tiles occasionally along each course, and display an unevenness and possible settlement. This work is not as



frustrating as earlier pastimes, and soon I get an even clearer idea of what it will be like.

Decoration of tiles is similar to earlier practice, involving 3-4 colours, brushes and talc. My brushes are a larger, flat one, fluffy one, and stomper. Roof tiles are darker than the elevation-hung tiles, often with a sort of purple tint, compared with the red-brown tints of the wall-

hung tiles. Once again, add a base colour to the tiles, which will be the darkest of my choice applying talc as before, and be a little more careful with the coverage that is being applied, neither too thick nor thin. Subsequent decoration will highlight areas, and I can add moss in the form of very heavy talc, suitably lumped here and there. Decoration is probably the most important work.

The roof space is made of a thick card triangle glued to a central strip representing the roof purlins, and appropriate space is made to accept the chimney stacks, which are a repeat of the walls, only much smaller. I observe the bricklayer's art and try to represent the stacks as faithfully as possible. The ridge tiles are similarly treated.

Mayfield so far has cost less than £15 for about eight sheets of A1 mounting board, two of thin postcard, plywood, and Humbrol paint.



Derek will be demonstrating his building techniques at the Bristol show at Thornbury this month. Details in 'Societies & Clubs'.

Aberporth

A more compact successor to an N gauge layout

When a house move dictated a new, smaller layout, **Philip Rees** returned to a favourite theme.

The June 1996 RM featured my N gauge layout *Aberporth*, set in West Wales around 1985. It was a somewhat might have been extension of the Carmarthen to Newcastle Emlyn branch through to Aberporth on the Welsh coast with another short branch from there to Parclyn (for the Government Establishment) and Blaenporth for an interchange with buses on the main A487 road from Cardigan to Aberystwyth.

A house move in 1997 meant that because my new abode did not have a room of suitable shape and size, *Aberporth* had to go, and fortunately I was able to sell it. My new home contained a study large enough to house a small model railway as well as a desk and bookshelves and so the new *Aberporth* was born.

Because of limited space, it comprises only Aberporth station and a short distance beyond, with its two branch lines and much shorter platforms. Whereas the original *Aberporth* had colour light signals, I decided this time to have working Great Western pattern semaphore signals.

The pattern of train service has had to change too. Because of the short platforms, the HST service to Swansea cannot operate but the through sleeping car from Paddington continues, attached to a loco-hauled passenger train from Carmarthen. There is also a new loco-hauled mail and passenger service morning and evening. The former loco-hauled service to Milford Haven has been replaced by a service, mostly with DMUs, at hourly intervals from Carmarthen. The Engineers' Inspection Coach also runs periodically as do short Engineers' material trains serving the Engineers' siding at Aberporth.

Having designed a suitable layout (see dia-



Above: Aberporth station. Class 37 No.37 180 County of Dyfed hauling Engineers' Inspection Coach awaits signal to depart. Class 153 diesel car stabled in bay platform.

Below: view outside Aberporth station showing all the semaphore signals. Diesel shunter has stabled mail van after arrival at 0620.

gram), I decided that a single baseboard 5'7" x 2' would be suitable, but instead of supporting legs, I commissioned a cabinet maker to make me a table with a top from hardwood, stained and polished to blend with other furniture in the room. The baseboard sits on top of this, located at each corner by a spigot and socket. For the baseboard, I used the usual 2" x 1"

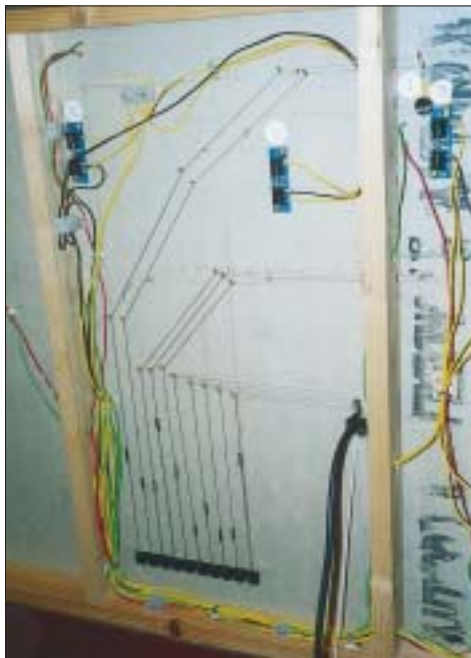
framing topped with Sundeala and, having done so, regretted that I did not stick with Wood Fibre Insulation Board as used on my earlier layout, as it is so difficult to drive track pins into Sundeala.

I have continued to have as much civil engineering detail as possible such as drains, catchpit covers, mileposts (Aberporth is 279¹/₄ miles from Paddington via Gloucester) and track material stacked tidily adjoining the Engineers' siding. Boundary fencing is post and wire type as used on the GWR and Western Region.

The track in open line is Peco Streamline but because of the need for minimum radius curves, the track in tunnel and behind the backscene is mainly Peco Setrack. Switches in turnouts behind the backscene are operated by Peco point motors fixed to the top of the baseboard, while those in front of the backscene are operated by Seep point motors fixed under the baseboard. The backscene is made of Peco Scene printed sheets pasted on to 4mm plywood.

The semaphore signals are built from Ratio kits and this was quite the most demanding modelling task in the whole layout, even with all the advice willingly given by the firm. All the parts are so small and fragile that even with careful handling I managed to break some of them. The most difficult task was adjustment of the thin wire connecting the crank to the signal arm so that when the operating lever is returned to normal, the arm becomes truly horizontal. The signals are operated from a 10-lever Ratio frame and each lever is connected to its signal with fine nylon





Above left: underside of baseboard showing nylon cord from lever frame to signals.

Above right and below: views of the station and its approaches.

Foot of page: behind the backscene. CP control panel. SLF signal lever frame. C controller.

Photographs by the author.

cord threaded through small metal eyes screwed into the underside of the baseboard. In spite of the difficult modelling task, it proved to be well worth the effort.

The station building, signal box and permanent way cabin are all built from Ratio kits while the tool hut is scratchbuilt as a model of the type used extensively on the WR. The bus shelter is also scratchbuilt. The signposts and other signs are reductions from artwork made with Letraset or similar letters and figures.

The rolling stock comprises four diesel locos – one each of classes 08, 37, 47 and 52 – and the passenger vehicles consist of Mark 1 coaches, a Class 101 DMU, Class 153 diesel car, an ex-GWR diesel car (on loan from a Preservation Society for occasional use), a Mark 3 sleeping car and a WR Engineers' Inspection Coach. Non-passenger stock comprises a GUV in Post Office livery, a Salmon rail carrier, three Grampus wagons, two Dogfish hoppers, and an Engineers' former 16 ton mineral wagon.

The electrics work through an Orbit controller selected for its excellent slow running properties and a control panel has switches

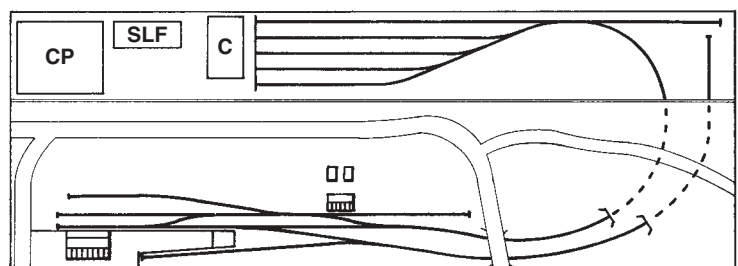


for energising the various track sections and also screwheads, and a pointer for working the point motors.

For me, the fun of running a model railway is not in seeing trains run round and round a continuous layout but rather in running to a timetable. For Aberporth the Working Timetable for Carmarthen to Aberporth and Blaenporth provides two loco-hauled passenger trains in each direction, one of which carries a Post Office GUV van and the other a

sleeping car. All the other passenger services are worked by the Class 101 DMU or the Class 153 diesel car or occasionally by the ex GW railcar.

All this has taken me about five years spare time to build. The special table cost \$200 while the layout excluding rolling stock cost about \$600. Readers who have access to the June 1996 RM will notice that except for the HST, the passenger rolling stock is much the same in the new layout.



A freelance well wagon in 0 gauge

Built for the Romiley Club's industrial layout

A heavy duty freight carrier constructed by John Rodway.

It all started at the Wakefield Show. There were two pairs of 0 gauge bogies on the second-hand sales table. I'd said that a bogie vehicle of some sort would look good on the Romiley Club's industrial layout (under construction) so I bought a pair for a couple of quid even though they had 'American Pattern' written on the label. We could always say that the wagon 'was built by Messrs Gillan & Brown for their own use.'

Attention quickly turned to what type of wagon I should construct. It had to be appropriate for a company that describes itself as 'Engineers to the World in Miniature' so long flats, trolleys and well wagons were obvious candidates. Don Rowland's book *British Railway Wagons – the first half million* was carefully scrutinised. The bogie rail and bolster wagons of Chapter 8 were suitable for G&B's traffic, but they had lots of trussrods, so I kept looking.

Then I reached Chapter 11 – *Special Wagons*. Here were armour plate trucks, boiler and girder wagons. I finally settled on the Weltrol MC (Diagram 2/730) of 20 tons capacity, 45' over the buffers with a well 20' long. The photograph even showed one fitted with roller-bearing bogies, similar to the ones I had bought.

One of the intended features of the G&B diorama is that wagons arriving loaded will leave either empty or with different loads, and empty arrivals will always leave loaded. Apart from vans, loading/unloading is to be done hidden from the public gaze. The workshops at the rear of the model will have features that hide the necessary sleight of hand. They include two sector plates. I checked the length of the shorter sector plate. No way would it take 45 scale feet of wagon, so a shorter version was required. The working drawing was adjusted to 38' overall, with a well of 15'. If G&B was building a wagon for internal use, it didn't have to be an exact copy of any BR vehicle. Diagram 730 now became just one source of inspiration, along with some of the bogie Flatrols.

I decided that the functional under-decking and risers were to be of ply, with added main frames of I-section Plastruct. Chunks of wood would be an advantage in a model to be handled under the pressure of exhibition.

The body

I began with the main sideframes. Two pieces of 8mm I-beam went the entire length of the wagon between the bufferbeams, with two shorter pieces for the well section. The centre sections of the full-length pieces were to be cut away later. I thought that this would help to



keep everything square and true. Short sections were filed away from the web at the back of the I-beam to take connecting pieces of plasticard, and notches made at the ends to take the buffer beams.

The next stage was to cut out the under-decking and risers from 6mm ply. In spite of taking great care with marking out and sawing, I had to spend time sanding and filing to get the edges straight and square. The sides of the risers were filed back further to make space for the plates that connected the upper and lower frames. Parts of the ends of the end platforms were cut away to accommodate the buffers and couplings.

Then it was time to assemble the deck and risers. A steel square and several pieces of wood were clamped in a vice and adjusted carefully so that when a riser was offered to the end of the end platform, it would be in perfect alignment and at right angles. Holes were drilled, glue applied and pins driven home. On removal from the vice, all seemed well. The procedure was used for the other end. After the glue had set, the ends and ply floor of the well were tested against the plastic sides. All was well, so they were glued and pinned.

It was only when I tested for flatness on a glass plate that I found the two ends were not in the same plane. In spite of my best endeavours, the wagon had a longitudinal twist. Even worse, the risers at the ends of the well were not at right-angles to the under-decking so the wagon had a droop as well. Several sessions were spent on remedial sanding, filing and checking with square, straight-edge and glass plate. Eventually, the top, sides and risers were brought into alignment but the undersides were still askew.

This would have to be compensated by judicious filing of the base of the bosses that would hold the bogies.

Pilot holes were drilled in the end platforms to indicate the positions of the boss centres.

These bosses were made up of several layers. The bottom of each stack was a rectangle of sheet brass so that the stabilisers had a smooth surface against which to move. A hole was drilled through the two pieces exactly at the centre. The narrow sides (that would be parallel to the main frames) were rounded until they allowed the bogie to rotate without fouling the backs of the wheels. In order to get some semblance of symmetry, the pieces were threaded onto an old drill and one was repeatedly rotated through 180 degrees and also flipped over, so that all four corners of each piece were filed to the same curve.

Thin ply formed the bulk of the boss. Holes were drilled in the centre of two rectangles. The brass sheets were then threaded on to the drill with the ply between them. The sandwich was clamped in a vice and the ply filed to the profile of the brass. Rectangles of plasticard were next for the same treatment. They made up the necessary height between the bearing plate and the underside of the decking. I also thought plasticard would be easier to file away to compensate for the residual inaccuracies in the body.

When the brass rubbing plate was placed on the stabiliser blocks of the bogie, there was a space between the plate and the crossbar of the bogie. I didn't have washers of the correct thickness, so I soldered narrow strips of brass to the rubbing plate to make it up. I also drilled and countersunk holes through the boss to take the small screws that would hold the different layers together.

With trepidation I placed the bogies on a length of test track, added the bosses, lowered the ply body and measured the distance at each corner from the deck top to the sleepers. I expected to find they were all different. As luck would have it, they were all the same – even after checking several times. The bosses were screwed into place and the bogies were screwed to the bosses. The deck heights

remained the same. The sideframes were put in place, and still the deck heights remained the same. Errors in building the bosses and the luck of which was put under each end of the wagon had compensated exactly for the errors in assembling the ply.

I then checked how far the bogies could rotate before they fouled the risers. A protractor showed that one would turn 10 degrees each way from straight. Would that be enough? From the depths of my memory I dredged up trigonometrical functions and started to apply them. Calculations showed that the turning circle had a radius of 500mm – 1'8" – far tighter than the 5' minimum radius of the layout. However, the other bogie would hardly rotate at all, so there was yet another session of remedial filing until I had a vehicle that would roll freely round tightly-curved Peco track. I did first check that the boss was the correct distance from the buffer beam and it was.

I smuggled my rolling carcass into a club meeting and surreptitiously tried it. It went round all the curves no matter which end was leading. Back home it even went through reverse curves made from lengths of ancient Hornby tinplate track of 2' radius.

Cosmetic surfaces and painting

Photos of bogie wagons gave me some idea of where the rivets should go on the main frames, connecting plates and risers. I marked out and used a pin in a hand-chuck to emboss 15thou plasticard veneers before cutting them out. There were 870 indentations altogether. (Go on, rivet-counters, just check every one for me!) To make sure that the veneers went on the correct way round, I marked outside ends and tops with coloured felt pens. When the time came to fix the overlays I noted that the MEK oozed up through the pin-pricks, rather like the eruption of miniature volcanoes. I thought this might enhance their profile, but little showed once the solvent had evaporated.

Pictures of Weltrols and Flatrols show lots of shackles for the chains that anchor the load. I decided to make these out of thin brass wire and links of chain. I bent the eye-bolts using some fine round-nosed pliers. I thought of several ways of fixing them to the body. In the end I decided to pass the shank through the veneer and side frame and into the ply. I made pin holes in the right places of the veneer and used this as a pattern to mark the main frames. A hole was then drilled through the frame into the ply. To make sure the veneers and frames always went to the same side, yet more coloured spots were added.

Weltrols are intended to carry their load directly on the longitudinal and/or cross girders that form the well. To hide the lack of these in the model, I decided that the floor would be covered by three pieces of chequer-plates. Most Flatrols have a floor, most Weltrols do not. Not having any suitably etched brass to hand, I embossed some plasticard. As the process proceeded, the plastic sheet began to deform because of the pressure exerted by the embossing tool. The plastic increased in length and width. It also buckled so it was no



longer flat. This meant that I had to re-file the edges to return them to straight, as well as clamping them firmly after they had been stuck into place.

I decided that the decks of the end platforms would be modelled as timber. Rectangles of thin plasticard were partly cut through in plank widths. The surface was then scarified with longitudinal strokes of the end of a flat file to simulate wood-grain. Deeper scarrings were made at odd angles to represent damage in service. The planks were then broken off and the upper corners of their long edges chamfered. Breaking and chamfering accentuate the gaps between planks when stuck in place.

The buffer beams were the residue from a faulty kit. Buffers and couplings were commercial products. I was rather surprised to find that the former cost more than the rest of the model.

A well wagon's load may be steadied by longitudinal beams resting on transverse baulks. I made these timbers from 7mm square wood – the tail from one of several rockets found after Bonfire Night. The timbers were distressed with worn corners, gouge marks and scuff lines before being glued and pinned into place.

I have only seen a few wagons that look as pristine as the day they left the works, so I usually paint wagons in 'well-used' colours, following the rule-of-four, i.e. using a palette of four colours to represent one ex-works colour. I painted the main frames and buffer beams yellow, ostensibly as a hazard warning since this is a works wagon. However, the choice was primarily to introduce more colour into what could so easily become a drab scene that would not attract an audience at shows. The colour quartet used here was just a drop of yellow, lots of white, with light and dark brown for rust and dirt. The wooden decking and timber baulks have uneven mixes of brown, white and olive, with dilute charcoal grey run into the gaps between the planks and into nook and crannies. Black was used for the underside as this colour helps to discourage people from looking too closely. But even this finished up mottled. Brush wipings and washings were used to tint the bogies, wheels and axles.

The ridges on the chequer-plate did not show, so I rubbed small patches of the surface with very fine abrasive until the plastic started to appear just enough to suggest that it was freshly-worn but not enough to show it was

snow-white plastic under the paint. A similar procedure was used on the end decks.

Finishing touches

It took me some time to find suitable etched brass brake wheels, so these were added after the main painting was complete. They were soldered to fine pins. In order to give the rims a bit more 'presence' the etching was flooded with solder and then filed to shape. Blobs of white and grey paint were placed on the wheel and badly mixed with a matchstick. The meniscus adopted by the overload of paint further enhanced the thickness of the rim and spokes.

Fitting holes were drilled using another fine pin. I distressed the point between the jaws of pliers to give it some sort of cutting edge. The pin was then held in a small pin-chuck that was itself held by a hand-drill. The whole assembly was ungainly, somewhat reminiscent of a drill string on an oil rig. I'm not sure whether it cut or melted its way through the plastic, but the wheel pins were a firm fit. The pointed ends were glued into the angle between the undersides of the end platforms and the backs of the well risers.

Then a variety of weird, colourful but believable loads was required. They had to be all about the same width so that they would just slide between the longitudinal beams as, unlike the prototype, these cannot be moved to accommodate loads of different sizes. In addition, the loads had to approach 70mm tall, so that a well wagon would be essential for their transport rather than using plate or long low wagons.

The 'segment of a chemical reactor vessel' was made from a piece of drainpipe and bits of felt pen. The flanges are of microstrip, built up in successive layers. Because this sub-assembly will be factory fresh I painted it in just one colour but a drab wash was used to tone down the shine to one more appropriate to viewing at the intended scale public viewing distance of 100'. The 'roller' is based on another length of drainpipe. To give the spokes a solvent-compatible anchorage, the inside was lined with a strip of very thin plasticard cut so that its ends had to be forced into a butt joint. The axle-and-spokes 'double spider' was assembled on a jig before being trimmed to size and gently eased into place. Small triangular plates strengthen the joint between the H section spokes and the liner or axle.

Photographs by Len Weal, Peco Studio.

...an exchange of railway modelling ideas for beginners of all ages

No excuses!

Continuing the Art of Compromise series, with another 3'4" x 1'10" plan

Paul A. Lunn proposes a complete layout for about £90.00, reusing much material, card etc.

Following on from March 2004 article, here's a chance to keep the budget even lower for a complete layout including baseboard, track, scenery, loco and wagons. There is really no excuse for not having a model railway!

Greatest saving is in the baseboard, which except for adhesive is made almost entirely from scrap materials. These are listed in the key to the exploded 3D illustration and provided you adhere to the golden rule of using undamaged card and non water-based glues, assembly should be fairly straightforward.

Although the design is very similar to that in the March article and indeed it uses exactly



Right: although not exactly the same as that on the model, this coal hopper at Roystone Drift Mine was full of interesting detail that could be incorporated into our structure. Shunter 08 679 is framed within the girders in this view from 17 December 1978.

Photographs and artwork by the author.

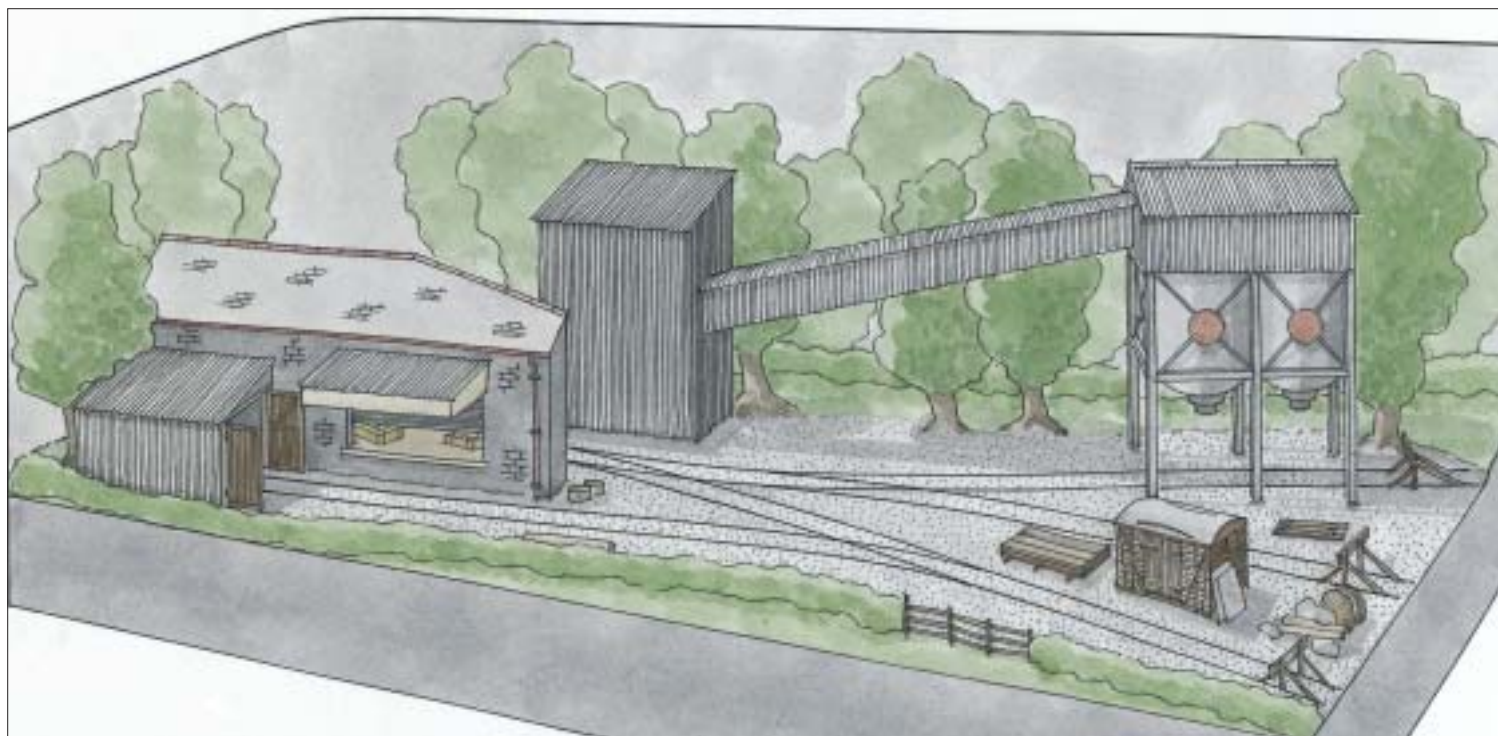


Table 1 – Scenic Features

	<i>Feature</i>	<i>Raw material</i>	<i>Comments</i>
1	Timber loads	Lollipop sticks and used matches	Cut round ends off lollipop; stick & stack in bundles Cut burnt end off matches and stack as above
2	Scrap metal	Silver foil from containers, offcuts of plastic tube, sprues, spare wheels etc.	Scrunch up foil, mix with other parts and weather heavily
3	Steel sheet	Foil container lids	Cut to size and weather heavily
4	Pipes	Copper pipe/plastic pipe, earbuds, round pen barrels, straws	Cut ends off ear buds; cut to length and weather
5	Steel wire	Fuse wire or used wire from electrical cables	Coil round a dowel to get neat, consistent rolls
6	Containers	e.g. TicTac™ boxes or similar	Cover with adhesive labels, and paint to represent packing crate
7	Sand	Use real sand; the 'play' type for sand pits is ideal	Glue covering to a shaped former
8	Coal	Washed and crushed coal; ask for a piece from your local preserved railway	Crush into small pieces and glue to a shaped former
9	Sleepers & track	Peco or Hornby	Use leftovers or broken pieces bought at swapmeets; stack of sleepers and use lengths of rail as wagon load
10	Items under tarpaulin	Plasticine™ and tissue paper	Make shape out of Plasticine™, cover with black tissue, weather and spray with matt varnish
11	Trees	Dried twig	Matt varnish and cover with leaf material
12	Ground cover	Contents from tumble dryer filter	Glue and paint according to taste
13	Signs	Magazines, packaging	Cut and mount for hoardings, window signs, company names
14	Hedges	Kitchen cleaners, sponges	Cut to shape and cover with scatter material
15	Corrugated sheet	Silver foil from containers	Indent with fine toothed comb to make corrugations
16	Coal/cement chutes	Washing up liquid bottles	Use nozzle end; reinforce with cardboard if container made from flexible plastic
17	I-beams	Plastic Sheet	Liquid-poly together. Allow to set between each stage
18	Fencing	Used matches and lollipop sticks	Thin lollipop sticks for a closer to scale representation of cross-rails. Use matchsticks for fence posts
19	Structures	Cardboard clad with suitable finish	Use either corrugated sheets, or brick/stone paper, or plastic sheet

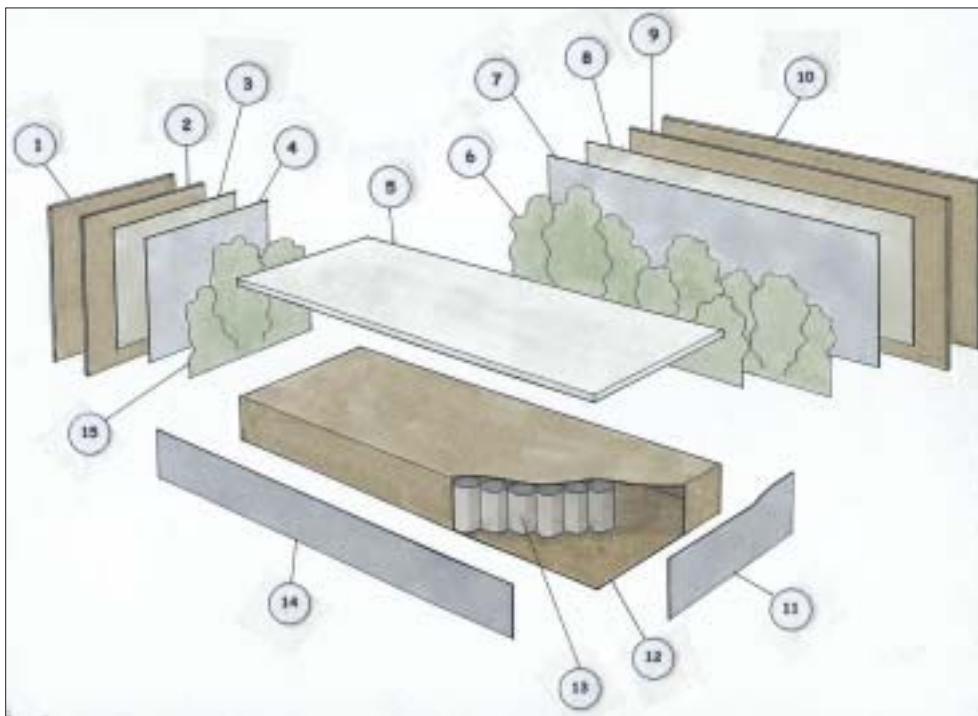
the same track plan, the interpretation is considerably different. As always I have been inspired by a number of real locations, in particular the still operational Blue Circle Cement Works at Dewsbury, West Yorkshire and comparison with the photos will verify this point.

Careful choice of low budget stock is essential. The Model Power 0-4-0 Plymouth Shunter, suitably anglicised, at around £10.00, four wagons at £20.00 and all the track (including the Peco Loco Lift) at £40.00 add up to a total of £70.00. Put this to a £20.00 budget for some scenic items (eg wagon body), paint and glue and it brings the final total to £90.00.

Well what about scenery? I've listed nineteen little or no cost scenic features in Table 1 and almost all are included in this design.

Table 2 – Track Components

<i>Catalogue No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Comments</i>
ST-200	Standard Straight	1	Use in loco shed
ST-201	Double Straight	4	Use on hopper line, both sidings either side of the grounded van body and for the hidden siding
ST-205	Isolating Rails	2	Use on loco shed line
ST-241	Left Hand Point	1	For siding to loco shed
ST-247	'Y' point	2	As per 3D illustration
ST-40	Rail Built Buffer Stop	3	As per 3D illustration
SL-43	Loco Lift	1	Use on hidden siding as a cassette
Total cost of above items at 2004 prices approx. £40-00 (depending on where purchased)			



Key to exploded diagram

- 1 & 10 Corrugated card (with the corrugations running vertically)
- 2 & 9 Corrugated card (with the corrugations running horizontally)
- 3 & 8 Cornflake box cardboard (position joints so they fall behind items 6 & 15): use with plain side facing out
- 4 & 7 Grey or blue paper (use offcuts of wallpaper – samples are usually free at DIY stores)
- 5 Polystyrene (the thin packing piece from the back of a frameless picture)
- 6 & 15 Pictures (from used calendars, travel guides or simply paint them yourself)
- 11 & 14 Shaped end and front profile board/trim (from higher quality card, such as the sort on the back of sketch pads etc.)
- 12 Large stout cardboard box (make one yourself or use ready made; I chose one designed to hold a Yamaha keyboard)
- 13 Reinforcement: use kitchen or toilet roll centres cut to the correct height and glue between top and bottom, but remember to leave spaces for wiring etc.



Left: Sentinel Derwent, a 1960s-era shunter rebuilt in the 1990s by Andrew Barclay, is framed by the loading complex in this view of the Blue Circle Cement Hope Works. Just look at the spans of those covered conveyors!

Below left: an unidentified Yorkshire Engine shunter stands out of use adjacent to a modern blockwork and roller shutter door structure. This forms the inspiration for part of the left hand side of our proposed model. Please note: the site, at Dewsbury Cement Works, can only be accessed with permission.

Below right: international wagon 21RIV 83FS 2382G56-8 from Italy in the process of being unloaded at Selby. This is a possible alternative to the proposed coal/cement terminal. Note the clutter of pallets and tyres, track buried in the weeds, and the two distinct types of warehouse.

Operation of the layout is fairly straightforward with trains being shunted in and out of the various sidings; coal or stone from the hopper (choose one only) stores to the grounded wagon body and locomotives for servicing in the shed. Trains can be turned or re-arranged on the hidden siding using the Peco loco lift. For more interest, a card sequence shunting system, perhaps against the clock, can be intro-

duced and this together with many other useful tips are contained in Cyril Freezer's book, *First Steps in Railway Modelling* (ISBN1 85780 066 4)

Clearly not a large layout, some pretty unusual methods, a great deal of recycling of waste materials and very little financial outlay. Minimum space, minimum cost. It doesn't get any easier than this, so no excuses!



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

RAILWAY SCENERY

In response to Mr Thornhill's request for information in the March issue, I hope the following may be helpful:

1. The London and South Western Railway established a concrete works at Exmouth Junction in 1913. Concrete fencing was one of their specialities and appeared sometime between then and 1924. The Southern Railway used it extensively, and the other railway companies adopted it on a smaller scale in the 1930s.
2. The Karrier Cob mechanical horse appeared on the LM&SR in 1930, the Scammell Scarab on BR in 1948. The mechanical horse was phased out in the late 1960s/early 1970s.
3. In 1947 there were still only 9,000 horses in use on main line railways for town cartage and shunting, but in 1967 there were just two shunting horses for moving wagons at Newmarket left. They retired that year. They disappeared rapidly from railway service in the 1950s.
4. Telegraph was first installed between Paddington and West Drayton in 1839. It soon spread throughout the network, not only in connection with signalling but also for public communications. Contemporary writers describing train travel in the age of steam frequently mentioned 'the dip and catch' of the telegraph wires as they were observed out of a carriage window at speed. People tried to estimate the train speed from the rate that they passed by. It was not until the big power signalling schemes of the 1950s and 1960s that they disappeared. As lineside cabling in troughing became more efficient it was also used to connect traditional signal boxes too, in the 1970s. There are still a few telegraph poles by the lineside between Poppleton and Hammerton in North Yorkshire, but no longer in use and devoid of wires. During the electrification of the St. Pancras to Bedford line in 1978/79, the telegraph pole routes on the Midland main line out of London were removed, this was probably the last example of the huge multi-wire telegraphic routes left on BR. Preserved railways seem to ignore this formerly very visible item of lineside furniture.
5. Level Crossing gates were provided from the very outset of railways, they were required by law, and a railway would not be authorised without the requirement to fence the line and provide gates and attendants. Lifting barriers first started to appear on main lines in the 1950s and in 1961 the automatic half-barrier crossing was

introduced in East Yorkshire. Despite extensive modernisation and closures there are still hundreds of gated crossings today.

6. Flail cutting of hedges generally started during the 1970s.
7. Livestock ceased to be carried on BR in 1972. The last cattle movements were in connection with the Irish ferries from Stranraer. The traffic had been in decline since the mid 1950s. Strict animal welfare regulations was one of the reasons given for BR pulling out of large livestock traffic. Small animal traffic (pigeons, mice etc.) disappeared a few years later.

A very good source of information is the railway press. Over the years numerous articles and news items have been published about current and historic railway matters with a model railway slant. The new breed of railway magazines do from time to time include articles of interest, and there are some good specialist publications like *Backtrack*, *British Railways Illustrated* and *Railway Bylines* that carry historical articles which are very well researched and written in great detail. There are also many books published on general railway subjects and on highly specialised railway matters. Another excellent source of historical information is of course the Historical Model Railway Society.

A good quick reference railway history book is *The Oxford Companion to British Railway History*.

DAVID MONK-STEEL

LOCATING 'WATLINGTON'

I am General Manager of the Chinnor & Princes Risborough Railway, based in Oxfordshire. I would very much like to contact the owner of a GWR layout called *Watlington* which is based upon a station on our railway.

If the owner of this layout would be so kind as to contact me, or if anyone knows who is the owner of this layout, I would be most grateful.

I can be contacted in the evenings on 01844 247408.

CHRISTOPHER HART

FITTED & PIPED STOCK COLOURS AND THE CHINA CLAY HOPPER

I am not a regular reader of RM but happened to pick up the February issue, where a couple of items caught my eye. I hope the following comments may be of interest to your readers.

Firstly I would like to comment on G.A. Cooper's letter. Mr Cooper has confused the colours between 'fitted' and 'piped' freight rolling stock:

Fitted – having the automatic vacuum brake operative – the end metal pipes connected to the flexible hoses (not the hoses) were painted red. Piped – only having the vacuum brake pipe to allow continuity when coupled with other fitted stock, the metal pipes were painted white. These vehicles were subject to regulations regarding marshalling in freight trains. The description 'piped' was always taken to mean as described and never applied to fitted vehicles. Piped vehicles were often known colloquially by railwaymen as 'blowthroughs'.

The use of fitted wagons as 'fitted heads', i.e. coupled next to the engine to include brake force, with the unfitted vehicles trailing, was, I suggest, not to operate large trains as mentioned in the letter (many heavy freight trains especially coal were unfitted), but to allow the train concerned to maintain better timings as defined by its category, originally lettered, but later classed by numbers (freights were 6 to 9). Sometimes fitted wagons were marshalled into the unfitted rear portion and thus had their brakes inoperative, as wagon order was dictated by operating convenience to avoid unnecessary shunting either en route or at destination.

The second item I would like to refer to is the review of the China Clay hopper (CDA) on page 111. This 4mm scale model appears from the photograph not to be entirely accurate although I accept that fine detail may be impractical to reproduce.

I enclose a photograph taken at St. Blazey in 1993 where it can be seen that an auxiliary vent was fitted on the vehicle ends. This was necessary

because under test charge conditions when fitted with only one vent each end, the vacuum created by the clay dropping out rapidly, caused the hood to be pulled down into the vehicle, thus setting up considerable stresses. The additional vent allowed more air to be drawn in to replace the clay and cured the problem, and if my memory serves me well this amendment was fitted before the vehicles went into service.

The ECC logo did not remain on the wagons long after their entry into traffic in February 1988, as the transfers soon started to peel, no doubt due to our Cornish weather, the flexing of the body and the galvanised surface. ECC asked that all logos be removed as they considered them in this condition a bad advertisement for the company.

There was a hood operating mechanism fitted (the vertical rod can be seen in the photo over the left hand buffer), and I believe the solebars were blue – the St. Blazey Cornish Lizard emblem was fitted at the time maintenance depots were given these unique symbols.

I was the originator of the scheme which replaced some 470 OOVs (12 ton capacity) with 125 CDAs (later increased to 137 in order to cater for increased traffic) which greatly reduced operating and maintenance costs for both BR and ECC.

IAN A. F. NISBET

MORE IRISH LIVERY PLEASE

Lima have done it, Bachmann, Corgi, Lledo and even EFE have done it! I am sure you are asking yourself what it is? Well, I am talking about Northern Ireland! It may come as a surprise to Hornby but trains did run here and still do. Yet another year has passed and not a model train or coach with the livery of NIR on it. What is Hornby doing? There are collectors here crying out for local livery trains and coaches.

To date anything that has been produced with either Northern Ireland (NIR) or its counterpart in the South of Ireland (CIE) sells well, with a lot of Lima trains now fetching prices above their retail. I know that some people will say that Hornby did bring out an Irish Freight set, but come on, we are not that easily fooled, it was a revamped industrial set. I am not suggesting that you flood the market with Irish liveries, so come on Hornby, yes continue to produce your GWR, Virgin, LNER etc. All I am saying (and I'm sure many would agree with me) is let's see NIR, or CIE on a few Hornby locos and coaches.

I do hope that some response comes from this.

On another note congratulations on a great railway magazine.

WILLIAM TATE

TROWBRIDGE STATION 1900-1940

I would like to make an appeal to your readers for information on Trowbridge Station on the former Wilts, Somerset & Weymouth Railway in the timescale of 1900 to 1940.

I am looking for pictures and drawings of the main buildings and the surrounding area.

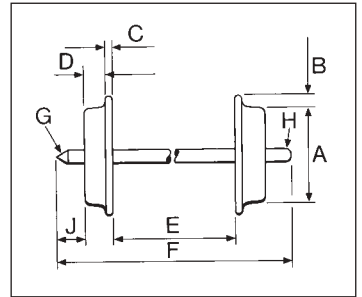
I would be most grateful for any help and reasonable expenses incurred will be reimbursed.

JOHN EDWARDS,
Raft-N-Alf, Ratten Row, Walpole Highway, Cambridgeshire, PE14 7QH.



LATEST REVIEWS

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English Electric Type 1 (Class 20) in 00 from Bachmann

Now available are the Class 20s which Bachmann announced last year. These are in the manufacturer's Blue Riband series and deliver a high degree of detail and performance. The latter is assured by the centrally mounted five-pole twin-flywheel motor which drives all eight wheels, and electrical pickups which also operate on both bogies. Such technical features have been a long time coming in the field of British outline model locomotives and their arrival on the scene and, we hope, establishment as commonplace practice should remove from clubrooms and exhibition stands countryside a favourite topic of controversial conversation.

The model has an 8-pole dual inline (NEM652) socket, ready for a DCC decoder to be fitted if desired. The motor/drive arrangements mentioned above, plus the very considerable metal weights installed in the body over the bogies and cast integrally with the metal footplate, render such unrailwaylike compromises as traction tyres a thing of the past, for the model weighs approx 420g. Performance is very quiet and controllable down to an almost imperceptible crawl.

The blackened metal wheels really look the part behind the well detailed bogie frames. Sandboxes and pipes are installed on the outer ends of the bogies although brake gear is not an option on this model. Were it so, our guess is that it would probably be near enough invisible. The asymmetrical arrangement of the cab doors requires the bogie at this end to have footsteps on only one side, and this unusual feature has been faithfully modelled.



In line with the Bachmann Blue Riband philosophy, the level of detailing of the loco's superstructure is satisfyingly high. The large round buffer heads are superbly thin and sprung, the windscreen wipers have twin arms and very slim blades, and the tiny wipers for the 'steam loco type' cab spectacle plates have not been forgotten. Cab windows are neatly glazed. The main bodyside (one almost thinks 'boiler') handrail is in plated metal, those on the yellow cab end are plastic with a sensible degree of 'give' against careless handling.

Viewing the loco from above, the eye is drawn to the red multi-bladed cooling fan which sits beneath its circular protective metal grille. Exhaust ports, cab ventilators and finely engraved panel divisions complete the 'roof'. Likewise, the bodysides are well detailed and feature the tiny bright handles to the various engine room

doors, and crisply modelled grilles throughout. This blue version carries blanked-off indicator boxes front and rear. Blue and green liveried locos with indicator discs will also be available (20 063 and D8000), as will a green one (D8134) with 'working' unblanked boxes. No headcode lighting, or other illumination, is present.

The battery boxes have separately moulded outer faces, so that the factory can accommodate the variations required for green, blue liveries etc, eg early (Type A) and modified (Type B). Our sample has the catches, handles etc immaculately picked out in yellow. Prototypical, no doubt, but we felt a little garish in this small scale.

Removable tension-lock couplers are fitted fore and aft in NEM pockets, with a scale cosmetic hook on the buffer beams. Brake pipes and MU cables are included separately for fitting if desired.

Since we reviewed the Hornby Dublo Type 1 D8000 in February 1959, followed later by the Wrenn production and the appearance of the Lima versions around 1985, models of these little Bo-Bos have been roaming 00 rails for the best part of half a century. It therefore seems particularly fitting that Bachmann has chosen to bring out a 'state of the art' version to carry the tradition well into the 21st century.

For 00

*SAMPLE SUPPLIED BY
Bachmann Industries Europe Ltd,
Moat Way, Barwell, Leics. LE9 8EY.*

*PRICE
£48.95*

*WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm-14.7mm.*

LMS-liveried tinplate Garratt in 0 from ETS

This unusual and delightful 0 gauge representation of a Garratt-style 2-6-0+0-6-2 is made by ETS (Electric Train Systems) in a number of livery options; LMS, FCER (Argentina) and a South African version.

Over and above the livery options, a number of technical variants is obtainable in addition to the basic model: two- or three-rail current collection; sound generator; change of direction either after stopping (USA and European standard) or after a 20V impulse (European standard).

The loco body has a strong, all-metal, nut-and-bolt construction with a quality that is extended to the mechanical and electrical components. The buffers and axle bearings are cast to ensure consistent quality. The moving



valve gear is impressive and the cab doors can be opened.

The two high-performance, five-pole motors (one at each end) have electronic speed control and drive the wheels through a worm gear. An automatic clutch disengages the worm gear from the driving wheels when the motor stops so that when the power is off, the locomotive can be pushed

along with its wheels turning. The test model demonstrated good slow running and plenty of pulling power; some time spent running-in should eliminate the slight tightness that was apparent in this 'out-of-the-box' unit.

The lights switch according to the direction of travel and, if you use an ETS power supply, they stay lit even after the loco has stopped; their bright-

ness remains independent of the travelling speed. A switch underneath enables the operator to select an ETS or standard power supply. The models with sound simulate the sounds of the full-size version and the whistle can be operated remotely from the power supply. Locos with sound require the ETS power supply unit.

*SAMPLE SUPPLIED BY
Kittle Hobby, P.O. Box 05, Ystalyfera,
Swansea SA9 1YE.*

*PRICE
£450.00*

*WHEEL DATA
B. 1.3mm, C. 1.2mm, D. 3.9mm,
E. 28.5mm.*

Latest batch of Hornby Mk 1s in OO

Several parcels of Mk 1s arrived recently, hot from the 2004 Hornby catalogue. These are the established well detailed replicas of the long serving 1950s-built BR vehicles, now available from Hornby in both carmine and cream and chocolate and cream liveries, with the exception of the Buffet car which is new only in the Western regional scheme. The examples illustrated are representative of the samples, namely the BSK Brake Second and the CK Composite, and the RMB Buffet First in chocolate and cream. The carmine/cream coaches in this batch carry Eastern Region numbers. Also new are the over-long BG Full Brake in carmine and cream, and a SLF Sleeper First in maroon.

In all cases moulding and printing are to the immaculate new Hornby standards and the finely detailed bogies run on metal 3-hole disc wheels. Interiors are furnished with moulded seats and corridor partitions, and a brass-effect corridor handrail is visible where appropriate. Windows are flush glazed and door shut-lines,



butts, commode handles and other surface details are finely engraved. Roof details include panel joins and ventilators, arranged to suit the vehicle type, and Brake and BG naturally feature the periscope heads which so fascinated us contemporary kids.

These models (including Buffet) are

scheduled also to appear in weathered BR maroon with Midland Region numbers: samples have arrived, and we shall illustrate these soon.

The writer remembers single trains containing stock of different liveries, particularly maroon and carmine/cream, but the WR-branded vehicles

did not seem to stray far from home territory. Certainly a good mixture in one train makes for colour and interest on a model railway. The Composite is also available in Southern Region green, joining the Brake, Buffet and BG in this livery.

For OO

SAMPLES SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4JX.

PRICES all £18 each.

Composite (carmine/cream)	R4206
Composite (chocolate/cream)	R4209
Composite (green)	R4115B
Brake (carmine/cream)	R4205
Brake (chocolate/cream)	R4208
Full Brake (carmine/cream)	R4207
Full Brake (chocolate/cream)	R4212
Buffet First (chocolate/cream)	R4211
Sleeper (maroon)	R4210

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



BR/Drewry Class 04 shunter in OO from Bachmann

The Drewry Car Co. built a demonstrator 0-6-0 diesel mechanical loco back in 1947 for trials on the LNER. But with the LNER to be absorbed into the network, no more came of subsequent orders.

Following nationalisation, and the policy of replacing steam with diesel for shunting, a problem was encountered in areas of restricted access such as docks where larger shunters could not operate. With this in mind, a smaller diesel-mechanical shunter was designed and a run of 142 produced to accommodate the conditions under which the shunters were to work.

Structural changes were made involving the exhaust stacks, owing to blow-down problems into the cab. The driving wheels were also enlarged in

stages from 3'3" to 3'7" to overcome working in third-rail areas such as in the Southern Region.

Bachmann has produced two versions of the Class 04, one in BR blue and a weathered BR green unit. The test models were well-packed in the usual polystyrene tray inside the familiar dark blue box. Part of the model's charm is its compact size. 4mm scale seems to work well for the Class 04, but arguably, the Class 08 set the standard for good proportions.

The overall quality of moulding, printing and detail work is typical of Bachmann's high standards. The handrails along the engine compartment and behind the cab are in proportion, the buffers are sprung and the colours are accurate, but the 'Saxa'

exhaust stack needs a hole drilled in the top for a finishing touch. Sliding cab windows would have topped-off this excellent representation and allowed us to get a better view of the driver figure which was thoughtfully included.

The motor and worm drive are housed between two body-filling metal weights that give the loco remarkable density; this helps to bring traction and pulling power to a more than adequate level. When running solo at higher speeds, a slight 'shimmy' was noticed on the test unit. But after running-in and at normal shunting speeds, the effect of any tightness should disappear, particularly with a load to pull.

Cab handrails, horn and vacuum pipes are supplied, packed separately

for the modeller to fit into the factory-drilled holes. We treated the green 04 thus, as illustrated.

Like the prototype, this model is small, functional and a valuable asset to the shunting yard.

For OO

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leicestershire LE9 8EY.

PRICES

rail blue (ref.31-336B)	£39.40
weathered green (ref.31-337B)	£41.35

WHEEL DATA

B. 0.8mm, C. 0.7mm, D. 2.1mm,
E. 14.3mm-14.4mm.



Class 320 EMU kit in 4mm scale from Bratchell Models



Following our note in the October 2003 edition regarding the launch of the Bratchell Models Class 320 EMU, we have now had the opportunity to examine a sample of the kit.

The kit comes in a two-part pack, well protected in polystyrene. All the small components are in resealable polythene bags.

The high quality of the mouldings is immediately apparent; considerable investment must have been made in tooling. Very little work was required to remove the small moulding flashes that were still present.

It was a good idea, as suggested in the instructions, to perform a 'dry run' to establish the way the parts fit together. The instructions are on three A4 sheets with a page of text and exploded diagrams. The parts are numbered in a list but these numbers do not appear on the diagram; this does not, however, hamper the identification of the components. Of slight concern are the underframe assembly diagrams in which the quality of the drawings



reduces the components to blobs that are difficult to identify against the actual plastic parts.

Some good reference photographs of a prototype would add confidence when assembling the bogies to establish the location of the integral steps

and help with the location of the water-slide transfers which are included in the package.

Some bespoke fitting of components is required so those with existing modelling skills will enjoy making one or two chamfers to fit vestibule ends

and removing some plastic to make room for the driver's partitions to fit.

This is not a kit for a beginner, but it is a satisfying venture for those with some experience. It is an investment of £122.00 excluding wheels, bearings, couplings and pantograph; £138.00 including the above.

Bratchell's ready-to-motorize (RTM) service is available at an extra £268.00. Your model will be built for you and painted with your choice of livery and number, ready to receive a motor on the bogie frame. For a limited period, a free pantograph kit will also be included with this kit.

See our news pages for the latest developments in this expanding range of modern EMU kits.

For 4mm scale

*AVAILABLE FROM
Bratchell Models, P.O. Box 22,
Watford, Herts. WD17 3WA.*

PRICES in text.

Hornby Skaledale new releases

The ever-changing range of 00 cast resin buildings from Hornby continues to enchant. Latest models illustrated here are four buildings from the Holly Farm quintet and the Station Waiting Room (R8530 110mm x 100mm £15.00). The latter is the first railway building we have examined in this series.

It is a small brick structure with steeply pitched slate roof, two chimney stacks and sloping canopy with dental edged valance. It is not based closely on a particular prototype as far as we know. It is a nice moulding with glazed windows, panelled doors (with 'brass' knobs), gutters and drain pipes front and rear, platform scales and luggage, notice board and a delightful postbox of the type that is let into the wall with a flush plate.

The stretcher-bond brickwork is nicely incised and the rows of slates are well modelled, with flashing around the chimney stacks. The cream painted bargeboards are fitted at one end only, so that the building can neatly about the Station Master's Office, when that is released, if desired.

The four buildings from the Holly Farm set are as follows (approx 'footprints' are given in the brackets); the Farm House itself (ref.R8522, 130mm x 140mm, £18.00); the Pigsties (ref.R8523, 100mm x 65mm, £9.25); Stables (ref.R8525, 150mm x 65mm, £14.50); and the half-timbered Barn

(ref.R8524, 135mm x 85mm, £14.50). These buildings are superbly modelled and decorated. The distressed wood framing, infilled panels and random dislodged tiles of the Barn are particularly attractive features. The rather handsome red brick farmhouse will naturally have many other applications and the stables might adapt well to a more urban or industrial use, as would the two-storey Workshop/Store (ref.R8542, £14.00) which we have yet to see.

Despite the fine detailing, these models are very robust. Each has a circular aperture in the base, allowing for internal lighting if required.

For 4mm scale

*SAMPLES SUPPLIED BY
Hornby Hobbies, Westwood, Margate,
Kent CT9 4JX.*

PRICES in text.



Virgin Mk 2s and traditional freight stock in N from Graham Farish

The Graham Farish range of N gauge Mk 2 coaches has been reworked by Bachmann: first on the streets are Virgin Trains examples.

Four types are offered, namely FO open first, SO open standard, BSO brake standard open and RFO, an open first with catering capability (and curiously labelled 'RFB' by GF). Thus a modeller only needs to sandwich five SOs between a BSO and the RFO to form one of the pre-'Voyager' cross-country trains (and ideal motive power is the GF model of *Royal Scots Grey*, see RM September 2003). Smart new blackened wheels are fitted, and the models look very well indeed.

The traditional 12-ton vans of LMS provenance are now offered in LMS and BR grey, and fitted-stock bauxite.

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

Mk 2s, all types – £12.50ea.
vans, all types – £4.15ea.



Tunnel portals and 'sea foam' tree materials from Gaugemaster

From Gaugemaster come these realistic tunnel portals and associated masonry for 4mm scale. These items are made from so-called 'hard foam' which is less brittle than some other structural materials used in this field. It is easily cut with a craft knife, so the wing walls can be shaped to any angle or inclination. We believe that warming with a hair drier and shaping round a former will impart to a piece a permanent curve should this be desired.

The photographs speak for the architectural style, but to our eyes these pieces look 'early railway 1840s' with their heavy cornices and copings, particularly so the single-track portal with its distinctive voussiors and battered wing walls. They are self coloured in the grey/brown shade shown, and their slightly grainy and dusty surface, we thought, made them among the most realistic examples of model stonework we have seen.



The instruction leaflet gives suggestions for positioning the portals and arranging track and scenery on the tunnel approach. The size of both portals reflects a compromise between true scale, which might result in a structure far too large for the average layout, and a portal which is correctly proportioned but can still allow for some 'overthrow' with long vehicles if the portal is on a curve.

Gaugemaster is also now marketing



the popular 'sea foam' scenic material in a convenient sized carton. The box contains enough of this natural material to make about fifty trees of varying heights. Instructions for 'dressing' the trees are on the box label.

On its own, sea foam is beautifully fine, and excellent for representing small shrubs and so on; it is particularly appropriate for some very wispy growths.

For larger specimens, Gaugemaster recommends sprinkling Moorland Grass Flock (ref.GM172, £1.75) over

the branches to reduce the 'twiggy-ness', and then following it up with a foliage scatter – ref.GM150 Light Green Foliage (£1.75) is ideal – but other colours are available to simulate spring, summer, and autumn effects.

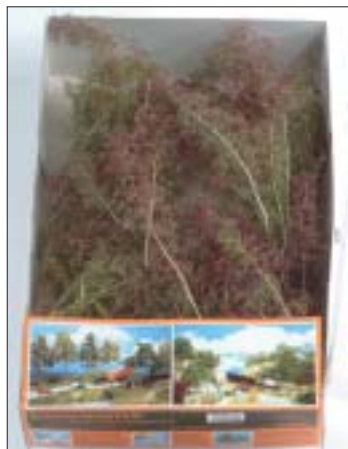
Our photo shows examples created by combining sprigs of the sea foam carefully, thickening up the trunk with PVA, painting it, and treating the branches with scatter materials.

These are versatile materials that can produce very realistic results with a little practice and patience.

For 4mm and all scales

AVAILABLE FROM
Gaugemaster Controls, Gaugemaster
House, Ford Road, Arundel, West
Sussex, BN18 0BN.

PRICES in text/as follows
Tunnel Wall (ref.GM197) £4.95
Single Tunnel Mouth with Wing Walls
(ref.GM198) £8.95
Double Tunnel Mouth with Wing Walls
(ref.GM199) £12.95
Seafoam Trees (ref.GM195) £19.95



Book Reviews

Branch line to Wantage

A Tramway Classic

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.

240mm x 165mm 96pp
Hardback £14.95
ISBN 1 904474 25 X

The Wantage Tramway was a standard gauge light railway of considerable charm which linked the old Berkshire market town with Wantage Road station on the GWR main line between Didcot and Swindon from 1876 to 1945. The passenger service ceased in 1925, freight continuing until closure.

The 2½ mile route consisted mainly of roadside running although the locomotives did not generally have enclosed wheels and motion and cow-catchers as on the Wisbech & Upwell and other similar lines.

Despite the great appeal of the WT and the charm and interest of locos Nos.5 and 7, the line was photographed by relatively few enthusiasts and this book has been made possible by the discovery of some fresh pictures. These are presented here, arranged and captioned in the traditional Middleton style and supported by OS map extracts, ticket facsimiles etc.

A bonus in this book are the scale drawings of passenger cars Nos.4 and 5 and locomotive No.5 *Shannon*, usually called *Jane* on the Tramway.

This book will be a welcome addition to the fairly limited bibliography of the WT.

LMS Journal No.6

Compiled by Bob Essery
Wild Swan Publications Ltd.
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP

272mm x 213mm 80pp
Softback £9.95
ISBN 1-874103-90-9

This latest issue from Wild Swan Publications continues this fascinating collection, with articles such as an unabridged report of a comparative locomotive test 'to ascertain the general running performance, coal and water consumption etc. of the following engines'. It lists Claughton No.2221, three compounds Nos.1065, 1066 and 1023, plus Northern Division engine No.124.

Large, evocative photographs comprise the chapter called 'Shrewsbury locomotive shed'; the pictures and captions speak for themselves.

Sometimes personal memories fall short of the mark when put into print, but Rod Fowkes recounts boyhood dreams and a long railway career in an engrossing fourteen-page article. At the end it says 'To be continued'; this is good news!

For those keen on modelling LMS carriages accurately or just with an overall interest in the subject, David



Above: a flavour of the Wantage Tramway (albeit with Brill loco) on Wantage Town, by John Bruce. See RM Sept. 02. Photograph: Len Weal, Peco Studio.

Jenkinson's thoroughly researched chapter entitled 'LMS carriage liveries revisited' will be of much assistance.

Chapters on LMS signals and a personal account of the Gayton Loops signal box both provide rewarding reading.

The single-page branch line portfolio has Blisworth SMJ as its subject and the volume is topped-off with some pages of reactions and responses from readers of previous issues.

It is not necessary to be an avid LMS fan to appreciate and enjoy this journal. For those yet to sample an *LMS Journal*, the diverse articles in this part work make for authoritative and entertaining reading.

Model Railway Planning and Design Handbook

Compiled by Steve Flint
Santona Publications, Rydal
Mount, 224 Marlborough
Avenue, Hull HU5 3LE.

272mm x 213mm 96pp
Softback £18.95
ISBN 0 9538448 5 4

Steve Flint has gathered together a panel of five eminent model railway designers and modellers, including himself, to produce a book that provides all the inspiration and practical advice that anyone could want when contemplating the creation of a model railway.

Every consideration is addressed from budget planning, identifying and organising usable space for a layout, aims and attitudes to scale and final concept, and approaches to operating.

First impressions count and the presentation of the book is one of clearly imparted knowledge, both in text and illustrations. The non-patronising approach to those thinking of entering the hobby perhaps without much knowledge, is welcome. Those who are experienced modellers will also gain from these pages and might consider a reappraisal of their activities to date.

An intelligent mixture of prototype and model photographs, together with excellent track plan and layout graphics help the reader to envisage ideas

to the point where it is easily possible to assess one's own potential abilities. The setting of achievable goals is emphasised as paramount so that dreams do not become impossible. Practical solutions are offered to overcome limitations of space, money and ability. Many factors need to be taken into account and these are approached logically, so that a method of thinking is adopted which will eliminate many of the obstacles encountered.

Five easily assimilated chapters are in logical order starting with Steve Flint describing the design process. Paul A. Lunn continues with easy layouts for beginners; that said, many seasoned modellers might have forgotten some of the valuable tips offered.

Neil A. Ripley looks at industrial, dockland and light railway themes, an area that some might not have considered. At the other end of the spectrum, exhibition and larger layouts are covered expertly by Jack Burnard, but still with a very practical approach that makes ambitious schemes seem well within reach.

The accumulated knowledge of the contributors and the colourful, step-by-step character of the text combine with the very pertinent illustrations to make this an ideal companion for a new modeller or as a refresher for those seeking to relaunch their hobby.

The Banbury & Cheltenham Railway

Volumes One and Two

William Hemmings (Vol. 1)
William Hemmings,
Paul Karau, Chris Turner (Vol. 2)
Wild Swan Publications Ltd.,
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP.

273mm x 210mm
200pp (Vol.1), 170pp (Vol.2)
casebound £29.95 (Vol.1)
£28.95 (Vol.2)
card cover £23.95 (Vol.1)
£22.95 (Vol.2)

ISBN (Vol.1)
casebound 1 874103 88 7
card cover 1 874203 78 X
ISBN (Vol.2)
casebound 1 874103 89 5
card cover 1 874103 84 4

One of the delightful things about Wild Swan Publications is the thoroughness of the research and the amazing detail

that is included by the authors, both in the text and the illustrations.

The two volumes that currently comprise this history are different in nature. Volume 1 is dedicated to the history of the line until 1939; volume 2 takes us from Banbury to Kingham and is illustrated with more photographs. There is a third volume in preparation that will deal with the remainder of the route from Kingham to Cheltenham and the final part of the history from 1939 to the closure, details of operation and accounts of the ironstone workings.

Some things do not change. Intricate financial and commercial wranglings dominated the early days of the railway and William Hemmings captures the sense of thrust and parry between the directors and bankers. Volume one delves deeply into these personalities and it is easy to imagine the influences, anxieties and pressures, acting either together or in opposite directions, in the first stages of organising a new route.

The photographic content and informative diagrams and maps spice up an already compelling text that seems to leave no stone unturned. There is even a shot of the Chipping Norton station cat with a stoat it captured whilst doing its job; such is the minute level of detail, all of which helps to put a frame of reference around the story of the line. The archive photography is remarkable not only for its quality, but for its social content. Admittedly, the earliest pictures show their age, but to have survived almost a century is commendable. It is worth spending time with a magnifying glass looking at the backgrounds, vehicles, clothes, posters and the faces of the evacuee children waiting on a platform; they would not know what the future held in store.

A sense of the working conditions and the attitudes of the railway companies to its employees is accumulated as one reads more. A present-day personnel manager, if they did not already realise, would understand more fully the reason for the rise of the unions and the prevailing struggles to create better working and safety conditions within the ever-changing companies.

The text in both books, despite being meticulously researched and finely detailed, is a fluent and enjoyable read. In volume two, the passion of the three authors for the subject is clearly evident.

A major feature that sets the scene well, comprises all the quotations from historic correspondence documents and the verbatim reports of the spoken word from the senior executives. The style of language used then is very different from that used today, but the essence of business and its demands remain as they do now. These quotations are recreated in smaller type, but are well worth the time taken to go through them.

It is easy to become involved in the machinations of the railway company, but here it is the books that are under review. In the space available, it is difficult to do full justice to the enormous amount of work and dedication invested in these well-presented books. To that end, they fulfil their purpose admirably and beyond the usual expectations of works of this type. Enjoy these two volumes and look forward to volume three.

Hornby: bids for Lima, buys Electrotren

Hornby announced on 8 March that it has made a £5.3million offer for 'certain assets' of Lima S.p.A. This company includes the brand names Lima, Rivarossi, Jouef, Arnold, and Pocher. This diverse range would help to expand the largely British-based Hornby sales.

Lima went into liquidation during summer 2003. According to Italian law, it is possible that the competent court may determine not to proceed with the offer, which requires the approval of the creditors. At press time, the current Lima shareholders had filed an application for a preventative injunction; the process of approval may take up to nine months, and during this time alternative offers may be considered.

If successful, the Hornby bid would help its programme of expansion into European and USA markets, although we understand that the Rivarossi American outline products have already been acquired by Walthers.

The Hornby policy of moving production from Europe to China would mean greater profitability and an increased opportunity for the Lima brands to be competitive.

Additionally, as we closed for press, news came of the acquisition by Hornby of the Spanish firm Electrotren. Although this is not directly of interest to the British market, it is nevertheless important news that a British owned company is venturing out into the rest of Europe.

Latest catalogue from GRS

If our free booklets in this and the March issues have inspired you to try garden railways, you will be interested to know that Garden Railway Specialists has completely revised and updated its catalogue.

The 96 page A5 colour publication includes a price list and shows all the items produced by GRS, including the standard gauge G scale locomotives, coaches, wagons and components designed to run on 63.5mm track; its body kits for commercially-produced chassis; live steam models, in co-operation with several noted names in this

field; and much more besides. Structure kits and scenic items are also featured.

Manufacturers such as LGB™, Bachmann, Accucraft, USA Trains and Aristocraft also produce their own catalogues which are available from GRS.

During 2004, the catalogue will become part of a new GRS website. The new printed catalogue is priced at £5.50, £7.00 including p&p worldwide. **Garden Railway Specialists Ltd. Station Studio, 6 Summerhayes Road, Princes Risborough, Bucks HP27 9DT. Tel: 01844 345158.**

NERA book shortlisted for new award

A major new book award is launched in the field of transport history. The award is to be made each year by the Railway and Canal Historical Society to 'encourage the writing of well-researched, interesting and readable books' on the society's two main themes. A £500 annual cash prize and a silver cup is offered, both donated by a former publisher in the field, David St. John Thomas, co-founder of David & Charles.

Members of the RCHS, who are internationally renowned professional and amateur historians and who include published authors and academics, will choose a short list from the 120-plus books received each year for review in their journal.

One of the shortlisted books, *History of North Eastern Railway Architecture Volume Two* by Bill Fawcett, was reviewed fully in RAILWAY MODELLER July 2003 edition.

SHM&RG 2004 edition now out

The *Steam Heritage Museum & Rally Guide 2004* edition is now available.

96 pages of listings cover railways, industrial archaeology, transport, ship, aircraft and military museums and sites of interest. Apart from being well-known for its steam heritage entries, the guide also features wind and water mills, vintage buses, cars and motorcycles, canal boats, paddle steamers, warships, 1st World War tanks and fighter aircraft.

The guide has now been published for forty years and has amassed infor-

mation on more than 750 railways, museums and other places of interest, rallies and over 1000 events.

The convenient A5 size guide also has over £100 worth of money-saving vouchers, so using just one or two of these will save the £3.95 price of the guide. If you have trouble spotting the guide at the newsagent, it is obtainable at £4.70 by credit card on 01926 614101 or by post from:

Tee Publishing, The Fosse, Fosse Way, Radford Semele, Leamington Spa, Warwickshire CV31 1XN.

7mm NGA silver jubilee show



The 7mm Narrow Gauge Association has reached its silver jubilee. To celebrate, there will be a larger than usual convention at Town Hall, King Edward Place, Burton-on-Trent on Saturday 8 May, between 10:00 and 17:00.

A total of seventeen layouts and fifteen trade stands are currently booked to appear, including Pen-y-Ffordd by the Heywood MRG (pictured above, by Geof Lord).

Members receive a bi-monthly mag-

azine and newsletter and have access to a sales organisation offering publications, models and materials relevant to their needs.

For further information about the 7mm Narrow Gauge Association visit www.7mmnga.org.uk or telephone David Broome on 01903 814170. For specific information about the convention see 'Societies & Clubs', or contact Phil Traxon on 01332 774616 or Mike Bellamy on 01332 518109.

Redditch show 2004

The 25th Redditch Model Railway exhibition takes place on 8-9 May in the Civic Suite of the Redditch Town Hall, Alcester Street, Redditch, Worcestershire. The venue is off access 2 on the Town Centre ring road.

There will be at least twelve working layouts of scales between 2mm and 7mm, together with sales stands and demonstrations. Light refreshments will be available.

This year's exhibition will see the return of the Club's 4mm *Gorcott* layout. This is based on the Settle and Carlisle main line in the 1960s and was

first exhibited in 1994. A programme of updating the scenery has been undertaken over the last few months to bring the layout up to the standard of other club layouts. *Gorcott* was featured in the May 1997 issue of RM.

The show is open from 10:00 until 17:00 on both days. Admission is £3.00 for adults, £2.00 for senior citizens and £7.50 for families of 2+2. The admission price includes an exhibition guide book. The venue has good access for all.

Further details are in 'Societies & Clubs' or at www.redditch-mrc.com



O&K Midget from I.P. Engineering

I.P. Engineering has introduced a new loco to its whitmetal kit range; the Orenstein & Koppel Midget.

This four-wheeled diesel is well detailed and contains everything you need to make the model except solder (or epoxy glue) and paint. IPE whitmetal kits come with colour illustrated instruction leaflets which are very easy to follow.

The O&K Midget is supplied with an easy-to-assemble pre-jigged chassis which can be built to either 32mm or 42mm gauge and is supplied with axles for both gauges. Price is £59.95 including postage and packing.



Tel: 01202 660304.

New kits set to join Bratchell range

New multiple unit models are proposed by Bratchell Models to expand its 4mm scale range. The firm hopes to release the following: Class 150/1 2-car DMU; Class 150/2 2-car DMU; Class 317/2 4-car EMU; Class 318 3-car EMU; Class 325 4-car EMU; Class 455/9 4-car EMU; and Class 456 2-car EMU.

The products will be manufactured using the same high quality ABS injection moulding methods as the current five products, and supplied with

bogies and flush-fit glazing. Versions are available which include Romford brass wheels and bearings.

To secure yours, the company is accepting advanced orders until the end of June. If sufficient orders are received, then the models will be produced.

To obtain an advance order form, email info@bratchellmodels.com or send a SAE to:

Bratchell Models, PO Box 22, Watford WD17 3WA.

LBLR locos at Maldegem, Belgium

Plans for the annual steam festival to be held at Maldegem, Belgium on Saturday and Sunday 1 and 2 May are being finalised.

Owing to delays in obtaining suitable track material from Belgian Railways to complete the new station site, the festival will take place on the old track, but an interesting programme has been devised. This features a collection of four fascinating locomotives from Poland, Mariembourg and England including a surprise guest loco.

Together, these will provide a service to Balgerhoeke and goods train demonstrations as well as being a splendid photographic opportunity.

The Leighton Buzzard Light Railway is to supply two narrow gauge locos,

Alice and *Peter Pan*, which will also provide an intensive service. The Bluebell Railway Brass Band is scheduled to be there too, along with much else of interest.

All sorts of attractions accompany the steam action such as trade stands, model railways, preserved tractors and the chance to see how work is progressing on the station rebuild. Refreshments are on hand including Belgian beers. There is plenty of interest for fans of British and continental railways alike.

Transport to Belgium and accommodation are readily available. Further details are obtainable from **Alan Hoggett, 38 Chiltern Road, Lincoln LN5 8SE. Tel: 01522 527050.** Or visit the website at: www.stoomcentrum.be

NYMR promo wagons in 00 by Dapol

Two new Dapol-produced promotional wagons are available from the Shed Shop, which is a fundraising outlet selling various items in aid of Grosmont Engine Sheds on the North Yorkshire Moors Railway.

They are a 12-ton ventilated vacuum braked vehicle to BR standardised design of the 1950s of which 20,000

were built and an open 7-plank wagon with side and end doors.

The wagons are priced £7.99 each, plus £1.00 for postage and packing, from the address below.

The Shed Shop, Grosmont Motive Power Depot, Grosmont, Whitby, North Yorkshire YO22 5QN. Tel: 01947 895682.



SHOP NEWS

OPEN

Trident Trains, Nantwich

It is good to announce the opening of a new shop.

Redundancy can sometimes bring forth a happy result and this is the case with Roger Benton and his wife Candy. After a career as a Marketing Director in the confectionery and drinks industry, Roger decided to invest in this new venture and turn his long-term hobby into his business. The shop is located in a craft and antiques centre which means that whilst the men are indulging in modelling, the ladies have plenty to explore in the locality.

Ready-to-run items from several

main suppliers, die-cast models and kits from well-known manufacturers comprise the stock in the shop which, even after a very short time, is thriving in the large catchment area. They are open every day and specialise in 00 and N gauge items. Like all good businesses, they will monitor the demands of their clients as time passes so that customer satisfaction is maintained as the priority.

Trident Trains, No.10 The Craft Arcade, Dagfields Craft and Antique Centre, Crewe Road, Walgherton, Nantwich, Cheshire CW5 7LG. Tel/Fax: 01270

Chalk Garden Rail, Gravesend

It is now the tenth anniversary of Peter Skinner's business Chalk Garden Rail.

Whilst working as a surveyor, Peter's railway modelling hobby grew and eventually overtook his original career. He specialises in garden and large-scale railways, but also carries 00/H0 stock from the top manufacturers.

His wife and son Nick are now well involved with the business, handling the accounts and work-

ing in the shop respectively. Expansion of the shop is on the cards due to the increase in the popularity of garden layouts.

After-sales service is a particular forte of Peter's and he handles the warranty work in the UK for LGB™. His knowledge of DCC enables him to service its Multi Train System digital items.

Chalk Garden Rail, 4 Brewhouse Yard, Gravesend, Kent DA12 2EJ. Telephone: 01414 351672.

Railway & Modellers Junction

Since August 2002 when Nick Waterson and his wife started their business, it has developed to the point when in November 2003 they moved to new premises.

The mixture of dolls houses, plastic and metal figure models and trains enabled Nick to leave his former occupation as a chef to

pursue his other interest professionally.

The shop specialises in N and 00 gauges with stocks principally of Hornby and Bachmann.

The Railway & Modellers Junction, 7 Leicester Street, Bedworth, Warwickshire CV12 8TT. Tel: 024 7631 6285.

Die-Cast Classics, Sutton Coldfield

For seven years this shop has sold dolls houses and die-cast models, but has expanded its range to cover Hornby and Bachmann models. To accommodate this new venture, a new set of display

cabinets will make a visit even more pleasurable.

Die-Cast Classics, 16 Chester Road, New Oscott, Sutton Coldfield, West Midlands B73 5DA. Telephone: 0121 355 8862.

The Midlander, Chesterfield

It is now twenty-two years since Dennis Hitchings opened The Midlander model shop – quite an achievement in these commercial-ly competitive days.

But Dennis is encouraging us to visit our local shops, not just purchase our goods from exhibitions or on the internet. 'If you don't use us, you may lose us!' is the message he would like to convey.

Even with the market changing, The Midlander can supply you with stock in all gauges including LGB™ for garden railways.



The Midlander, 393 Sheffield Rd., Whittington Moor, Chesterfield S41 8LS. Tel: 01246 450867.

'Super Saloons' in 4mm from Comet



Comet Models is to release a range of GWR 'Super Saloon' coaches with kitchen (Diagrams H45 and H46), based on those two of the eight saloons which were rebuilt extensively to include a small kitchen – better suited for private hire – and were officially known as 'Special first class dining cars'. The coaches could then be coupled with an unmodified Super Saloon or operated independently if only a small party was to be accommodated.

The unmodified Super Saloon has been in the Comet range for many

years, but only as sides for the r.t.r. conversions. It will be reissued as a full kit, but both will still be available as separate side packs.

The method of construction is the same as for the outwardly very similar Comet Centenary kits.

Prices are as follows. Kit (ref.KW55) £36.00p; sides only for conversion or scratchbuilding £8.50; Markits wheels and bearings £3.95.

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE. Tel: 0121 242 2233.

Portescap RG7s via HOOG

Last year, Portescap closed its factory and it seemed that the popular range of RG7 model railway motors would no longer be available. But new arrangements have been made and they should be obtainable again during May 2004.

They will be of the same Swiss high quality and at the same price and available exclusively from the address below.

Home of 'O' Gauge, 528 Kingston Road, Raynes Park, London SW20 8DT. Tel: 020 8540 8808.

Peco Cup awarded at Glasgow show

During the weekend of 27-29 February over 16,500 visitors attended Model Rail Scotland at the Scottish Exhibition Centre, Glasgow. It was the 38th consecutive exhibition to be organised by the Association of Model Railway Societies in Scotland and the biggest to date.

More than forty model railways were on display with society and trade support totalling 118 stands.

Much interest was shown in the Hornby live steam, and its Q1 and Class 50 models.

Bratchell Models provided visitors with the chance to examine its model of the Class 320 EMUs. The real things go past the Exhibition Centre as part of their route between Airdrie and Helensburgh; unit 320 306 was named after the show in 1997 by Strathclyde Passenger Transport.

The new hall with its new manager Ian Porteus saw the largest number of

non-association layouts, the largest being *Scarborough Central* by the Pickering Railway Modellers. Ian said that plans were already in place for 2005 and the team is discussing the 40th anniversary show in 2006.

This year's competitive element was very healthy with trophies presented by Simon Kohler and Chris Leigh. The Peco Cup was presented by Sales Manager Steve Haynes to Ray Nolton (pictured below, right & left respectively) for his Robert Stephenson & Hawthorn 0-4-0ST, with second prize to J. Naismith for an LNER Garratt.

Money was raised for the charity 'Children 1st' by The Scottish Rail Industry Partners; in all a total of £3181.59.

Next year, the exhibition will take place on 25-27 February in Hall 3 of the Scottish Exhibition Centre, Glasgow; twenty-three layouts are confirmed already.

Jim Howard

We were sorry to hear from Mr J.V.H.Shaw of the recent death of Mr Jim Howard of Hambling's, the famous London model shop.

Mr Howard spent his whole working life at Hambling's, starting in the mid 1920s when the business was a radio parts supplier. One of his first jobs was delivering radio spares to what we now know as the BBC. Mr Hambling's hobby was model railways and he was the prime force behind the introduction of OO and by the mid-1930s was the major producer of model railways in the UK.

Jim joined the Forces for the Second World War and on demob rejoined Hambling's. Mr Shaw joined the firm in the 1950s and worked with Jim in the shop. During the later years of Mr Hambling, Jim ran the business and after Mr Hambling's death took over the running officially. Shop sales increased so well that the firm was able to move to a bigger shop at 29 Cecil Court, but this alerted the major

shareholders to the increased trade and they legally milked the firm. Hambling's managed to keep going for some years but eventually, a near 300% rent increase saw a move out of Central London. This was not a success so they decided to call it a day while still solvent. Jim was very proud that Hambling's closed down without owing a penny to anyone.

Jim worked for Hambling's for well over fifty years and was well liked by all. He was in his element with customers who wanted, a Skinley blueprint, sheet of nickel silver, strips of brass and all the fittings for the loco in question.

He lived on his own for many years but was well looked after by locals in the village and by his daughter and other family members. Our sincere condolences go to Jim's family and all who knew him.

Editor's note: we are very grateful to Mr J.V.H.Shaw for the foregoing information.

Les Pritchard

It is with great sadness that we have to announce that Les Pritchard passed away at home, in the early hours of Saturday, 24 January 2004. He had been seriously ill for several months.

Until relatively recently, Les had been an extremely active member of The Nottingham (Bulwell) Model Railway Society. He always seemed to be there to lend a hand or, more usually, take over the whole job! Whether it was bringing in gas bottles, creosoting the building or arranging to put a new roof on it, Les was always there to assist.

He always claimed that he was not interested in railways, nor even model railways – just modelling! His skills at scratchbuilding almost anything and everything were legendary, and most of the Society's layouts have something of his on them, but he was never one to seek the limelight.

For many years, Les had been a prominent member of the Society's Exhibition Team, and for most of that time he was the Exhibition Co-ordinator, where his skills as a problem solver and a troubleshooter were invaluable. He was righthand man to East Midlands Model Railway Exhibition Manager Ian Trivett for many years, and leaves an impossible gap to fill.

On leaving school Les started work at W.H.Smith and then took up employment in the aircraft industry as a civilian at RAF High Erle. Eventually, National Service beckoned, naturally the Royal Air Force, where Les was also a bandsman and did well in Aircraft Recognition competitions. He finished his service at Hucknall, where he met Joan, his wife to be. After National Service, he went back into the aircraft industry at Tollerton, near Nottingham, and settled down in Hucknall.

Over the years, his interest in modelling bloomed. Ships, aircraft, soldiers, armour and railways have all been his subjects over the years. Whilst Les certainly used various metals for his models and their components, it is perhaps with plastic that he was at his happiest, where hot water, empty aerosols, and all manner of other everyday items helped him form his masterpieces.

He was an inspiration to all and to many, a great friend. He will be sadly missed.

He leaves his wife, Joan, and son Adrian and daughter Dawn. Our sincere condolences go to them.

Editor's note: we are grateful to Ian Trivett for the foregoing notice.



Coming next month

Out on Thursday 20 May



GUIDE TO RAILWAY ATTRACTIONS
Our annual free booklet, packed with special offers.

CRICHEL
Roy Wood presents his 7mm scale narrow gauge layout; see it at Chatham.

FINISHING THE TOWER PRAIRIE
Notes on painting this ready-to-run 0 gauge locomotive.

BLAKECASTER – 2
The concluding instalment on this 7mm scale layout by Howard E. S. Clarke.

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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

June 2004 · Volume 55 · Number 644

Shows you how – every month

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COVER: still going strong after all these years – Tri-ang 'Britannia' on Aireworth. Photo: Steve Flint, Peco Studio.
BELOW: popular and perennial DMU, in the shape of the Lima Class 101 set. Photo: Peco Studio.

RAILWAY MODELLER

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Back numbers information – see Classified advertisement under 'Trade Sales Books'.

Anniversaries aplenty!

Several significant milestones are reached during the currency of this magazine: all merit note, in one way or another, and will mean a great deal to many readers.

Firstly, let's hear it for the humble, unsung Diesel Multiple Unit. 50 years ago the first BR-ordered DMUs ventured out onto the rails of the West Riding, and although the early hydro-mechanical batch of 'Derby Lightweights' lasted just a decade in service, they opened the floodgates for the many different examples of the breed on the UK mainland. (In Ireland, north and south, DMUs were already well established.) It could be argued that the DMU has pretty much triumphed over the last half century, as beneath the gloss and the fancy paint, a 'Voyager' and an 'Adelante' are DMUs, though much more comfortable ones than the 'classics'!

DMUs are important parts of the model scene, too, and in fact no layout set in BR or post-BR days is really complete without one. The mainstream manufacturers have listed examples for many years, and hopefully whoever takes up the Lima mantle will not forget its smart models of, amongst others, the venerable 101s and 117s. Kits across the scales for the more obscure classes are widespread, too, and the advent of a variety of self-contained motor bogies makes powering the models simplicity itself.

Secondly, and slightly more personally, we note that Paddington station, gateway to the GWR, is 150 years old this year. (By this we mean the current site, along Eastbourne Terrace, and not the original terminus.) Despite all that it has endured in the intervening years, Paddington still exhibits the grandeur that makes it the writer's third favourite London terminus (behind Waterloo and the incomparable, majestic, St. Pancras). We recall holidays starting at Paddington – platform 1 and the *Cornish Riviera*, of course – and inevitably ending there too, with the walk across 'the Lawn' to the underground home. So toast Brunel's statue next time you're there, and wish the place well. By sheer coincidence, as these words were being written we received a new history of the station: it is reviewed in this issue, on page 364.

Finally, the Big One: the National Railway Museum, along with many other sites up and down the country, will mark the 200th anniversary of the steam locomotive's first proven application, on the Penydarren Tramroad, in 1804. Richard Trevithick's ground-breaking machine (literally – it fractured many of the fragile plate rail sections) started the whole global railway ball rolling, and the achievement will be marked at the NRM between 29 May and 6 June. Don't miss it!

Details of this and many other railway attractions are given in our annual *Guide to Railway Attractions*, presented free with this issue. This year we have added an alphabetical index to the listings, enabling you to find your chosen site by name in addition to looking it up by its chief location town. There are many great money-off special deal vouchers, as usual, plus more photographs than we have been able to include before. Start planning your trips today!

David Jenkinson

As we closed for press, we heard the very sad news of the passing of David Jenkinson, the renowned railway modeller, historian, author and contributor to our pages, in his 70th year. We shall publish a full appreciation in next month's issue.



CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.
Published on the second Thursday
of the preceding month.



Railway of the month

Aireworth

The West Riding of Yorkshire in 3mm scale

Phil Kirtley describes this layout from the Keighley MRC.

Aireworth is a 25' x 8' layout built by the Keighley Model Railway Club's 3mm Group. From the start it was intended for exhibition and the lessons learned from previous layouts were incorporated, so the following objectives were established at the design stage:

- ✿ Main line layout to show the main advantages of 3mm scale i.e. more railway in a given space than 00 gauge, but without the fiddling of N. Maximum length of train ten coaches or thirty wagons.
- ✿ End-to-end and continuous running.
- ✿ Four-track main line, so that there would always be at least one moving train visible when exhibiting. Spectators soon lose interest when the action stops.
- ✿ Terminal station separate from the main line, so that station work can proceed without conflicting through trains.
- ✿ Minimum radius for curves and points 36".
- ✿ Capable of prototype/timetable operation, ie playing trains.

Background

Aireworth is the fifth in a series of 3mm layouts built by the author. I have to blame my father for introducing me to model railways, with visits to a long closed model shop in Leeds, coming home with Leeds Model Co 0 gauge rail, chairs, and the occasional wagon. Where father intended to have the layout was never made clear to me as I never saw any baseboards. The best we managed was to clip the track together on the carpet with added Hornby tinplate track, and clockwork locos.

I was also bitten by the railway bug about this time, being sent to my aunt's house in Surrey each school holiday. As the war was on at the time, and children were being evacuated from the home counties, I have often wondered since about my parents' motives! So I enjoyed long summer days watching 'Nelsons', 'Arthurs', 'Schools', the first 'Merchant Navies', plus 2-BIL, 2-HAL and 4-COR electric units. Since that time (apart from the period when I

thought girls were more fun), I have continued to be obsessed by railways real and model.

After I got married, I wanted to build a layout. Our small terraced house was obviously unsuitable for 0 gauge, so an alternative was sought. Tri-ang had just introduced TT and RAILWAY MODELLER was waxing lyrically about TT3 being the gauge of the future! So father's 0 gauge was swapped for a Jinty, several coaches, wagons and some Peco track, to be fixed to a 6' x 4' baseboard. A few years later, a move of house gave me an 14' x 17' attic, and the space to build a railway system. It would have to be in TT as this would give me more railway for a given area than any other gauge, without being too small. This is still the major advantage of 3mm, in my opinion.

This loft layout, about which I could write reams, lasted ten years, then an enforced house move resulted in a five year break from modelling, until my wife suggested that if I was unable to find space to house a layout at

Left: pioneer LMS diesel No.10000 emerges from the fiddle yard with an express.

Right: the continuous circuits cross the terminus roads by means of this long girder bridge. Local passenger and PW trains cross.

home, I should form a club and rebuild my layout there. An advert in the local paper, a notice in the local model shop, and the club was formed. That was 25 years ago and during that time several well known layouts have been produced by the club: *Leeds Road*, *Ravensbeck* in 0 gauge, *San Bernardino* in N gauge and *Warleggan* in OO. Two layouts have been produced by the 3mm group: *Airedale*, and the current *Aireworth*.

The club is unusual in several respects. It is housed on the top floor of an old woollen mill; it is overlooked by a preserved railway (K&WVR) and the club does not own any layouts. It only provides modelling space, heat, light and power for groups and individuals to build layouts. Layouts are organized, designed, and financed by the groups themselves, who work in friendly co-operation with each other. The 3mm group membership has changed over the years and at present has only two full time members, but is able to call on members from other groups for technical information and help at exhibitions.

Planning

I enjoy planning and layout design, so it was a pleasure to get out my old tee square and drawing board and start with a clean sheet of paper. It was decided to use 4' x 2' baseboards where possible, and for planning purposes a coach length would be taken as 8" and a tender loco 9", so that a nine-coach train with a loco at each end would measure 7'6". That gave us the terminal platform length including buffer stops of 8'. Terminal stations need as much again for the station throat where running round and releasing incoming locos has to be carried out. The curving exit from the station needed 3', with a cramped loco depot taking another 6'. Total: 25', as shown below.

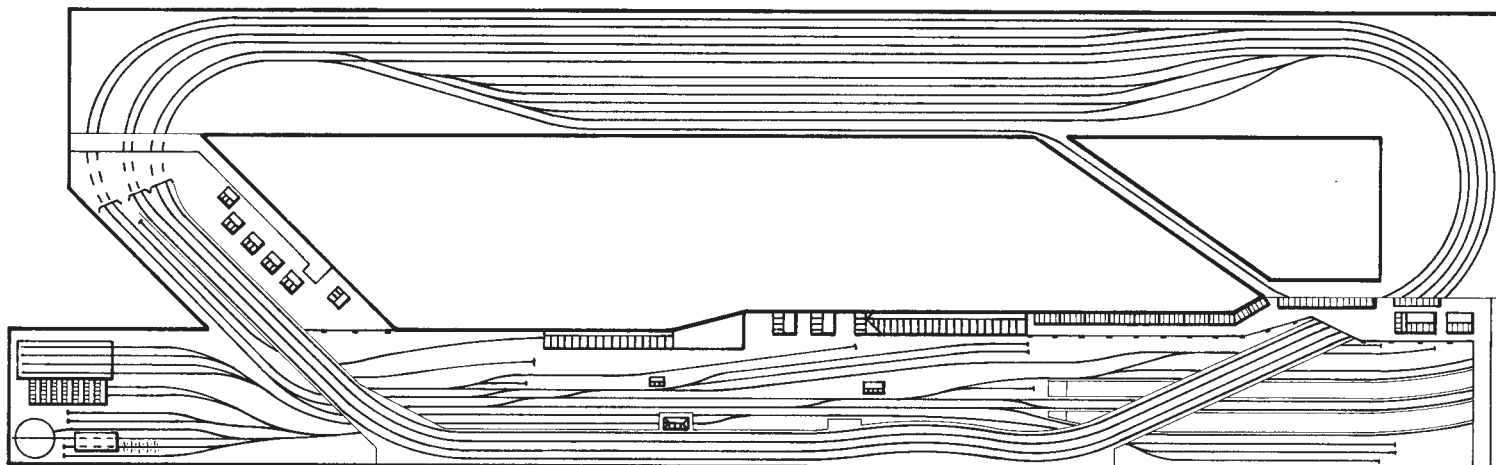
The width of the layout was to be two baseboards (8') which would give an operator well of about 4'. The fourth side of the rectangle was a long bank of six storage sidings each holding two trains nose to tail, plus an exit road, bounded by the four-track main line and the connecting line from the station.

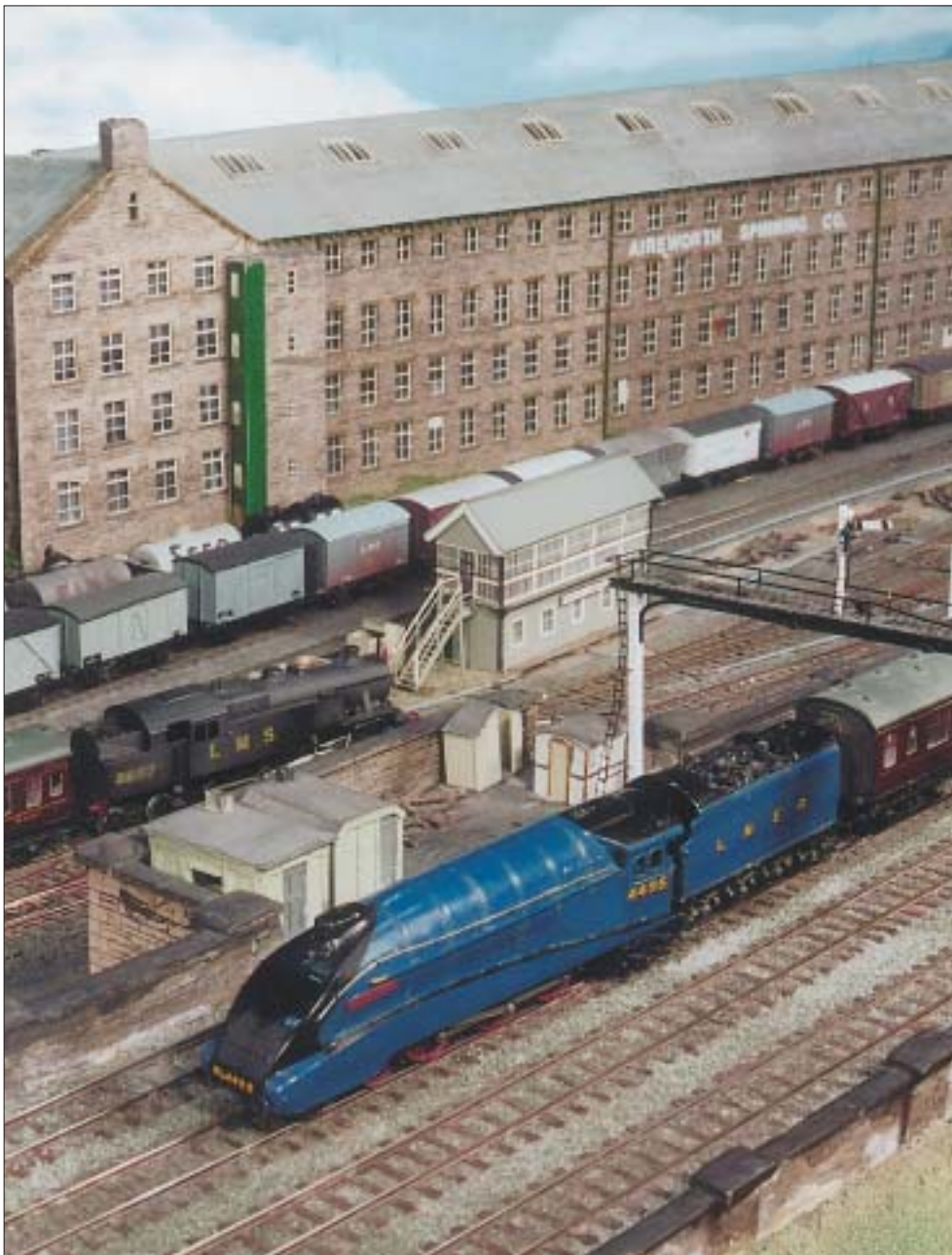


The elements of the plan were sketched out on a large drawing board and the detailed track layout was designed. At this stage it is easy to go over the top and fill every inch of baseboard with track and complicated pointwork. But remember, every point has to be hand built. Even if you enjoy making pointwork each point still has to be motorised/wired and maintained to prevent it becoming a potential source of derailments. Full size railways get by with the absolute minimum of points to handle the expected traffic so you do

the same, making sure that every one is essential.

The next step is to imagine operating the layout; think through the various station moves. Are the sidings facing the correct way? Can locos be released from incoming trains? Are headshunts long enough to hold a normal length train? Time spent 'mentally playing trains' is never wasted, it will ensure that you can operate the layout prototypically, giving greater interest and enjoyment to operator and spectator.





Left: Garter Blue 'streak' No.4495 Great Snipe – later renamed Golden Fleece – passes the spinning mill with Mk 1 stock in tow. Details of the structure modelling will be given in part two of this article.

Right: rebuilt 'Royal Scot' No.46137 The Prince of Wales's Volunteers South Lancashire rolls past Aireworth Town signal box and on the approach to the low-level terminus.

Photographs by Steve Flint, Peco Studio.

The plan was then drawn out full size using the reverse side of wallpaper and lengths of slotted angle iron were useful when drawing straight lines. This drawing showed all the features in more detail, enabling us to decide the most practical placement of points and point motors in relation to the position of baseboard joins and crossmembers, and ensuring that our self imposed radii for curves and points were maintained.

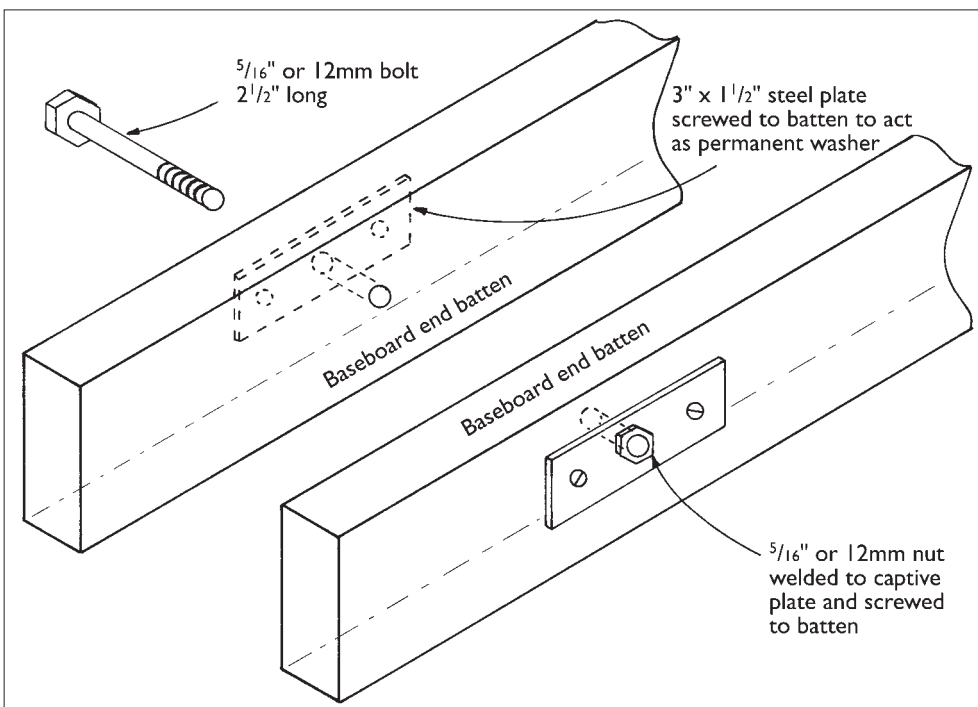
At this stage try to visualise the landscape in which the railway is set – city, urban, rural – and don't forget that the topography was there before the railway came. Think where embankments and cuttings will be needed, and where to site the railway buildings, access roads, houses, background landscape/townscape. Only when you have completed this last thought process is it time to start baseboard construction.

Baseboards

We constructed our framework of 3" x 1" timber for side and end members, with 2" x 1" crossmembers at 12" intervals (these crossmembers have 10mm holes, through which the wiring can be threaded) topped with plywood. The end members were cut to length and before assembly drilled to take $\frac{5}{16}$ " bolts and 3mm Society brass baseboard joiners (ref.KM14). The end members of (for example) board 1 and board 2 – which will eventually be connected together – were lined up, clamped in a vice and both drilled at the same time, so ensuring perfect baseboard alignment. Through these holes were placed $\frac{5}{16}$ " bolts into captive nuts, see drawing. Each baseboard is held tightly to its neighbour by 'over centre' catches screwed to the outside edge of the framework.

The use of plywood as a track base may seem odd, but we managed to obtain a supply of discarded wallboards *free* and they have proved to give as rigid a baseboard as chipboard or Sundeala but are much lighter, vital for an exhibition layout. Mounting point motors under the baseboard with small BA screws proves no problem and linkages are shorter and more positive than with thicker insulation boards, which incidentally we have found to sag. Yes it is very noisy, but we have learned to live with that. Each board has a leg on one end which folds up for transportation. The corner boards have a leg at each end, each leg having a metal stay, making the whole layout very secure.

Once all the baseboards had been made and erected, the full size drawings were transferred to the baseboard top and trackwork construction started.





Trackwork

All trackwork is soldered, using 3mm Society copperclad sleepers and code 80 rail, following the method laid down in the 3mm Society technical handbook. An excellent moulded trackbase was announced the week we completed the last length of soldered track!

A jig was made to facilitate the assembly of plain track with 124 sleepers per metre. At first it took 45 minutes to solder a metre of half track (one rail only fastened to the sleepers), but with practice we managed to speed up to 20 minutes per length. The most time consuming part was feeding the jig with sleepers.

Points

The formation and position of each point was taken from the baseboard plan and an accurate drawing made on thin card, using coloured pens for clarity, showing all rails, tiebars, crossing points, check rails, insulation gaps, and sleeper positions. Many points are grouped together (ie double junctions, crossovers, slips and switched diamonds etc.), so in this case the whole complex was drawn out and built in one assembly ensuring alignment of each component. The drawing was mounted with masking tape onto a suitable piece of chipboard, or MDF, on which the point was to be constructed.

I use a Black & Decker Workmate™ as a bench for pointmaking, seating myself at one end so that I can use the jaws to clamp a small hand vice in which the crossing rails and switch blades are filed. Sleepers and crossing timbers were cut to length and glued onto the

drawing with white PVA woodworking glue following the plan. Stock rails were cut to length and ends cleaned up with a file. Where the switch blade meets the stock rail, a small amount was filed away from the head of the rail and the flat base undercut for about 40mm to ensure that the switch rail fitted snugly alongside the stock rail.

I always cut the stock rails about 3" longer than the length of the point, to avoid a rail joint immediately before the toe of the point and to give a smooth lead in from the plain track. When I am completely satisfied with the finished stock rail, solder paint is applied to the flat bottom of the rail and the relevant sleepers. A steel straight edge is pinned in position with large headed map pins, and the stock rail pinned firmly alongside it ready for soldering.

The points were built exactly as described in pages 13 to 16 of the 3mm Society handbook, except that for the heel hinge I used a Peco N gauge rail joiner cut in half and soldered to the closure rail. I also soldered an extra tiebar about 10mm forward of the switch blades at the toe end to strengthen the switch blade unit. Once the point was complete the insulation gaps were cut in the copperclad sleepers. The point was removed carefully from the chipboard base and immersed in soapy water, dissolving the PVA adhesive and releasing the now redundant drawing. Then it was scrubbed to remove any traces of solder flux. I then cut the insulation gaps between the wing front/closure rail and checked the insulation of the point sections.

These points have live frogs (crossings)

which need to be fed through a changeover switch from the relevant stock rail. Whilst the points were being built, Peter Langthorne, another member of the group, was churning out yards and yards of plain track. Between us we made all the track and points – approximately 170 yards – in two months!

Laying the track

1/16" cork sheet was used as track sub-base, glued with PVA to the plywood baseboard, using the full size drawing as a template. The points were laid before the plain track, following the full size drawing. These were glued down with PVA (avoiding the tie bar area) and weighted down whilst the glue set.

Once all the points were in position, the plain (half) track was glued in place. Before the glue set, I lined up the track by eye ensuring smooth transition curves without kinks, and really straight straights. Large headed map pins were used to hold the curves in place and various lengths of slotted angle iron acted as straight edges: weights and drawing pins held the sleepers firmly down whilst the PVA adhesive dried. At the baseboard ends 1/2" wide copperclad strips were glued and screwed to both sides of the gap, to act as an oversize sleeper (instead of the normal sleepers), and the rail was soldered across the gap.

When the glue had set, the second rail was soldered in place, using roller gauges and a 75w iron. When eventually all the track was finished, all the section gaps were cut with a cutting disc, and all the electrical sections were checked to ensure that they were insulated



from each other. As some of these sections were very short, the position of each was marked on the baseboard, and labelled to correspond to its description in the wiring diagram.

Wiring and control

We use a simple numbering system which gives each track section, point motor, and point frog a unique number/letter to identify it. Each terminal on every relay, etc. is given an identifying letter/number, which with colour coded wiring keeps track of the wiring.

My old friend and fellow 3mm member David Payne offered the following advice: colour code every circuit and note it down in a book; allow twice as much time for wiring as anticipated; do all the wiring yourself as it shows you are responsible and must be able to put a fault right quickly and correctly; take spares, a soldering iron and a circuit tester to exhibitions. I would add: label each wire where it comes through to the underside of the baseboard; use a simple numbering system to identify each wire, terminal, frog, track section etc. and label it.

Beside each terminal block, point motor, switch we have glued a label showing where each wire goes. For each baseboard I made rough drawings showing the track layout, wiring layout and terminal description before wiring started, following and amending as wiring proceeded, I made a neat copy which I filed in a loose-leaf book as each board was finished.

We used a mixture of Peco (which with its

Above: view across the terminus platforms as 'Royal Scot' No.46137 arrives on an express. Alongside, having worked in from the SR, is 'Merchant Navy' No.35028 Clan Line.

Right: scrapyard, semis, and steam in abundance, from 'Pug' to 9F.

add-on over-centre locking base and changeover switch we find very positive and reliable), H&M (which need the addition of a microswitch to overcome the unreliable built-in switch) and home made point motors. Wiring the baseboards was done one at a time. First all the track section feeds were soldered to the rails and the wires threaded through the baseboard and labelled where they appeared. Then the whole baseboard was mounted on edge in the Workmate, so that the rest of the wiring could be done in comfort.

The point motors were mounted first and fitted with changeover switches, then they were wired to 'chocolate block' connector strips screwed to the crossmembers, along with any local track section feeds, labelling each terminal as we went. At each end of each baseboard similar strips were mounted to take all the wires which needed to cross to the adjoining board; this was wired to a large multi-pin plug/socket. Each terminal strip was then connected to each other as required, wires were routed neatly into harnesses and bound together for strength. This was where the pre-drilled holes in the baseboard crossmembers came in handy.

When all the boards had been wired, the control panels were made and fitted.

Control panels

Four control panels were built: passenger station, freight yard, loco depot, and main panel. Each has a copy of the track diagram, onto which three-position single-pole changeover switches and push buttons for point switching were mounted. The passenger station, goods station and loco depot controllers were built by group member Les Goater. They are linked to offer cab control to any section of track in the station area when required. Point control is via push button route setting through relays. The MPD and station point motors are fired by a powerful capacitor discharge unit. In the case of the loco depot a modified form of electric pencil is used, comprising two screws through the control panel, one of which is live. Its neighbour is connected to the relevant point motor through a diode matrix. The operator wears a metal thimble to bridge the two screw heads.

The main panel controls all movements on the four-track main line and in the storage sidings, through five electronic controllers made originally by David Payne and rebuilt with added overload protection by Les Goater. We have fixed the guts of the controller to the base of the control panel, and slider variable resistances together with reverse switch and overload lamp are provided in the control panel diagram on the line they control. Point control is by on/off toggle switches giving route setting through a diode matrix.

The point motors are ex-PO relays which have an extension arm soldered to the armature which is connected to the point tiebar.

When energised the point is reversed; a light spring returns the point to normal. The original relay contacts are used to switch frog polarity. They are best suited to above-baseboard mounting, and where a point is only reversed for a short time. They are a bit fiddly to set up, but once installed will outlast all other types.

On the continuous circuits and in the storage yards, all trailing points are un-motorised. The point blades were either cut back or left free to move, which causes much comment from visitors who warn of imminent derailments, and are surprised when disaster does not strike.

Each control panel has its own power box placed on the floor below the control panel housing all transformers and rectifiers for powering track, points and relays. Warning lights are wired into the transformers to show that we have output and to signal any failures. For the input side 240v neon warning lights are wired, to prove that the mains is switched on and earthed safely. Each power box has a spare 13 amp socket wired in for emergency use, and take off point for layout lighting. A large harness connects each power box to its neighbour with a trailing lead to the mains supply. This arrangement keeps all 240v mains wiring safely on the floor.

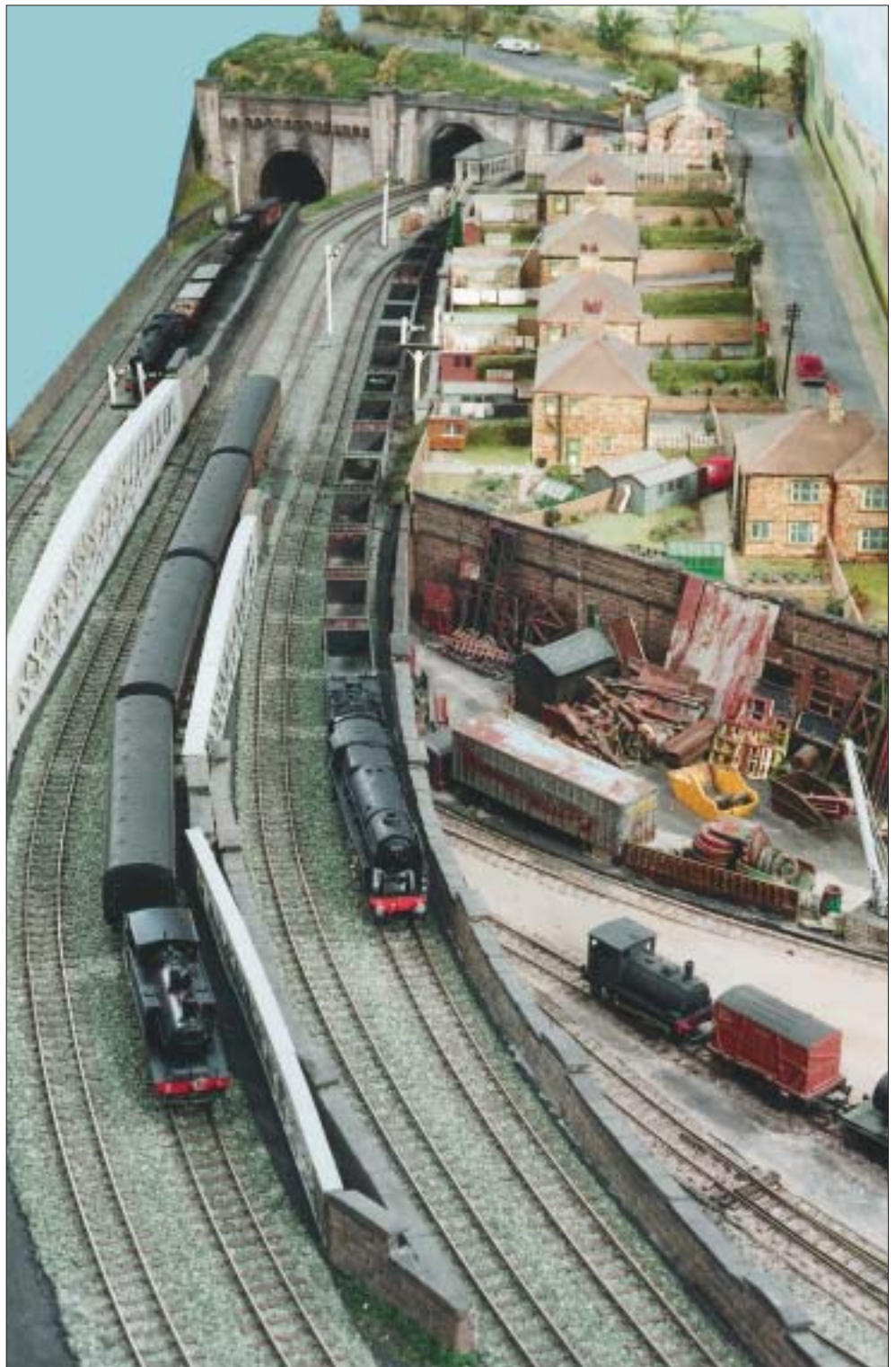
Although we checked all the wiring as we went along, there were some items that we could not test until we had finished. Tracing all the faults was horsework, taking ages. Dry soldered joints and insulation gaps too narrow were just two of the problems which, once found, took seconds to correct. It was at this stage that our motto was coined: 'we never cease to be amazed by the brilliance of the design and the mediocrity of the workmanship'.

Ballasting

Before painting, the point blade/tiebar assemblies were removed, labelled and put to one side until painting/ballasting was completed. The track was sprayed dirty matt brown using a car primer aerosol. The strip to each side of the cork track base was painted matt black to represent the cinder track foundations.

For ballast we used the smallest size of granite chippings available and found that the easiest method was to sprinkle a little at a time, gently brushing the particles between the sleepers with a variety of paint brushes – making sure that the sleeper tops were clear – and brushing the edges into neat lines parallel to the track.

Fixing was done in the usual way, first by spraying the track with water containing a few drops of detergent, then gently trickling dilute PVA glue over the ballast. When dry, we brushed off any surplus, then marked any bald patches with pins (as we wouldn't have known where they were when we wetted the area again) and re-glued. Tiebar gaps were cleaned out, the point blades replaced and the point tested. We found that with trackwork secured in this way, it was possible to salvage track and points from previous layouts for reuse. In order to do this we simply soaked the required area with water and covered with a



wet cloth to keep it moist whilst the glue dissolved, unsoldered the track feeds, and gently prised up the required track.

Scenics

Aireworth is a fictitious industrial West Yorkshire town, so the model is mostly of the town station area, with townscape background of semi-relief buildings and stone retaining walls. All the buildings, with few exceptions, are modelled on local prototypes. The only rural area is a short road of semi-detached houses built on a foundation of polystyrene tiles, stepped so that each house is slightly higher than its neighbour.

The ground is a mix of DIY filler and brown poster paint (burnt umber) applied with an

old knife. Sieved and dried tea leaves were used for soil. Green flock powder sprinkled on dilute PVA glue formed lawns, and walls were made from brick papered foam draught strip, whilst paved areas were made using embossed plasticard. Gates were built from microstrip. Roadways were modelled with 400 grit wet and dry emery sheet and plasticard pavements. Garages, garden sheds, cold frames and so on were copied from our neighbours' gardens and made from plasticard (cauliflowers, for example, were produced from small map pins painted green with a white spot!). Clothes posts were made from metal tube, and non-sag washing lines from wire, piercing the card walls of the houses.

The tunnel mouths at the back of this section are models of Beacon Hill Tunnel at Halifax (L&Y) and Totley Tunnel between Sheffield and Manchester (MR). Both were made from sugarboard covered with Superquick 4mm scale stonepaper (ref.D12). Sugarboard is used for shop displays: it has 3mm of fine-grain rigid foam material sandwiched between two sheets of 0.5mm card, superb for reproducing masonry. Cutting lines can be marked on the card face, the board cut to size, the surface card removed, and the foam surface can be embossed with a dry ballpoint pen to represent mortar lines. It will take emulsion and water colours, it is very easy to carve and cut with a modelling knife, it is as light as expanded polystyrene yet rigid. Visit your local downtown shopping centre and you may well be able to pick up a lifetime's supply of discarded sugarboard, clear plastic packaging and display card of various thicknesses for buildings and backscenes.

Backscenes are 12" wide sky painted hardboard with printed backscenes which we have amended with water colours to make them fit in with the foreground. Where these featured buildings, we cut them out, mounted them on card and placed them 1/4" forward of the back scene, in a different position from the original print which improves the effect and makes them less recognizable as commercial prints.

The scrapyard was copied from one at Shipley where it is possible to photograph from an overbridge. Skips were made from plasticard and filled with strands of copper wire; piles of light iron were represented by leftover plastic kit parts; old Matchbox cars; all were strategically placed and painted, to follow the organized chaos of the real thing. With all the scenic items we found it easier and got more realistic results to take colour photographs and copy the real thing, rather than try and work from memory.

Rolling stock

When we first started exhibiting *Aireworth* most of the rolling stock was of Tri-ang origin. Since then there has been a continuing programme of stock improvement and replacement with 3mm Society kits and scratchbuilt items. We realised the need to standardise wheels and couplings. Metal wheels supplied by the 3mm Society have replaced all the Tri-ang versions on the coaching stock and on most of the locos and wagons. Couplings are all the Tri-ang type which we feel are the most robust and reliable.

The majority of the locomotives boast Tri-ang chassis with Bec and GEM white metal bodies plus scratch built bodies on modified chassis. These are being replaced with scratch-built locos and 3mm brass kits.

We have over sixty coaches, mostly from Kitmaster with some scratchbuilt, plus Worsley Works products on scale and Tri-ang bogies with Society steel wheels. All have added interiors and corridor connections.

There are over 200 items of freight rolling stock, a few of which are repainted Tri-ang models which have had their steel axles replaced by a pin, and been provided with





PTFE bearings. The rest of the freight stock is from the 3mm Society kit range. Many have had loads and sheets added.

We are striving to have only those items of rolling stock that would have been in West Yorkshire in the 1960s and have a building programme that includes the following:

LMS Fowler 2P 4-4-0, 2-6-4T, 4-6-0 Patriot, Stanier 2-6-4T, Black 5, 8F, Ivatt 2-6-2T.

LNER Peppercorn A1, Gresley A3, Thompson B1, Robinson J11.

BR 9F 2-10-0.

Until we can complete this programme – which could take several years – our Tri-

ang/Bec/GEM loco stud will have to cope. So if any 3mm member fancies the job of CME please apply.

Also if any member sees us at an exhibition, please make yourself known to us. We will be pleased to see you and let you have a go. We are quite happy to mix regions and periods at shows so if you have any locos or rolling stock that you would like to run, we will do our best to accommodate you. The general public, which makes up more than 50% of visitors at exhibitions, wants to see trains run, and very few of them would quibble at seeing a Railfreight liveried Tri-ang Class 31 with coal

sub-sector markings hauling twenty PO wooden coal wagons providing it was moving.

Exhibitions

A team of at least six people is needed to get the layout to a show and four operators to get the best out of it, although it can be run by only one person if need be.

We have made slotted angle racks on castors into which the baseboards are securely placed. These racks load in to a Luton-bodied Transit hire van, together with all the other kit. It takes about four hours to set up, more if we can get it, and less than two hours to pack away. The rolling stock takes more than an hour to set out and pack up.

We thoroughly enjoy showing; it is a chance to play trains, there is usually a super social atmosphere and it is quite a thrill when visitors make complementary comments. None of this would happen but for a super team of helpers who kindly give their time to put the layout on display. *To be continued.*

Top left: 'Britannia' No.70054 Dornoch Firth overtakes a DMU as they race out of the high level tunnels. At a more sedate pace, ex-North Eastern Class B16 4-6-0 No.61440 has charge of a fitted freight.

Above: two BR Standards rub shoulders with pre-nationalisation and pre-grouping locos on the motive power depot.

Left and far left: two more scenes around the depot. Sentinel railcar Swift will not stay this clean for long here!



CRICHEL – part one

Rural industrial in 0-16.5

Roy Wood describes the narrow gauge line which grew out of Cranborne Joint.



We are a lucky lot we railway modellers. Not only do we get lots of satisfaction from building and operating our models, those of us privileged to do so get to take our models to exhibitions and share our efforts with others.

During exhibitions, I receive both questions and advice but one particular question I frequently get asked when operating 28' long *Cranborne Joint* (RAILWAY MODELLER May & June 2001) really bugs me. 'Where do you keep it?' Well, that is the rub. I do not have space to run it at home. In fact *Cranborne Joint* lives packed away and only gets operated at exhibitions. Not only is this very frustrating, it also makes it very difficult to carry out maintenance or development and, as regular viewers may recognise, despite operation being heavily choreographed, all the regular operating team (particularly me) find it easy to forget moves when we have not operated for a while.

For a long while I had promised myself a railway that I could operate at home. Lots of ideas had been considered but matters finally came to a head late in 2000 when the Gauge O Guild announced a competition for minimum space layouts. Entitled *Layout 2002*, entries had to conform to some minimal rules: be previously un-exhibited, be built to any of the recognised 7mm/ft or 32mm gauge combinations, have a maximum of 2002 square inches of viewable area with at least one oper-

ating turnout, and be ready to exhibit at Reading in spring 2002. Here was my motivation.

Of these rules, the trickiest was without doubt being ready in time for Reading. Fortunately, the rules were revised making the target Telford in September 2002. It was still touch and go and I will not readily impose such a deadline on myself again! When the competition was first announced, 18 months or so seemed to be plenty of time but it disappeared extraordinarily quickly. I have a photo dated March 2001 showing a heap of pre-cut ply ready to start. Even though building *Cricchel* was hugely enjoyable, it seemed to consume inordinate chunks of 2002.

The design

Finalising the design was a fairly quick process. I had an idea what I wanted to do even before I started. I have always loved narrow gauge railways so a development of the narrow gauge watercress line on *Cranborne Joint* seemed to be an obvious choice. It had to be industrial but rural, based near where I live in Dorset. Not for me grimy factories, mines and gravel pits, much as I like models of those. I also knew the railway had to be on fairly narrow baseboards and that I wanted an eye-level track height. The layout had to have some real operating potential and there had

to be view blockers where trains ran behind buildings and trees, but I did not want the view spoiled by supports for the lights. A standard gauge link was also a must, partly to emphasise that the layout was built to 7mm/ft scale and not 4mm. Even so, I still get asked why the people are so big!

An immediate problem to overcome was how to make the layout stable. A long, narrow but tall model (baseboards are 14" wide and, with a track height of 55", the overall height is over 6') is asking for trouble. One heavy sneeze, or more seriously a member of the public stumbling against it, and the whole thing might topple over – not the best reason for hitting the headlines.

Radical ideas such as having a semi-circular design were eventually ruled out because of difficulties building, transporting and storing the finished thing. An 'L' shape seemed most logical and practical.

I knew that I wanted to present the railway in a box preventing the typical 'helicopter' view and, indeed, control to a large extent the viewing angles for both spectators and operators. *Cricchel* operators have a great view, sitting on tall stool/chairs. Our eyes are just a bit above track level; almost perfect! I realise and regret that wheelchair users do not have a chance of seeing the railway properly but I can not think of a practical way around that.

Opposite: the engineering premises of Thomas Sanders provides traffic for the line.

Right: the occupier of the cottage takes a well-earned rest from chopping logs as Sarah and train disappear behind him through the brick gateway into the grounds of Crichel Estate.

Below right: the train eventually reaches an unusually deserted Witchampton. The arrival of the train is obviously not sufficiently remarkable to attract the attention of two locals deeply engrossed in conversation.

Bottom right: freshly delivered pigs await unloading at the premises of Crichel Pork Products.

Small children are usually offered one or both of the chairs on which they can sit or stand. They, and adults, often get the chance to operate too! It was intended that having all lighting etc. integral would allow very quick set up and knock down times. Indeed, *Crichel* can be set up and running within about ten minutes although, in practice, it takes an additional ten minutes or more to fix the stays on the legs at exhibitions. I do not usually bother at home. Another big bonus is that the relatively small size of the baseboards and the lightweight construction allow me to carry the layout and load the car single-handed, a big improvement over *Cranborne Joint*.

One important issue to be resolved was that trains of watercress had to travel to the beds unloaded and return to the packing depot full. It is still a source of minor irritation to me that I can not do this on *Cranborne Joint* necessitating loaded watercress wagons shuffling back and forth. The 'out-and-back-by-a-different-route' technique adopted on *Crichel* seems to work quite well in practice.

Construction

The three baseboards and two small fiddle yards are constructed from 6mm ply with 9mm ply ends. The two sections with different track heights are of open construction with side girders made from two layers of ply separated by pieces of 1" square softwood and are probably the most complicated things I have ever made. The third one is a more conventional flat-topped design although the hidden rising return line for the watercress added an extra complication. Well braced, pinned and glued with PVA, they form an extremely rigid structure with minimum weight. The top, back and ends completing each box are made out of 4mm ply.

Baseboards and tops are aligned using pattern-makers' dowels. I had been coming under friendly but relentless pressure from members of *Cranborne Joint's* regular operating team to adopt this system of alignment. It is so simple and reliable that I now wonder why I did not use it before. We live and learn!

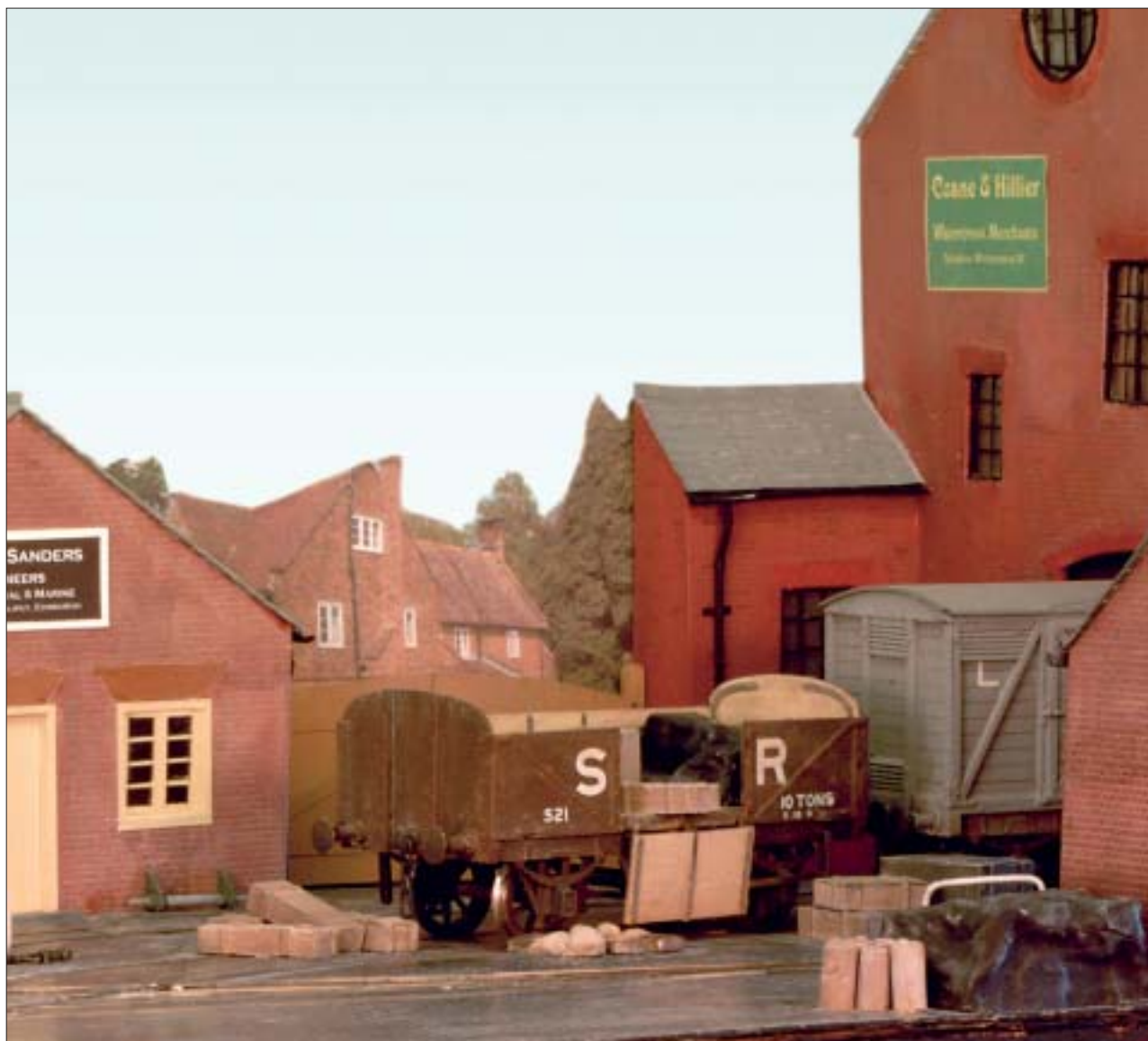
Legs are an experiment and are also of very lightweight construction. Pairs of 1" square softwood legs braced together slide into sockets built into the underside of the baseboards. So far they have been very successful and certainly rigid enough for use at home with no additional fixing. At exhibitions, they are bolted and braced, just in case!





Below: standard gauge wagons waiting outside Coane & Hillier's premises for their next loads of watercress.

Bottom: Thomas Sanders and the manager's pride and joy, a Mk. 9 Sunbeam motorcycle, is parked outside.



At 20" long, the two fiddle yards really are about as small as you can practically have in 7mm/ft scale. The left-hand one, representing the Crichel valley, has a simple two-road sector plate and is used for minor reorganising and reversing trains. The right-hand one is much more complicated and fits a lot in its small size. Representing the continuation of the line to Witchampton standard gauge station, it houses the turntable for exchanging full and empty watercress wagons, general stock storage and a sector plate giving access to three loco storage roads. Both yards are made from conventional flat-topped boxes well braced and with reinforced joints. They are not provided with support legs but are cantilevered from the adjoining section.

Lighting is by five small tubes hidden behind the pelmets. Power for the lights and controllers is provided by a single power lead. A hefty transformer with twin supplies is fixed under the layout. Additional power for the



turnouts is provided by a switch mode PSU bought for under £10 from a surplus suppliers.

There are two control positions, one each end of the layout. I use hand-held controllers and have various makes but much prefer my two Pentrollers which seem to offer a quality of smooth running that my others do not quite match. The left-hand operator usually controls the Crichel valley and watercress lines but all sections of the layout can be switched between either control position by mini DPDT switches. The wiring, although basic, is still surprisingly complicated for such a small and simple layout. Connections between baseboards are by 25-way computer D-plugs and sockets. Having only two connections, the left-hand fiddleyard's connection is made purely by the locating dowels. Fiendishly simple!

Forming the scenery presented me with a problem I had not faced before, namely overcoming the empty spaces between the trackbeds on the open baseboards. I used card from old cereal packets woven and glued together with a hot-glue gun to form a surface supporting a thin layer of plaster bandage. The resulting rigid structure was painted a general earthy brown colour and covered with teased out felt intended for sound deadening in cars. Scenic materials from Green Scene and Woodland Scenics were then applied to this. I have gathered twenty or thirty different colours and textures all of which have been used somewhere or other in order to represent different types of foliage. Trees have been fabricated from bunches of gardeners' iron wire taped together then covered with hot gun glue to form the bark. After painting, foliage netting from the sources previously mentioned was used to complete them.

The buildings, largely based on local prototypes, are mostly ply shells covered with Howard Scenics embossed brick card. The stone setts in the yard are also Howard Scenics. The warehouse sheds next to Sanders Engineers are ply covered with Wills 4mm scale corrugated asbestos sheeting which is pretty convincing as corrugated iron in 7mm

scale although the edges need some work as the sheets are quite thick. The small rendered cottage at the watercress transfer sidings is ply covered with DAS. Fine foliage, such as that growing through the cottage garden fence is formed from teased out hair used in theatrical wigs. Hedges are teased-out rubberised horse-hair covered with yet more varieties of scenic dressing materials.

Detail fittings are from a variety of sources. Some are scratch built. Most are from the excellent range produced by Andy Duncan with other items from PLM Castaways and S&D Models.

A first for me on *Crichel* is the use of detailed backscenes. The exposed eye-level 'main line' in particular just looked totally naked without something to fill the gap between the railway and the blue backscene. *Crichel's* backscenes are digital photographs I have taken locally and printed myself.

Digital photography is an obvious technical advance offering great potential but I think we often take for granted some of the apparently

simple advances that allow us to make models more easily. Of these, one of the most important must be improvement in the quality and availability of adhesives. Many older readers may recall in their childhood, as I do, trying to make the cardboard models cut out from the back of Cereal packets using only Lepage's gum. It was almost worse than useless. What we would have given for even UHU never mind PVA, superglue, contact adhesive, Pritt Stick, Araldite and hot glue guns. Just about everything on *Crichel* is held on with either PVA or hot gun glue.

To be continued.

Above: later in the day, Sarah hauls a short train up the valley. Syd's driver has uncoupled three watercress empties from it and waits patiently on his locomotive as Sarah pulls away with a solitary passenger coach.

Below: the load of three watercress wagons, an empty pig wagon and a van should not present too much of a problem.

Photographs by Len Weal, Peco Studio.



Storage of club layouts

When premises are shared, the question of storage arises

D.H.Berry reports on a solution to a common problem.



Like a lot of clubs, the Anker Railway Modelling Society (ARMS), which is based in Nuneaton, is a small group that rents its club-house for evening meetings. In our case we meet weekly in a local church hall.

Unlike clubs with their own permanent premises, our club layouts have to be erected and dismantled each club night. Our big problem is that of storage – where do we keep all the boards without damaging them?

The hall has a stage at one end with opening double doors to give access to the understage area, and for many years we pushed and pulled to get everything into the space. This lead to accidental damage and aching backs; there must be a better way of using the space!

We eventually had an idea – since we are after all a railway society, why not make a track under the stage and run a flatbed truck on it? The basic idea was gradually knocked into shape, and the club's procurer-in-chief (Roger), turned up with old wooden display boards, wood offcuts and wheels.

The gauge was an arbitrary 21" and the length was the full depth of the stage, about 15'. The track base consisted of thin hardboard and ply sheets to which the 2" x 2" rails were screwed; once assembled on the open floor of the hall it was slid carefully right under the stage. Younger members proved very useful at this point, since final adjustments were needed and the brittle backs of us older members couldn't cope. At the far end of the track a cross-member was fitted with a pulley around which would be looped a length of rope to assist in pulling the wagon to the full depth of the stage. This was again an idea to reduce the effort in bending low to push and pull a loaded truck into place.

The flatbed truck started out as two units

but we soon realised that one longer unit would suffice, provided we fitted sufficient wheels.

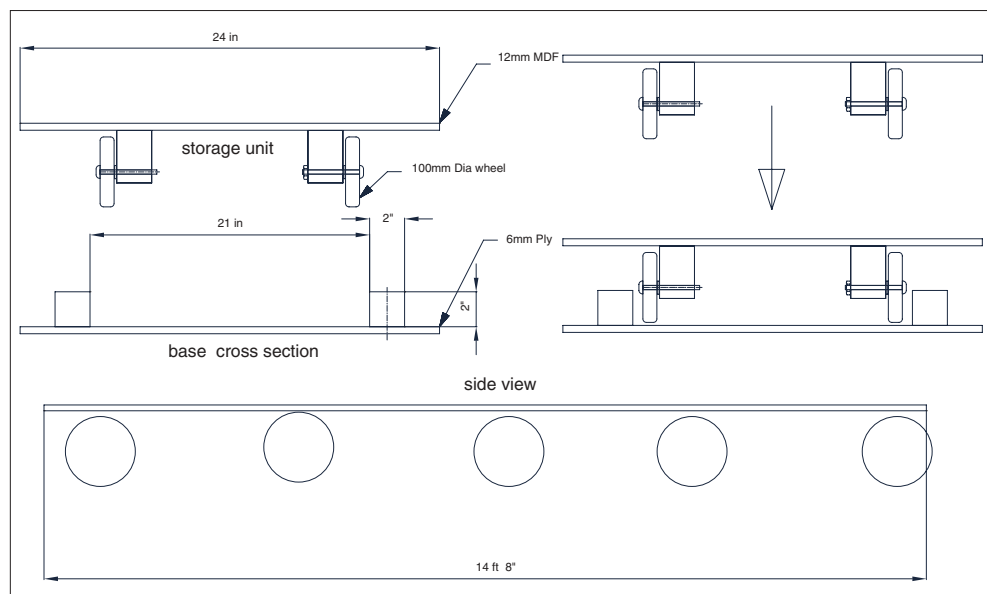
It was constructed of two parallel longitudinal lengths of wood and several cross members to act as the chassis, this was then covered with 12mm MDF cut to size courtesy of the local DIY store. We ended up with ten 4" wheels running on coach bolts fitted to the chassis. The stage door aperture is 21" high x 4'9" in width, therefore the truck height was kept as low as possible so that there was sufficient headroom for the backscene structure.

The final dimensions of the flatbed are 2' x 14'8".

The drawing below shows the salient dimensions, which of course can easily be modified to suit other installations.

We now have a system of making maximum use of the storage area; we currently store the three boards of our 4mm layout, plus the three that make up the 2mm layout currently under construction. In addition there is space for odds and ends, lengths of wood etc. It is all readily accessible, and we no longer have to send our younger members into a black hole to pull the elusive board out. We haven't weighed the items which are regularly loaded onto the wagon (it might scare us!) but it is substantial and only limited by the available space. The system has been in use for over two years, and the only change we would make is to dispense with the pulley and return rope – it isn't really needed.

One last thing – how do you stop mice eating the scenics?



Finishing the Tower Prairie

A step-by-step guide to painting and lining the 0 gauge brass RTR 45xx

By **Steven Lewis** and **Eddie Fisher**

In January this year Tower Models introduced a ready-to-run GWR 45xx 2-6-2T Prairie tank locomotive in unpainted brass. As supplied, the locomotive features a highly detailed body with excellent rivet detail, full backhead, compensated chassis powered by a Canon motor and even includes couplings and sprung buffers. What's more, you get all this for £399.99 – that is a little more than the cost of a kit for the same prototype. This article details how to strip the locomotive down to its basic components, cleaning the parts, priming, painting and lining.

History of the prototype

The 45xx was introduced in 1906 from a design by Churchward which was a development of the 4400 class fitted with larger wheels. Used extensively on branch lines, the 45xx was a versatile mixed traffic locomotive. Seventy-five locos were built and during GWR days a number of modifications were carried out including extending the bunker, fitting steam pipes and a superheater. The first thirty locomotives (4500-4529) were basically identical to the last 45 locomotives, differing only slightly. The 45xx was a long-lived locomotive with seventeen locomotives still being in service in 1961. Three locomotives are preserved, these being 4555 (South Devon), 4561 (West Somerset) and 4566 (Severn Valley). Later developments include the 4575 (introduced 1927) and the 55xx class introduced as late as 1953, which were used for push-pull work. The small Prairies were classified by BR as 4MT



Above: the Tower Brass Prairie as supplied, fully built and ready-to-run.
Photograph: Len Weal, Peco Studio.

tanks. It is not the intention of this article to give a detailed history of the class but suffice it to say there are plenty of books available giving full details of this superb workhorse.

Background to the model

In 1996 Bachmann introduced a range of RTR brass BR Mk 1 coaches. This was an interesting first for Bachmann for a number of reasons. Firstly Bachmann had not produced any British outline 0 gauge models before. Secondly Bachmann didn't actually make them. They were made in a Chinese brass-works that manufactured models for a number of companies in the States.

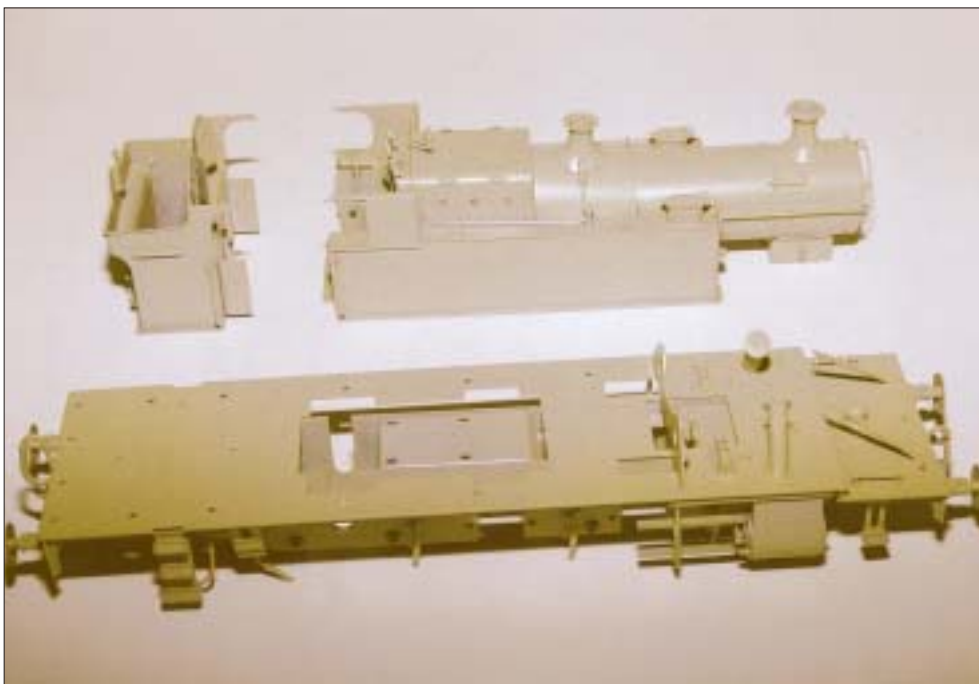
Below left: only six screws need to be removed to drop the pony trucks and remove the body from the chassis.

Graham Hubbard, managing director of Bachmann Europe PLC had worked closely with the Chinese to produce a range of eleven BR Mk 1 coaches which were supplied ready-to-run in unpainted brass requiring only interiors, painting, lining and lettering to complete. They were an immediate success and Bachmann went on to develop a range of locos, coaches and wagons over the next few years. The range included Class 08, 24, 25, 101, 106 and 122 diesels, MEAs, HEAs and four petrol tankers along with a J94, 4F and a still to be released Crab.

In 2002 it was decided that as Bachmann was such a diverse company producing models in N, H0, 00, On30 and G that little time could be given further to develop this range. Graham decided to hand the marketing and development over to a specialist. Tower Models with 25 years experience as both a retailer and manufacturer of 0 gauge was an obvious choice.

David Brewer of Tower Models immediately set about re-issuing many of the now sold out Mk 1 coaches and in 2003 introduced the first new models in the range, these being a Super BG full brake and a GWR B set. The next step was to bring out a locomotive. Garden Railway Specialists had already developed a 45xx in standard G gauge manufactured in the same Chinese factory. GRS was good enough to let Tower Models use its research to produce the locomotive in 0 gauge. Tower is very grateful





Left: cab roof removed, body and bunker separated and the chassis stripped down. All parts have been sprayed in car undercoat.

Below: another view of the body and chassis parts, showing backhead, in undercoat. The steam pipes can be clearly seen in place.

Photographs by the authors.

for this assistance and hope to re-pay the favour in future by sharing some of its forthcoming projects with GRS. Tower is currently working on a GWR 57xx Pannier and an LMS Jinty for release in the next year or so. Tower has asked to have noted their appreciation for the help they have received with these projects from Birmingham Railway Museum.

The model

Steve Lewis pre-ordered the 45xx when it was first announced in 2003. He confirmed his order in January and took delivery a few days later. The locomotive arrived safely packed in a brown cardboard outer box. Opening this revealed a good quality red cardboard box. This in turn was foam lined and inside this a well made inner box which exactly fitted the locomotive. With this much care it is not surprising that the model arrived safely.

Removing the locomotive from the box revealed a very well finished and spotlessly clean model. Virtually no trace of excess solder could be found. Nothing was loose or bent and the locomotive looked like a quality build. Next came a quick track test. Straight out of the box and without any lubrication the locomotive ran very well from the word go. It ran happily around 6' diameter curves and through a crossover formed from two Peco points. One siding had a 5' radius curve and this caused no problems either.

Four coaches were then coupled to the loco and it pulled them smoothly around the track. The layout has a one-in-twelve incline and even this did not slow the locomotive much. Very happy with the purchase Steve now decided to turn to Eddie Fisher for some help with finishing the loco.

Dismantling the loco

It took Eddie very little time to break the locomotive down to basic sections ready for painting. What follows is a description of Eddie's method. It rapidly became obvious to Eddie that the construction of the model would lend

itself to dismantling into suitable pieces. The cab roof could be removed, the body could be separated from the footplate, and the bunker complete with the rear of the cab could then be detached from the body (making painting the backhead much easier). This would allow easy painting of the remaining sections and simple reconstruction.

At this point a second Prairie was obtained and Steve and Eddie each found their own way of doing things. Eddie is a very experienced modeller and wanted to obtain the best possible results. Steve wanted to find a quick and easy way. Both methods are now detailed and the reader can decide which way he wishes to proceed.

Dismantling the chassis

Turning the locomotive upside down, remove the bogie and pony trucks. The body is fixed to the chassis by four screws. Remove these and

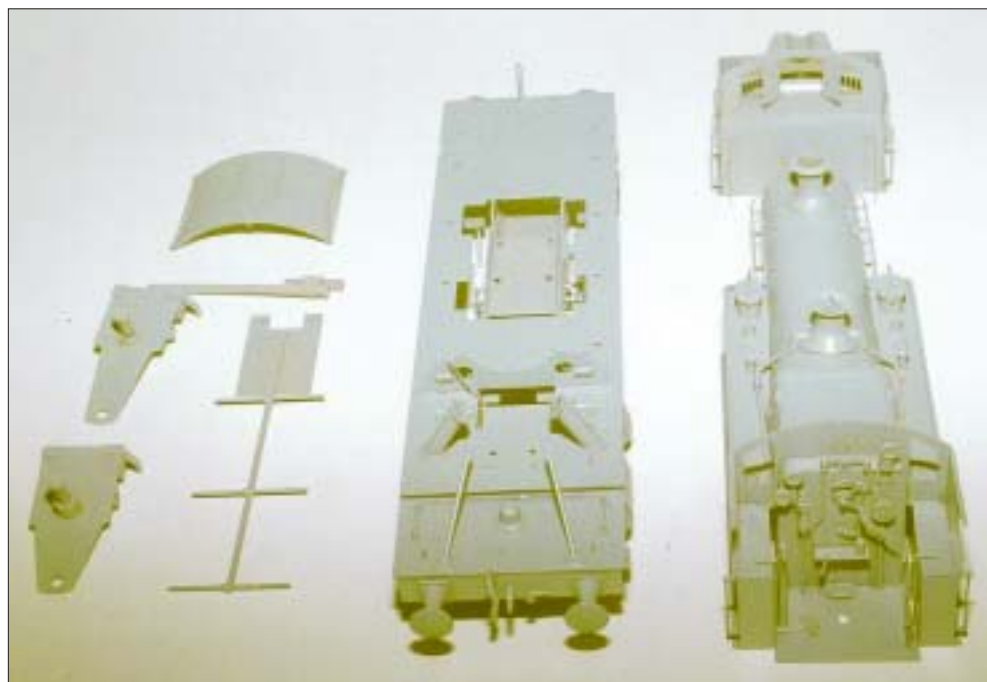
the body simply lifts off the chassis. Steve did not dismantle the chassis any more than this and simply cleaned, primed and painted it.

Eddie however decided to break the chassis down to its component parts. He proceeded by removing the brake rods by undoing the two long screws and de-soldering where they join the hangers. He then removed the wiring, unscrewed the lubricator which is held by a screw at the rear of the pump (this may involve unsoldering the front from the top of the cylinder) and removed the hornblocks from the front and middle axle which are secured with eight screws. Eddie then pulled down the front and middle axles and slotted out the chassis between the middle and rear axle. It should be noted there is no need to undo the coupling and connecting rods. Next Eddie slid out the plunger pickups and removed the bogie and pony wheels from the axles simply by pulling them apart.

Eddie now had a pile of bits; Steve had a fully working chassis. Eddie's cleaning and painting would be easier than Steve's, but Steve would have nothing to re-assemble. This is the choice that has to be made. Once painted, simply reverse these instructions to re-assemble the chassis. If you follow Steve's advice, just screw the body back on to the chassis and replace the bogie and pony in their relevant positions.

Dismantling the body

The cab roof can be removed by undoing the two screws located at the front and rear. Steve stopped at this point. Once cleaned and primed he could now paint the body and backhead without any further problems.



Right: the fully finished BR lined green early crest version.

Centre right; the BR version having been painted and lined, before fitting plates etc.

Below right: the finished GWR liveried version.

Eddie decided to break the body down to smaller sections. It is important to note at this stage whether the modeller needs to fit the outside steam pipes or not. If they are to be fitted it needs to be done now before the body is broken down. Simply fit the steam pipes in place and solder them to the footplate. There is no need to solder them to the smokebox. At this point make sure the smokebox supports are soldered to the footplate securely but free from the smokebox itself.

Now remove the fifteen screws to separate the bunker, cab and smokebox units from the footplate. There is no need to dismantle the body any further. It can be cleaned, primed, painted, lettered, lined and varnished at this point. To reassemble just reverse these instructions.

Cleaning the components

Again Eddie and Steve came up with different methods. Eddie used a fibreglass burnishing tool to brush lightly all the body and chassis parts. Cleaning is necessary as all of the brass parts are coated in lacquer. This prevents it tarnishing. However, long term it can also prevent sticking and paint can and will flake off sometime in the future if the lacquer is not removed.

Yet again, Steve went for the easy option. He took himself off to the local car accessory shop and bought a container of cellulose thinners. He then used an old container as a bath and dropped the body parts in to soak for a few hours. The chassis was cleaned using cellulose thinners applied with a brush and some cleaning with a fibreglass pen.

Both Steve and Eddie then washed everything thoroughly in soapy water. Washing up liquid is fine but if you have kept the chassis intact then avoid contact with wheel rims, pickups, motor, etc. The detergent removes any grease and any remains of loose lacquer. Now rinse the parts in clean water and allow the parts to dry thoroughly.

Priming and painting

Steve and Eddie each used a can of primer from the local car accessory shop. Steve had to hand paint most of the chassis (it is somewhat awkward behind the wheels but it can be done). All the other parts could now be sprayed black. Eddie used Phoenix Precision Paints applied by airbrush; Steve used an aerosol tin of Railmatch. Once dry the black parts were masked up with low tack masking tape. This takes time, and patience is required for a good finish, but it is worth the effort.

Once masked up the remainder of the locomotive was painted green. Again Eddie used Phoenix BR locomotive green applied by airbrush whilst Steve used a Railmatch GWR aerosol. The bufferbeams, backhead, whistle,



chimney cap, safety valve were all now picked out by hand with a brush. Eddie used Fox Transfers waterslide lettering and lining and Steve used HMRS Pressfix lettering. Both locomotives were sprayed with satin varnish and Guilplates number plates were fitted.

Criticisms and conclusions

The only thing that Eddie and Steve could fault on the Prairie was the chimney and safety valve. It is not that they are bad, they could just be better. But it is simple to cure if it bothers you. Springside produces an excellent copper topped chimney for £6.95 and a superb brass safety valve for £10.95. So for less than £18.00 this very minor problem can easily be

remedied. Another really minor point was that on one of the two locomotives the vacuum pipe was right next to the coupling on the rear buffer beam making coupling a little difficult. This was cured in a couple of minutes with a soldering iron. But this is all Eddie and Steve could find to fault, it is minor, certainly will not bother many people and can easily be altered.

To sum up, the Tower Brass Prairie is superb value for money. When tested on Rainhill Model Railway Club's layout it ran successfully around 4' radius curves and performed smoothly and virtually silently. All members present at the time were impressed with the quality of the finish and the smooth running.



Garden railways on a shoestring

Railcars sometimes hauled the odd item of rolling stock

Geoff Thompson suggests that you give the I P Engineering kit a try.

In my last article (April) I mentioned that one could buy a 16mm scale locomotive for less than £60. I had no sooner written the piece when a motor railcar kit was announced for just £35. This little four-wheeled locomotive 'van' includes front and rear lights which change colour according to direction. It is powered by two AA size batteries, and will pull a prototypical load, i.e. a couple of small wagons or a few tippers. So it is now possible to have a garden railway 'train set' of a railcar, a couple of wagons or four-wheel open coaches and a circle of track for less than £130. It can be built for 32mm or 45mm gauge, and will look just as good on a 16mm or G scale line.

Railcars were the forerunner of today's diesel multiple units. Basically, they were a self-propelled carriage. There were steam driven examples, but railcars really came into their own with the advent of efficient internal combustion engines. Many were specially built, but in some cases they were simply converted road coaches, fitted with flanged wheels. Sometimes the conversion was so rudimentary that even the steering wheel was left in place, although of course it was totally redundant! Most railcars were intended for passenger traffic, but some were built for light freight or permanent way department use. Again, these were sometimes converted road vehicles, such as small vans and pick-up trucks.

Although not primarily intended as locomotive power, railcars were sometimes pressed into service to haul the odd item or two of rolling stock. This seems to have been quite a common practice on some Irish lines, judging from the photographs I have seen, but I daresay it was not uncommon on any line where motive power was in short supply. If you are interested in railcars, it is worth visiting <http://www.railcar.co.uk/> This model railcar kit is of a purpose built vehicle, but it looks as though it may well have drawn upon the motor car manufacturers of around the 1920s or early 1930s for some of its fittings and mechanical components!

You may be one of those people for whom the word 'kit' conjures up visions of hours of frustration, with fingers glued together, and resulting in a lumpy travesty of the model for which even your own mother, wearing her rosiest of spectacles, would struggle to find words of praise. I know the feeling only too well, for I was that adolescent. I don't think my level of skill has improved all that much over the three intervening decades before I took up garden railway modelling, but I've enjoyed a lot more success for a number of reasons.

Firstly, I have to say that size helps enormously. Just think about it; I was working to



4mm to the foot then, compared to 16mm to the foot today. That is four times as wide, high and long, a very different proposition indeed. I honestly believe I would be little better at modelling in 00 today than I was back then, and with poorer eyesight I would be peering through a magnifying glass!

There is also the fabled narrow gauge garden railway 'viewing distance'. Indoors, one is often very close to models, and they are observed minutely because of this viewing context. I have seen the opinion expressed that larger scales require more and better detail, but I don't believe this necessarily pertains in the world of 16mm narrow gauge modelling, and a great many folk agree with me. You see, we tend not to be so close to our trains in the garden for most of the time. The setting in which we see them is relatively expansive, and the context is one of a 'real' landscape. I find that 16mm narrow gauge models need, if anything, slightly less detail than the smaller scales. This can be prudent too, given that the outdoor world can be a somewhat harsher environment in which to operate. 16mm scale kits tend to have fewer fiddly bits than their smaller scale counterparts, and the detailed items they do contain are, relatively, larger and thus easier to fit.

Garden railway locomotive or rolling stock kits can be somewhat different from the plastic kits associated with smaller scales. There are some excellent injection moulded kits, such as the tipper and slate wagons (which are, incidentally, very easy to assemble) but quite often the kits use wood and metal, and construction methods not too dissimilar to those used for the prototype, but with the difficult cutting work already done, and castings ready to paint after a little cleaning up. I'm excluding live steam models here, of course. The kits I'm suggesting the beginner to garden railways might like to tackle can be built on a kitchen table, with simple every day hand



tools, and I can vouch for this because that is how I have built most of mine.

If you are like me, the quality of your modelling may depend as much on what you get wrong as what you get right. 16mm to the foot is more forgiving in this respect. If you get something very slightly off centre, the chances are nobody else will notice. The same actual degree of error in 4mm to the foot is, of course, four times worse! Correcting paint blemishes is also easier. The 'chunky' detail on a 16mm model is much less likely to be muted through the need to apply an extra layer of paint. Now, I'm not suggesting that anyone should take a slapdash approach to modelling, but what I am saying is that the degree of accuracy required for a reasonable 16mm model is somewhat easier to achieve. There are a couple of critical measurements on the mechanical side, but unless you build your own running mechanisms, these can easily be achieved with a ruler and a sharp pencil; no need for a micrometer and milling machine!

My level of skill with my hands may not have improved over the years, but I am a good deal wiser now. I've benefited from a lot of advice when it comes to my modelling, and I have found my confidence increased with each little success. If you have been a 'kitophobic', take my advice and give it a try.

You may be wondering what you could expect for £35, and so was I. Well, it was a very pleasant surprise when I saw the model. I had some idea of what to expect from having built some coach kits from the same supplier. The company specialises in producing 16mm/G scale model kits using wood for coach and wagon bodies, and whitemetal for detailing parts. This kit, in keeping with all of their other offerings, contains everything needed to produce the little locomotive, barring glue. The railcar has a wooden body, just as you would expect for the prototype. I used fast setting epoxy glue to build mine, which gave me plen-



ty of time to position (or even re-position) parts, but did not take too long to set.

A word of caution here: one of the secrets of successful modelling is to take your time, never rush. If you are building a kit, read the instructions first, and follow them meticulously. With experience, you may be able to see a better or easier way to do something, but not very often, believe me. Many kit manufacturers have several experienced testers who try out the kits and instructions before they go on sale, so any ambiguities in instructions or improvements in technique are likely to emerge at this stage. There is an old workshop maxim: measure twice and drill/cut/glue once. This is just as important with kit building. Before you glue anything in place, hold it in position and make sure it is the right piece. Can it be upside down or inside out? There may be a small detail which dictates orientation, easy to overlook. Study the drawings and any photographs you have, because a few minutes now could save you hours later.

It is sometimes possible to improve upon a basic kit, using, say, metal wheels instead of plastic, or adding extra detail through the purchase of castings and so forth. Of course livery can be entirely up to the builder, unless one has a specific prototype railway and period in mind. With this railcar kit, I decided to add some detail which did not cost me a penny, but which, I think, improved the look of an already attractive model.

It would be entirely unrealistic to expect the supplier to have inscribed planking for the whole railcar in a kit of this price, and indeed if the builder decides to have a dark coloured livery, it would be of marginal value. I decided, however, to have a varnished finish to mine, so I did inscribe planking detail on the exterior panels. I used a simple technique which has worked well on a number of wooden bodied projects, including mineral and goods wagons, and a guards van.

I use about a centimetre for plank widths on mineral wagons, which is easy to measure and looks about right. Slightly narrower planks look better for the lighter panels on goods and guards' vans. When you decide on the approximate width you need for your planks, you need to measure the panel first to make sure they will fit. With horizontal planks on goods or mineral wagons, you want full three-, four- or five-plank widths. Remember that the outer two planks have only one edge with a groove, but that the inner planks will have a half millimetre each side taken up with the groove, i.e. five planks of 8mm will equal 44mm of panel; 40mm of plank plus 4mm of groove. Measure from the top down with horizontal planks; if you find you have a slightly narrow plank at the bottom it will be a lot less noticeable there than at the top! Vertical planks tend to be narrower, with more of them, so a 'part plank' will be less obvious, and often concealed by strapping detail.

I mark the plank joins, i.e. where we need our grooves, faintly at each end of the panel with a sharp pencil. Use a joiner's set square if you can, to make sure the grooves will stay at right angles. Place a scribing tool (an old small electrical screwdriver will do fine) on the 'groove' mark. Slide the setsquare up to the scribe so that it matches the marks at each end, or use a firm straight-edge carefully positioned between the marks. Hold the setsquare firmly while you draw the scribe over the wood, pulling away from the scribe point, not pushing towards it because it will dig in. Do this several times, applying firm pressure, and remembering to keep the scribe firmly against the setsquare's edge. When you have a clearly noticeable groove, move on to the next until the whole panel is done. If you have a lot of planking to do, this tip from John Rogers is worth considering. Scribe a mark down a transparent ruler the width, from one edge, of the planking you need, then place the scribed

line over the first plank edge, groove and scribe the next with the line over the first groove, carrying on until the last.

On the railcar kit, I inscribed the planks before assembly, which is essential with this model. There isn't a problem with planks lining up after the panels are assembled, because the only horizontal planks are on the very front of the vehicle.

On this kit, there is really only one critical measurement; the distance between the sole bars, which dictates the distance between the axleboxes. There are two possible measurements, one for 32mm gauge and one for 45mm gauge; make sure you choose the right one! Mark the distance for the solebars with a sharp pencil a few times, in different places, and line them up on each side in turn with a ruler. This will show any markings which are slightly off, which you should, of course ignore. Try to be as accurate as possible with all of the other measurements and positioning of parts, which is always good practice. The more care you take, the better the model will look.

The other fitting you need to get absolutely right is the driven axle. The motor position in the floor of the railcar is dictated by its mounting cut-out. The motor will fit into this cut-out in such a way that it can be moved up and down easily, but will not fall through of its own accord. With the motor in place, and the driven axle fitting between the axleboxes, the axleboxes can be positioned so that the worm drive engages the gear on the axle just right. Not too tight so that it will bind, and not so loose that the gears can slip. There should be plenty of time to get this right before the glue sets if you use a 'ten minute' epoxy. Once the axleboxes are correct, you just need to position the motor in the vertical plane so that the gear on the axle is in the centre of the worm. A little epoxy will make sure it stays in place.

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North Eastern structures in 4mm scale

Many of us have unbuilt kits around. It needn't take long to build them

Paul Marshall-Potter used Wills, Ratio and Cooper Craft kits to build a quick and unusual station.

Time is arguably our most precious commodity as modellers, and how we use it varies considerably. Not too long ago that time got very short for me, for the past seven years have been a bit frantic to say the least. Within those seven years we have seen the birth of two daughters, a house move and a redundancy as some of the key events.

I have been modelling since I was a nipper, and have always found it an escape from whatever was going on around me and at times it has also been a welcome relief. Professionally I work for an airline and spend my days and nights playing with seventy-odd aircraft! Sometimes it can almost be too daunting to pick up the modelling stuff particularly if one has got a big project under way, or you've run into a problem which you push into the 'too difficult' pile.

My circumstances had meant that I had few hours in which to do any modelling, but I was always reading and 'imagineering' layouts etc. I finally got round to sitting at my desk and thinking 'OK, I've got a few kits around, let's build one'. I knew that some of the Wills scenics kits could be put together quickly and produce a good result. I had the wayside station kit, the signal box and the goods shed kit (wooden). Also in my 'stock' I had the Cooper Craft and Wills platelayers hut and lamp huts kits, and also a Cooper Craft weighbridge and hut kit. Further rummaging around found me a Langley etched telephone kiosk, and a London Road LNER etched porter's trolley. Putting that together nearly sent me off mine! The etched trolley would also act in 'placing' the station, being a typical piece of eastern area station furniture up and down the whole



country. The GWR type trolleys will be pensioned off as soon as I can face making another couple of the LNER ones, after all there's only fifteen pieces in each one!

I now had my projects, the sum total of which could make a complete branch line station, so firing the imagination and enthusiasm to get on with it.

Of late the family has spent a bit of time in the frozen north (well Northumberland), and I've grown really to appreciate the landscape. I have always enjoyed Ian Futers' articles on the area and a few trips into the countryside up there got me thinking of a rural Northumberland station, a BR era station to match my own interests. I also had a few of the Alan Gibson signal kits, so I could make everything for the station in one hit. So it was to be a NE region rural station with signals. I also

had some time poring over maps of the area to try and find a name for my station. There were plenty of places with the name Burn, and looking at my Modelmaster Decals signs I had the names Newcastle and Seaburn on the sheet. So New Burn sounded good, typical of the area, and could be made with two cuts of the knife from transfers already to hand. Now I also had my name.

The building kits being all plastic and easy to assemble went together quite quickly, but they looked the same as anyone else's models of the same kits, and I wanted something a bit different. I started placing the buildings next to each other to see if a pleasing composition could be formed. It rapidly dawned that the Cooper Craft platelayers' hut fitted the gable end of the station building very nicely, and for me lifted the whole building out of the ordinary. It no longer looked like the building we see on many layouts, but was significantly different, and it felt good to have made something which was possibly unique. The overhanging slates had to be filed back flush to the end of the hut so it would butt against the station end with no gap.

The join was made with Superglue initially and then worked over with Mek-Pak to strengthen the joint. The doors for the station were cut so that they could be positioned open to give the station more character.

As for painting the buildings, everything except for the roof was sprayed with Halfords white plastic car touch-up aerosol spray. With a little care you can get a very good, even, undercoat, which takes other paints very well. The chimney stack was originally painted a sandy colour, to reflect the local brick colour, and then individual bricks were picked out in differing colours and the chimney pot was replaced by a whitemetal casting.





Left: two views of the station building from the platform side, one with furniture removed for clarity. Note the Cooper Craft hut on the end. The water tap is from the Ratio cattle dock.

Above: the models described in this article; signal box, station building and goods shed.

Right: the goods shed and office from road side and track side.

Below: the signal box from the Ratio kit.

I'd decided that the hut would stay in a natural wood colour so I used a dark grey for the walls and an oak wood colour for the door. At this point the glazing was fitted as were the station signs from the Modelmaster range, and I could then start the weathering. Using enamels a very thin wash of a dark grey is used to accentuate areas in natural shadow and for panel lines. I then use Winsor and Newton artists pastels which have been crushed to a powder, and dry brush them over the models. The brick in particular works well with this, and the whole building is 'toned' down as a result. You also have to consider that on the sides of buildings you need to brush in vertical strokes which will give a realistic streaking effect. The colour used is mixed and varies from an almost white grey, to more earthy tones with browns of varying hues mixed in. I



do occasionally use watercolour pencils particularly for green water stains such as moss, but I try to use this sparingly and not over do it. The Halfords undercoat really helps with mixing these mediums on the same model.

I tried some of the other buildings. Looking around my desk I spied a Wills garage kit and tried one against the gable end of the goods

shed, and that worked too! I had already decided the goods shed would be platform mounted rather than as per the kit, on a wooden framework. Again a quick look in the spares box found me two doors for the goods shed, and some replacement windows for the garage. A Ratio chimney was also found to give the goods office a coal fire so important in the





upland area in which this station was to be located. So now the station building had a stores shed attached, and the goods shed had a separate office/store room making a larger structure. So I now had the basic buildings, which looked significantly different from the originals but, importantly, looked believable.

The platelayers' hut and weighbridge were built as per the instructions as were the cold frames, pinched from a Wills greenhouse kit, and all were weathered in exactly the same manner as the station, thus nothing looked out of place or clashed in a colour sense.

The Wills signal box went together straight out of the box, with no modifications, but it looked out of place, and too big for my proposed location, so I've used a Ratio platform-mounted version, and made a few changes to it to make it look more like something from

the North East. Searching through my reference books and magazine articles I chose both Kielder Forest and Bellingham signal boxes, as well as a few on the Wooler line to act as food for thought and inspiration. Platform mounted and relatively small were my main considerations.

The Ratio box has a very Great Western flavour to it, particularly apparent in the windows and cast style nameplate on the front of the box. The nameplate was cut away and replacement lines scribed for the planking. The next item was the windows, reduced from a six pane frame to a four pane. This was done by cutting the frames to give two large panes on the bottom, and two at the top (see photos). The next item was the steps, which were altered so that instead of being in line with the box they formed a right angle entry/exit from

the box. The painting was performed in exactly the same way as the station buildings, as was the weathering. The final part was to make a handrail for the steps from 0.5mm brass wire, and fix the signal box name on either end of the box, in a similar fashion to those at Kielder, using Modelmaster transfers as outlined above.

The roof was left detachable as per the other buildings to allow internal detailing when they are finally fixed *in situ*. The final quick change I did was to swap the roof of the lamp hut for some corrugated copper; I can't recall the source it's so old! This again masked its original very typical GWR appearance.

Now you've spent a few minutes reading this, go and look at your pile of kits, think 'what can I make, or get substantially finished in a few hours?' and get on with it!



Above, left to right: Wills lineside hut, Wills cold frame, Wills toilet, Wills lamp hut, Cooper Craft weighbridge hut, Wills weighbridge.

Left: a panorama of station building, signal box and goods shed.

Below left: the signal box, showing the modified windows as described in the text.

Below: Cooper Craft GWR platform trolley, Ratio lamp, Langley phone box, London Road sack barrow, Dart Castings post box.

Photographs by the author.





INSPIRATION

for modelling in 4mm or any scale

Chris Klein was inspired by a single period photograph.

Every now and then one comes across a location or a photograph of something that just cries out to be modelled. One such photograph was taken over forty years ago by Mr John Wiltshire in Swansea and which, with his kind permission, graces this article. John Wiltshire was a regular visitor to the Swansea district in the late 1950s and early 1960s and during his visits he took a fair number of colour photographs that have captured for posterity the then everyday, ordinary workings of the steam railway.

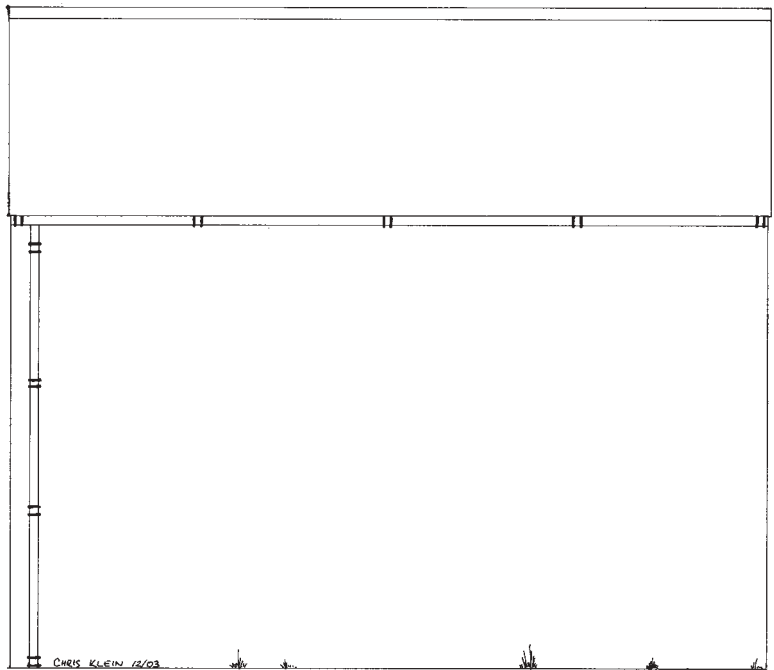
John Wiltshire took the photograph on 10 September 1959 and it is full of interest. It shows a former Powlesland & Mason Peckett 0-4-0ST No.12, which was built in 1912 and taken into GWR stock as No.935 in 1924. This locomotive was subsequently renumbered 1152 sometime between 1949-1952 and survived until 1961 when it was withdrawn from service by British Railways.



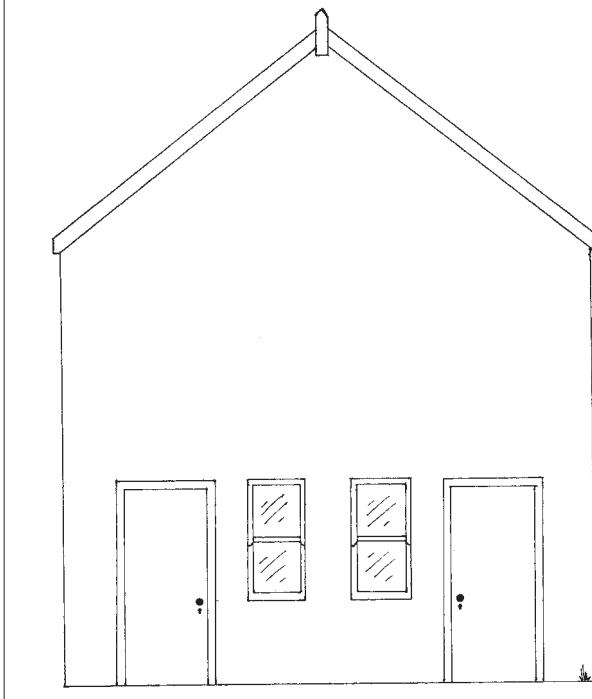
Powlesland & Mason (P&M) was an unusual business. It was not a railway company as such, but was a firm that possessed its own locomotives that were used for hauling traffic about the Swansea Harbour Trust lines on behalf of the Great Western Railway. As carting

agents, the concern was established in 1865 by one Mr Powlesland. He was joined by a Mr Mason ten years later and these two worthy gentlemen gave their names to the business. The P&M stud that was inherited by the GWR comprised nine 0-4-0 tank locomotives from no fewer than five famous British builders, namely Avonside, Barclay, Brush, Hawthorn Leslie and Peckett.

The locomotive was travelling light and traversing the line that connected the former Midland line to the dock network of the Swansea Harbour Trust and which ran alongside the River Tawe New Cut. For the space-starved modeller, it offers the opportunity of building a realistic layout quite literally on a shelf. Allowing for the angle of the retaining walls above and below the line, it would be possible to model the plain track in this scene in a space not much more than 3" wide for 4mm scale.



Drawings reproduced to 4mm scale.



However, this photograph also illustrates some of the attractions of the steam age railway in South Wales as a modelling subject. In the upper right-hand corner of the picture can be seen a string of British Railways 16-ton mineral wagons of the fitted and unfitted varieties. They are standing on the site of the erstwhile Swansea St Thomas station, terminus of the Midland Railway in Swansea that closed on 25 September 1950. This is typical of South Wales where there was a very dense network of railways on many different levels, with steep gradients operated by numerous competing companies.

The arrival of the superb Bachmann GWR 56xx 0-6-2T locomotive to accompany that same stable's 57xx and 8750 pannier tank locomotives and BR 16 ton mineral wagons makes a South Wales modelling project a realistic proposition. As an aside, the relative cleanliness of most of the wagons is noteworthy and

in stark contrast to the heavily rusted examples most people seem to remember.

Another feature that caught my eye concerned the human presence. There are three men in the picture and it is notable that all three are wearing hats. Hats today seem to be a rare sartorial appendage, except for that US import, the baseball cap, which is so often worn back-to-front for some reason that quite escapes me. It is also notable that the gentleman outside the café is wearing a raincoat on what appears to be a warm, dry and sunny day. This is typical of many pictures shot in the 1950s and early 1960s when people always appeared to be more substantially dressed than they are today. The message to take away from this is that when trying to ensure period authenticity on our models fashion matters. And I am sure that my wife or daughters never dreamt they would hear me say that, let alone see it in indelible print.

Finally and before we move on to the specific model, note how subdued the colours are in the 'Indian summer' sunshine. The paintwork on the central structure appears to be well faded and the only splashes of very bright colours are to be found in the advertising on the café and barber's shop and some of the poster hoardings. Observe the paleness of the track's sleepers and ash ballast. This is worth noting. Far too many model railways, especially those representing the modern scene, are, to my eyes, spoilt by excessively vivid colours.

The model

From the moment that I first set sight on this time capsule in one of those lovely Ian Allan colour albums (*The Heyday of Steam in South Wales* by Derek Huntriss, 1996) I knew I had to model at least some of this atmospheric scene. I settled on the centrepiece building that housed a café and a barber's shop.



The first challenge was to extract some tolerably accurate dimensions of the building. This I achieved by conjecturing that the man stood outside the entrances was 5'10" tall. It was then relatively simple to draw up a scale elevation for the front of the building. The length of the model was determined by the site that it was expected to occupy on *Abersoch* Mark 2, whilst the hidden rear wall was no more than speculation.

Construction was relatively straightforward. It is constructed from plasticard, Wills building sheets and an assortment of microstrip. The side and rear walls were cut from sheets of Wills Limewashed Stone (SSMP215). Apertures were cut out and doors and windows fabricated from plasticard, plastiglaze and microstrip were fitted. The edges of the walls that formed the corners at the rear of the building were mitred with a coarse file and the three walls were welded together with Slater's Mek-Pak. Gussets from plasticard offcuts were used to reinforce corners and hold them square. An interior wall from plain plasticard was cut and fitted half-way along the building.

The front face of the building was constructed in two parts. The upper storey was constructed from plain plasticard. It was scribed to represent vertical planking as shown in the plan and glued in place on the basic shell. The raised woodwork was then added using microstrip from the Slater's and Evergreen ranges. The roof was built from Wills corrugated iron (SSMP216) and ridged with microstrip.

The shop fronts were constructed as a separate sub-assembly as the photographs show. An internal floor was cut to shape from 20thou plasticard. The doors and windows were then built up from plasticard, plastiglaze and microstrip. With care it is possible to stick the window frames to the glazing material without causing damage. The traditional method is to use a finely pointed brush and allow the solvent to be drawn under the framing by capillary action. However, this can lead to damage if the brush is over-loaded. A less risky method is to brush the rear of the microstrip with Mek-Pak and lay it on the glazing. This gives a satisfactory bond whilst greatly reducing the chance of ruining the window.

I decided to build the shop window displays before attaching the sub-assembly to the main shell. The doors, window frames and brickwork were painted. The display in the barber's shop is quite simple. A white screen was erected from plasticard. The screen and part of the window were then covered with appropriate period advertising for Brylcreem and Wilkinson Sword. The displays were found on the internet using the Google search engine. This has an excellent facility that allows one to search for images only. Searching on the word 'Brylcreem' for example, yielded a variety of suitable images. It is a simple matter to save the image to disk and subsequently insert it into a document where it can be formatted to the required size and then printed on good quality paper using the 'best' preference in the printing properties box.

The same process was used for the café windows. Suitably targeted searches found signs for Wall's ice cream, Lyons' Cakes, Brooke Bond Tea and Coca Cola. When the shop fronts were completed, they were slotted into the main assembly and welded in place. Barge boards and finials were fashioned from microstrip and attached. The whole was then painted and weathered. The painted wood above the shop fronts was soaked with Mek-Pak after the paint had dried completely. This crazed some of the paint resulting in fair representation of flaking paintwork. The whole structure was then weathered with a wash of very dilute matt black paint, which has given a very pleasing finish to the lime-washed stone walls.

The finishing touches included the fitting of gutters and drainpipes from micro-rod. A barber's pole was also made from the same rod. The café and barber's shop names were created on my computer and printed onto good quality, matt ink-jet paper.

Poster hoardings

John Wiltshire's photograph showed that the prototype building had several large poster hoardings on one of the side walls. Any model railway purporting to represent a built-up area would be incomplete without such poster hoardings. The hoarding for the posters was simply a rectangular piece of 15thou plasticard measuring 58mm x 48mm. The corners

were rounded off with a few strokes of an emery board liberated from my wife's cosmetics box. Next came the fun part, finding the posters. Your choice will be determined by the period that you are modelling, but for the late 1950s/early 1960s I found two particularly good sources: reproduction postcards and, once again, Google. The Guinness website provides an excellent selection of period posters for its prime product, including many of the famous Toucan varieties.

For the period that I model, the posters are the 'four sheet' variety. Each poster comprised four sheets measuring 60" deep x 40" wide, which gives an overall poster size of 40mm x 27mm in 4mm scale. The posters were printed to size, glued to the hoarding and surrounded with a border of 1mm wide microstrip. The edge of the hoarding was painted Humbrol RAF Azure Blue. To make a free-standing hoarding, it is a simple matter to erect a framework from microstrip. The key dimension to remember is that the posts were usually 6" x 4" timber.

Conclusion

Well if you have made it this far, I should thank you for your kind indulgence. My own memories of standard gauge steam on British Railways are fairly limited as I was born in late 1958. I recall seeing ex-GWR, ex-Midland and BR steam locomotives in and around my native Bristol area. I now wish I had paid more attention to the railway scene then, but alas, at that time I was more interested in military matters, in particular the attractions of the nearby Bovington Tank Museum and a recently purchased Airfix kit of a German Mark 1 Tiger Tank.

Fortunately, modern printing technology has provided the modeller with a wide range of high quality colour albums to inspire the modeller and help him or her to achieve a more accurate and atmospheric result. And so I am very grateful for the likes of John Wiltshire and his contemporaries who were inspired to capture the everyday scene and for the publishers that have enabled us to see into their invaluable collections.

Sketches and model photos by the author.

A day at White Sands Bay

North Wales was the inspiration for this OO layout

Gary D. Dixon & Lisa M. Cudworth built this model along the lines of a famous Setrack layout.

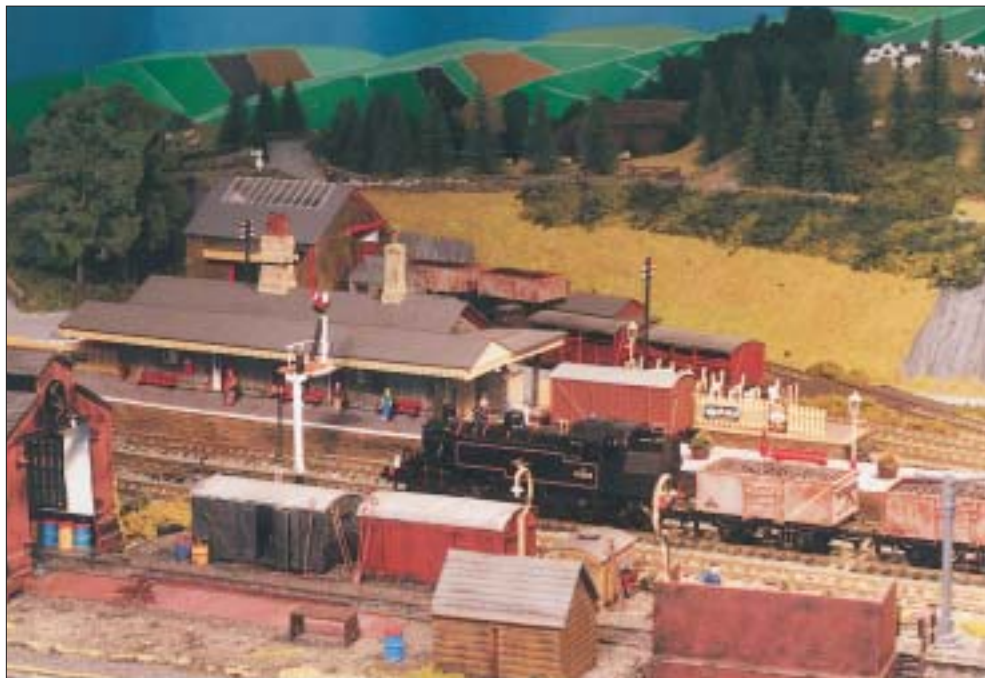
Lisa and I caught the 10.15 train from Caernarvon to Afonwen calling at all stations on a lovely sunny day in early May 1960. We had been told about this place by a very good friend and he also mentioned that if you go on a Wednesday there is a farmers' fruit and vegetable market on the Quay.

On arriving at Afonwen we had to change trains as our train terminated here. We waited only a few minutes for our connection which was the up *Cambrian Coast Express* hauled by a Collett 0-6-0 tender engine which I noted was in a clean condition. We boarded the train, and within a few moments it left Afonwen. The branch to White Sands Bay left the Cambrian Coast line one mile east of Afonwen, and now we were back on LNWR metals. After a mile the train entered the 400 yard Vale tunnel. The LNWR had had a lot of problems with this tunnel with flooding caused by couple of small underground rivers. As our train came out of the tunnel we passed through a deep cutting and then entered this delightful country station of White Sands Bay.

We got off the train and within a few moments it left for Criccieth and joined the Cambrian railway again a few miles further east. We had a good look around the station, for Lisa is just as interested in trains as myself. Opposite the station with its loop line and freight loop was an Ivatt 2-6-2 tank having its ash pans and smokebox emptied over the ash pit on the shed road, and we could just make out a pannier tank loco inside the shed. This station also had a bay platform which the friendly station master mentioned was used twice a day by the auto train (14xx and auto coach) from Porthmadog.

It was now time to leave the station and walk the half mile to the village. As we walked up the lane we had a nice view of the goods yard with its small goods shed and cattle dock, and watched another pannier tank shunting coal wagons for the local merchant for a few moments. We turned right at the end of Station Lane onto Brook Side Lane, where a local farmer with his two black and white border collies was moving sheep down the lane. As we strolled along we noticed an old disused narrow gauge slate railway coming in from the left. The rails were rusty and the track overgrown in places. On the other side of the narrow gauge railway was a small river, from which the lane must have got its name.

A lovely thatched farmhouse stands proudly on the hillside just above the river along with a couple of caravans which are hired out during the summer season. As we ambled down into the village square, James Dixon, a blacksmith was shoeing a horse for a local



customer. We stood next to the wall which overlooked the bay. There was so much to see. The castle on our left dominated the area with the railway crossing the bay on a three-span girder bridge. There were people on the beach and in the sea and the farmers market just below us on the quayside.

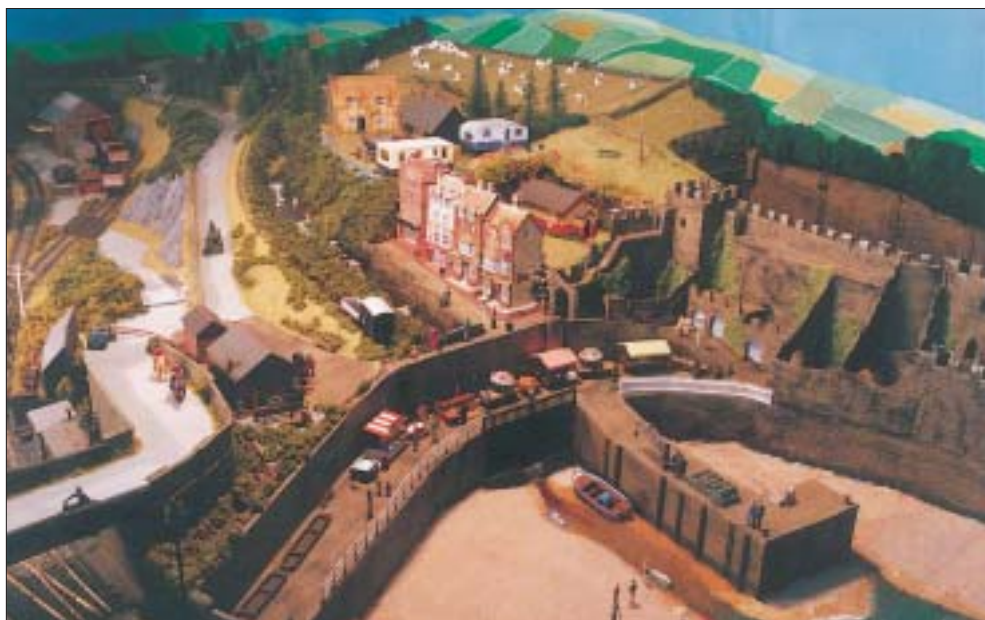
Reality

With railway modelling you can let your imagination go. Those who know the area will know there are no branch lines off the Cambrian

Coast line east of Afonwen to White Sands Bay or even a place of that name existing on this particular coast line.

Lisa and I met while I was driving Black Five No.45337 on a service train at Peak Rail, and since that day Lisa became very fond of the class. That Christmas I purchased for her the Hornby Black Five limited edition of 45292. This was then mounted on a piece of track in a showcase on the fire surround.

At that time I was still working my N gauge layout *Bala to Bala Junction* (September 2000



Left: Ivatt tank 41304 gets the road to Afonwen with a coal train.

Below left: bird's eye view of the harbour, market and castle. Note also the small chapel behind the shops.

Right: general view looking across the goods yard to the farm, shops and steeply graded disused narrow gauge railway.

Photographs by the authors.

RM). Lisa mentioned one evening over tea, 'Could you build me a 00 gauge railway of my own where I could run my Black Five? The answer was yes straight away. The back bedroom was chosen and a board size of some thing like 8' x 5' was agreed, but what sort of railway? Well different plans were drawn up but didn't look right. We both like Barmouth in central Wales, with the railway bridge over the harbour, but a 00 gauge layout based on Barmouth wouldn't fit on the size board that we had. I did say that it could be done in N gauge but Lisa wanted 00 gauge.

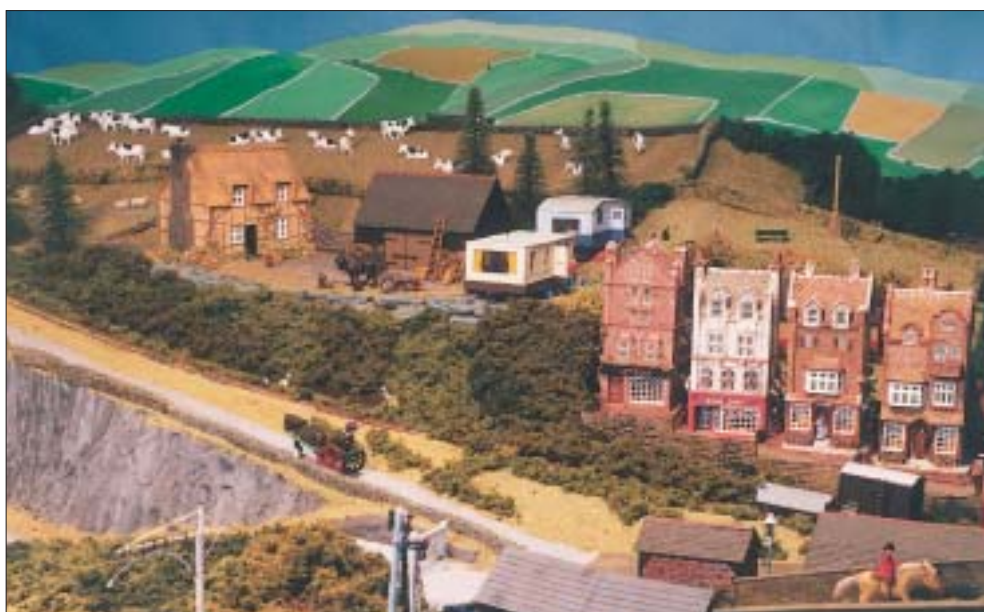
We then looked through the various plan books and decided on Peco Setrack plan No.21, *Bredon* by A C Wood & K Bettison. This would give us part of the layout with double track and part with single track.

We would make a few alterations with the goods yard of three sidings behind the station and the loco shed on an extra siding in front. We also chose Peco Streamline flexible track and Streamline electrofrog points. Two electrofrog three-way points would be required, one for the goods yard and the other for the loco shed siding.

The Setrack plan book also mentioned that the layout was featured in RAILWAY MODELLER issues of September 1981 and July 1985. We managed to obtain copies of the above magazines from one of the second hand shops on a standard gauge steam railway in North Wales.

The baseboard and track laying

An 8' x 4' sheet of 6mm plywood was ordered along with a dozen lengths of 2" x 1" soft wood. The board was marked out with the aid



of a jig saw for the drop section for the harbour. This was cut out and the board was turned over and braced with 2" x 1" which was glued with PVA glue and the board was screwed to the 2" x 1" softwood equal to 1' squares with 1" round holes cut in the soft wood for the wires to go through.

We designed the board to have no access hole in the middle, because we wanted this to be all scenery but instead incorporated a 2'6" x 1' section which can be lifted out on the front of the board so that we could reach the back of the layout to clean the track. 2" x 1" softwood was screwed level to the wall after the wall had been drilled and plugged first. One vertical support leg was installed and after three years there has been no problem with sagging. We did have a thought at the time of knocking two holes in the wall and running the railway through the wall and on a shelf in the front bedroom, but we thought otherwise.

A letter and an SAE was posted to Peco for two packs of point and crossing plans. These arrived after a few days and planning the railway started in earnest.

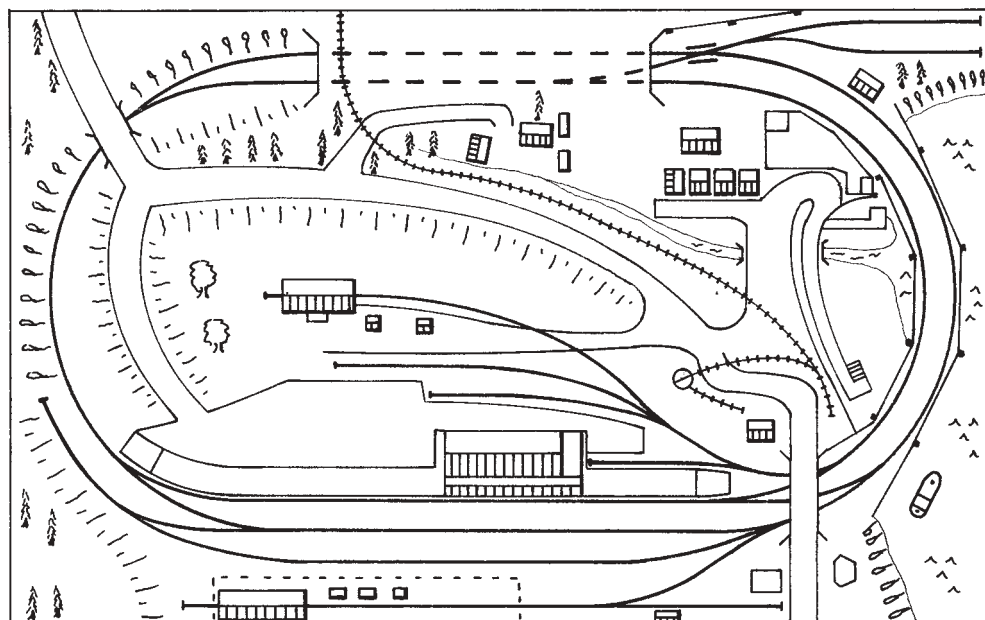
The point plans were pinned on the board

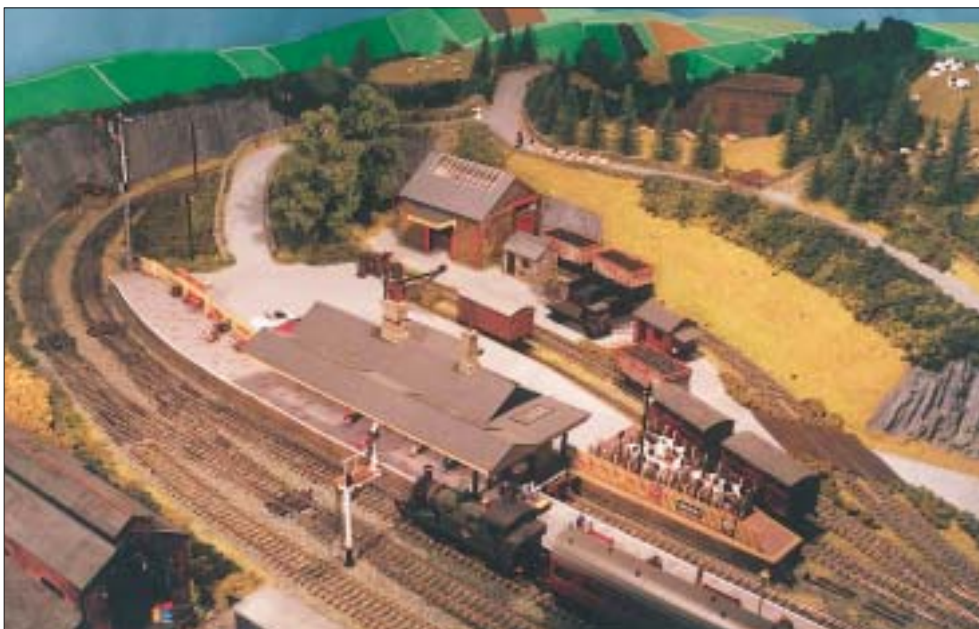
and plain track drawn with a ruler to see how much we would need. We also worked out that we could have a through running engine shed with a turntable in the back corner with another point off to the freight run-round loop to give access to the turntable. A trip to Rails at Sheffield was arranged to collect the Peco points and point motors, 25 yards of code 100 Streamline and rail joiners, and the Peco turntable kit.

All the track was laid on 1/16" cork underlay to reduce noise. Lisa and I started laying the track at the back of the board, moving round the board placing the points where required. All Peco points were fitted with Peco point motors and switched where required, especially at the back or hidden in the tunnel, so red LEDs will show which way the points are set.

The track was laid and relaid in in the goods yard until we got it looking right. Lisa took a liking to ballasting the track with granite N gauge ballast chippings which were in turn sprayed with a fine mist of water then PVA glue 50/50 water with a drop or two of washing up liquid to stop surface tension was then added. The glue was then applied to the track using an eye dropper and when this had set the point blades and track were again cleaned and tested.

The next project was the three span girder bridge. The sides were from Peco but being on a curve the inside girders would require cutting slightly shorter and the top of the girder sides filing round. 40 thou plasticard was used for the base with cross girders made up from plasticard strip glued underneath for strength. The four columns for the bridge supports were marked up and sawn from a new brush stale. These in turn were faced on each end on the lathe, to make them completely flat. Two holes were drilled in each to accept the bracing wires with two round bracing loops turned on the lathe out of brass bar to take the tie rods. These were in turn glued to the underneath of the bridge using five minute epoxy resin. The two bridge abutments were again made out of 40 thou plasticard with Peco embossed stone glued on using liquid poly along with all the





Left: White Sands Bay station and goods yard.

Below: note the small platforms on which the signals are mounted, but we get lashed by the winter storms.

bracing details of stonework to finish off. All the stonework was painted with Humbrol paints and weathered, then glued down to the baseboard using PVA glue. The track was laid and Lisa laid the ballast to finish off the bridge. Added to the bridge were two small platforms with handrails for the two Ratio signals, one double junction (home) along with calling on arm for running round and 'light engine' shed to main line or vice versa. The other signal is the outer home with a distant arm in place. These small platforms were glued either end of the bridge.

Between the harbour bridge and the station a road overbridge was constructed again out of plasticard. This was made the same way as the abutments for the railway bridge. The harbour took a lot of designing as we wanted a stream running in under two levels of streets and an old harbour wall was required. We designed the harbour from balsa wood. The stream itself would require two waterfalls and a weir as it enters the harbour. When the wooden formation was complete, we then used Peco embossed plasticard sheets cut to size and glued with five minute epoxy resin. Hand rails came from an old boat kit.

The fruit and veg market was a kit in the Faller range, a nice kit and this finished off the harbour walkway. Then other details were added, such as people, fish boxes, crab boxes, ladders, old crane for winching fish boxes from the boats onto the quay (ex N gauge crane kit).

The castle, beach and sea

This became the next project to build in the space required. The castle walls were made from 3mm thick balsa wood along with the towers. The sides were then glued together with PVA and Peco embossed stonework was then glued onto the balsa sides, again with five minute epoxy resin. The whole castle was painted using Humbrol No.84 (stone) and then weathered with a black paint which was dry brushed. The castle was positioned next to the harbour.

Lisa and I wanted the hills coming down to

the station and goods yard with part of the lower hill cut out to form the goods yard area. The hillside formers were made from ply and then chicken wire was rolled over the top and stapled in position, with the tunnel boxed in with a removable top to aid track cleaning. Excess chicken wire was cut to size using tin snips. The whole area of the chicken wire was covered in Mod-roc. The stream's course and roads were built up out of plaster and then left to dry for a couple of days.

The bare plaster was painted with paint for new plaster to seal it, then painted in brown acrylic paint. PVA glue was painted on with scatter materials along with lichen and clump foliage to finish.

The farm was a Dapol kit with extra details, and we also added a barn from a Wills kit. Both were then painted and weathered. The caravans were scratchbuilt. The caravan of a friend of ours was measured and scaled down to 4mm. The models have full interiors, complete with cooker, bed, table and seating area. They also have small gas bottles which were added to finish off the detail. Some of our friends told us they look slightly out of scale against the other small town houses in the village but it's the small town houses which

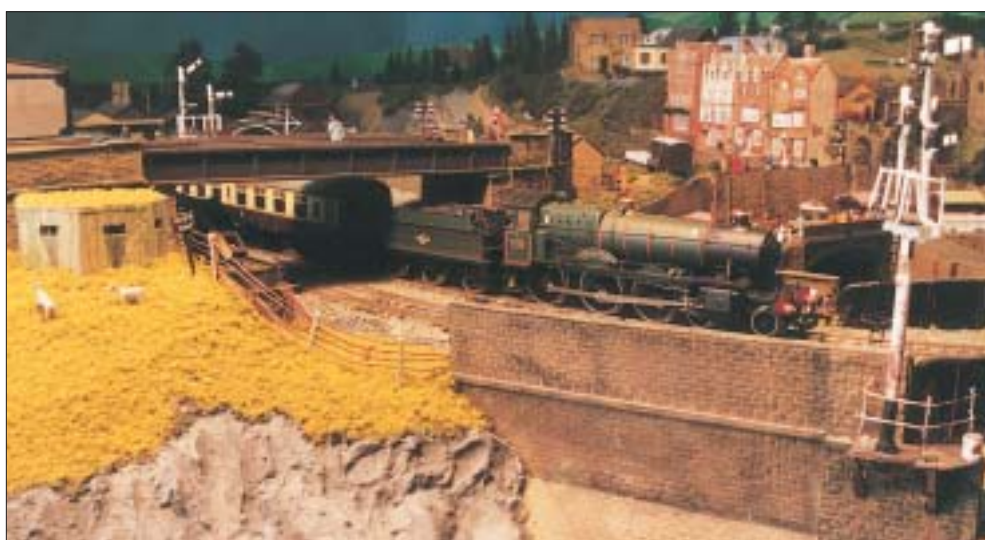
aren't quite 4mm scale. These were purchased very cheaply whilst on holiday in Tenby.

I mentioned to Lisa about making a disused railway on the layout and so we added an old 009 disused slate railway which comes down between the road and the stream into the harbour with an old loading dock where the slate was transferred into standard gauge wagons. Plenty of clump foliage was added to make the old track disused for years; the stream was finished off by painting the base brown and green with white streaks over the waterfalls, then resin and hardener were mixed and poured down the stream making various small ponds behind the waterfalls.

When the resin had gone off a couple more mixes were made up on separate days and again poured down stream to make the ponds look deep. One problem with resin is that it smells the house out. A heron was placed on the side of the small waterfall and some swans added on a nearby pond. A ginger tom cat watches the scene from the disused narrow gauge railway.

The beach was shaped from plaster along with the waves running up on the beach. A channel was formed along the side of the quay where the stream enters the harbour. We wanted the sea to look as if the tide was coming in and the channel was flooded. The beach part was covered with PVA glue and real dry white sand was applied but when dry the surplus was brushed off but didn't look right so the whole area was painted a light fawn colour.

Now the plaster had dried for the sea area, and this was painted in a sealer and then with mixed acrylic paints like a turquoise colour with white for the front and tops of the waves. When dry I mixed up a cup full of resin and painted the whole area pouring the surplus into the channel. When this had dried I painted a brown tinge part way down the channel from where the stream enters the harbour and then a couple more mixes of resin were added while the resin was still wet. Two small



Right: Collett 0-6-0 leaves White Sands Bay with the up Cambrian Coast Express.

Below: Ivatt tank about to cross the harbour on the girder bridge with a short freight.

fishing boats were added along the quay plus a man fishing in a small rowing board added near the railway bridge. Some people and children were added to the beach area, building sand castles and damming up the stream. Lisa placed a few dogs on the beach and swans in the harbour.

We wanted a small fishing trawler to finish off part of the layout next to the railway bridge on the seaward side. We managed to purchase one for less than £5.00 from a craft shop whilst on holiday. This has had the hull cut down and repainted along with rust streaks to make it look old and neglected. This was then glued as if it had stuck on a sand bank waiting for high tide. Just above it on the hillside we placed a pill box and old relics of an anti aircraft battery which were placed there during the war to protect the railway bridge which was all overgrown.

The station

The signal box was part of a Ratio Highley signal box kit but the top half was scratchbuilt along with the lever frame and interior. When complete this was added opposite the station and sidings, this being one of two, the other (top half of the Ratio kit) with a scratchbuilt lower half being placed on the branch line opposite the castle. Both signal boxes have been altered to resemble LNWR boxes. These signal boxes have full interiors painted and weathered along with a light inside. I also made a foot crossing for the signalman to cross five of the tracks for delivering and receiving single line tokens to and from from the loco crews.

The platform was made again out of plasticard with Slaters paving slabs plastic sheets glued together with liquid poly. All the paving slabs were painted one by one with three different acrylic paints. This was a tedious job, but well worth the effort when finished.

The station building was a Ratio one of Castle Cary, which was a brilliant kit. We made another small canopy which covered the side



area to fit up the main platform canopy for use of the bay platform. In turn the platform was finished off with station platform fencing, seats, flower tubs, people, platform lamps etc. Two Dapol water cranes were added along with a Ratio junction signal kit.

Opposite the bay platform a small cattle dock was made along with a goods platform where various vans can be unloaded without blocking the bay platform. There was a Wills goods yard crane added along with various huts and a small goods shed. The latter was constructed from 30 thou white plasticard, with embossed stone faced plasticard glued on with liquid poly, then this was painted with Humbrol 84 Stone and weathered. Other small details were added such as coal staites and weighbridge.

The tunnel portals had small castle turrets added to blend in with the castle. We added a small junction mentioned earlier, just behind the castle. This was a two-road fiddle yard again but was blended in with the scenery.

The layout was wired with two-train operation in mind. I already had a twin controller (AGW) so a track diagram was made out of white faced hardboard with black 4mm wide vehicle stripe to make the track plan.

Then double-pole switches were placed and wired up for two-train running, seven sections in total. This also means you can use either one of the two controllers for either inside or outside tracks.

A 12 volt open-cased transformer was installed for lighting when required and also LEDs for the switches on the point motors. All the Peco point motors are powered by another open-cased 24 volt transformer through a CDU and a probe for switching with studs on the track diagram. All the point motors were wired up with train protection. Two or three points can be changed at the same time and there are catch points so wagons cannot get out of the goods yard onto the main line.

Locos and stock

From Bachmann: *Foxcote Manor* (BR livery); Black GWR 2-6-0 Mogul (BR); Black Pannier tank (BR late); Black Ivatt 2-6-2T; Black Pannier tank (BR early); Cambrian Coast Set; two-tone green Class 25; Two-tone green Class 24; Collett 0-6-0 Tender loco with *Cambrian Coast Express* headboard.

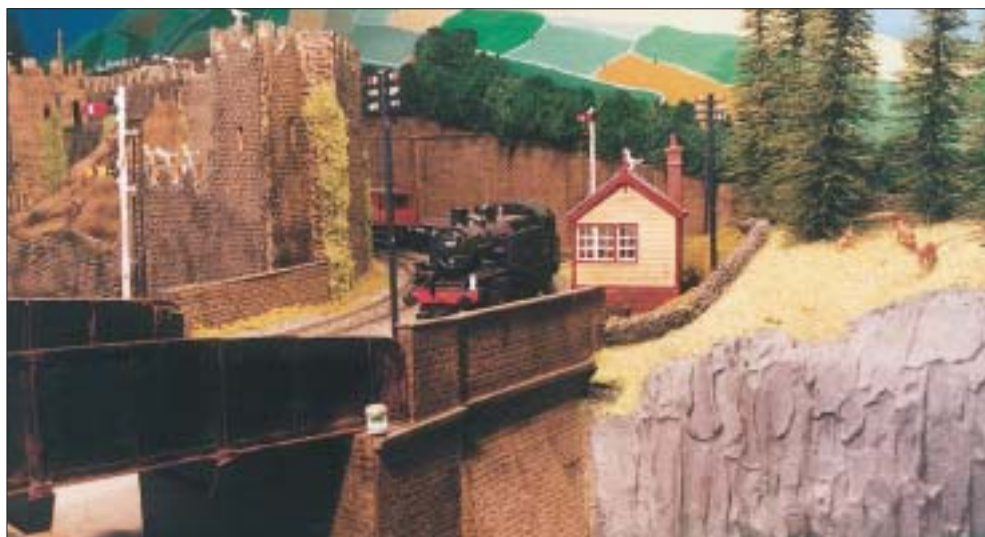
From Hornby: Patriot *Caernarvon*; 14xx tanks, seven in number, all with different running numbers.

We also have nine Bachmann chocolate and cream coaches with *Cambrian Coast Express* nameboards (three loco sets), three Bachmann maroon suburban coaches, and various 16 ton mineral wagons (from Dapol kits), vans and brake vans.

The future

We have based the railway on the early 1960s era, but Lisa has since taken a fancy to the private owners' wagons, especially all the Welsh ones which come from Hornby, Bachmann and Dapol, so it now looks as if the railway might go back in time by another twenty years or so.

We would also like to thank Dennis Bushell of Belper for all the discounted Hornby Locos we have purchased from him over the years, Pennine Models at Howarth, and Brian at Rails of Sheffield.



Scale drawings

Brake van E5 of the Isle of Man Railway

A prototype that may also be useful to freelance modellers

Jonathan Joseph begins an occasional series related to Manx stock modelled by **Robin Winter**.

Eight four-wheel brake vans were built for or by the Isle of Man Railway, but only seven were on the rails at any one time.

The first four were supplied by Metropolitan Carriage and Wagon in 1873/4 for the opening of the original section of the railway between Douglas and Peel. These were numbers E1-E4, according to the IoMR scheme, which allocated a different letter (and fresh number series) to each vehicle type (A-D were the other contemporary four-wheeled passenger stock). Expansion of the system caused the fleet to be increased by a further two (E5 and E6) in 1876, and these things rested for a while.

In 1893, E1 was destroyed in a collision at St. John's. The Manx Northern Railway, with whom the IoMR did not always have the most cordial relations, were judged to be to blame, and duly footed the bill for a replacement. This was again supplied by MC&W (in 1894), and took over the number E1 from the vehicle it replaced. However, some parts of the original E1 were apparently still usable, and the IoMR themselves built another van to the same drawings in 1895, giving it the number E7. Further parts from the wreck were incorporated into a freight van built the following year, so one wonders quite how the MNR felt about paying for a wholesale replacement!

All this shuffling left the IoMR with a homogeneous fleet of seven vans, numbered E1-E7. Their appearance at this point was quite markedly different to the drawing, guards duckets being incorporated on both sides, adjacent to the double doors, in the area now occupied by horizontal planking. High and low footboards also ran the full length of the chassis.

Fairly rapidly, the four-wheel stock was found to be not wholly satisfactory, and for passenger carrying bogie vehicles were ordered from 1876. A number of these had a single compartment allocated to the guard, but very few had any significant luggage accommodation, so when more was required, the four-wheeled vans were often used in trains otherwise entirely made up of bogie stock.

In 1909, a start was made putting pairs of the surviving four-wheel coaches onto bogie chassis, a process which took 18 years to complete. The brake vans were excluded from the conversion programme, however, remaining as four-wheelers.

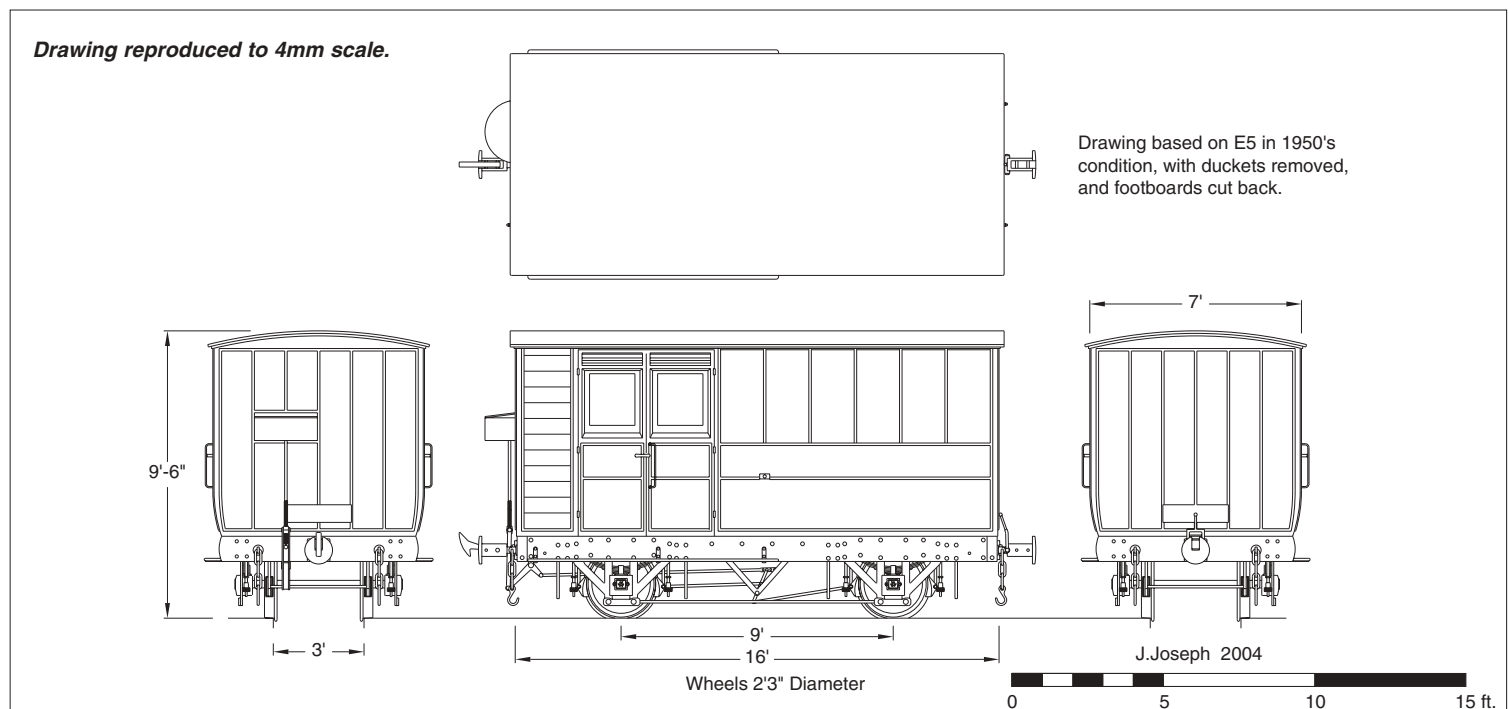
There was also further new construction, and thereafter there were usually sufficient bogie vehicles with luggage/guard compartments (effectively brake thirds and full brakes)

to satisfy traffic requirements, and the original vans seem to have fallen from grace somewhat and been used as slightly superior merchandise vans when extra capacity was required, which only happened to have guard's accommodation.

E3 and E4 were scrapped before the others, in 1921 and 1923, and in order to close up the resultant gaps in the numbering scheme, E7 was renumbered E3, and the replacement E1 became E4; thus there were now five vans in traffic, numbers E2-E6. To complete the confusion, a completely different former Manx Northern van (their 19) was then given the number E1! Incidentally, the MNR vehicle can be readily recognised in photographs from the fact that, compared to the IoMR pattern, it had an additional single door on each side.

E4 (formerly the replacement E1) was itself withdrawn in 1925 and converted for us as a breakdown van with the crane and match trucks; it was still extant in 1973.

The bodies of scrapped vans were often used as stores and goods sheds, later survivors often replacing earlier examples in these functions when scrapped. Some went into static use with their guards' duckets intact, while some had them replaced by horizontal planking while still in service.





The final survivor was E5, used as the stores van at Douglas until 1963, without duckets. (Just for variety, one of the two van bodies successively used as a shed at Peel Road had the duckets still present, but the main door aperture has been filled with rough horizontal planking on at least one side, and the brake wheel housing appears to have been removed, and possibly replaced by straight panelling.)

The remaining vans were all withdrawn before the preservation era, though apparently a body survives, having been sold off and used as living accommodation. I do not know whether enough of it survives to allow its use as the basis for restoration.

Notes on the drawings

The drawings illustrate the vehicles in the later condition, and are specifically based on E5 as it appeared in the 1950s with guards duckets removed – unfortunately, there is simply insufficient original information available to reinstate these with any accuracy and so produce drawings of the vans as built. As can be seen, the former ducket position was filled in with horizontal planking to produce a nicely balanced, but still asymmetric, body style – with the ducket removed, and in the two-tone brown and tan livery in the 1950s, the vehicle had a distinct L&Y feel to it. The exact height of the planks used seems to have varied, and may be different on each side of the van!

The footboards are shown as later modified, the upper one cut back to half length and the lower one entirely removed, although its hangers are still visible. When the vans were new, both boards ran the full length of the vehicle, in a similar pattern to that used on the accompanying passenger stock.

The remaining detail placement has been worked up from known dimensions and photographs.

Notes for modellers

As far as I have been able to trace, there are no kits, less still ready-to-run versions, of these vehicles available in any recognised scale; apologies to any manufacturers I may have missed. However, with a plain roof, but two windows on each side, and simple panelled sides with only a slight tumblehome, it should prove simple enough to scratchbuild in the modeller's choice of material, and perhaps ideal for a first attempt or as a test piece to try

Above left: E5 in use as a stores van at the end of the Port Erin departure platform at Douglas station, still in the two-tone brown livery. The van stood here for decades but was removed in 1963.

Photo: R.Powell Hendry.

Above right and below right: two views of Robin Winter's 4mm scale model of E5.

Photos: Robin Winter.

out a new technique – a chassis could either be purloined from a ready-to-run donor in the chosen gauge, or made up to suit. In the larger scales, such niceties as opening doors could also be incorporated if required.

I have to admit that when I first started this drawing, my intention was to build one myself on 45mm gauge, thus making good a shortage of luggage carrying capacity on my embryonic layout. However, since then, the drawings for a rather more suitable vehicle have come to light, and this has duly replaced the IoMR van in the building programme. What I can say as a result of this abandoned exercise is that for those working in either G (1:22.5) or 15mm/ft, the standard LGB™ single axle units (which incidentally run 30mm wheels) are unfortunately of a completely different pattern, since the IoMR van has its Wiroons directly below the chassis members, with the springs mounted inside them, a comparatively rare arrangement shared with some Irish 3' gauge stock. For those who are not bothered by such things, it may be possible to lift a complete four-wheel chassis from an LGB™ product, but I cannot vouch for the wheelbase.

Robin Winter adds:

Since the demise of the old Gem whitmetal kits of the IoMR four-wheel stock, it has been impossible to obtain any models resembling the 1873 vehicles, even though in one form or another many examples still exist. It is therefore down to scratchbuilding an E van.

At least two E vans were in use in the early 1960s, but both were destroyed by demolition gangs at Ballasalla in 1974. However, with modeller's licence I decided to have an example for my layout even though it is stretching the period.

Measurements were relatively easy to obtain from various publications. The chassis and body were simply constructed out of styrene sections and plasticard sheet. The whitmetal

running gear with brass bearings was left over from other projects.

E5 as modelled was still in the 1921 two-tone brown livery in 1957, so it can be assumed that it remained thus until the end of its useful service life as a mobile stores van at Douglas. The livery is in sharp contrast to the red & cream of the coaches, and adds welcome variety to my IoMR rolling stock.

Many of the IoMR and MNR vehicle bodies were used as grounded goods sheds, for example at Santon, Peel Road, and Sulby Bridge, so they could be included as a scenic feature on a later period layout.

Bibliography

Unfortunately, very few of the many published sources have further details of these vehicles, but the books listed below contain some material, mainly photographs, that may be of use to modellers. There are doubtless others in the huge volume of books published on the IoMR, but modellers should beware of the fact that a vehicle numbered 'E1' can be either one of two separate vehicles of the type drawn, or (at a later period) the ex-MNR vehicle of similar size but entirely different pattern!

Isle of Man Railway, Volume 3, J.I.C.Boyd, Oakwood Press, ISBN 0 85361 479 2.

Isle of Man Classic Steam, Robert Robotham, Colourpoint, ISBN 1-898392-43-9.

The Isle of Man Steam Railway, Barry Edwards, B & C Publications, ISBN 0-0527756-0-3.

Rails in the Isle of Man, Robert Hendry, Midland Publishing, ISBN 1-85780-009-5.



The Isle of Man Railway

A modeller's inspiration – 2: the permanent way

*In the second of his occasional series on modelling the Isle of Man Railway, enthusiast and modeller **Robin Winter** looks at the permanent way – the basis of any layout, and crucial for the right look.*

Now we get right down to track level, literally.

This section is all about attention to detail, looking at some of the infrastructure and detail the railway passenger would not always notice or probably even want to look at! These are the features that make the railway, its surroundings and environment within the boundary of the line, what is outside the train window, by the track and the track itself. It would be impossible to cover every artefact in one article but this should give a flavour.

Some things you really need to go looking for, some items just appear and you think that it might be nice to make for the model railway. Sadly, many original IoMR details have been removed forever and are not there to photograph now, or, even if they still exist, certainly are not in their original position. Since all the island's railways have come under government control, some items have migrated from the Manx Electric Railway, such as point levers. Therefore, archive material from publications or museums is essential to get detail right.

All the original IoMR gradient posts are now all gone, fences and fence posts have been modernised, and level crossing gates will soon all be modern lifting barrier types. Many variants of historic types of signalling equipment have disappeared.

Most stations on the surviving Port Erin line now have platforms, which until very recent years never existed, with the exception of Port



Soderick and Port Erin. Those that do not have platforms will have them by the end of 2004, including Ronaldsway Halt. Ballasalla station has been completely modernised and I am sorry to say it reminds me of something from a 'Thomas the Tank Engine' story! It is totally out of character with the old building that once stood on the north side of the running lines, which was very similar to that still existing at Santon. Castletown station has had the

grand wooden balcony canopy and platform shelter removed.

With the increase in promotion of public transport on the island for residents, a need has arisen to improve facilities at some stations. As a result, some stations have been 'improved' with brightly coloured modern bus shelters. If your interest is in historical and not current operation, please do avoid these bus shelters!



Above: Sulby Glen station c.1970, just two years after closure, shows the traditional IoMR crossing gates which are soon to disappear from the island's remaining steam line as a result of the installation of modern lifting barriers. This was one of the most picturesque stations on the system.

Left: two distinct lines left St. John's towards the west as if the railway had been built as double track. In fact they were two single lines, the line to Peel on the left and the Ramsey route to the right. They parted company about a mile further west from this point, with the Ramsey line taking a sharp rising right hand curve to the north over the A1 Douglas to Peel road. The Peel line followed the course of the River Neb over which this girder bridge carries both lines, shortly after the level crossing at St. John's station. Note the two different types of track – the Peel rails are spiked whilst the Ramsey rails are chaired. The photo was taken in 1954 well after the MNR ceased to exist; as it was known to have 'chaired' certain sections of track, it is possible that these were original MNR fittings.

The rakes of coaches on the right are sitting on the Foxdale branch tracks, towards St. John's West station.

Photo: the late David Odabashian.



Track and ballast

Texture is very important, and although we cannot feel texture from a photograph, as modellers we should still give a good visual indication of what the surface of an item should feel like. This is all too true when laying track. If you use a coarse 4mm scale ballast for the old IoMR trackwork, it will never look right.

Round sleepers were used at first on the IoMR, with flat bottom rail spiked directly to them. This was then buried to rail top level in whatever mineral was available for ballast. This practice continued almost to the present day in places.

The Manx Northern used conventional shaped sleepers from the start. The stretch near Gob-y-Deigan, curved sections on the Manx Northern, and the Foxdale line had rails in chairs.

Normal shaped sleepers eventually replaced round ones on the IoMR. Ballasting was eventually done in places only to sleeper top level due to the discovery of excessive corrosion, except within most station boundaries, where the track was little more than a groove in the ground! There were also periods when the track could not be seen for weeds, moss, and grass.

Ballast was never imported to the Island. Most of the shingle, bog ore, or gravel was taken from the pits at St. John's or other local sources. However, the Foxdale Railway and parts of the Manx Northern used the spoil waste from the mines at Foxdale. As this spoil naturally contained lead, areas of track ballasted with this would not allow weeds to grow. The Foxdale line track which was still in place in the 1970s was virtually weed free, even after 30 years or so out of use.

Even up to the 1970s track appeared to be very lightly laid, frequently far from level, with curves and turnouts that needed to be experienced!

During 2000 a controversial decision was taken to lay a new pipeline from Meary Veg, south of Crogga Woods (near Santon) towards Port Erin on the route of the existing railway trackbed. Many saw this as the end of the railway, which naturally brings in business for many Manx traders south of Douglas. This work resulted in some short line workings for a number of seasons, but a growing need for and interest in public transport for the Manx taxpayer and island visitor has resulted in the entire railway to Port Erin being relaid with new modern track. Gone are the staggered curves and track buried in mud, gravel, or ash with rails that were once spiked into the all-too-often rotten sleepers – along with a lot of the old IoMR charm and permanent way fixtures. In its place are new sleepers, with Pandrol® clips to retain the heavier rails, smoother turnouts, and the ability to run at greater speeds with a smoother more comfortable ride.

Stop blocks

The IoMR were typical narrow gauge operators in as much as they seem not have a standard type of stop block. Through the ages many were no more than sleepers dumped across the ends of the rails.

Douglas had some fine timber baulk blocks, which is just as well as in 1925 a serious accident occurred and No.3 *Pender* still landed on the platform concourse despite these robust blocks.

No terminal track or siding end was the same. Old rails and sleepers were recycled and used. A more robust original block exists still to this day at Port Erin, but I have never been able to establish whether the now very corroded wrought iron uprights were recycled from a bridge or if they were purpose-built. They support a very chunky and heavy timber cross beam.

Above left: the Isle of Man track we all knew and loved! Buried in mud, weed, or grass, and photographed well before the current track renewals.

Above: new trackwork, seen at Ronaldsway.

So it was not just in the loco works that the IoMR recycled items from engine to engine. Many sundry items like signals and track accessories from around the system were simply swapped or re-sited. With the integration of all the island's railways and tramways into the 'Isle of Man Railways', this recycling continues on a wider scale.



Below left: IoMR stop block at Port Erin.

Below centre: also at Port Erin, this siding stop block is of totally different design. The locomotive pony truck is all that is left of No.2 Derby.

Below: the Ramsey arrival platform at Douglas in recent years with the remains of what would have been very stout stop blocks.

Above: the 2003 version of the IoMR stop block, which is becoming universal throughout the line. This particular one is at Castletown.

Photographs by the author, unless noted.



Plan of the month

Modelling Staines West as a WR/SR 'shunting layout'

Giles Barnabe explores the possibilities in 00 and N scales.

When I was young, Staines used to be served by both the Southern and Western regions of BR. At Staines Central trains from Waterloo to Windsor and Weybridge were split or combined for onward travel, while 2-car semi-corridor units provided the Reading services. Meanwhile, across the town, the old GWR terminus was still used by an occasional goods train and a sporadic passenger service provided by a single railcar running to West Drayton.

Up to the mid 1960s the town's main industry was the production of linoleum, and at one time this provided a major source of freight traffic, and the GWR even developed special wagons for its carriage. Even after the passenger service ended the line kept going well into the blue diesel era on oil and scrap metal traffic at Colnbrook, while a domestic fuel-oil depot at Staines kept the old terminus in business. Today the M25 has been built over the last few miles of the branch, though the section from West Drayton to Colnbrook still exists and EWS Railways has its signboard up at the station, which serves a fuel terminal in conjunction with nearby London Airport, though there is usually little sign of any traffic. Beyond Colnbrook station the branch retains a ghostly image and at one time one could follow the rusty tracks through the woods and over the river until they ended buried by the embankment of a motorway interchange.

Despite being cut off from its old route, the branch terminus at Staines remained in use for occasional trains of oil tankers up to the final decade of the twentieth century. A new connection was made with the old ex-LSWR Windsor branch, which was reached by bridging the Wyradisbury River, which separates the two lines. Trains now arrived and ran into a headshunt (the remnant of the GWR branch), before setting back into the old goods yard area. After shunting had been completed the platform run round loop was used to get the locomotive at the other end of the train, which then set back into the headshunt preparatory to leaving.

By 2000 the oil terminal had gone, however, and large saplings were growing across the site of the tracks, though the platform loop was still to be seen as was the ruined platform, which was backed by a low brick wall at its outer end; this rose to full height where it had once supported the rear of the old canopy, which had been removed after the end of passenger services, although the supporting pillars were left in place for some time after-



wards. The main station building (which had originally been converted from a private house, and so never looked typically 'railway') has been made into offices.

The whole arrangement is about as near a full sized 'shunting layout' as one could get, with the connecting line across the river bridge vanishing into the trees as if entering a fiddle yard.

In N gauge the whole thing could be laid out fairly generously in 8' x 1', possibly split in

half for portability, and you could even get away with up to a foot less on the 'country' board. It might be best to stick to the BR era in this scale, and both Class 08 and 33 diesels should be available, along with modern image tankers. For a little more operational variety a wedge-shaped baseboard extension beside the station would provide some space for a freelance Speedlink depot.

In 00 the baseboard would need to be around 12' x 2'. With this scale a little more

Above: the roadway side of the old station.

Left: the new connection with the Windsor line can be seen curving off to the left. Oil tanks visible centre background.

Above right: the old station with the platform visible behind the car park fence. Note old canopy supports converted to street lamps.

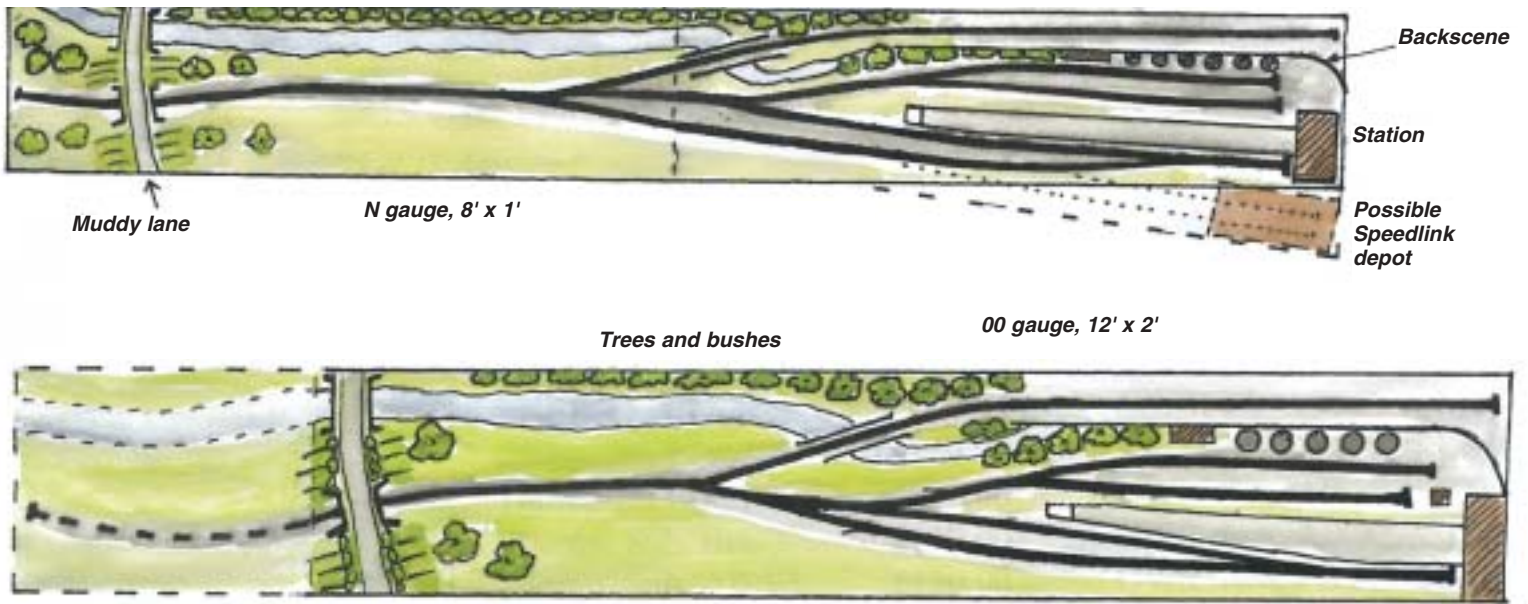
Above far right: the ruined platform at the old passenger station. Beyond the chain link fence in the background a train of tank wagons can be seen and the fuel loading point.

Right: the connection to the Windsor line, seen on the right. This is actually in the model version's fiddle yard.

Far right: the bridge carrying the 'muddy lane' over the line which ends just through the arch. Once it led to Colnbrook and West Drayton.



Photographs by the author.



variety of rolling stock is possible, using Class 33 diesels for the BR blue era. Set the clock back to the early BR period to run the Panniers and 14xx 0-4-2Ts of earlier times. In this case either an autococh or ex-GW single railcar in carmine and cream would provide ideal space-saving passenger trains, though at one time I believe there were rush-hour services direct to Paddington with BR compartment stock, hauled by large Prairie tanks. For the earlier period one would reinstate a general goods yard in place of the oil terminal, and there was also a small single-road engine shed. Goods services could feature some linoleum wagons in the wagon stock, though luckily you could dispense with the smell of the manufacturing process which used to hang over the town in those days.

In between these two options the whole

thing could also be done in H0 when a slightly compressed plan, using shorter trains – four wheeled tankers rather than bogie vehicles – would make it seem busier; in this case the plan could be fitted into a length of perhaps 8'-10', and this could be split into two or three sections for portability if required. Width would be about 18", though in this case the wedge shaped addition at the station end could usefully ease crowding.

In all these scales the section where the line runs through the road bridge could be bent round to run at right-angles to the station board so as to save on length. Suitable H0 motive power would be Class 33 or 08 locomotives, both of which types can be provided by the conversion of proprietary models. Turn the clock back to BR (W) days and you can use the Pannier kit (and perhaps the DMU)

from Firedrake or the B set from Allen Doherty – though an autococh would be more typical. For this option the layout would be a direct terminus to fiddle yard plan, without the kick-back exit, the line vanishing into the trees beyond the road overbridge.

As drawn the track plan is almost identical to the original as it was in its final days, though the fuel depot contained another siding or two in reality. However it does provide a nice compact prototype for the BR blue era, and one that has some interesting 'scenics' too, having a much more rural appearance than its location might suggest. It is only in the period since closure that large buildings have appeared next to the railway fence, and before this the site remained amazingly rural and the suggestion of a few roof-tops among the background trees would suffice in model form.



Loco building on the cheap – 1

Converting the Hornby Merchant Navy into a Light Pacific

*The first of a six-part series in which **K. Chadwick** describes how to construct 00 gauge locomotives which are currently unavailable as ready-to-run models by using commercial parts.*

I think that many in the railway modelling world agree that the Chinese Hornby Merchant Navy Pacific is magnificent and is probably the best thing that Hornby has so far produced. There is a limit however to how many you can run on a layout. So to add a bit of variety to mine I explored the possibility of rebuilding a Merchant Navy into a rebuilt Light Pacific.

The Merchant Navy is 2' longer than the Light Pacific: the main reason for this is that the firebox of the Merchant Navy is 15" longer, which equates to 5mm in 00 gauge.

I found that it was possible to shorten the loco body to resemble more closely a rebuilt Light Pacific whilst retaining the original chassis (though with some modification).

Stage one – the loco body

First of all separate the loco body from the chassis and remove all under-cab pipework (including the injectors) from the fireman's side. Then remove the safety valves and the wire (pipe) that leads to the whistle.

Disconnect the reversing rod from the front of the cab and remove the rearmost handrail knobs from both sides of the firebox.

With a craft knife (or similar), separate the cab from the rest of the body by cutting through immediately in front of the rearmost boiler band then remove 5mm from the rear of the firebox and ashpan ensuring that five firebox stays are left on each side of the firebox (see figure 1).

Next, with a hacksaw, remove the bottom half of the injector support bracket to enable the pony truck to swing (see figure 1).

Remove the cab backplate – it is underneath the cab floor just above the tender drawbar (see figure 2); it is only glued in place so a penknife blade should do it.



Clean up the front of the cab and the rear of the firebox with a file or emery cloth: at the same time try the two parts together for a clean and square fit and when satisfied, glue them together.

When the glue has set fill in any obtrusive gaps in the join with filler. I actually used PVA adhesive for this job: being a liquid it worked into the gaps very easily and being a glue it reinforced the join. N.B. Make sure that no filler gets into the holes of the firebox stays.

When the filler/PVA has set, remove any excess and then drill a 1mm diameter hole, 1.5mm in the front of each forward facing cab window in line with the boiler handrail, then glue the rearmost handrail knobs into these new holes.

Shorten the reversing rod to fit the new position of the cab, and glue in place.

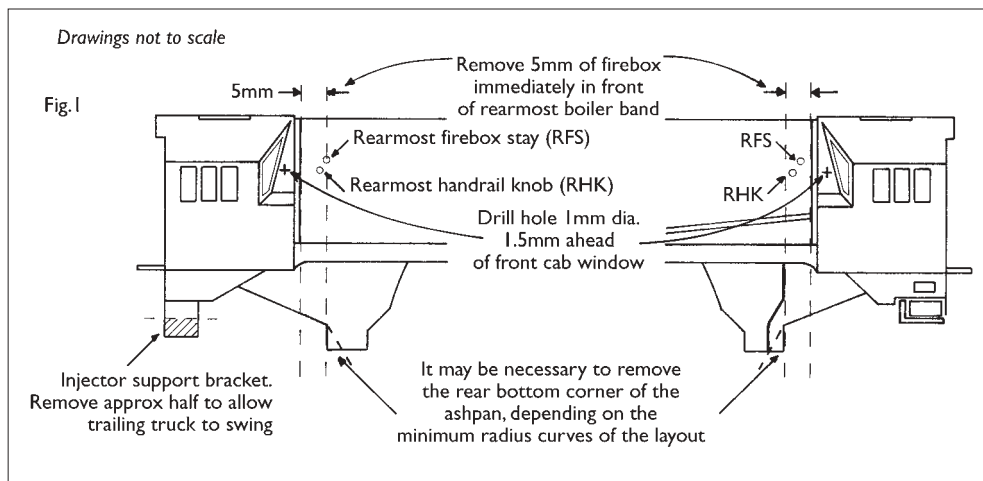
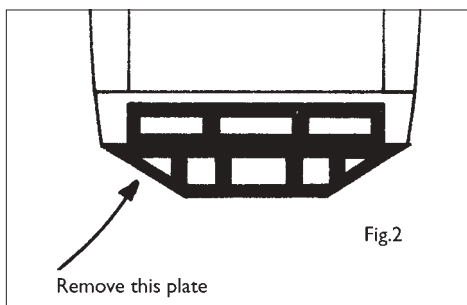
Replace the whistle pipe/wire (suitably shortened) on top of the firebox. Finally the safety valves – the Merchant Navy had three whilst the Light Pacific only had two (Markits produces these in its range of detailing parts and very good they are too!)

Fill the old safety valve recess with Milliput or similar so that it is flush with the top of the boiler. Then press the new safety valves into it, remove any surplus filler, ensure everything is square and flush and leave it to set.

Stage two – the chassis

There are only three jobs to carry out on the chassis. These are:

1. *The removal of the tender drawbar.* Having shortened the loco body by 5mm, something needs to be done about the tender drawbar, otherwise the gap between the loco and tender will be far too great. I removed the Hornby drawbar entirely including de-soldering the two current collection wires, wrapping the ends of the wires in insulating tape and taping them to the motor housing. The loco body still fits over them and the chassis still runs smoothly with power collection from the driving wheels only.
2. *The removal or modification of the motor retaining bracket.* Having moved the cab 5mm forward, the motor retaining bracket (Hornby parts ref. S4624) needs modification to fit (see figure 3). For those readers who do not fancy the sawing and filing involved, I must point out that the motor and chassis work just as well without this bracket and its main purpose seems to be to hold the rear of the body in place. However its modification and re-use does make for a better and more solid model, and less care is needed when lifting the loco on and off the track.
3. *The design and manufacture of a new tender drawbar.* This depends on which tender chassis is used, however after removal of the Hornby drawbar a 12BA size hole is left at the rear of the pony truck which will prove very useful for the fitting of a new drawbar.



Stage 3 – the tender

The subject of Bulleid tenders is very complex and whilst very interesting it would probably fill this magazine! As far as this model is concerned, I will try to be as brief as I can. As regards the tender there are a number of possibilities:

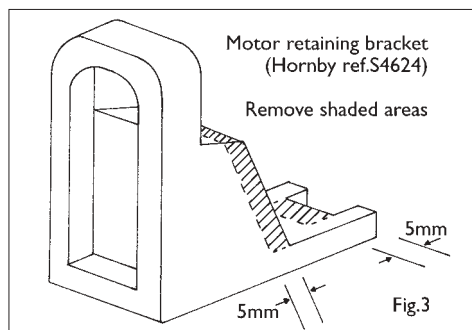
1. The tenders behind the Chinese Hornby Spamcans are magnificent models and if you can get hold of one with a cut-down body then grab it with both hands, although the existing drawbar on the Merchant Navy pony truck will still need to be shortened.
2. It is still possible to find secondhand Hornby Dublo and Wrenn tenders on the market, but these are expensive and only six Light Pacifics had this type of tender.
3. Crownline Models produced good kits for both the cut-down 4,500 gallon tender and the cut-down 5,500 tender, but as Crownline are no longer with us, these kits are like gold dust.
4. Dave Alexander produces body only kits for both the 4,500 and the 5,500 tenders to fit the Hornby Dublo or Wrenn chassis.

I decided to have a go at fitting one of these bodies on the Hornby (Margate) chassis. At the time of writing these chassis are still available from East Kent Models of Whitstable and Modelspares of Burnley. In order to make the body fit the Hornby chassis, the base of the casting for the tender front has to be removed (as per figure 4). With this done, the body should now fit squarely on the chassis.

Dave Alexander's kits have a reputation for good quality, clean, crisp castings with very little flash. This tender body kit is no exception and is so easy to construct it can be almost thrown together! I used UHU glue for its assembly – again no problems – it works very well with metals. It is strong, yet forgiving if you make a mistake as the parts can still be prized apart if necessary (unlike some glues) and there are no fumes either.

Having assembled the tender body try it for a square fit on the Hornby chassis. In the process note that the body is 5mm shorter than the chassis, and there is also a 2mm square gap between the top of the buffer beam and the bottom of the body. The latter problem is easily rectified by glueing a 32mm length of 2mm square microstrip along the top of the buffer beam (see figure 5).

I made two saw cuts through the chassis to shorten it by 5mm (see figure 6). I first removed the front of the chassis with a saw cut immediately in front of the leading pair of



springs. I then cleaned up the sawn edges with a file and glued the front back on to the chassis. I then fitted 12mm diameter Jackson wheels, vacuum pipe and coal into the coal space. I then painted and lined the model (Modelmaster transfers and Humbrol satin varnish). I then finally glued the body to the chassis.

The completed tender looks very good in my opinion and performs very well in traffic –

the metal body providing enough weight for the tender to remain as steady as a rock whilst on the move!

While I was preparing this article Hornby has introduced 35012 *United States Lines* and 35016 *Elders-Fyffes* (pictured below) onto the market, both of which have 5,100 gallon tenders with a 13' wheelbase, i.e. the same wheelbase as those coupled to the Light Pacifics. So one of these chassis combined with the Dave Alexander body kit might be another avenue worth exploring.

Stage four – finishing off

Once you have got your tender, from whatever source, manufacture a drawbar out of wire or scrap brass and start road testing. At this stage you can try fitting the under-cab pipework and injectors and see what your track radii will allow.

As you can see, the result is well worth the effort; give it a try and good luck!



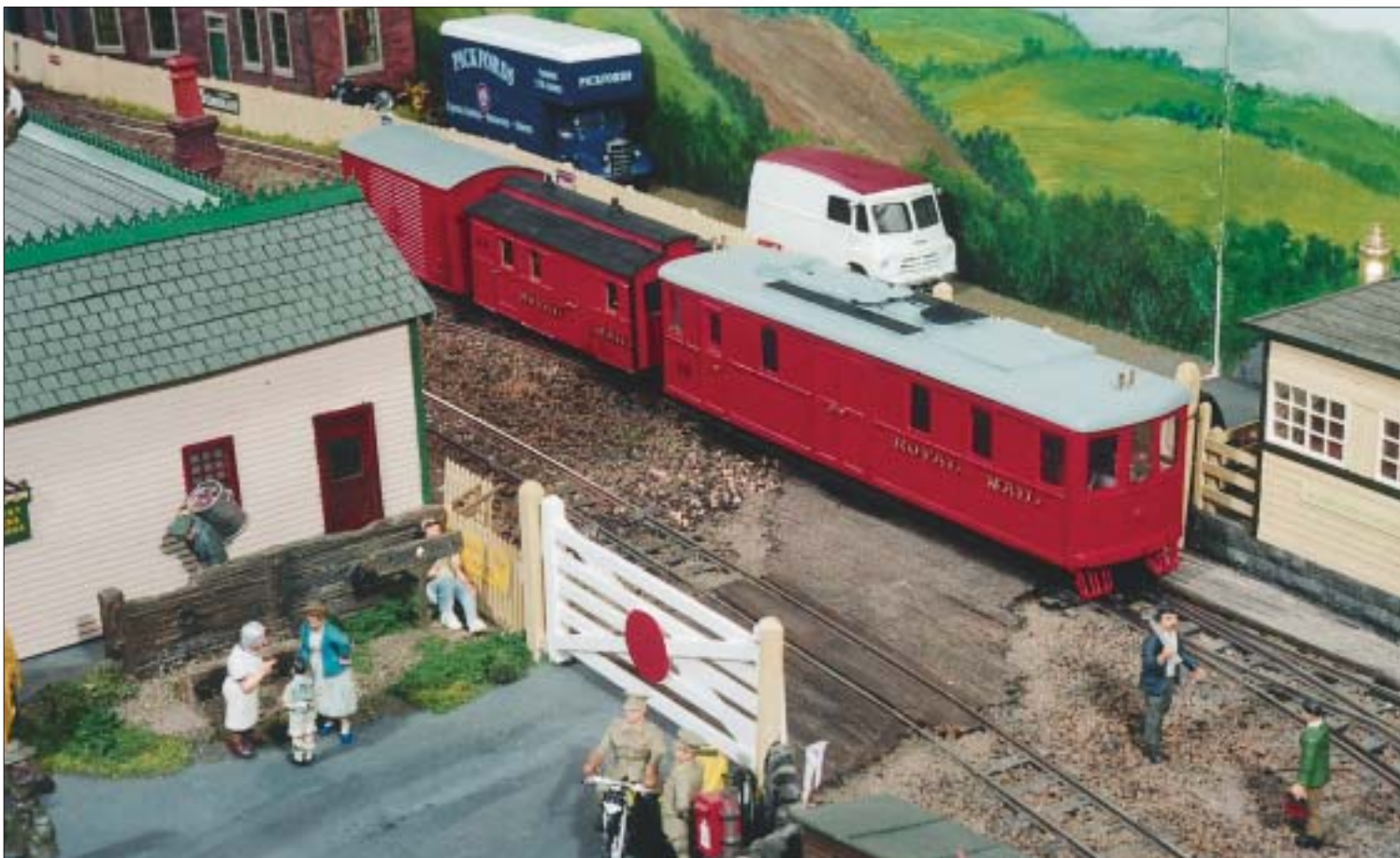
Fig.4
Remove shaded area; also omit the rear securing plate from the assembly

Fig.5
When the Dave Alexander body is placed on the Hornby chassis a 2mm square gap is left. Fill with a 32mm length of 2mm square microstrip

Fig.6
First cut immediately to rear of front steps
Second cut immediately in front of springs of leading axle

The completed model is of Battle of Britain Pacific No.34050 Royal Observer Corps. The nameplates, crests and cabside medal ribbons are produced by Guilplates.

Photographs by the author, Hornby 35016 by Peco Studio.



Blakecaster – part 2

7mm scale on 16.5mm gauge

Howard E. S. Clarke of the 7mm scale NGA, continues his account started last month.

The station area was tackled next. As mentioned, I had a station building and that was it. I wanted a slightly raised platform with the top surface about a scale foot above rail top level. Before fixing the ballast I laid a sub-base for the platform.

Remember with narrow gauge trains that the platform edge must be able to clear the widest piece of rolling stock that is to be used on the line. Unlike standard gauge lines, narrow gauge trains rarely conform to a standard width, and standardisation of my stock has never been a consideration, although I do have a standard maximum width and height. The platform sub-base is a sheet of 1/4" thick Sundeala board. On the platform edge, I added scale 24" square paving slabs made from 60 thou thick plasticard and covered the remaining area with a sheet of thick coarse cardboard. The cardboard was washed all over with acrylic grey paints of various shades, and the paving slabs painted individually.

The buildings

As Mervyn's station building was the only passenger structure I possessed, I added a waiting room/toilets building with the walls made from Evergreen scribed styrene and fitted with

Grandt Line windows and door. The roof came out of the scrapbox and I think started life as part of a Hornby station kit. This actually determined the size of the waiting room. The canopy is etched brass from the Scale Link range.

This building set the standard for everything that was to follow. In 7mm scale, windows in buildings are large enough to see inside, so starting with this, every building I have made since and added to the layout has had a detailed interior with illumination and, where possible, a figure or two. The fencing around the station is Ratio GWR, painted cream and fixed with contact adhesive. Several Sign of the Times metal-backed advertising signs/posters were superglued at strategic points where the fencing joined, which also strengthens the fence. This is important when building a portable layout which would get knocked about being transported around between shows and home.

The latest addition to the platform building is what I call the Porter's Room and is mounted at the end of the platform nearest the street. This started life as a small cast resin signal box kit. The kit has a fully detailed interior and it did not take a lot of imagination to realise that

the interior walls could easily be reversed and made into another building. This I did supplementing the interior with some scribed Evergreen plasticard, a few sticks of home made furniture and interior illumination of course. The only remaining structure on the platform is the water tower which has a dressed stone Ratio 4mm scale water tower base and a tank made from plasticard mounted on I-section Plastruct girders.

The station lamps are homemade using 3mm brass tubing for the main stem. The ornate cast iron base is a plastic hypodermic syringe needle case. I used to work in a lab and discarded many of these every day. If you ask nicely, your local vet or doctor's nurse will save them for you. The lamp glass is a length of 1/2" diameter Perspex tubing with a brass dished mirror screw washer above and below. This is topped off with a 7mm scale turned brass coach oil lamp top purchased from Home of 0 Gauge. Illumination is a 12volt bulb powered to 8volts from a 4.2amp transformer picked up at a car-boot sale.

The platform furniture consists of a couple of seats. Adding a bit of colour are half a dozen flower tubs along with a chocolate machine and a name stamping machine; I think there is

Opposite: bogie motorised Royal Mail railcar No.19 departs with the evening mail The railcar started life as an Airfix GMR Class 31. The new body is all wood except the ends which came from a San Francisco Cable Car kit. Some young people near the crossing gate is being threatened with time in the stocks unless he puts that catapult away.

Right: the wood yard.

Below: low angle shot across the end of the station with diesel No.12 0-8-0 standing in the headshunt with the crew eyeing the girls on the platform.

one of the latter still working in York Railway Museum. Figures and platform clutter are not fixed, but drop into pre-drilled holes as all my figures have a pin peg fixed into the legs. This allows variations in appearance from one exhibition to another.

Behind the platform railings is a small road/alleyway with a lady hanging out her washing being pestered by a bunch of kids. At the end of the alleyway is a motorcycle workshop detailed inside with plastic car bits, some posters on the outside, figures and motorcycles.

Between the tracks at the platform end is a water crane. I think it is a Lancashire & Yorkshire Railway design which I obtained cheaply at a swapmeet; it fits into the location very well. The crane on the end of the wood yard is a well-detailed whitmetal kit.

In the yard, mounted on a small raised platform, there is a small goods shed entirely made from Evergreen styrene fitted with a detailed interior and lighting. Although in a position like Blakecaster, a lot of goods in reality would have been trans-shipped, space did not permit a larger building; I think a larger one would have spoiled the overall appearance of the station area.



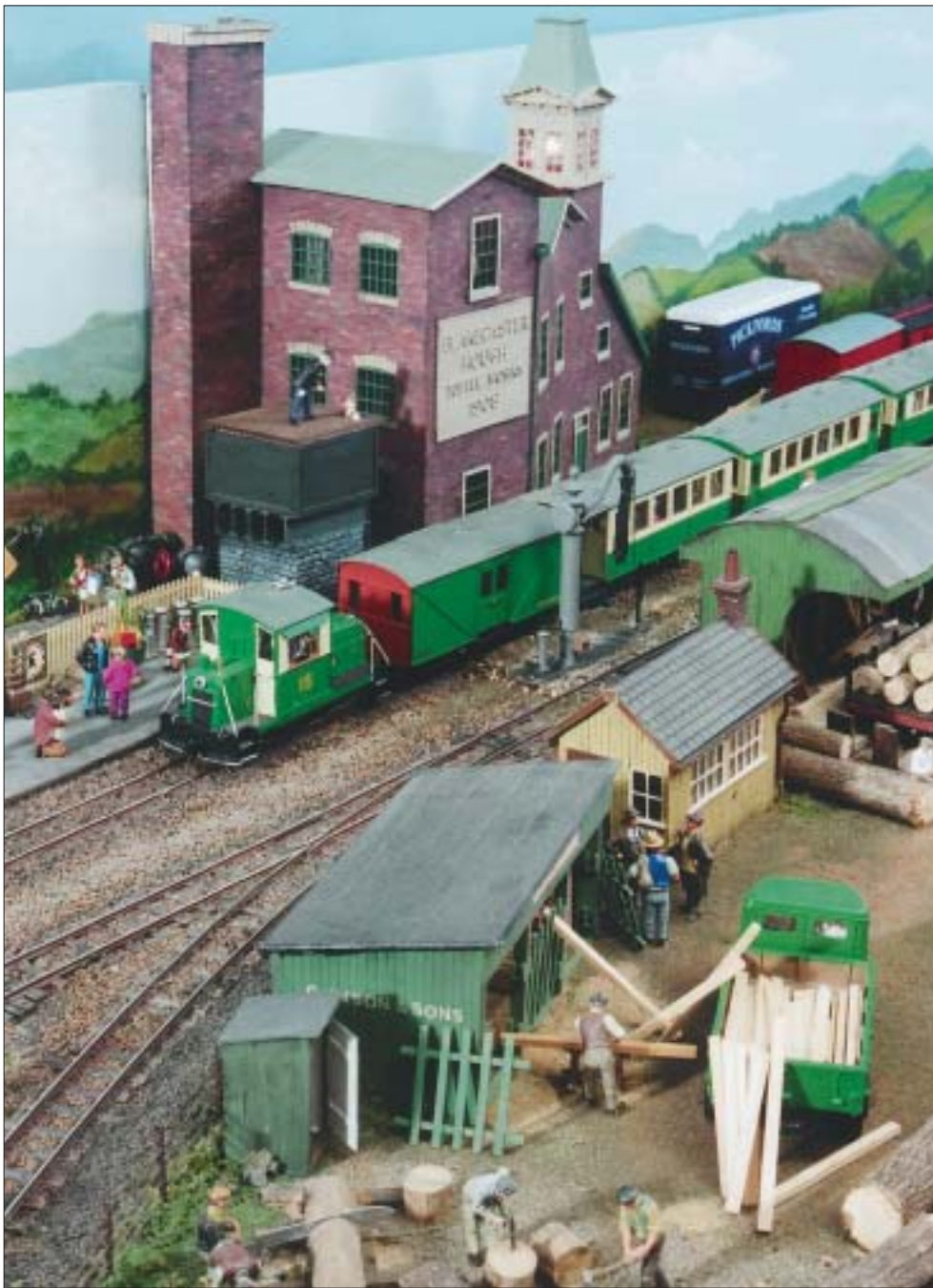
Adjacent to the yard are the coal merchant's staites. These were made from wood sleeper strip first stained with wood dye and built up with woodworkers' white PVA adhesive; the coal is coal. The coal merchant's office again started life as another small cast resin signal box, but I thought it made a much better coal merchant's office similar to the ones that were in the LNWR goods yard in Macclesfield.

The timber yard was built in stages. Mervyn built the wood storage shed complete with removable gates, built from Evergreen styrene with pink primed Grandt Line window frames inside. I added the cut lengths of timber later. Adjacent to this is an outside toilet. The office is a cast resin kit that has a detailed interior

and lighting. The wood yard cutting shed is a modified Ratio 4mm scale plastic kit fitted with 7mm scale corrugated iron roof; raised on a wood sleeper platform, it fits very well into the 7mm narrow gauge scene. The interior has several lengths of cut timber painstakingly glued into place. The circular saw table is little more than two pieces of stripwood with a redundant Mini-drill circular saw blade cemented through the table top.

Around the cutting shed, generous amounts of 'sawdust' were dry-brushed on to tacky cheap hair spray around the area for effect. Actually the sawdust is very fine wood dust collected from the dust collector bag of an orbital sander.





Blakecaster Hough toffee works is an exercise in plasticard, a totally freelance structure built to hide a bad joint in the backscene caused by my poor ability to cut and nail wood together squarely. I read an article somewhere on model building construction that pointed out that model buildings with many different roof contours are more interesting than a building with a single plain roof. Remember that most model railways are viewed from above, as from a low flying aeroplane, so roof details should be an important part of model building construction. Some of the works roof sections were again leftover bits from plastic kits; two sections have Wills plastic moulded roofing employing the pantiles sheet. Although designed for 4mm scale, in small amounts they do not look out of place in 7mm scale.

Most of the outer walls of the toffee works are twin layers of 40thou plasticard covered with embossed brick plasticard. Making up triple layers of plasticard helps to ensure that

there is no risk of warping. With twin layers, warping is most common. The windows are all Grandt Line. The interior is divided up into floors and rooms with some cheap figures strategically fixed into place near the windows. The 'works equipment' is an odd collection of empty film canisters, some unusual pieces of plastic medical equipment, plastic bits from the junk box and coloured plastic wire. Again 12volt pea-bulbs carefully sited between the works enhance the interior effect.

The level crossing gates were made from Evergreen strip with brass wire superglued into the ends to make hinges. The supporting posts are square brass tube securely glued into the baseboard top. I soldered short lengths of brass tube to the post to make the hinge supports. The gates will open, but only by hand. The signal box has a base and roof from a plastic kit for a 4mm scale Midland Railway signal box. I made a new window arrangement by using plain unframed Grandt

Line windows laid on their side supported by Evergreen panels. The roof is the original Airfix item covered with larger plasticard stone slates; the interior is fully fitted out with a lever frame, desk, clock and a stove.

The adjacent platelayer's hut is another kit. The locoman's cabin coach fell off a shelf at a friend's workshop who is a professional coach modeller and he had acquired it in a job lot and challenged me to do something with it, so I did. I then glued it on the layout as the locoman's cabin! The coaling stage is built from stained wood sleepers and the water tower is another collection of leftover bits from other kits. There might even be some water tower bits in it besides the legs. The open top tank has clear plastic sheet representing the water. This looks good when new, but collects dust very quickly and is a devil to clean; covered water tanks make life easier.

The engine shed was originally constructed from Evergreen styrene. Originally designed for small tank engines, first it had to be raised to clear my colonial locomotives; I then acquired some Bachmann 2-6-0s and it had to be raised again. I panelled out the interior, made the inside the usual engine shed grimy colour and added some bits of detail including an engine roster board, just visible near the entrance. The lighting was added and the rear of the shed was sited adjacent to the fiddle yard. By doing this, I can run tender engines into Blakecaster station chimney-first, have the engine enter the shed and when no-one is looking, run the engine through the rear end 'wall' into the fiddle yard, turn it and place it back into the shed. Then the engine backs onto its train to head chimney first to the fiddle yard.

Adjacent to the level crossing is the crossing keeper's house, Daisy Beds Lodge. Next door to where I live is a similar lodge that was at the entrance to the carriage drive for the local grange. This is a cement-faced L-shaped building with a fancy North Staffordshire style tiled roof. I opted to make my tied lodge as a timber building, L-shaped as my neighbour's and with a small garden between the main line and the wood yard headshunt. The model is made with Evergreen clapperboard walls fitted with large Grandt Line windows and doors. The roof is scratchbuilt from plasticard with a fancy ridge tile left over from a Hornby kit. The chimney is another excellent Grandt Line product that can be assembled in a number of different ways.

The interior is fully furnished, the rooms have pictures on the walls and all the windows have curtains made from coloured silk ribbon. The good lighting is due to an experiment with some Plastic 'crystal' beads, the kind out of which you make necklaces, which I spotted in a local haberdashery shop; each bead will just take a 12volt pea bulb and the extra effect when illuminated is amazing. The beads cost me 80p for 100.

The garden has a wooden shed of stained stripwood; the lawn is grass mat surrounded by colourful flowers from Britains, Ye Old Sod and Green Scene with a few figures to bring it to life.

Opposite: No.15 is a rebuilt Bachmann Spectrum 44-tonner seen arriving at Blakecaster with the push-pull train, passing the Hough toffee works. Labour is cheap around the Blakecaster Estate, hand tools are the norm in the wood yard.

Right: No 8 Sparrow arrives with more shoppers from the hills on market day while diesel No.13 waits in the yard for a clear road to depart. The coalman's truck was rebuilt from a Revell kit for a 1914 Mercer racing car. With no money about, things around the Blakecaster estate are made to last!

At the other side of the level crossing road is a small nursery offering bedding plants for sale with a tool shed, loose trays of plants and a greenhouse. Adjacent is Grandpa's Garage, a Smoky Bottom Lumber Co. kit. This is a small building for a garage, presumably a 1/48 scale model as I could not find a 1/43 scale car small enough to go through the door, but a plastic kit eventually came to the rescue. The interior is littered with plastic car kit leftover bits and a few adverts. It has mellow lighting. Around the outside are more leftover scrap/car bits all gently rusting away under a layer of Green Scene weathering powders. The petrol pump bases are Highland Architectural Castings; the domed tops are upturned bases from broken Subbuteo footballers!

Carriage Drive Works

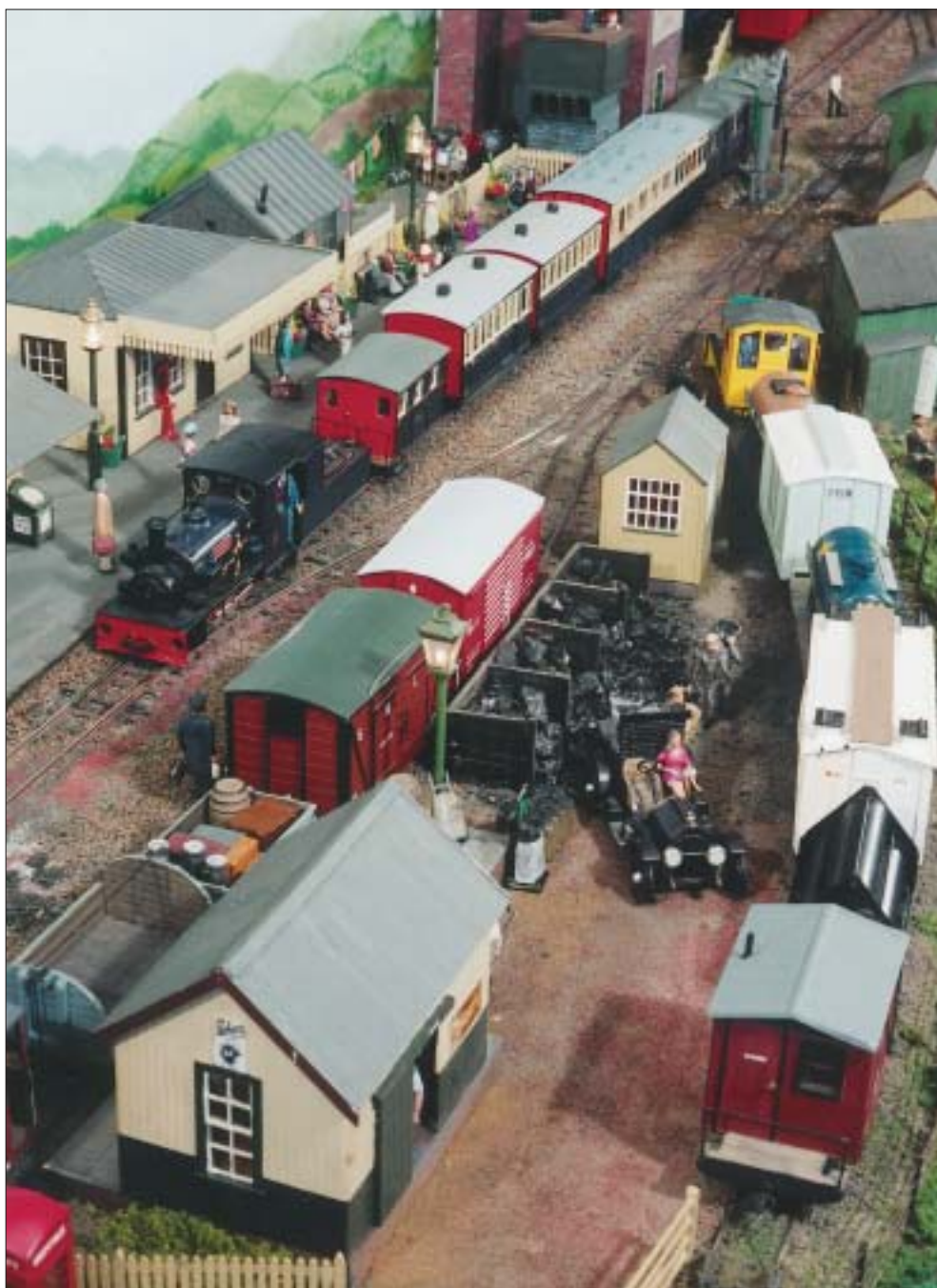
I built this little extension as a separate scene from the main layout with a view that I could exhibit it as a small layout in its own right. This has never happened and it has always been shown along with the original layout.

Access to the yard is under a small bridge at the end into a complex area of track. The buildings backdrop for the Carriage Drive Works yard hides the fiddle yard and is a labour of love. I like industrial buildings so I made the buildings to the full height of the backdrop. They were built individually so that they could be staggered slightly to get away from a completely flat wall.

All the buildings are made from 1/8" thick plywood covered with embossed plasticard. I marked out the window openings using the Port Wynnstay Models industrial windows as a template, attached the embossed plasticard with contact adhesive, then cut out each individual window. Note that when using any contact adhesive with sheet plasticard, always allow both covered sides ample time (20 minutes plus) to dry before pressing them together. If you do not, then the adhesive solvent vapour trapped between the two surfaces will attack plasticard.

Above the windows I added small rectangles of Evergreen plastic strip to form the lintels. No effort was made to cut them tapering down towards the window, the centre one was sited first and the rest were added forming a gentle arc. Once painted and colour washed, they look OK. The sills are again Evergreen strip.

The brickwork has individually painted bricks. The end product was well worth the effort. I use several tinlets of Humbrol matt paint ranging from yellow, orange, red, blue,



green and grey, as near as possible never painting two adjoining bricks the same colour. It looks a bit gaudy when finished but this is only the first stage. After 48 hours or so, I colour wash the whole front with a diluted mix of thinners with matt black with a little dark green added and a few drops of lighter fluid. The lighter fluid acts as a wetting agent. In order to add the wash, I held the buildings at an angle and added brushes full of fluid to the top letting it run down until the whole front is covered. Repeat until you have a shade slightly lighter than the finished colour you want and stop. Let the building lay flat and leave for at least three days. It is handy to lay the building on some kitchen roll to catch the excess fluid.

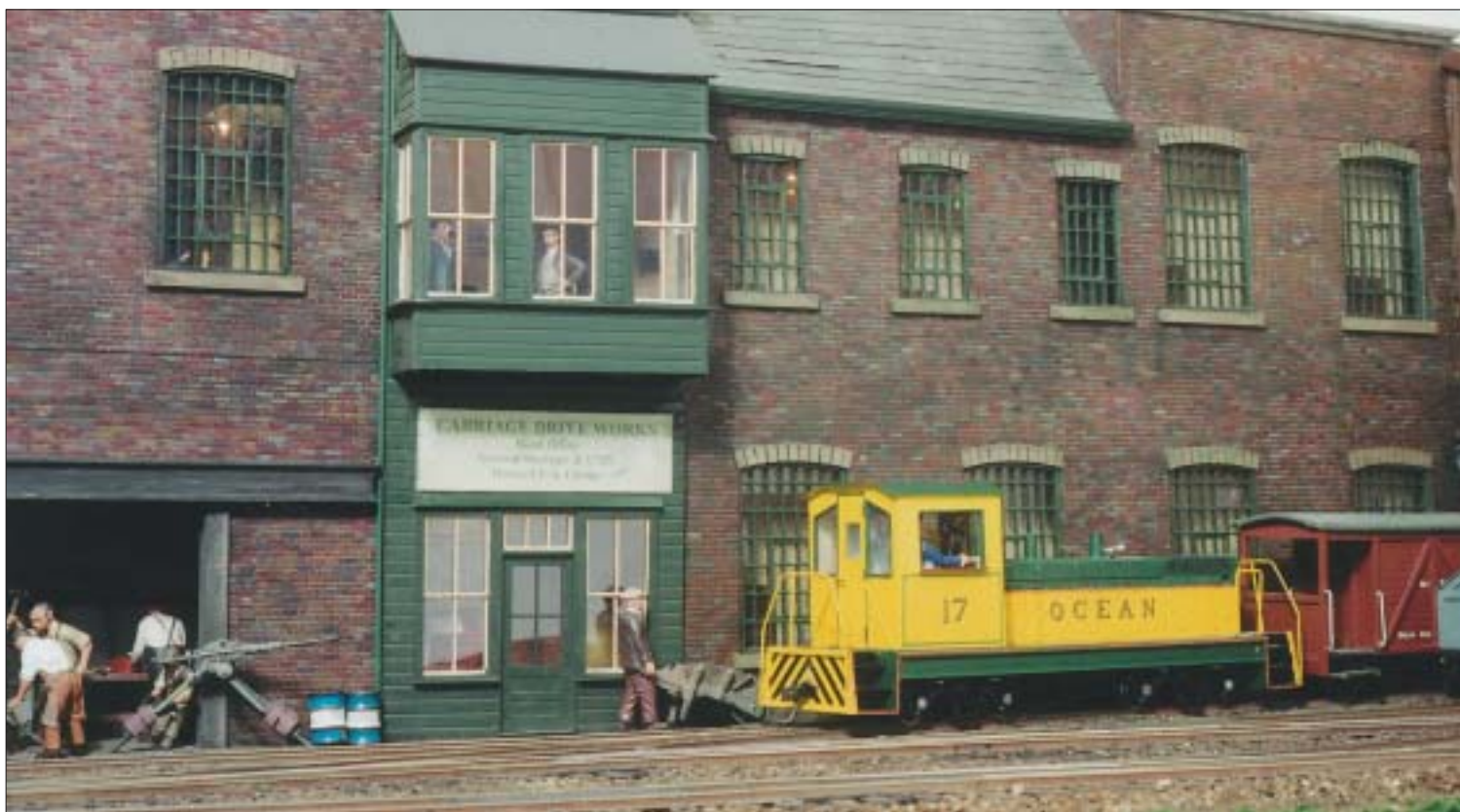
When all the paint is dry, give the whole surface a very generous coat of matt varnish and again lay flat to dry, protecting from dust by covering with a sheet of card. This done, I added the Port Wynnstay windows, then the glazing, and secured the buildings to the

backscene. The roofs of the buildings were a bit plain, so I added a few industrial type ventilators. My favourite supplier for industrial vents is from beer cans, the type that have a widget inside. Widgets come in all sorts of shapes and sizes and can be used for anything from roof vents to wagon loads. Chop up a few different cans and see what I mean.

Viewing the buildings from left to right, at the left-hand end I built a backscene and made an almost flat relief end to an industrial building. This is fitted with Port Wynnstay windows with a few panes missing. Behind the windows is the end backscene for the main layout which is painted black. In front of this is an elevated walkway that extends over the entrance track from the main layout to give a little depth to the scene change.

Most of the remaining works buildings were very shallow and did not allow a lot of room for much in the way of interior details.

I added a small siding at the entrance end to the works yard that serves a loading bay for



stores coming into the works. This building is very shallow and the loading bay has a roller shutter door made from Evergreen metal siding modelled with the door not quite fully down. I had noticed this at a number of locations. The loading bay has a corrugated sloping roof made from Evergreen metal siding supported by a strip of etched brass truss at the front and various Plastruct Fineline angles underneath. There are also three 12volt bulbs illuminating the bay.

The next building along is the blacksmith's forge. This is a mixture of Phoenix figures and a stroke of luck. I was assembling this little scene around Christmas time and on the bench were some wrapped chocolates. I noticed the discarded orange coloured wrapper lying across a 12volt pea bulb that was being tested on the bench. I immediately turned the main light off and there was the fire-glow that I wanted for the forge hearth. After fixing the bulb into the forge hearth I glued the slightly crumpled wrapper to the edges of the hearth, added a few small pieces of real coal around the edge and a few black marks on the wrapper with a felt-tip marker to represent unburnt coals. I also added a couple of amber bulbs out of sight in the top corners to enhance the overall fire-glow effect within the forge area.

The office above the forge has an 'Office Wall Background' from the Highland Architectural Castings range. All one has to do is paint the wall and fittings, add whatever detail you want, cement into place and add a few figures and the lighting of course. If you have room and inclination to detail the interior of your buildings, in 7mm scale it is definitely worth the extra effort.

In the centre, I built a section with the upper floor projecting forward from the rest of the

buildings. This is the manager's office and the projecting part has windows on the side as well as the front so the boss can keep an eye on all his yard staff. This enabled me to add a lot more interior detail. I made up two separate 'boxes' from plasticard fitted with Grandt Line windows and doors that now form the manager's office on the first floor and the reception office below at ground floor level. By doing this I was able to fit out the rooms with Highland Architectural Castings furniture and figures for the manager and his foreman with his secretary looking on. It all adds a bit of life and humour to the models. Once assembled and painted, the 'boxes' were slotted into position. If at a later date I need to replace a bulb or add/alter the room setting, this can be done without tearing the whole building apart.

The two buildings nearest to the hopper had less than 1" of depth behind the windows, so I added a shallow box made from cream coloured Slaters Plastikard to form corridors leading to the offices. The doors are sheets of thin wood sold for marquetry with labels for the various departments/office sections created on the computer and attached to each door. These were then sealed with varnish and the whole assembly slotted into place. A little hidden lighting adds to the effect.

In the corner at the end of the layout was a large box that spanned over two sidings and passed as the stone-loading hopper. Actually the loading is simply done with a salt scoop through a hole in the backscene, not very technical but it works well and nobody from the front has ever noticed. A walkway was also added to the front.

The street scene

The five shops are cast low-relief buildings. It

was these buildings that got me into the individual brick painting syndrome. The shop fronts were all deep enough to have full displays added as the shops were originally purchased for the Macclesfield Club's 0 scale layout *Hammeston Wharf*. Details are silver paper fish and beads of various sizes for the puddings and sausages. The grocer's window has bead vegetables and plasticine fruits with lots of cut up plastic dowel for canned items. In the cake shop window there are around 140 'sliced plasticard' cakes.

When I built these, the illumination bug had not yet attacked, but this was to change. On all except the tobacconist, the upper floors had transparent windows so interior detail has yet to be added. At the end of the street is a local three-storey half-timbered pub building to which I took a fancy. The building is all wood and plain card, ex-cornflake packet, varnished as well as painted on the front. The construction made a pleasant change from plasticard and is a pointer to many modellers that there are good modelling materials going free if you care to examine some of the household goods heading for the dustbin.

A question I am quite often asked is what type of special paints do I use for my buildings and structures? The answer is that most are painted with ordinary Humbrol paints. The only deviation is if I require a specialist railway colour, although I have also used various acrylic paints. They dry faster, but many do not have the depth of colour and covering quality.

Scenery

The green stuff that sticks to your fingers and makes a mess of the floor can look gorgeous when finished until you move the layout and most of the stuff falls off! I should stick to building engines and wagons.

Left: Carriage Drive works main entrance and manager's office above with forge to the left repairing a steam driven rock drill and office block to the right. Note slight confrontation taking place in the managers office.

Right: busy scene at Blakecaster station. No.4 Coal Tit, a modified Peco Hunslet built on an 0-6-0 chassis awaits departure time with a branch line train. On the left is the small goods yard and in the foreground is Axson's wood yard.

Photographs by Steve Flint, Peco Studio.

Track down, wired and ballasted, add scenery, where do you put it all? Call to Gordon and Maggie Gravett was a start.

'Bring it to Guildex and we will use it as a demonstration' they said. They made a start on it by putting a hill in for the golf course green between the fiddle yard and works access sidings. The golf green was replaced with a PLM wartime pill box, many of which still decorate our countryside. It is now home to a gypsy encampment.

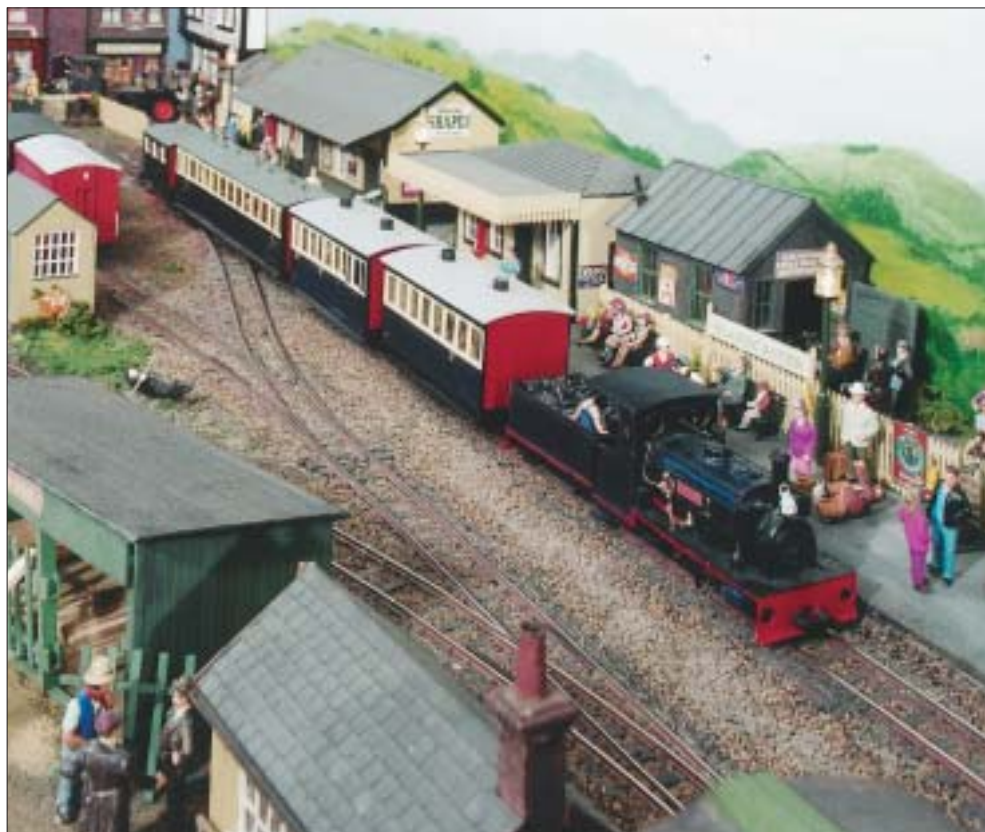
Back home the scenery did not progress very fast until I opened my big mouth and said I would have it ready for the Macclesfield Show in a couple of months time. I have been involved in modelling for over forty years but never been a scenic modeller, so there is only one thing for it. Put on walking shoes, take a pencil and sketch pad and go to have a proper look at the real world.

Observed were types and shades of grass on bank sides, hedgerows, fencing and stone wall types, flowers, greenhouses, sheds, roadside furniture, woodyard surroundings, back street garage.

Back home, after a look in the bits, kits and pieces boxes, I got several shades of green stuff for grass banks complete with a big bottle of white PVA adhesive, water and washing-up liquid and some stuff similar to horse-hair from Green Scene plus green scatter to make hedges. I did come across some scenic scatter material made by Heki that resembles flock wallpaper. This makes excellent grass patches when mixed with other scatter materials. The reeds started life as cactus! I had some etched brass fencing posts which, along with some lengths of piano wire, made a very strong fence that runs almost down the front edge of the layout. Because it is in a very vulnerable position, I made it as strong as I could by soldering every joint. It looked fabulous when finished, nice shiny brass posts and clean steel wire. Then I painted it all grimy and rusty and it almost became invisible.

Dry stone walls were purchased from Modelx, the flowers came from Ye Old Sod; greenhouse and sheds from Phoenix. Mervyn started the wood yard so when I added the new centre board, I expanded on it using a 4mm scale Ratio kit to make the wood shed, raising it slightly by mounting it on a strip-wood platform. I added a crane and gave it its own private siding.

Still to be added at the rear of the centre section are some trees, another area of scenic modelling that I have not cracked yet but I will persevere until I get it right. The end result



gave a good overall effect and I was rather pleased with it.

Many people know that I have a love for figures. I like life on my model railway other than just trains, so *Blakecaster* is well endowed with people. My excuse is that it is market day. Many groups are made up into little set pieces, something for the viewer to look at when no trains are moving. A few figures are fixed but most are mounted on wire pegs that locate into holes. This allows scenes to be changed from one show to the next. Some wildlife can be found dotted around the layout.

Operation

The layout at exhibitions is operated mostly as a modern (late 1960s) layout with most trains hauled by diesels, not all yellow! Steam does make an appearance when we can find time in the busy operating schedule between loaded and empty stone trains. The layout is fully wired for two-cab operation, one operator working the main station area and one working the works yard and stone loading facility. A third operator works the fiddle yard.

I currently operate with two types of couplings. The older stock has the now unobtainable Airfix GMR 'chopper' couplings, but all the locomotives and wagons that work the stone traffic are fitted with Kadee® No.5 couplings. I am moving more towards fitting most of the stock with Kadees®. The layout has three electric uncoupling magnets, two on the parallel tracks between the wood yard and the toffee factory and one under the level crossing on the road leading to the works yard. There are several surface-mounted ones in the works yard and one under-the-track type near the end of the station platform. Operation with the Kadee® coupling makes for good hands-free operation.

Conclusion

Without Mervyn the layout would never have been started. I offered to finish it in his memory and I hope that he would appreciate *Blakecaster* as it is today; I would like to think so. It has certainly given me a few moments of frustration and many happy hours in its creation and I always look forward to operating it at exhibitions. Full operation is not possible at home due to lack of space. The trouble is now that I keep looking at the layout and thinking what extra details I can add or should I add another extra board? I need a bigger house.

Railway modelling is a hobby that I have been involved with for nearly fifty years, enjoying nearly every minute of it. I have made many friends and learned a lot from others. I am now looking forward to the next fifty, some hope!

I must add my sincere thanks to my many friends from the 7mm Narrow Gauge Association and the Macclesfield Model Railway Group, especially to Ken Ball for his artistic expertise in painting the backscene, Neil Fraser for his patience and the electrics, and the time Neil gives up to accompany me at exhibitions. The photographs are all due to the skill of Steve Flint who took them under very hot and sticky conditions in our garage. The temperature outside was over 30 deg.C and Steve's lighting rig added a bit more.

If you would like information about the 7mm Narrow Gauge Association, write for details about membership and a copy of the magazine. Send three first class stamps to David Broome, 43 Coombe Drive, Steyning, West Sussex, BN44 3PW.

Exhibitions

Blakecaster is due to be shown at Telford GOG Show in September.

Ridgeway

An N gauge layout which started on 5' x 2'6"

The idea **Jim McConnell** developed was to try and encapsulate the atmosphere of happy days.

Long time ago a little boy, now a great-grandad, awoke one Christmas morning to find that Santa had left him a wonderful new Hornby clockwork train set. From then on pocket money, birthdays and Christmas were dedicated to adding bits and pieces to the layout. But little boys grow up. Adulthood and wartime service in the armed forces brought Doris and myself together.

The years passed and our son's third birthday offered an excuse to buy him his first 00 train set – Rovex if memory serves me right – and throughout his boyhood this developed into a sizable bedroom layout. In due course he too married, set up his own home and took his layout with him.

A single baseboard

But for dad the bug was only dormant. Some twenty years or so ago, having bought a book of Peco layout plans, I decided to start again. It was to be a modest project, restricted to a single baseboard 5' x 2'6", basically a lower level terminus station leading to a high level reverse loop to give 'there and back' working.

Baseboard construction was the conventional 2" x 1" softwood framework with 12" spacing and covered with what was then the customary 1/2" softboard. Softboard is no longer favoured but for me it has stood the test of time.

The intention was for a 009 layout, but in those days there was not today's wealth of 009 kits on the market. Interest waned and the board was consigned to the attic.

Several years later, with the increasing popularity of N gauge, my interest was rekindled. The baseboard again saw daylight, the spiders



were made homeless and *Ridgeway* very slowly began to take shape. There was no master plan; the idea of a high-level reversing loop was retained but otherwise it just grew.

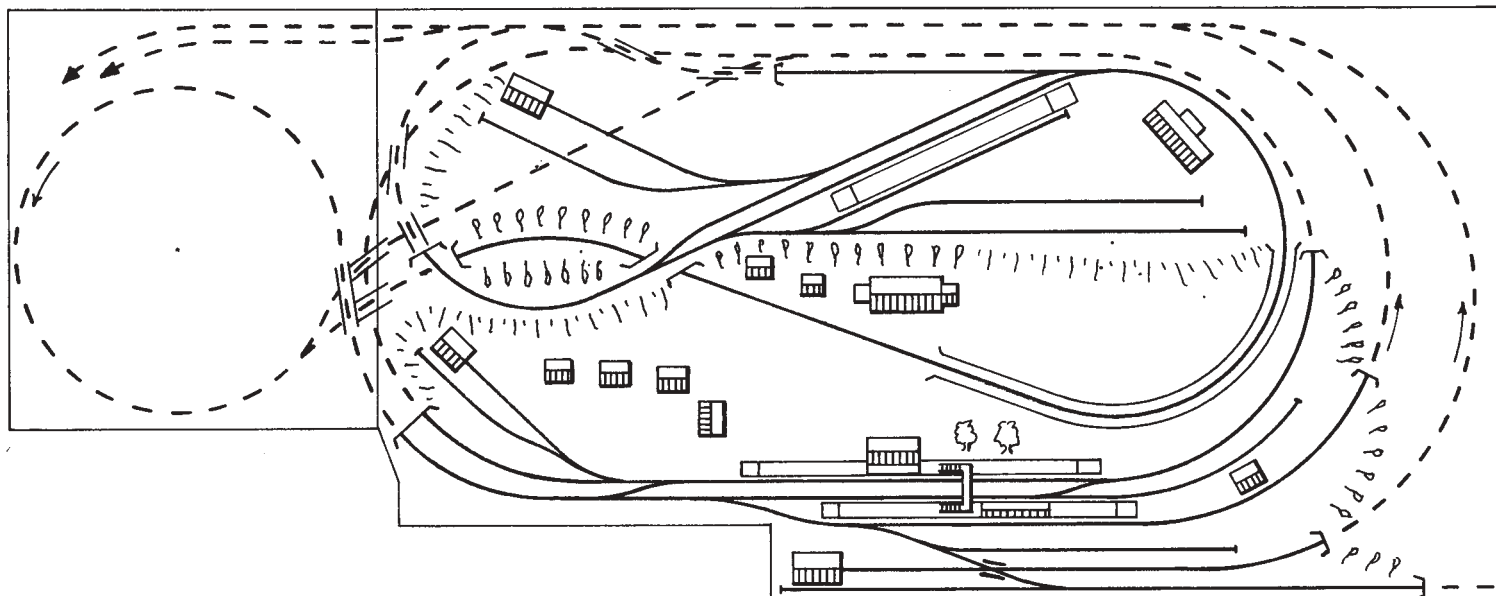
Throughout our 54 years of married life the beautiful county of Devon has been our all-time favourite holiday haunt, and the idea of the layout was to try to encapsulate some of the atmosphere of those happy days.

No attempt has been made to reproduce

any particular location or proper railway procedures – it's just a 'whimsy' layout to remind us of the many wonderful times spent and of friends made, in particular one special friend for 40 years who, sadly, has now passed on.

First attempt

It has been my first attempt at a 'proper' model railway and the whole thing has been a learning curve. The scenery has been a mixture of



Left: Lannacombe station. Milk train descending from the high level.

Right: the station and village with high level in the background.

Lower right: general view of Lannacombe.

Below right: a passenger train emerges from the spiral and prepares to climb the viaduct to the top level, while another draws into the high level station.

experiments, starting with fine mesh chicken wire covered with *papier mâché* and finished with two coats of Artex. OK, but time consuming, somewhat messy and less than ideal.

More satisfactory was to build up with polystyrene ceiling tiles, ideal for cliffs and cuttings, easily shaped, then given a coat of Artex prior to painting to produce a quite realistic effect.

A third method was to glue 1/2" strips of thin card woven on to hardboard formers and to cover these with fine gauge fibreglass matting dipped in a mix of Artex, followed up with two more coats of Artex. This has resulted in a surprisingly strong base for hills and countryside.

Ridgeway is a GWR branch line set in the beautiful red sandstone district of South Devon. If you look closely on a large scale map of the South Hams you may find the names I chose for the two stations. But of course no railway, GWR or otherwise, ever came within several miles of this little demi-paradise.

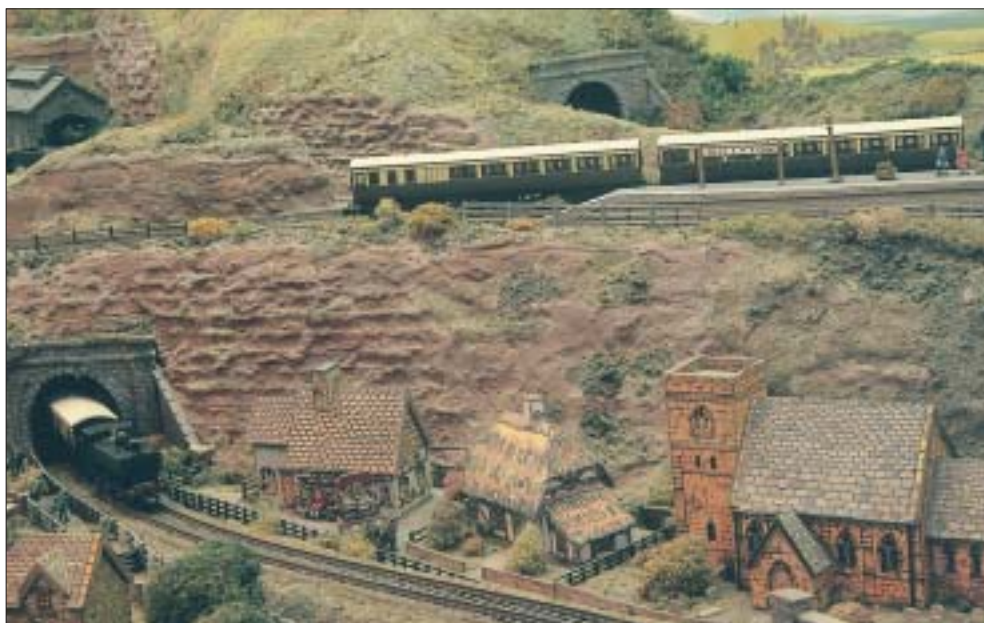
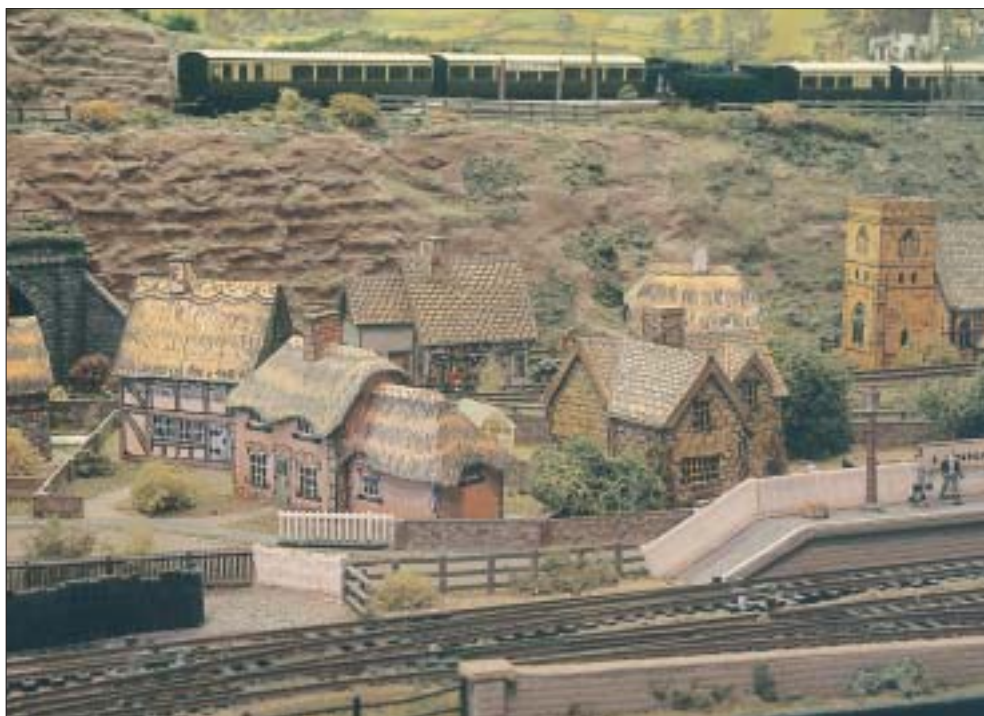
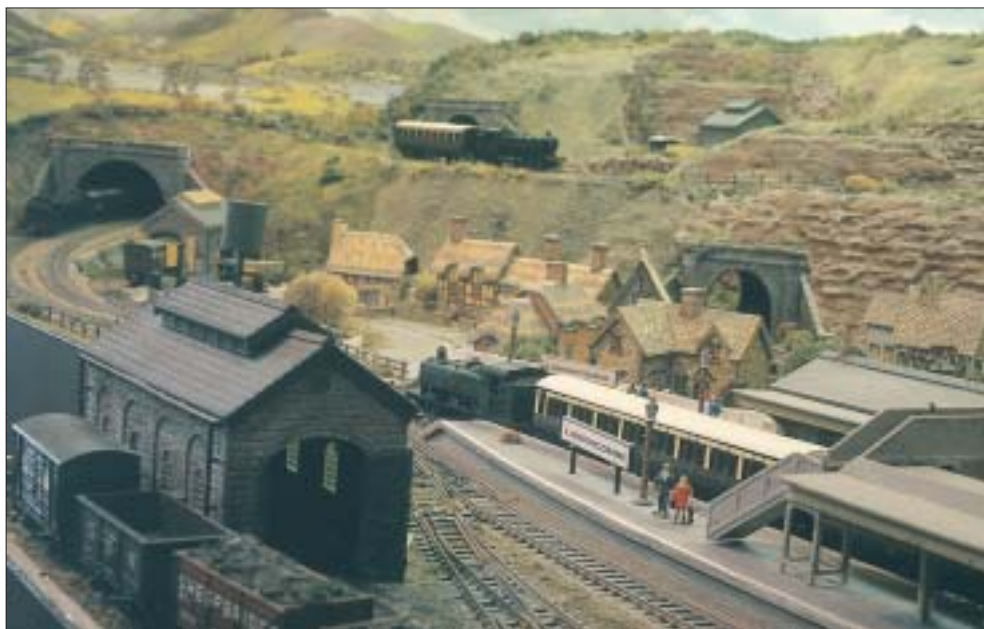
The layout is rural to the extreme, with some tight curves and fairly steep inclines. The loco stud is made up entirely of 0-6-0 Graham Farish tanks, six in number, plus a Great Western railcar, and they all cope admirably with the demands made on them. Rolling stock consists of Farish coaches and a mix of Peco and Farish goods wagons.

The track layout is fairly complex, but basically a continuous oval at lower level, and a somewhat convoluted 'folded 8' which climbs to the high level to incorporate the optional reversing loop and high level station. Each circuit has its own power supply from a Gaugemaster controller with inertia braking and, essentially I believe for N gauge, its own high frequency rail cleaner.

All the track is Peco, with live-frog points and Peco point motors. Additional rail cleaning is essential after a period of non running, and I find that wiping with a spot of WD40 on the tip of a clean cotton rag, then wiped dry, keeps the little locos running happily.

The sub-baseboard wiring would make a perfectionist shudder. Like the rest of the railway it is a mix of add-ons and alterations and looks like grandma's knitting when the cat has finished with it. But it all works perfectly. However I must confess I'm not looking forward to the inevitable when I shall have to trace and rectify a fault!

Buildings are a mix of plastic kits from Ratio and Dornaplas together with Fiddlers Green card buildings which seem to blend nicely into the N scene. Scenery is a hotch-potch of Woodland Scenics, Peco and whatever else came to hand. The background scenics are from the Peco range.





Left: goods train leaves Lannacombe to enter the cutting on the lower circuit, while the milk train descends the viaduct.

Lower left: tunnel entrance (L) to the spiral and (R) to the low level circuit. Also seen here is the goods shed and yard.

Bottom left: general view of Lannacombe church and part of the village.

Bottom right: Darby and Joan enjoy their drink at the Travellers Rest, watching the trains (and dray) go by.

Photographs by the author.

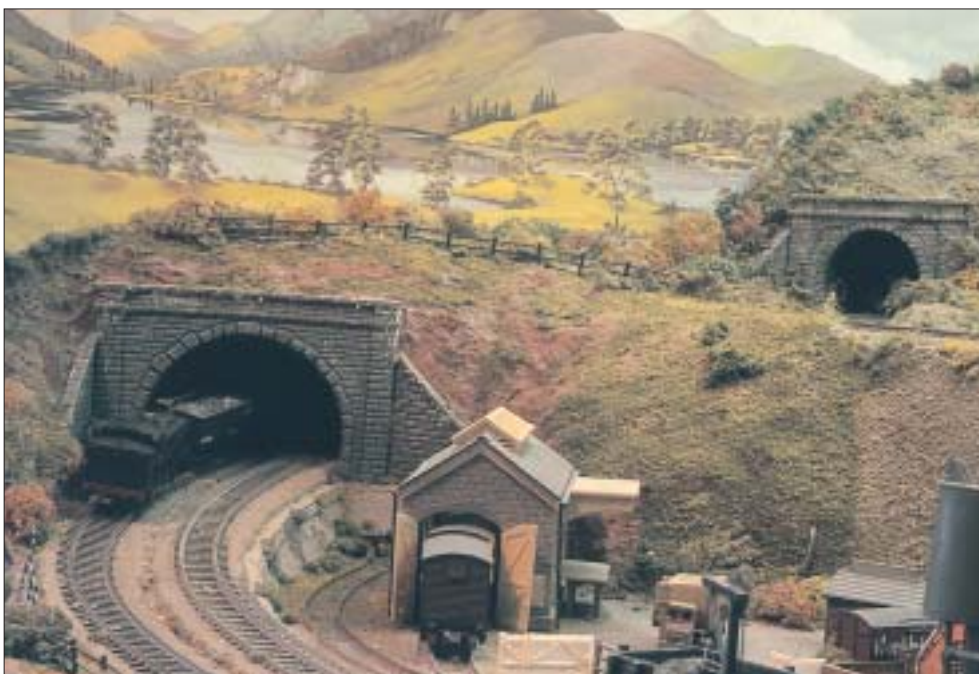
I like watching the trains go by, so it is possible to have two sets running separately under individual control, one on the lower level circuit, the other climbing to the top level either to the terminus or to disappear behind the backscene to descend and reappear at the approach to Lannacombe. Crossovers allow trains to divert to either circuit and they can be reversed in direction via the reversing loop.

Over the years the original baseboard dimensions have stretched somewhat including, to the left, a lidded box into which the trains disappear from Lannacombe. Within this box trains bound for the upper circuit first climb then descend a spiral to reappear in the cutting prior to climbing the viaduct. This was a necessity to allow completion of the lower level circuit. Also within the box are a couple of storage sidings at the high level.

Conclusion

No layout can ever be considered complete – that is the joy of railway modelling. Bright ideas spark from time to time and bits get added or changed. Space restrictions dictate that *Ridgeway* must now remain within its present confines but there is still much detail work to be done, with a boxful of figures awaiting painting and whitmetal vehicle kits awaiting assembly.

As mentioned at the outset, there are no pretensions about correct railway procedure, just a pleasant and constructive way of reviving those happy memories of days gone by.



...an exchange of railway modelling ideas for beginners of all ages

Hillside Street station & Hillside Pass

It started with diecast vehicles and a Christmas present

Alex Stanley tells the story of his model railway.



I was first interested in model railways around two years ago when I was 10. My interest came from the Days Gone models, as I wanted to build a town for these vehicles. I thought the best way to achieve this would be to build a model railway round the town, and so my interest in trains and model railways began.

I went along to quite a few model railway exhibitions and these gave me ideas for my layout. After seeing model railways at different exhibitions I was going to make mine similar but then I've decided to model both sides of the scenic board. Neither side is based on a 'real' railway but they are set in the 1930s era. Work is still progressing on the industrial side of the board but the countryside is complete. I did have a problem in naming my station. In the end I decided to call it Hillside Street because it is set in a hilly valley. It has taken me almost three years to get this far but I have enjoyed working on my project and I'm sure it will never be truly finished.

I received my Hornby model railway, a Caledonian Local, as a Christmas present. I decided to buy two extra extension packs. My dad made a board for me and I then set about laying the track, but I didn't follow a plan for this. Until recently my track was powered and controlled by two separate controllers but I had a dual controller, an HM2000, for Christmas.

My locomotives are mainly 0-6-0s from Hornby, Bachmann and Lima. I also have an Airfix 2-6-2T and two Hornby 0-4-0Ts. My car-

riages are all ready-to-run by Hornby and Bachmann as these are the manufacturers stocked by my local model shop. I did try to make a carriage kit but failed, so I turned it into a coaling stage.

I had a Hornby GNR 0-6-0T for a birthday present and I have purchased other items from train and model collector fairs. I hope to add to my collection in the future. I would really love a *Flying Scotsman*.

Scenery

The grass is from a fibre mat given to me by a friend, but I do not know who manufactured it. The buildings are card kits or plastic which I got from one of the train fairs. My uncle took

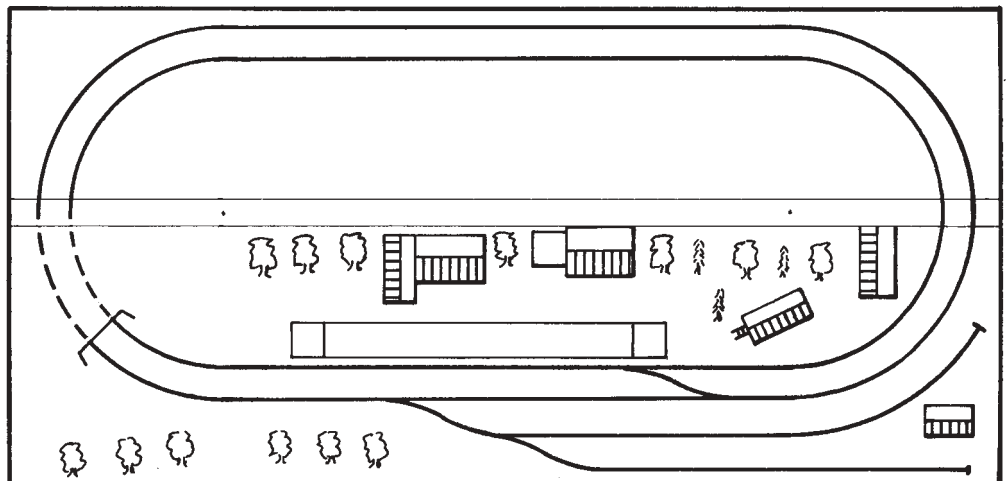
me to Stoke's Kings Hall where I managed to spot items I had been seeking. The station platform was just £3 ready built and the *Swan Inn* £5, also ready built. I believe they are both Superquick.

The ballast and road surfaces are from Javis. The track ballast was originally gravel grey which I sprayed with black and red paint. I landscaped the hill with chicken wire and *papier mâché*. I also found a new method – balsa wood and electric tape!

I also added people and animals to the scenery to make it look realistic.

Thanks to my family and friends and Piccadilly Model Shop Hanley.

Photographs by the author.



READERS LETTERS



Left: Class 40 running light past the signal box on Rhosnewydd Junction by Ken Gibbons. See note below for supplementary information on the area and workings modelled. Photo: Steve Flint, Peco Studio.

We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

MARCH LETTERS

Charles Somerville's letter (April issue) about railways on the carpet brought back many memories. I'm afraid those days have long gone. A box full of track could be brought out, rapidly clipped together and laid on the carpet or in the corridor, then all cleared away again at tea time. There is nothing like that generally available now.

As for imagination, this can still have free reign in the design and fictional history of layouts. Even in my 0-4-0T tinplate days, I regarded the Hornby 4-4-2 *Flying Scotsman* as not quite the thing, as it looked nothing like the authentic paper weight version which someone gave me, and which I still have today. The 4-4-0 *Yorkshire*, on the other hand, was something to dream about. Children then, as now, appreciated a model that really looked like the real thing.

I turn now to Mr Thornhill's queries in the same issue on railway history.

I saw a horse used for shunting at Dogdyke (lovely name) in Lincolnshire in 1939. Never mind country railways, I first visited New Street Station, Birmingham in 1941. I left the station by Station Street to catch a bus, and the most noticeable feature was the strong smell of horse flesh, and the lines of drays waiting to deliver local goods. I would imagine that these were retained until petrol rationing was finally lifted post-war.

Pre-war, I lived in rural Lincolnshire. The local 'carrier' delivered parcels etc. from the nearest station by horse dray, but he became motorised in the early 1930s. Even today there are some farmers and others who prefer horses to machines. In any event, a horse can make a pleasing addition to the station scene. Don't forget to provide reins, if the equipage is left unattended these were generally looped over a small post or other projection on the cart itself and always ensure the brakes are on!

J.H.G. ALLISON

With regards to Mr. Somerville's letter, I wholeheartedly agree with his comments. Having been modelling since 1959 I have seen such a great change in our modelling standards over the years (some good, some not)!

I have a layout based on the S&D with sharp curves and gradients, the latter to give a double run round the room before re-entry to the station area. With coach rakes of four or five there is no great problem but with my *Pines Express* set of seven or eight coaches, the only locos capable of hauling round and up the gradients are those with Ringfield motors and traction tyres. This makes the modern type of loco, i.e. Hornby Bulleids next to useless on more than four or five coaches.



Therefore for those of us with gradients and curves, can our manufacturers include more weight into the loco? Or how about fitting traction tyres to the main driving wheel set which would not interfere with current collection. Older locos can have extra ballast fitted. I am in programme to do this, the fine models we see today are not so easy to retro-fit with more weight.

With regards to new locos, why is Hornby's latest Bulleid in late BR livery yet another B.O.B? Can we please have some West Countrys for a change with the cut-down tenders, even their *Tangmere* had the high sided tender, though for most of its working life including preservation, it sported a cut-down one. We cannot all afford the higher priced (though excellent) re-named special editions that are available. Also could Bachmann be persuaded to produce their MK1 Standard Suburban Coaches in BR (S) green so I can retire my 1950s Tri-ang ones (these are still going strong with new metal wheels).

ROGER N. BRADGATE

THE COST OF MODELLING

Just before Christmas in 1981, my wife bought me a Hornby train set in St. Albans market and I purchased the Hornby Track Plans 5th Edition (1979) and proceeded to construct Plan 17/5 11' x 6' in our second bedroom.

The basic cost was £356.26. In November 1993, the whole layout had to be put into the loft in boxes as my grandchildren needed the bedroom.

I have now reassembled the original layout and costed it on today's prices from recent issues of RAILWAY MODELLER up to February 2004 which totalled £729.22. This is an increase of 104 per cent over twenty two years and the layout still gives a seventy three year old enthusiast a great deal of pleasure. The cost is made up as follows:

	1982	2004
Straight Track	£44.40	£73.22
Curved Track	£27.85	£55.76
Points & Crossings	£80.20	£153.80
Track Accessories	£56.72	£139.53
Station Equipment	£27.34	£92.62

Trackside Buildings	£33.05	£60.35
Control Centre	£86.70	£153.94

Total Cost £356.26 £729.22

The above excludes locos, carriages, trucks etc.

May I also add to Charles Somerville's wonderful letter. I have eight locos with Ringfield motors which are twenty years old including R033 Class 7MT 4-6-2 No. 70021 *Morning Star*; R376 LMS Maroon Class 4P 4-4-0 No.1000; R842 LMS Maroon Class 5 4-6-0 No.4657; R066 Class 7P 4-6-2 No.6233 *Duchess of Sutherland*; R072 4-6-2 No.6237 *City of Bristol*; R404 Class 47Diesel No.47 568.

May I take the opportunity to say that I have enjoyed reading RAILWAY MODELLER for over twenty years – please continue to publish your excellent magazine.

JOHN J. DAVEY

HESSLE STATION

We would like to know if anybody has pictures of Hessele goods yard and water softening plant in the 1950s/60s.

These are needed to complete a long running 2mm project.

Any help that readers could offer would be much appreciated.

IAN RUMFORD (Secretary),
Hessele Model Railway Group,
76 Beverley Road, Hessele, East
Yorkshire, HU13 9BP. Email:
rumfords@rumfords.karoo.co.uk

STONEBRIDGE HOPPERS

It would be much appreciated if someone could answer the following questions:

1. Where exactly did the Stonebridge hoppers route start other than 'somewhere near Toton'?
2. What was the motive power prior to the introduction of the 8F and which shed provided it?
3. What was the route?
4. What were the timings, and the gross weight allowed for the trip?
5. Was the trip worked seven days a week?

BARRY PEARCE,
Email: Bartric5596@arach.net.au

FOWLER TANK VARIATIONS

In Jonathan Joseph's article on the Fowler Class 4P tank in the January issue, he states that he has been unable to find any conversion parts.

Readers might be interested to learn that in the 1980s Crownline produced detailing kits for both the rivetted tank and 'limousine cab' versions. These were really excellent kits but sadly are no longer available.

I was lucky enough to buy both kits when they were available and now have 42380 (rivetted tank sides) and 42419 (limousine cab) running on my layout.

Does anyone know what happened to Crownline?

BRIAN SMITH

RHOSNEWYDD JUNCTION

I saw Ken Gibbons' *Rhosnewydd Junction* in the March issue – in fact, it was the cover that prompted me to buy the magazine for the first time in about twenty five years.

I used to live in North Wales and have many photographs of trains along the North Wales coast. Like Mr. Gibbons, the bright lights of Chester or Crewe called me, and I only ventured up the Brymbo branch once, on an unbelievably dull day in September 1977, when a single Class 25 was out working.

Readers may be interested in my website which has pictures and much more about North Wales railways in that era: www.2d53.co.uk

However, that's not why I've written. I would like to comment on a few things mentioned in the article:

1. Class 24s and 25s only: I have copies of the trip notices for the line in the mid 70s and 1982 (also on my website). The 1982 notices show Trip 80 – the last remaining workings to Brymbo – diagrammed for a Class 40. This of course is no proof that one actually worked it, but it must have been possible.
2. Other locos: also in the 1982 trip notices, Croes Newydd had a Class 08 duty, so you could have one of them out and about too!
3. Workings: one of the pictures is of D5087 'working to Brymbo', but without a brake van! All workings seem to have been Class 9, and I think the brake van was a necessity to allow a gravity run-round at Brymbo.
4. Bogie wagons: these did work over the line.
5. Connection to the Mold line: obviously artistic licence has been used here so I shall use this too! The branch really served Gatewen opencast, which had previously been served from Brymbo Junction on the line between Wrexham and Penyffordd. My thoughts here were that if both branches to Gatewen had remained open it could have been used as a 'Wrexham avoider' and to avoid reversing trains between Chester and Penyffordd.

Overall, I think the model is a great achievement, especially if it only took a few weeks to build. Croes Newydd and the Brymbo lines seem to have been very rarely photographed and deserved much more attention.

Putting 24 087 on the cover of the magazine certainly sold one extra copy!

D. PLIMMER

RAVENSWORTH JUNCTION AND HUDSON ROAD

Am I alone in being confused by the sketch map, track plan and script of *Ravensthorpe Junction* (March RM)?

The map shows the colliery to be south of the junction and there it is on the right hand side of the plan – from which is deduced that left is north, and that right is south.

No.60091 and her train purport to be a Newcastle-Leeds Express on the 'up main' and presumably south-bound. No.90434 of Newport shed and train of Teeside steel beams are in the 'down loop' and presumably are north-bound.

Why then is the former running right to left on the plan, and the latter awaiting to road to the right – back to Teeside?

I'm glad that in the early 1950s my railway employment was on my native Teeside where matters made sense.

Mr. Grant of *Hudson Road* (same issue) might like to note that Newport shed, just referred to, was not in County Durham, but was on the outskirts of Middlesbrough in my native North Riding of Yorkshire, where was also its successor Thornaby until 1974 saw ridiculous changes of boundaries.

IAN KROW

LOW ACKWORTH STATION

I am hoping that readers may be able to help with my new venture. I am seeking any information such as track plan, station details etc. on Low Ackworth Station, near Pontefract, West Yorkshire.

I only have photos of the goods shed and road bridge. Many thanks.

S. GARDENER,
93A Burton Road, Carlton,
Nottingham, NG4 3FP.

PLACE NAMES AND THE MODELLER

Recently I became involved in researching the meanings of place-names and realised that, though an obscure topic, it had some relevance to model railways. Admittedly, place-names and their meanings is a subject often low on a modellers list of priori-

ties, but it can exert a disproportional effect on a layouts authenticity. A lack of knowledge can, except for deliberate humour, lead to some real 'howlers'. This is especially true of layouts set in the Celtic nations, where the grammar, vocabulary and pronunciation will be unknown to many 'non native' modellers. Even in England, because of the origin of some names from ancient languages, many place-names can seem strange. Names such as Dartmouth and Newbridge have fairly obvious meanings, but how about Botolph Claydon, Goose Eye, and Wressle? In Cornwall and Wales, many names originate from an earlier version of the languages currently spoken, and a language dictionary is not always helpful. For readers who wish to investigate this subject, the following titles may be of interest:

Oxford Dictionary of English Place-Names, A.D. Mills, OUP, 2nd Edition, ISBN 0 19 2800 744.

1000 Cornish Place Names Explained, Julyan Holmes, Tor Mark Press, ISBN 0 85025 380 2.

Welsh Place Names, John Jones, JJP, ISBN 1 871083 10 9.

Welsh Place Names Unzipped, Brian Davies, Y. Lolfa Cyf, ISBN 0 86243 514 5.

These are all under £10.00, and although written for a wider audience, are still of use to modellers. For those wanting a more concise and general overview, I have written a booklet on the topic for modellers. This is available from the Embsay Station Bookshop. Tel: 01756 794727, or see advert in this issue.

SIMON GOTT

LONDON UNDERGROUND DRAWINGS

Mr. Langlands was enquiring in the April issue of RAILWAY MODELLER about drawings of the 1935 experimental tube stock. The London Underground Railway Society has a range of 4mm scale drawings (including the 1935 stock) available to members.

Membership details are available from Mr. E. N. Felton, 54 Brinkley Road, Worcester Park, Surrey, KT4 8JF.

Incidentally, anyone wanting to follow Mr. Langlands' lead and convert 1938 stock to the experimental 1935 version should note the different window spacings. It is not just a matter of planting the streamlined end on. Nevertheless, forming the curved front should be a very interesting exercise.

N. C. FRISWELL
(Hon. Modelling Secretary), The London Underground Railway Society.

GARDEN RAILWAYS

In his article *Garden Railways* (April RM), Geoff Thompson explains how the garden railway is achievable for all modellers. He is absolutely correct. I am building my second garden railway, the difference being that the first was built in a first floor flat whilst this one is on the ground floor.

My layout *Pete Bogg's Garden Railway* is a 16mm scale layout due to be shown at the Porthmadog Model Railway Exhibition on 31 July and 1 August, at the Warley National 2004 and York at Easter 2005.

PAUL TOWERS

WRENN 45xx

I recently read your excellent review on Bachmann's new 45xx (January issue of RAILWAY MODELLER) and it triggered an ancient memory of an announcement in the 1970s by Wrenn that they were going to produce this loco.

Digging through my old files I found the 1974 Wrenn catalogue and sure enough, there is a picture of a 45xx (the number appears to be 4526). It is shown as 'introduction later'. I believe that was the year that Wrenn went bankrupt. Does anybody know if it was ever produced?

S. WYLIE

EMAIL VIRUS ALERT

The model railway industry seems to have been targeted by virus senders recently.

Many of us traders are receiving emails that appear to have come from known traders. These all have attachments that may or may not be referred to in the covering letter, but there is always a virus in it that up-to-date virus protection software will detect and destroy. Each time we have received such mail we have contacted the apparent sender who had in fact sent us nothing.

It could be that whoever sent the mail has managed to penetrate someone's address book or he/she may just have got email addresses from a magazine. Either way it is possible that this activity could threaten communications throughout the hobby and so I think it might be worth mentioning to traders and customers via the magazine.

All this is in addition to very high levels of virus sending activity on the internet in general at present.

One of our suppliers now finds email so unreliable he has returned to using old fashioned phone and fax for certainty of information transfer!

ANDREW MULLINS,
Branchlines, Exeter.

THE BLAGDON GOODS AND HARLYN ROAD

I was delighted to see two of my favourite subjects covered in the April RM, namely the S&DJR in Neil Burgess' *The Blagdon Goods*, and the South Western in the far west (*Harlyn Road* by Bob Middleton, Peter Beckley and John Smith), especially as on both layouts it was obvious that attention had been paid the signalling.

Left: Johnson 0-4-4T No.58051 departs Blagdon with just a single passenger coach and a 4-wheeled van in tow. Comments on its signalling are in Chris Osment's letter on this page.

Photo: Steve Flint, Peco Studio.

However I feel that it was unfortunate that the signal box at Harlyn had been based on Swanage. Very few boxes of that precise design existed west of Dorchester, whereas a later variant was a notable and unique feature of the far end of the North Cornwall line. Also I am puzzled by the apparently over-generous provision of levers in the station ground-frame and the curious use of a yellow lever – I would be interested to learn the rationale behind it.

A caption to the Blagdon layout describes most of the branch as being worked by Electric Train Staff. In fact the S&DJR never used this system, preferring the Electric Train Tablet method. Much of the equipment on the branches was transferred thereafter becoming redundant from the doubling of the main line – for more information, visit: www.railwest.org.uk

CHRIS OSMENT,
Somerset & Dorset Railway Trust
Signalling Steward.
The Harlyn Road 'box is, we believe from the excellent Churchward/Modellex kit, construction of which was detailed in RM April 2003 – Ed.

DE-THRONED KING

I have recently written to Hornby about the latest model of the King Class 'Super Detail' loco.

As an avid GWR devotee I have studied their style over more years than I can remember and I tend to be a stickler for detail and accuracy, but I am prepared to 'bend' a little sometimes. However in the case of its new King class engine there is a number of glaring mistakes:

1. Behind the front buffer beam, on both sides, the flanges below the footplate turn down at right-angles when of course they should be curved. To me this is a glaring mistake and spoils the whole appearance of the model.
2. On my model the moulding of the footplate at the front where it sweeps down to the front buffer beam is slightly distorted and looks clumsy.
3. The linkages of the rocker valve gear, in front of the cylinders, are missing and makes the detail provided meaningless. The very much earlier Lima King and Airfix Castle have this detail and look much more satisfactory.
4. The silver reversing rod, on the right-hand side, does not reach the housing against the front of the cab! I cannot see why it was not taken at its full length, then connected at the right place. Connecting it short into the side of the firebox is a fundamental mistake.
5. The side windows to the cab should be very nearly square, as is well documented in many publications on the King. The model has decidedly rectangular windows.
6. The 'backhead' details inside the cab are disappointing. By comparison with some of Hornby's other locos, especially the latest Bulleid Q1 loco, where they have really gone to town on detail.

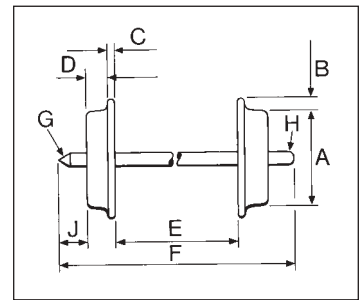
For the above reasons I feel the model of the King has been a bit short changed especially in the light of Hornby's claim to super detail etc.

ADRIAN TATTERSFIELD



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BR/Sulzer Type 4 (Class 45/46) 'Peaks' in 00 from Bachmann

The first samples of the revised Bachmann BR/Sulzer Type 4 1Co-Co1 are now to hand. These models of the well-loved Class 44/45/46 'Peaks' are streets ahead of the historic Mainline editions, but there are a couple of areas which need comment.

The lumbering 135-138 ton locomotives entered service between September 1959 (D1 *Scafell Pike*) and July 1963 (D57, initially a Derby test-bed for, amongst other things, engine uprating). In all 193 were built, at Crewe and Derby, with a variety of differences both internal and external which made up the three classifications. Withdrawal was enacted between 1976 and the late 1980s, but fortunately several of each class survive today.

Our two samples are of Class 45 No. D67 *The Royal Artilleryman* in green, and Class 46 No. 46 053 in blue. The former, representative of one of the 37 members of the class that were named – in October 1965 in this case – boasts headcode 1A03, roof boiler filler detail and associated bodyside steps, neatly printed nameplates, etched replacements for which are in the packaging, including spacers to give the plates the required thickness, and crisp BR crests. The blue 46 sports plated in boiler details, 'domino' headcode marker dots, correct-size BR arrows, and legible data plate. (The worksplate on D67, legible too, reads Beyer Peacock!)

Common to both are two points requiring comment in the cab areas. The overall shape, whilst closer to reality than previously, did not seem quite 'right'. We could not pin it down to any one aspect, but we are sure readers will have their own ideas. Certainly the seam around the nose, so characteristic of the 'Peaks' and which makes one think of an old van's bonnet, is absent, to the model's detriment. The 'bonnets' gave access to the traction motor blowers and reservoirs for the loco air brakes: although the seams are less conspicuous in early photos – when the locos were new and 'tight' – they are more noticeable against warning



panel yellow, and will be awkward features for most enthusiasts to produce neatly.

Beneath the 'plimsoll line', Bachmann is to be congratulated for migrating (correctly) the buffer beam to the bogies. Buffers are sprung, and brake pipes and ETH cables are

included in the packaging. D67 was converted for ETH later in life (it became 45 118) but fitment in this livery is not justified. The 'Peaks' were not dual-braked, originally – loco air, train vacuum – and the 44s never were, so the rather prominent grey air tanks beneath the battery boxes on D67

should we believe not be present for the period modelled.

Performance-wise the locomotive moves very smoothly and controllably. Tested on the fearsome Pecorama loft layout, the 'Peak' took 9 coaches up the 1:36 gradients and around the 3' radius curves without fuss. Weight is around the 600g mark, and there are no traction tyres. The innermost axles on each bogie are unpowered, the other four being linked via gear towers and cardan shafts to a centrally-mounted twin-flywheel motor. Sharp curves can be accommodated thanks to ample sideplay on the main bogie wheels, and the outer guide axles (the '1's in 1Co-Co1 in reality) can pivot in their own arcs within the bogie frames. Wheel treads and back-to-back dimensions are uniform on these models. Tension lock couplers, with the standard NEM forked tails, clip straight into the bufferbeams. No lighting, directional or otherwise, is fitted.

Other points worthy of note are, *inter alia*, cab interior detail at both ends, plus a driver figure at the No.1 end; presence or absence of the bodyside auxiliary ventilation grille on the 46 and 45 respectively (a good telltale between the two classes, but not a hard and fast one); speedo cables mounted on the bogie sideframes; neat roof fan, grille and exhaust port details; fine representations of the bodyside structure 'behind' the grilles; and, cabs notwithstanding, the overall 'capture' of the real things. The inaccuracies will worry some, however; hopefully Bachmann can look again at this part of what is, on the whole, a relatively good model.

For 00

SAMPLE SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.

PRICE £62.95

WHEEL DATA
B. 0.6mm, C. 0.5mm, D. 2mm,
E. 14.4mm.



SR 'Queen Mary' brake in 00 from Bachmann...

After converting the initial 21 from ex-LBSC electric motor luggage vans in 1933-4, the Southern Railway built a further 25 of these bogie brake vans in 1936 – nicknamed 'Queen Mary' after the Cunard liner of the time – to Diagram 1550. These were built on shortened SR coach underframes running on standard bogies. Some were later fitted with airbrakes and a number remained in general use into the 1970s. Several have been preserved.

The model (ref.33-825C) corresponds closely to the scale drawing in *An Illustrated History of Southern Wagons* Vol 4, OPC.

Introduced in 1996 (see RM Oct), the model was originally available in SR and BR S&T liveries. This latest version carries BR bauxite brown livery as S56288, one of the newly built vans of 1936. Detailing of both underframe and body are superb and the characteristic riveted sheet metal, duckets and high-set sand hoppers have been successfully replicated. The under-



frame includes a nice rendering of the vacuum brake gear and the highly detailed bogies run on metal plain disc wheels and carry the relatively discreet Bachmann tension lock couplers. Bogie step boards are provided separately for fitting if desired. As befits a goods brake, the model is ballasted and tips the scales at 150g.

The possibly not entirely unbiased authors of the standard work referred to above noted that 'These vehicles were undoubtedly the finest goods

brake vans ever to run in Great Britain'. Who would argue with that? Congratulations to Bachmann UK for tackling an out-of-the ordinary subject with such attention to detail.

The van is coupled to a 14-ton sloped sided end, side and bottom door steel mineral wagon lettered for the big private owners Denaby Colliery. The model (ref.37-427) carries legible Chas. Roberts worksplates and 'empty to' lettering. Metal 3-hole disc wheels are fitted to this fine model.

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.

PRICES

'Queen Mary' bogie brake £11.95
Denaby mineral £6.55

WHEEL DATA

B. 0.6mm, C. 0.5mm, D. 2mm,
E. 14.4mm.

...and 'Dance Hall' from Hornby, also in 00

The LBSC 20 ton goods brakes to SR Diagram 1576 were the final such design to be introduced by the Brighton company before it lost its identity in the Grouping of 1923. Thirty-one were built and seventeen were later rebuilt as ballast brakes, losing a verandah and gaining more side windows in the process. No 55910 was so converted in 1929. The prototypes gained the 'Dance Hall' nickname on account of their roomy interiors, which is an illuminating comment on other Brighton types of brake.

The Hornby model was introduced in 1980 (see RM Dec) in pre-Group livery, and so is itself fast approaching its quarter-century. Generally, the passing of time has treated the model kindly and it looks well in its present day paint finish of Southern brown with light red ends with moulded handrails picked out in white in immaculate fashion. With the aid of a magnifying glass the tiny inscription above the number can be read: *Not to work between Tunbridge and West St Leonards via Battle*. Lovely.



Dimensionally the model corresponds very closely with the scale drawing published in *An Illustrated History of Southern Wagons* Vol 2, OPC.

The van runs smoothly on new generation Hornby 3-hole metal disc wheels. The buffers are nice reproductions

of the real ones, and the couplings the clumsy but reliable tension locks. The footboards, full-length and short, are finely modelled yet strong, and testimony to the advanced state of the art at Margate twenty-four years ago. Features which do betray an earlier technology however are the

exposed slots for the eight snap positions in the bodysides by which means the body is attached to the underframe. Admittedly inconspicuous, these could easily be filled in with plastic filler and painted in body colour with a fine brush.

In our 1980 review, we remarked 'Ready-to-use models of pre-grouping vehicles are rare'. They are certainly no less so today and it is satisfying to see this Brighton van, with which prototype the old Company 'signed off' in 1922, still in the list of one of our leading model train makers.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICE

ref.R6144B – £7.85

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

BR Mk 2d stock from Hornby

Given that the Hornby Class 50s have been such a hit with the BR blue period fraternity, it comes as little surprise to find that the 2004 Hornby programme includes so much compatible coaching stock. Just arrived are Mk 2a vehicles in Network SouthEast colours, and they were preceded by these versions of the air-conditioned Mk 2d variety, with – guess what? – Western Region stock prefixes.

Those of us who remember the time between the 50s' arrival on the WR (disliked, of course, as 'Whizzo-killers' and with at times appalling availability) and the later executive colours will welcome these plain but smart blue and grey models of open first W3172

(ref.R4215) and open second W5619 (ref.R4216): they have been finished very well, and run smoothly on metal disc wheelsets. Social aside – smoking/non-smoking split in the FO: 5/2...

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICES

both types – £17.50

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



China Clay 'hoods' in OO from Bachmann now weathered

The last of the characteristic china clay 'hood' wagons have been swept from the national system for some fifteen years or so now, yet the prototypes still make attractive subjects for modellers. The Bachmann 2004 programme includes three typical examples.

The 'hoods' were developed in the 1970s to protect better the valuable cargo the 13-tonners were built to carry. Previously the loads were sheeted in the traditional manner, but this left the high value cargo at risk of contamination. St. Blazey works produced the solution as 'kits' for the 674 wagons in the fleet.

The samples we received were of two wagons with 'hoods' – but subtly different in inscriptions – and an 'open-topper', again with individual fleet identity. All had been weathered very well, although old hands might think that they are not white enough! Study of the open wagon reveals the properly longitudinally-planked floor, which on the actual wagons was faced in metal to allow the clay to slide out of the end door with ease when tipped.



The 'hoods' themselves are formed from ECC-blue stitched material, and look the part: Precision Labels offers alternatives which the modeller must fold to shape (they were reviewed in the November 2003 edition). Perhaps Bachmann might consider reproducing the variations in shade that the prototypes exhibited by changing the colour of the material slightly?

The models run smoothly on three-hole disc wheelsets, held in a crisply represented chassis. Brake shoes are in line with the wheels, and there is

good fine detail. Tension lock couplers are fitted, but can be unscrewed if desired. (These are not 'Blue Riband' wagons, so the couplers are not mounted in NEM pockets.)

These lovely little wagons could be found trundling syncopatedly to Carne Point, Fowey (and elsewhere), behind a variety of motive power: from 08s to 50s and 'Westerns'. They will be a particular must for anyone modelling the Duchy's railways in the 1970s and 1980s, and worthy of inclusion even if you're modelling somewhere else.

For OO

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

with hoods (refs.33-080/081) £6.40ea
without hood (ref.33-082) £6.10

WHEEL DATA

B. 0.6mm, C. 0.5mm, D. 2mm,
E. 1.4mm.

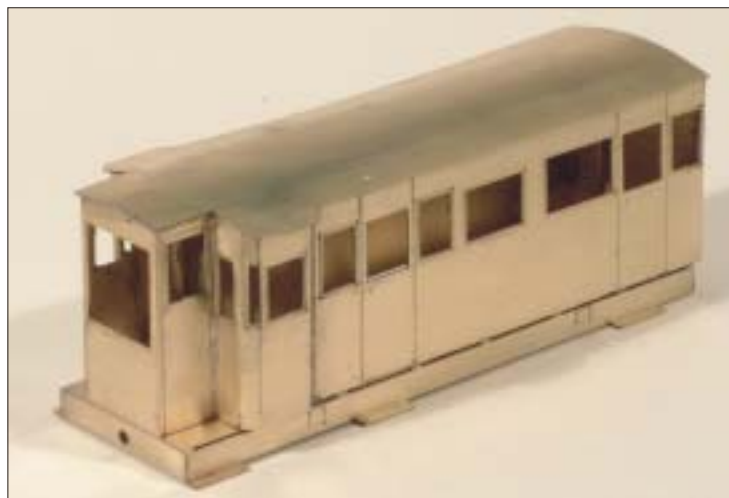
Admiralty 'combination car' body kit from Worsley Works

Worsley Works has recently added to its range of 'scratch aid' etched brass body kits in 4mm scale a kit for the former Admiralty 'combination car' subsequently used on the Welshpool & Llanfair Light Railway and later the Welsh Highland Railway.

This vehicle was built for the Admiralty's Lodge Hill & Upnor line by D.Wickham & Co. of Ware in 1957; it included provision for a guard and superior (compared to the ordinary 'toastrack' semi-open coaches) accommodation intended for officers. It was obtained by the W&L along with other stock in late 1961, and was regularly used in the early preservation period.

In 1989 it was sold, less bogies, to the 2' gauge South Tynedale railway, but was not used there, and was subsequently (1998) acquired for use on the new WHR, where it runs on South African bogies. Numbered 1001, it is mainly used as a mess coach on works trains but is also available as a reserve brake vehicle for passenger services or special workings.

As usual, the kit consists of sides, ends, and floor unit, plus body mounting brackets. Solebars, with steps, fold down from the floor, while the buffer



beams have to be added. In this case a roof is also provided, etched to shape but requiring rolling to the appropriate curve. The intention is that the roof should be fixed and the floor (with interior detail if required) removable.

The kit does not include glazing or any interior detail, and there are no 'solid' details as castings. The builder

must also supply the running gear, and wire for handrails and door handles, though the fixing holes are present.

The components have been very nicely etched – panelling and beading is well defined and the half-etched areas are very even.

The sides, simple end, and intermediate bulkhead are separate parts, with no form of location, but they can

be accurately soldered together if care is taken, standing them on a true flat surface. It is worth reinforcing the corners with a fillet of solder, though take care not to impede the fitting of the windows.

The complicated end of the vehicle, with projecting lookouts and recessed entrances either side, is a masterpiece of etched brass 'origami' design and is folded up following lines half-etched on both sides of the metal, revealing Worsley's command of this medium.

It is assumed that the builder will understand the techniques required, and follow drawings and photos to add appropriate details: this does not seem unreasonable for something sold as an aid to scratchbuilding rather than a complete kit.

For 4mm scale narrow gauge

MANUFACTURED BY
Allen Doherty, Worsley Works NG,
19 Douglas Road, Worsley, M28 2SR.

PRICE

£13.00.

Please add £1.00 per order for postage & packing, and make cheques payable to 'A.Doherty'.

Crafty plain transfer paper

Crafty Computer Paper markets a range of papers which enable those with a computer to create their own decals (transfers).

For use with inkjet printers there is paper to make waterslide decals. It can be used just like normal paper, without changing the printer settings. When thoroughly dry, it should be well coated with a spray varnish. Thereafter the individual elements can be cut out and applied as usual for waterslide

transfers, onto any shiny non-porous surface – plastic, wood, metal, glass, or ceramics. The resulting image is stable and robust, and can be sealed with varnish if desired.

Both clear and white backings are available, and a pack of five A4 sheets costs £5.99.

There is also paper to make rub-on transfers. This can be used with either inkjet or laser printers, and has the advantage that it does not require the

sealing varnish stage, though the preparation process is slightly more involved. Another plus is that it can be applied to absorbent surfaces such as paper or card, and fabrics.

The pack is priced at £8.99 and includes six transparent carrier sheets and three each of clear and white adhesive backings, all A4 size.

All packs come in a re-sealable plastic envelope, and are supplied with an A4 sheet of clear step-by-step illustrated instructions.

For those with the appropriate artistic skills and the relevant technical

equipment, these papers offer an excellent way of making custom transfers. With careful arrangement, many small images could be placed on an A4 sheet, making them comparatively economical.

For all scales

AVAILABLE FROM
Crafty Computer Paper,
Swinburne Mill, Great Swinburne,
Hexham, Northumberland, NE46 4DQ.

PRICES in text.

Hornby weathers a 'Duchess' Class Pacific in 00

New to the Hornby range of weathered models is 'Duchess' Pacific 46251 *City of Nottingham*. Whilst to some 'muddying up' Stanier's finest is the ultimate insult, the condition is representative of a run-down, un-cared for steam engine that has seen the last of top link work.

Checking back through photos we found several unkempt Pacifics in the condition that the model aims to recreate, although 46251 was often to be found in sparkling condition on railtour duty, it being one of the last survivors.

Hornby has also included Mk 1 stock in its weathered range, but to us it would convince less if the two models seen here were coupled together. Rather, the Mk 1 would be better seen in a late-60s train of shiny blue & grey Mk 1s, to represent a coach that has not seen a washer for a while, perhaps a 'strengthened'. Equally, the 'Duchess' would look finer at the head of a fast fitted freight of weathered vans, as perusal of prototype photos reveals that, for the most part, although locomotives were often in deplorable con-



dition, carriage cleaning was still a major part of the railway scene of the early to mid 1960s.

For the record the Mk 1s available in

weathered finish are the composite seen here (R4201), brake second (R4200), buffet (R4203), full brake (R4204) and sleeper (R4202).

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICES

46251 City of Nottingham (ref.R2383) £95.00
Mk 1 stock, weathered £18.00ea

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Latest Class 20s in 00 from Bachmann

Hot on the heels of 20 192, reviewed last month, are two more stabledmates of the four EE Type 1s listed in the Bachmann catalogue. They are green D8134 with four-character route box, and 20 063 with classification discs.

There was simply no contest when deciding how to deploy the mix of 'open' and 'shut' mouldings supplied with the model of 20 063. It had to be Class 1 passenger format, to recall the times when pairs of 20s were rostered on summer Saturday trains, chiefly but by no means exclusively to Skegness. Study of prototype photos revealed a wide variation in the folded discs' positioning – top half down, bottom half up, or both, sometimes on the same machine! – so we settled for bottom halves up, as the mouldings feature the hole through which the marker light shines when the disc is unfolded. The fastidious will, therefore, want to add a tiny speck of white paint on the all-yellow moulding, in order to reproduce the part of the disc's face that remains visible...

The discs fit into factory-provided



holes in the ends, so those wanting to model discless 20s – and there were some – will need to fill these apertures. Other neat touches on 20 063 are the departmental flashes above the num-



bers: by the late 1980s the 20s diagrammed for 'Skeggy' trains were Toton residents of this BR sector, which marked its fleet thus.

Performance is as good and smooth as 20 192, and of course we had to try 063 and 192 together. On the same piece of track the locos' mechanisms were fairly evenly matched, but when coupled together (using, as we had one to hand, the semi-permanent coupling that Bachmann includes with its Mk 1s) the duo moved off smoothly and without fuss. Just like old times...

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

blue 20 063 (refs.32-025) £48.95
green D8134 (ref.32-028) £48.95

WHEEL DATA

B. 0.6mm, C. 0.5mm, D. 2mm,
E. 14.4mm.

Steam-era posters in 4mm

Chris Arnold of the Bideford & Instow Railway Group has sent us a set of printed paper BR-era signs, suitable for 00 model railways, which the Group is selling to help raise funds for its listed signal box at Instow and Railway Heritage Centre at Bideford.

Measuring approx 6 1/2" by 4 3/4", there are sheets of Garage Signs of a generally 1950/60s nature and sheets of BR platform signs for Southern, Western, Midland and Eastern Regions. They appear to have been produced by a D West of Woking, and given that they were printed using traditional block methods, may well be as historic as the signs themselves.

These attractive reminders of steam age signage are available from the address below at 25p per sheet (minimum order two sheets) plus an A5 SAE. Cheques/Postal Orders should be made payable to Bideford & Instow Railway Group.

For 4mm scale

SAMPLES SUPPLIED BY
Bideford & Instow Railway Group, c/o
68A Hanson Park, Bideford, Devon
EX39 3SB.

PRICE
In text.



9mm gauge ready-to-run chassis from Avalon Line Models

Avalon Line Models has added a ready-to-run 9mm gauge 0-6-0 chassis (ref.ALC-1) to its range.

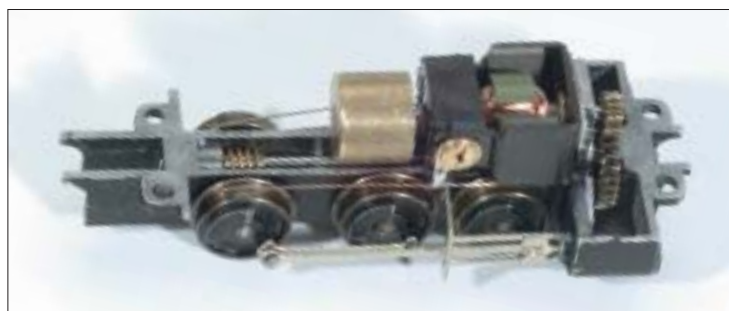
Although developed as a power unit for the firm's own existing and planned selection of O-9 body kits, we expect this mechanism will also be of great interest to OO9 modellers.

Recognising the problems many modellers have with things mechanical, Avalon has opted to market the unit ready-to-run rather than as a kit.

It has not been designed with a specific loco in mind, or to suit any one body kit.

The main chassis is a complex one-piece whitmetal casting, with the cylinder block front and sides as a separate piece. Overall the chassis measures 70mm long by 27mm wide (over cylinders). There are four 2mm diameter holes for body fixing bolts, 11mm apart at 55mm centres.

The wheel diameter is 10.1mm, and the wheelbase 13mm + 15mm. The disc wheels have balance weights cast in, and blackened tyres with a comparatively fine flange and a wide



tread – a good practical compromise between appearance and reliable operation. None of the wheelsets is allowed significant sideplay, and we estimate the minimum radius would be c.6"/230mm.

The unit is powered by a small five-pole open frame motor, fitted with a flywheel, which drives through brass spur gears to a layshaft along the centre line, carrying brass worms which mesh with plastic gears on the front and rear axles. The centre axle is driven by the coupling rods.

The motion is etched nickel-silver – coupling and connecting rods, crosshead, slide bars, and motion bracket, but without valve gear. The connecting rod 'drives' on the rear wheel.

The wheels seem to be insulated on the axle with a plastic centre bush, and current collection is by fine phosphor-bronze wire wipers on the top of the front and rear wheel treads – the rear ones are quite exposed, and care should be taken not to dislodge them in handling, though they will be less

vulnerable when a body is fitted.

The unit runs very well indeed, no doubt aided by the inherent weight.

The forward mounting of the motor and flywheel leaves the cab area clear, although at the expense of occupying the lower front part of the boiler and smokebox.

Avalon is to be congratulated on this thoughtfully designed and carefully made product. We understand a four-coupled version is in presently in preparation.

For 9mm gauge narrow gauge

AVAILABLE FROM
Avalon Line Models, 11 Hood Close,
Glastonbury, Somerset, BA6 8ES.

PRICE
£59.50. Cheques should be made payable to 'H.Martin'. Please allow 28 days for delivery.

WHEEL DATA
A. 10.1mm, B. 0.5mm, C. 0.8mm,
D. 1.9mm, E. 7.6mm.

Graham Farish cement wagons

Another batch of cement hoppers, TOPS coded PCA, has joined the Graham Farish by Bachmann range.

The two grey vehicles are representatives of those in the Blue Circle fleet. The distinctive depressed-centre example (ref.373-077) is modelled on APCM9138, one of a numerous batch (running Nos.9100-9399) built by British Rail Engineering Ltd. in 1973-74. In contrast to the earlier grey version, apart from the giveaway initials in the running number the only company identification is a small yellow panel above the solebars at the right-hand end of each side, a feature reproduced legibly here by Bachmann.

The companion straight-topper (ref.373-003) is based on BCC11118, one of a batch (Nos.10988-11141) of straight-top hoppers, designed by Blue Circle, Metalair and Powell

Duffryn and from a fleet delivered by various builders in 1984-86.

Two other liveries have been produced on the same bodysells, the first of which (ref.373-002A) is modelled on PR9420, from a batch (Nos.9400-9424) built by Charles Roberts in 1973-74 for rail vehicle lessors Procor and operated by Rugby Cement. The light green Ketton Cement PCA (ref.373-075A) is patterned after TRL9468, from the batch (Nos.9460-9474) constructed by BREL at Doncaster for lessors Tiger Rail in 1975. The model actually has 'PR' in advance of its fleet number, which appears to be a mistake.

The models are finished very neatly in their respective liveries, and need only a quick dusting of weathering to finish off. The brake wheels would look good picked out in white, too.



SAMPLES SUPPLIED BY
Garham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

For N

PRICES
all versions – £6.50

Latest 4mm scale road vehicle kits from R. Parker

Illustrated here are recent additions to R. Parker's range of finely detailed easy to assemble 4mm scale white metal road vehicle kits. All are suitable for layouts set in the 1960s.

The Humber Super Snipe Series III (VE18) is the 6-cylinder version of the big Rootes Group saloon, not to be confused with the 4-cylinder Hawk, and would be smashing at the inevitable model wedding. At the other end of the scale the Reliant Regal 3/25 van (VE13) provided economical transport for small businesses long before the Trotter Bros brought it to a wider public. The Bedford CA Series II long wheelbase van (VE19 £1.50) with its sliding cab doors, column shift and ifs was well ahead of the game in 1959 and remained a common sight on UK roads throughout the ensuing decade. All these kits are supplied with glazing



and have seats, steering wheels and dashboard tops etc. In most cases some underbody detail is present including engine sump, propshaft, exhaust pipe etc. The CA van is splendid in this respect with modelled cruci-

form chassis frame, spare wheel, battery box and front mudflaps. This model deserves to be shown up on the 'ramp' in a local garage scene.

The foregoing three vehicles cost £8.50 each which includes P&P.

The Triumph motorcycle and streamlined sidecar (VE16, £5.00) is beautifully cast and features spoked wheels and a well detailed engine, pedals, exhaust pipe etc. The mid-60s touring caravan (VE 20, £13.00) is modelled with its jockey wheel in the 'at rest' position, ideally presented for model caravan sites. The windows are glazed and there are convincing curtains and interior furnishings.

An SAE to the address below will bring further information.

For 4mm scale

AVAILABLE FROM
R. Parker, 19 Oaklands, Malvern
Wells, Worcs WR14 4JE.

PRICES
In text

ESU Mobile Control

Although ESU – Electronic Solutions Ulm – has developed an enviable reputation as probably the leading European suppliers of digital sound decoders, its range also includes other innovative digital products.

New to this range is the cordless Mobile Control.

One advantage of digital control is the way individual locos can be addressed: the operator becomes the driver of the loco, not the layout. From this follows the need, while driving a train, to observe point settings and signal aspects, and this is easier to do if some kind of walkaround controller is used. A unit on a cable is fine for layouts of moderate size, and the next stage is to have several sockets where handsets could be plugged in, though the risk of multiple users becoming entangled remains. The ideal solution would be to have a cordless system.

The new ESU Mobile Control offers just that. The system has two elements – a base station which houses the receiver, and the handheld remote control unit.

Note that it is not a digital controller in itself – it has to be connected to a central command processor/power unit, and is fully compatible with leading brands and controllers using various bus systems, including Lenz Digital Plus, Roco LokMaus^{II}, the Uhlenbrock Intellibox, and the Märklin 6021 central unit.

The receiver does not need to be powered, as it derives what it needs from the system bus. The handheld uses three AAA batteries.

The system uses radio frequencies for two-way communication between command station and handset and so



does not depend on a clear line of sight between the handheld controller and the receiver, a considerable advantage compared to infra-red devices. The range is up to 100 metres. Ten channels are available, and up to four handsets can be used through one base station; the control bus can accommodate up to four receivers, giving a maximum of sixteen individual handsets.

The system works in the 433MHz

range and the software incorporates a PIN number facility so that each handset is recognised by its system and other users are locked out, thus ensuring integrity of control without interference. So if your neighbour also has the ESU Mobile Control, there is no risk of him taking control of your layout, either by accident or design! This may seem amusing, but think of it in the context of exhibition layouts in the same hall...

The handheld controller itself is not

heavy, and sits comfortably in the hand. It has a liquid crystal display screen, with menus in plain text (German and English versions are available). Locos and accessories can even be named and allocated a graphic symbol to enhance ease of use further. The status of auxiliary functions is also displayed.

The main control is an edge wheel which provides a natural method of controlling speed and also facilitates scrolling through menus, etc.; it is simply pushed down for the 'enter' function.

There are separate buttons for direction, and clearly marked selectors for either locos or accessories, plus a standard alpha-numeric keypad. The master 'stop' is conveniently located at the bottom right corner!

The ESU handheld will naturally mimic the control functions of the central unit employed, and existing users should find little difficulty in adapting to it. It will work with 14, 28, or 128 step motor control systems and recognises up to 9,999 addresses. The only oddity of the remote software is apparently that it will not support consisting.

This sophisticated and well-made product should add a new dimension to a digitally operated layout.

For all scales

AVAILABLE FROM
South West Digital Ltd.,
68 Brookfield Walk, Clevedon,
North Somerset, BS21 6YJ.

PRICE
complete set - £189.00
extra handheld - £145.00

'Skaledale' sectional stone walling in 4mm from Hornby

These convincing 4mm scale wall sections are new to the Hornby 'Skaledale' scenic range, and are bound to have many applications – and variations!

The walls are described as 'granite' and 'Cotswold', the latter series being the darker-coloured models in these photographs. The contents of each pack are otherwise identical in shape.

Pack No.1 comprises eight straight sections of wall 70mm long, and four right-angled pieces, the 'legs' of which are 32mm long overall. Pack No.2 consists of three 'standard length' – i.e. 70mm long – sections of wall, two of which have one breach and the other two breaches. It also has four regular straight sections, a straight section with a step-through 'stile', a five-bar gate 50mm long, and two gatepost sections 40mm long. Pack No.3 contains two standard straights, three short straights 30mm long, four gently curving sections (two 'left hand', two 'right hand') 52mm long, and two



straights 25mm long, one of which has the interlocking pieces at the top, and the other at the bottom (in order to create, when combined with the curved sections, different reverse curves, or to integrate other wall sections).

Our photos illustrate this ingenious and imaginative system better than we can describe, a system that will have a broad appeal, even we suspect to those who might look askance at the rest of the 'Skaledale' range.

For 4mm scale

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES
item ref.
Granite wall pack No.1 R8526
Granite wall pack No.2 R8527
Granite wall pack No.3 R8538
Cotswold wall pack No.1 R8539
Cotswold wall pack No.2 R8540
Cotswold wall pack No.3 R8541
All £5.00 per pack.



Book Reviews

Paddington Station

Its history and architecture

Steven Brindle
English Heritage, Kemble Drive,
Swindon SN2 2GZ
240mm x 200mm 174pp
Hardback £25.00
ISBN 1 873592 70 1

The title says it all. Steven Brindle devotes a chapter to each of seven aspects or eras of the life of Paddington to form a reference book that could be regarded as definitive.

Inevitably, Brunel's name occurs early in chapter one; in line two to be precise, and so it should. Such a mighty driving force and engineering pioneer was necessary to lead a project that shaped a part of London and created one of the country's major termini. This does not, however, turn into a biography of Brunel, but all the relevant facts about him are introduced when appropriate to illustrate and illuminate. The eleven pages of this first chapter set out the enormity of the task, establish the scale of the proposed construction and introduce some of the characters to be encountered by Brunel.

The momentum increases when the first proposed sites are discussed. The second chapter presents some fascinating maps, plans and illustrations from the early 19th century to add great atmosphere. It then shows how a workforce armed with little more than shovels, picks and wheelbarrows built and then demolished the first station. A bigger, better building was needed as the network and traffic grew, and the pressure increased on the temporary station at Bishop's Road Bridge. The new station design took its inspiration from a number of sources; comparisons are made with features from Bristol Temple Meads, the Palm House at Kew Gardens and the Crystal Palace. At this stage, the finer details were also the subject of conversation including the applied tracery that would create the cathedral-like embellishment to the roof framework.

It seems remarkable that the picture of Brunel's Royal Albert Bridge at Saltash in chapter three, which shows an enormous span about to be raised into place, is contemporary with another in the chapter showing people wearing top hats. The absence of the large civil engineering cranes that we have today makes the feat all the more amazing and somehow out of place with other aspects of life at that time.

It is a lesson to today's planners that it would be fifty years before significant changes were necessary to Paddington station despite the growth in passenger numbers and the expansion of the GWR. Steven Brindle cleverly seeks out the salient factors that affected progress, from the influence of commerce and politics, to geographical problems. He does justice to the inventive thinking of the GWR in bringing in outside commercial investments and partnerships.

The early years of the twentieth century brought both problems and opportunities, and this step forward in growth and adaptation is brought alive with



Above: platform 7 at Paddington on 24 April 1998, with Heathrow Express unit No. 332 010 awaiting departure. The unobtrusive way in which the 25kV overhead live equipment was installed for these trains is worthy of note.

Photograph: Frank Hornby.

Opposite page: the splendour of steam in Scotland, represented here by K1 No.62005, now named Lord of the Isles, at Corpach on 24 August 2003.

Photograph: Ian Futers.

high quality photographs of times that are just within the living memory of some. The world wars and the Depression of 1929 took its toll on much commercial activity, and the ingenuity of the GWR was reflected in the versatility of Paddington to maintain passenger and goods transport. Improvements in technology and administration methods, such as better telephone networks and the pre-printed Edmondson ticket system, refined the workings of the station; a clear picture of the direction ahead is formed in the text.

The brief but colourful chapter six gives a sense of the accelerating progress of Paddington and how it was made to keep up with recent decades, whilst still retaining a thread of connection with its heritage.

The final chapter is devoted to Paddington's architecture and deals with the subject succinctly. There is also an added bonus that emerged during the research for the book. It is the discovery of a cast-iron bridge over the Grand Junction Canal that had been disguised by brickwork. It was probably the first that Brunel had built and there are now plans for its rescue and reconstruction.

Sprinkled throughout the text are numerical references to the notes that are listed in a substantial section behind chapter seven. A bibliography points the way to further reading material and after the illustration credits, the well-constructed index proves to be a great asset.

Criticisms seem unwarranted, but despite the very pleasant book layout, maybe a larger typesize would have benefitted some readers and for a cover price of £25, a dust jacket would be welcome.

If the reader assimilates all that is in this beautifully prepared book, they can think of themselves as something of an expert on Paddington station.

Railways in Retrospect 1 LNER in Transition

Michael Blakemore
Pendragon Partnership, PO Box
No.3, Easingwold, York YO61
3YS
215mm x 275mm 88pp
Softback £15.00
ISBN 1 899816 11 9

Railways in Retrospect is a new series title from Pendragon which addresses the traditional historic railway story using one theme per book.

This first book in the series *LNER in Transition* adopts a mainly picture-plus-extended-caption format, but substantial amounts of introductory and descriptive text set the scene and put the illustrations into context.

The book deals with the time during which the 'Big Four' companies were taken into State control as British Railways. The new visual styles and working practices underwent radical changes; old liveries disappeared and the 'British Railways' stamp became increasingly evident. The policy decisions behind the actions are discussed and the subsequent effects evaluated in a coherent and illuminating way.

The five chapters deal in turn with an overall view of the LNER, the prestigious services, freight traffic, local and suburban routes and a more behind-the-scenes look at running the railway.

Owing to its brevity, this last chapter could leave the reader wanting more. The pictures are very interesting and the captions well up to standard, but if extra material was available, it would have topped-off an otherwise comprehensive book with an even more diverse chapter. The first four chapters offer high standards of text plus captions that make the reader get out the magnifying glass to examine the fine photographic detail described therein.

The front cover is adorned with a digital colour conversion that has a curious 'painted-by-numbers' feel to it and a caption inside the cover that says that the featured loco is an A4! The black and white photographs are well reproduced, some belying their age. The page design and typography is quite basic, but inoffensive and does not detract from the enjoyment and value derived.

It is a book that would complement others that you may have on the subject and an ideal first exploration into the LNER.

The Clogher Valley Railway

Second edition

Dr E.M. Patterson
Colourpoint Books, Jubilee
Business Park, 21 Jubilee
Road, Newtownards, Co Down
BT23 4YH
260mm x 210mm 192pp
Softback £15.00
ISBN 1 904242 15 4

This is an updated edition of the late Dr Patterson's work of 1972. Local historian Norman Johnston has retold the story in the light of new information and 135 photographs, many of which were not in the original book. The new text naturally also takes account of developments since 1972, such as the restoration of Brookeborough station.

The CVR was effectively a 3' gauge steam operated roadside tramway which ran between Tynan, County Armagh and Maguiresbridge in County Fermanagh. Opened in 1887, the line closed at the end of 1941.

First impressions of the book are excellent, as the CVR scene is set by colour reproductions of paintings by G.R. Hanan on front and rear covers. As with all thorough railway histories, the early chapters deal with the politics and legalities which preceded (and to this day still do) the opening of a light railway. Modellers will skip these at their peril, for Chapters three and four contain gradient profiles, useful track plans and many photographs of stations and locations on the thirty-seven mile route.

Three chapters deal with the steam locomotives, rolling stock and diesel traction. The six Sharp Stewart 0-4-2 side tanks by which the railway is best known are amply described and illustrated and, although scale drawings are not present, leading dimensions are given. The 0-4-4T variant No.7 *Blessingbourne* from Hudswell Clarke is not so well known, but this too is well described as are the Atkinson-Walker steam tractor and the 'Castleberg engine', a Hudswell Clarke 2-6-2T.

The chapter on passenger stock includes a scale drawing of one of the Company's two composite coaches and there are photographs of the coaches and goods rolling stock.

For some readers, the chapter on Diesel traction will hold much interest and the Walker railcar (new in 1932) and the lorry-like 'Unit' from the same builder are also described and illustrated.

As with all histories of Irish rural railways, the tales of local personalities and events are to be treasured. Here we have not only an account but a photograph of Maggie Coulter's goat absolutely defying the CVR train to venture any further along the street-running section in Fivemiletown.

Even after sixty years there is still much to be seen of the CVR and Chapter 12 gives a useful itinerary for adventurous historians and modellers.

Appendices include a list of stations and halts with details of facilities, notes on tickets, lists of locos and rolling stock and, delightfully, some Relevant Verses. These latter are intended to be sung but (fortunately for others here in the office) the tunes are not given.

Banbury to Birmingham

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904474 27 6

This is a welcome addition to an already large series of compact books that deal concisely with chunks of railway as it is and as it was.

The format is consistent throughout the series using maps, track plans and historic black and white photographs to create a study of this main line that is easy to absorb.

There are no chapters as such, but each section is centred around a station and its environs. The illustrations are not always in strict chronological order, but there is always good reason for including each picture. The comparative shots of specific sites from different times are particularly fascinating. The changes in architecture and the enormous variety of motive power and rolling stock demonstrate how evolution takes place under the influence of social and commercial pressures.

A brief introductory passage sets the scene for each section and not far away, the reader will often find the relevant map, usefully dated as a reference point for the accompanying photographs. The extended captions provide some essential facts for the historian whilst the shorter captions make the most of what history is available; both could be a valuable asset to the modeller.

The standard of photo reproduction varies in accordance with the quality of the original, but the content of each has something to say and warrants the time spent examining the finer detail to get the most out of the book.

If you already have titles from the series or if products from Middleton Press are new to you, this would deserve a place on your shelf.

Scottish Steam

W J Verden Anderson

Keith Verden-Anderson
and Brian Stephenson
Ian Allan Publishing Ltd.,
Hersham, Surrey KT12 4RG
215mm x 298mm 160pp
Casebound £30.00
ISBN 0 7110 2992 X

The late W J Verden Anderson is widely regarded as one of Scotland's leading steam railway photographers and hundreds of his pictures have appeared in magazines and books over the last half century. This latest book, a lavish, landscape format coffee table photograph album in the classic Ian Allan style has been compiled as a tribute to him by his son Keith Verden Anderson and Brian Stephenson.

As one would expect, the photographic quality is superlative with over half of the 187 photographs drawn from the author's colour transparency collection. The period covered is from

the early 1950s to the end of steam in Scotland in the mid 1960s, whilst geographically, Central Scotland predominates with shorter forays into the West Highlands, Central Highlands, Speyside and the Far North.

Essentially the photographs are locomotive and train portraits of the highest technical excellence with several side lit to create moody and dramatic shots. One colour shot in particular, showing a WD 2-8-0 hammering up Glenfarg bank on a summer's evening in 1963, oozes the calibre of an oil painting on canvas – such was the photographic mastery of W J V Anderson over 40 years ago.

Captions are competent and adequate, though on occasions one is left wanting to know a little more. The only down point here, which begins to pall a little, are the rather too frequent references to 'Bill's Sunbeam Rapier' often espied in the photographs parked up by the lineside fence. Though full marks to the first Scottish based layout to include a model of one in the station environs!

This is a book that really takes the reader back to the very time and place of the photographs and, looking beyond the evocative imagery, will be very useful to modellers seeking pictorial evidence of period train formations, liveries and weathering.

Scottish Region colour album No.1

George C. O'Hara
Clyard Novella Ltd.,
16 Garryhorn, Prestwick, South
Ayrshire, Scotland KA9 2HU
297mm x 210mm 104pp
Casebound £20.00
ISBN 0 9530821 1 3

No fewer than twenty-one photographers are acknowledged as contributors to this full colour photo album which is a wonderful pot-pourri of British Railways Scottish Region settings. The majority of scenes are from the 1960s, in what we now call the transition years, and feature many of the branch and secondary lines that were closed under Beeching, though some period shots of still extant main lines are included, as is a small selection of pictures dating from the 1980s.

Steam and green diesels predominate, but this is not a collection of traditional locomotive or train portraits, rather, the photos more often show the

trains set within their immediate surroundings. In fact a very useful source of pictures for the Scottish layout builder wanting ideas on how to fit the railway into its wider environment, be it urban, rural or industrial, highland or lowland.

Pictures are arranged as either three or four to a page and generally reproduced at postcard size or smaller. From a technical point of view, the photographic quality is variable, as one might expect from such a wide cross section of contributing photographers. However, as the publisher acknowledges, inclusion of numerous shots on the grounds of the historical significance and rarity was considered far more important than spot-on exposure or true colour fidelity.

Captions are brief but generally sufficient to advise the reader where and when the photo was taken. On occasions, a locomotive is described as 'unidentified' when the number is clearly visible and readable in the picture!

Overall, a good reference source of mostly unpublished photographs that will imbue the reader with the essence of the Scottish Region of 40 years ago.

Portraits of Railwaymen

in the 1940s and 1950s (DVD)

Panamint Cinema
70mins £19.99

This compilation of four films on DVD comprises: *Shunter Black's Night Off* (1941), *The Railwaymen* (1946), *Portrait of an Engineer* (1954) and *British Locomotives* (1959).

The austere post-war years broke cautiously into the 1950s as Britain gradually recovered its industry and began to rebuild a pattern into daily life. These films span this time, but the scene is set by an earlier film from 1941 when the bombs were still falling.

Shunter Black's Night Off is a staged period piece set in a shunting yard during the war and is a story about a wagon, packed with explosives, that catches fire owing to local bombing activity. Without spoiling the story, the yard crew is helped by Mr. Black who is relaxing at home after his own shift in the shunting yard. He sees the fire, cycles to the yard and does brave things! Predictable and dated, but enjoyable, understated and very British.



The Government produced career films encouraging us to, perhaps, join the army or be a nurse. This one, *The Railwaymen*, is a pot pourri of insights into various railway jobs and their career prospects. Jobs in the sheds, shunting yards, signal box work and building rolling stock are covered and the film provides a fascinating look at the skills involved and the conditions under which they were expected to work; health and safety experts look away now! The shots of shunting yard workers running alongside moving wagons to apply the brakes with a pole could make the viewer shudder and all done for £4/10/0d (£4.50p) per week!

Ted Wilson is the quiet, confident star of *Portrait of an Engineer*. His progress is followed through some of the design and manufacturing processes involved in producing locomotives and rolling stock at the Vulcan Foundry. He started as an apprentice and worked his way through the different departments to become the person overseeing the factory and training others. The time devoted to each department shows us briefly what went on and how Ted was always willing to give an encouraging word and a smile to both newcomers and experienced workers alike. This is again a soft-sell recruitment film of the time, which demonstrates the straight-forward, no-nonsense approach to a life-long railway career. Several references are made to receiving a pension at the end of it all. Maybe some of us can learn from this!

Finally on this DVD is the only colour film of the quartet. *British Locomotives* traces and celebrates the history and advances made in loco design until 1959. George Stephenson's efforts are briefly covered, together with the Rainhill trials and the Stockton & Darlington line, but the film concentrates on 20th century progress. The film has plenty of technical information that would enlighten many, together with cameo appearances by *Deltic* and several other memorable locos. Electrification is given good coverage and a gallery of diesel loco sequences shows their diversity of type and purpose.

Steam fans are certainly not forgotten and there are rare shots of Beyer-Garratts in action and locos constructed for export to Spain, South Africa and elsewhere, portrayed as 'Britain's contribution' to other countries.

The quality of the images and sound reflects the technology and budgets available during the times when the films were made, but any quirks of soundtrack or colour help to add atmosphere.

Railways were a very significant part of life, more so for many people than they are now. With the erosion of railway usage to transport huge amounts of goods, Dr. Beeching's recommendations, the postal system recently abandoning the night mail and the overall trend for products and people to travel by road, these enjoyable and thought-provoking films encourage both nostalgia and, perhaps, some more serious reflection on the way we view our railways.

The DVD is available from **Panamint Cinema, Abercorn Schoolhouse, By Newton, West Lothian, Scotland EH52 6PZ**. The price includes postage and packing.

Class 31 kit for 7mm scale from DJH

DJH has announced a new kit, for 7mm scale, of one of the most successful British diesel designs. The Brush Type 2, later BR Classes 30 and 31 was first introduced in 1957; 267 were eventually built of which 190 were still running at the beginning of 1990, and several have been preserved.

The kit covers locos fitted with four-character roof mounted headcode boxes, with optional parts to represent all periods from as-built to present condition.

The kit features a cast alloy body, water/fuel tanks, battery boxes, bogie sideframes and brakes, plus etched brass/nickel silver preformed roof panels, fans and engine cover grilles, win-

dow beading, bogie chassis and axle boxes. The kit includes, in lost wax brass, sprung buffer heads, steam heating and air hoses, windscreen wipers and fine detail parts. Flush glazing, full exploded diagrams and assembly instructions are supplied; motor, gears and wheels are available separately. Kit price £445.00.

DJH Engineering Ltd., Project House, Villa Real, Consett, Co Durham DH8 6BP. Tel: 01207 500050.

Right: in immaculate condition, Class 31 No.31 112 is seen on display at Selhurst during the depot's open day on 21 September 1990.

Photograph: Frank Hornby.



Railfest at the NRM, also 4472 safe

Celebrate 200 years of railways at Railfest, 29 May-June 6. The National Railway Museum has brought together an astonishing collection of record-breaking engines, from Richard Trevithick's 'Pen-y-Darren' to a high-speed Pendolino.

There will be vintage funfair attractions, train rides, rare archive films, children's activities including face painting, theatre performances, play train and the Great Railway Bazaar.

For prices and tickets call 08707 010208, or for recorded information, call 01904 686268. Details will also be found in our *Guide to Railway Attractions* booklet, free with this issue.

In a separate development, sole surviving Gresley A3 No.4472 *Flying Scotsman* has been bought for £2.2million and will join *Mallard* in the National Collection in York. There are already plans to use it on special runs to Scarborough.

The offer included an initial £365,000 that was raised through the NRM's public appeal; this was

matched by Sir Richard Branson on behalf of the Virgin Group. A further £60,000 donation by the British public raised the total to £790,000 to keep the locomotive running on Britain's railway for years to come. This was greatly enhanced by a £1.8million grant from the National Heritage Memorial Fund.

Meanwhile, plans to put the legendary locomotive on display at the National Railway Museum between rail operations were boosted with the announcement of a £500,000 grant from the regional development agency, Yorkshire Forward. The money will be used to create a special exhibition dedicated to the 81 year-old icon for thousands of fans visiting the award-winning family attraction every year.

Below: a good modeller's view of the corridor tender attached to Flying Scotsman, during the time when the famous locomotive was liveried in BR green as No.60103, and seen on tour to the Swanage Railway in 1994.

Photograph: Andrew Burnham.



Colin Ashby retires

After twenty-five years, Colin and Valerie Ashby have decided to take life a little more easily and have retired after attending their last exhibition this Easter in York.

Unable to find what he wanted for his model railway, Colin started to produce his own kits and accessories. A small plastic injection moulding machine was purchased and a few simple models were made. The Shipley Model Railway Society asked Colin if he would like a trade stand to sell his products at their first exhibition.

Encouraged by the response, Colin produced a range of OO9 and O

gauge plastic wagon kits. He realised that there was a need for kits and accessories, so he increased the range and started to sell the products of others.

Valerie worked in the background looking after their two children whilst Colin worked at exhibitions with the help of his father. Later, Valerie was to join Colin at exhibitions.

After a well-deserved break, Colin and Valerie will continue to sell their own products by mail order.

They would like to thank everyone for their support over the past twenty-five years and for all the good wishes.

MJT parts available from Dart Castings

Mike and Linda Trice are pleased to announce that the products produced under the MJT label have transferred to Dart Castings.

The MJT range, brand name and production techniques will all be maintained and Robin and Kathleen

Harding of Dart hope to augment the list with some new items once full production has been established. The MJT range will be added to the Dart website <http://www.dartcastings.co.uk/> **Dart Castings, Kingsclere, Chestnut Way, Stoke Mandeville HP22 5UY.**

Bratchell Models in cyberspace

Bratchell Models has launched its own website bratchellmodels.com.

The site shows pictures and full details of the many and varied multiple unit kits, printable price lists and order

forms together with much other useful information.

The firm is also still contactable at **Bratchell Models, PO Box 22, Watford WD17 3WA.**

RM Managing Editor to open Exe show

The Managing Editor of RAILWAY MODELLER, Michael Pritchard will open the Exe Model Railway Society exhibition at West Exe Technical College, Exeter, Devon on the weekend of 29 and 30 May.

There will be at least sixteen layouts including a contribution from the South West Counties N Gauge Group which features an automatic control system.

The North Devon MRC will show *Kingdom's Crossing*, a OO wartime layout. Several gauges will be represented including Bob Harper's O gauge, broad gauge layout from the turn of the last century.

Trade support will be in evidence together with refreshments and free parking. Full details are in 'Societies & Clubs'.

SHOP NEWS

OPEN

Hunts Hardware, Marlow

Hunts has been going as a DIY hardware shop for ten years, but last November Richard Hunt and his son Jason agreed to use part of one of their two shops to establish a model railway business.

There has been a very promising start keeping British outline OO and now N gauge stock from Hornby, Bachmann and now Graham Farish. In addition, Jason is building up the scenic side of

the business.

An additional attraction to the shop is a layout exhibit of Marlow station built by the Marlow and District Railway Society. Overall, the shop is creating new local interest and regenerating enthusiasm from those who used to model, but have not been involved with the hobby for a while.

Hunts Hardware, 14 Spittal Street, Marlow, Bucks SL7 1DB. Tel: 01628 488228.

Buffers Model Railways, Axminster



It started as a garage business ten years ago, but when Jeff Tennent decided to dispose of some of his surplus railway hobby stock, it was the beginning of a new direction for him.

Eventually, the sales of second-hand and then new railway products overtook the garage sales and a store was born. It is now two years since Jeff made his hobby his business and the shop is now three times its original size.

Marie, Jeff's partner is very active in the business dealing with mail order and running the shop

when Jeff is away at exhibitions. With a large range of stock from Z to G and Gauge 1, all tastes are accommodated; the garden sector is growing significantly. To have American outline is a part of the future plans for the shop.

There are also plans to expand into the remaining part of the premises to have a larger exhibition, but the displays currently running in the shop are quite an attraction at present.

Buffers Model Railways Ltd., Colston Cross, Axminster, Devon EX13 7NF. Tel: 01297 35557.

Forth Model Railways, Cowdenbeath

June 2004 is the third anniversary of Raymond and Elizabeth Daly's shop in Cowdenbeath, Fife and business is so good that now they will be open on Sundays from 23 May. The mail order side of the business is also extremely busy and they are having to cut down their show attendance schedule.

The shop, which only sells new, pre-owned, collectable and obsolete model railways, will open from 10:00-17:00 on Sundays, Monday-Saturday from noon-16:00 (closed all day Wednesday).

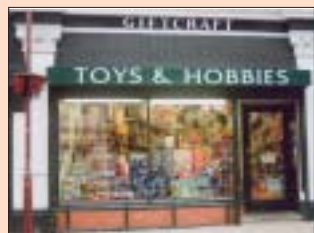
Forth Model Railways, 168 High Street, Cowdenbeath, Fife KY4 9NH. Telephone 01383 515597.

Mercer & Sons, Blackburn

For 150 years Mercer & Sons have been trading as a department store in Blackburn, but ten years ago model railways were added to the range of toys.

A significant expansion of the models and railway section is now under way with more shop space available. The major makes like Hornby, Bachmann and Peco are all stocked together with a large range of scenic materials.

Plastic kits and die-cast products are also featured and friendly advice is always available.



Mercer & Sons Ltd. 21-27 Northgate, Blackburn, Lancs BB2 1JT. Telephone 01254 587000.

0 gauge open evening at Richmond



Following the success at the Twickenham & District MRC of the N scale evening in March, there will be an O scale open evening on June 18 at their clubroom, Room 42, Parkshot Centre, Parkshot (off A316), Richmond, Surrey from 20:00 to 22:30.

The club will show its SR layout *Watersfield* (pictured; see RM March 1999) and the award-winning O-14

Tidmeric Minerals (see RM March 1995). The club will also launch its next project, *Lambeth Walk*, a two-level project based on south London. The club is keen to attract new members to tackle this ambitious project.

Also on show will be displays of tinplate, American O and On3 and scratchbuilt German O locomotives by Tom Riley.

DCC open days at Pecorama reminder

Just a reminder about the Digital Command Control (DCC) open days here at Pecorama over the weekend of Saturday 22 and Sunday 23 May.

There will be a very strong trade presence with major DCC manufacturers represented by staff who will be willing to answer questions at all levels. Lenz, Digitrax, Fleischmann, and ZTC will all be here. In addition, Bachmann will be present, with its budget DCC controller (see March p.176). Each manufacturer will have its own display stand, with working test tracks for demonstration purposes.

At specific times during the weekend, they will also be making individual presentations in our Lecture Theatre.

We also expect to have a couple of

digitally controlled layouts on display, so that practical matters can be discussed with modellers who have genuine experience and no commercial bias other than as satisfied customers.

The weekend is open to all, and should be an unequalled opportunity to compare systems and products, and get advice.

Pecorama is normally closed on Saturday afternoons, but for this event the site will exceptionally be open for the whole weekend.

Usual admission charges will apply, but once you have entered the site all the talks, demonstrations, and advice will be absolutely free.

Telephone 01297 21542 for further details.

N gauge wagon load database

There is now a database of wagon loads in N scale/gauge that lists manufacturer, product code, description and price. It also lists 1/144 aircraft

and 1/160 shipping products. Alfred Dewing has compiled the list and he can be contacted at his e-mail address alfred_dewing@yahoo.co.uk

Paging J. Harman

Would Jamie Harman please contact the Launceston Model Railway Club to conclude some outstanding business.

Please telephone: 01566 776463.

The best layout award at the recent Derby show went to the organising club's own 4mm scale exhibit Farkham. The layout, which we intend to feature in a future edition, recreates the latter days of the Speedlink services on BR in the late 1980s. Photo: Steve Flint.



Shelley from I.P. Engineering



Shelley the tram is the latest 16mm scale tram kit from I.P. Engineering.

The kit makes a very substantial model 250mm long, 125mm wide and 180mm high. It is mounted on the same chassis as used for their Jessie with a powerful motor to drive both axles. The chassis is fully brass bushed. The body is of strong wooden construction, as per the prototype, and is highly detailed.

The main body parts are supplied cut to size and a good supply of bass-

wood allows the builder to complete accurate window and floor detail. Whitmetal castings enhance the model as do working head and tail lights. Electronic speed control is standard, but the kit is radio control ready.

The kit is £130 and the radio control can be added for an extra £52.95 owing to a specially negotiated deal with a supplier.

I.P. Engineering, 46 Carisbrooke Crescent, Poole, Dorset BH15 4LD. Tel: 01202 660304.

Ultrasonic cleaning bath

Kerry Ultrasonics has developed an ultrasonic bath that is suitable for a wide range of applications including model making.

The Sapphire is a compact, fast and effective means of removing contaminants by using ultrasonic waves to create cavitation, the formation and collapse of microscopic bubbles that have a gentle but efficient scrubbing action. Ultrasonics quickly leaves even the most intricate and delicate parts

clean, inside and out.

It is safe and easy to use with a single on/off button and five-minute shut-off timer. Use warm water and a small amount of cleaning agent for a few seconds to clean lightly soiled items; the removal of medium soil takes only two or three minutes.

Kerry Ultrasonics Ltd., Hunting Gate, Wilbury Way, Hitchin, Hertfordshire SG4 0TQ. Tel: 01462 450761.

Jack visits Sittingbourne

The Sittingbourne & Kemsley Light Railway has organised a 'Story Time' day on Sunday 20 June featuring 'Jack the Station Cat and his Loco Friends'.

With the permission of Alan Cliff, the author of the 'Jack the Station Cat' books, which will be on sale in the Gift Shop, younger visitors to the railway will have a chance to meet Jack and relive some of his stories.

In addition, the launch of a new

'Jack' book will be hosted by Robert (Bob) Symes of 'Making Tracks' fame who will be signing books on behalf of Alan.

The railway has a refreshment room, gift shop, museum and model railway, plus a 'museum walk' around original railway vehicles and artifacts.

For customer information, telephone: 0871 222 1568. For bookings, telephone: 0871 222 1569.

Hornby sale

Hornby, Meccano, Dinky toys and items of ephemera rescued from the famous Meccano factory in Liverpool before its demise in the 1980s, fetched over £70,000.

At an auction held in April by Vectris in Rugby, a rare signed photograph of Frank Hornby sold for £4,100 including commission. Other items included rare Meccano catalogues, photographs, instruction books and Dinky items including prototype models that were never put into production.

Hornby kept prototype models, posters etc. but at the end of the life of the factory, these items were lying around or being thrown out.

MTV kit in 4mm scale from Genesis Kits

Genesis Kits has released a 4mm kit for the MTV/Zander wagon. 150 were built on old Esso tank wagon chassis from 1975 and coded MTV. In 1980 they moved over to the Engineering fleet and were recoded Zander.

Cast in high grade pewter, wheels, paint and transfers are needed to complete. Price is £7.50 plus £1.50 p+p. **Genesis Kits, Waveney Cottage, Willingham Road, Market Rasen, Lincs. LN8 3DN. Tel: 01673 843236.**

Ferrosol lubricant

A new high quality lubricant from specialist manufacturer Bilt-Hamber Laboratories is outperforming established well-known brands by 3.5:1 in independent wear and weld load tests conducted by Tribologic Ltd., School of Mechanical Engineering at the University of Leeds.

'Ferrosol' has been developed to penetrate close tolerances, free rusted parts, displace water, restore electrical circuits and provide corrosion protection. It has low surface tension proper-

ties allowing it to penetrate and lubricate awkward places effectively.

Suitable for large or small-scale applications, it contains no silicone, PTFE, molybdenum disulphide or chlorinated solvents thus making it suitable to use near painted areas.

It is obtainable in 500ml aerosols with a straw or in bulk for other methods of application.

Peter Hamber, Bilt-Hamber Laboratories, Radford Way, Billericay, Essex CM12 0EG. Tel: 01277 658899.

'Trainscapes' audio CD

An audio CD called 'Trainscapes' is now obtainable with steam railway sounds to use as an atmospheric background when you operate your layout. It consists of two lengthy soundtracks: 'Steam on a sunny day' and 'Steam on a rainy day'.

The excellent quality recordings have been compiled to add the missing sound ingredient to a steam layout. The 'sunny' track gives us puffing and chuffing of steam locos pulling their loads, wagons and carriages rattling with couplings clanking and wheels squealing against the rails. Cars and

lorries are busy on the road and whistles from locos and guards are to be heard too.

The 'rainy' track changes the whole atmosphere with the sounds of rain and distant thunder plus the peal of church bells and music in the distance, whilst another steam train passes by. The two tracks provide the best part of an hour of sound.

A second CD is in production to fulfil the wishes of diesel modellers.

Storehouse Records, 17 Higher Elmwood, Roundswell, Barnstaple, Devon EX31 3SG. Tel: 01271 346763.

Stan Roberts

We are very sorry to report the death of Stan Roberts who was born in 1920. A railway modeller all his life, he wrote many articles for RM. Since 1970, readers will particularly remember his 4mm scale Midland Railway models set in 1910, *Bakewell* (Oct, Nov and Dec 74 and May 75) and *Rowsley* (May, August and October 88 and Mar 89). He also contributed to *Modellers' Backtrack* and *Midland Record*.

His other main interest was Liverpool local history and this led him to write a definitive history of the public telephone service in the Liverpool Telephone area. His occupation in real life was that of a Post Office Telephone engineer, where he rose to become

Head of an Engineering Division. Thus the wiring on his layouts, unseen by visitors, was neatly formed and laced in a traditional manner.

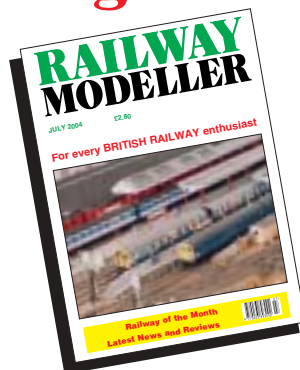
Stan's early interest in model railways stemmed from his uncle Harry Brooke who, in the early 1920s, had an electrically operated gauge 0 layout in his bedroom in a house with only a gas supply, the power being obtained from accumulators, charged at the local radio shop.

The *Bakewell* and *Rowsley* layout is now with the Peak Railway Trust.

Our sincere sympathies go to Stan's relatives and friends at this time, and our thanks to his son Andrew for the notes set out above.

Coming next month

Out on Thursday 17 June



HOLLIES END

Brian Stubbles presents his attractive 7mm scale narrow gauge layout.

MIDLAND 48'

BRAKE COMPOSITE
David Tillet converts the 4mm scale Ratio items.

WANDSWORTH PARK

Southern EMUs, both main line and suburban, in N by Geoff Green.

CORNISH CHINA CLAY

One of the Duchy's staple traffics, modelled in Australia in 00 by Ian D. Simpson.

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WANDSWORTH PARK - SOUTHERN ELECTRIC IN N
LNWR 42' RADIAL COACHES - SCALE DRAWINGS



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HOLLIES END

A narrow gauge layout in 7mm scale with much added detail. Brian Stubbles gives us a tour.

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DAVID JENKINSON

An appreciation of this master modeller, who died on 27 April.



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Jeff Askew marks the half-century of this magnificent model of the rural landscape in 4mm scale.

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MIDLAND 48'

BRAKE COMPOSITE (DIA.508)

David Tillett converted Ratio 00 kit parts to produce a different type.

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ON THE CHEAP – 2

An LNER J19 0-6-0 in 00 from Hornby and spare parts, constructed by K. Chadwick.

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No.6249 City of Sheffield in 00 in 1944 condition, by P.D. Smith.

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CORNISH CHINA CLAY

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EDITORIAL



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RAILWAY MODELLER

July 2004 · Volume 55 · Number 645

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COVER: last express home – the Dalesman from St. Pancras arrives at Kendal. Photo: David Jenkinson.

BELOW: LMS group coaches on the sea wall section at Pendon Museum. Photo: Len Weal, Peco Studio.

RAILWAY MODELLER

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A good coach

Thumb any number of railway books, and it's apparent which piece of rolling stock got – and gets – most attention. Locomotives, of course: the most interesting and at times the most frustrating parts of many railway photographs.

Interesting is obvious, but frustrating? Simple – how many of us have at one time or another struggled to see 'beyond' the locomotive in a photo, perhaps to make out details of the goods yard, station building, signal box or other lineside feature. Drifting exhaust, so atmospheric when only obscuring the sky in a low-viewpoint Treacy-on-Beattock type of photograph, becomes the modeller's worst enemy at times like these. The freight enthusiast and the coaching stock fan have to become adept at 'edging', the art of making educated guesses as to train makeup or wagon type when viewing the very extremities of a photograph through a magnifying glass, and it is axiomatic that the only known view of a particular design will be the one with a locomotive's buffer blundering across it, like a *prima donna* upstaging the chorus.

Good, clear works views of particular items of rolling stock are therefore all the more welcome, both to the modeller and the manufacturer that would service his need for kits and ready-to-run stock. Such a view appears in this issue, as part of a feature (with full scale drawings) on LNWR 42' radial stock, specifically the Northstar Design all-third kit in 7mm scale. Similarly, David Tillett found that a fine, clear view of a Midland 48' clerestory coach was all the inspiration he needed to convert a couple of Ratio 4mm scale models into the type he wanted to model, with full detail to boot.

Sadly this issue must record the passing of David Jenkinson, one of the hobby's greatest coachbuilders – amongst many other talents – as readers who remember his four-part essay on the topic in this magazine back in 1979 will attest. Elsewhere we present a full appreciation of his life and work, but suffice it to say here that railway modelling has lost another of its guiding lights.

Pendon half-century

In this issue we commemorate the half-century of Pendon Museum, near Didcot in Oxfordshire. Brainchild of the late Roye England, this meticulous evocation of the rural landscape has inspired many, even if they feel they could not match the quality of the modelling.

In contrast to the less-obvious changes that had occurred in the 50 years to 1954 – perhaps a little farm mechanisation here, a motor lorry there – think how the world has altered in the 50 years *from* 1954. Pendon opened seven years before Gagarin made his space flight – and three years before that of *Sputnik* – so those struggling with the modern world should pay the museum a visit and absorb this remarkable recreation of a time and a place.

Hornby live steam review!

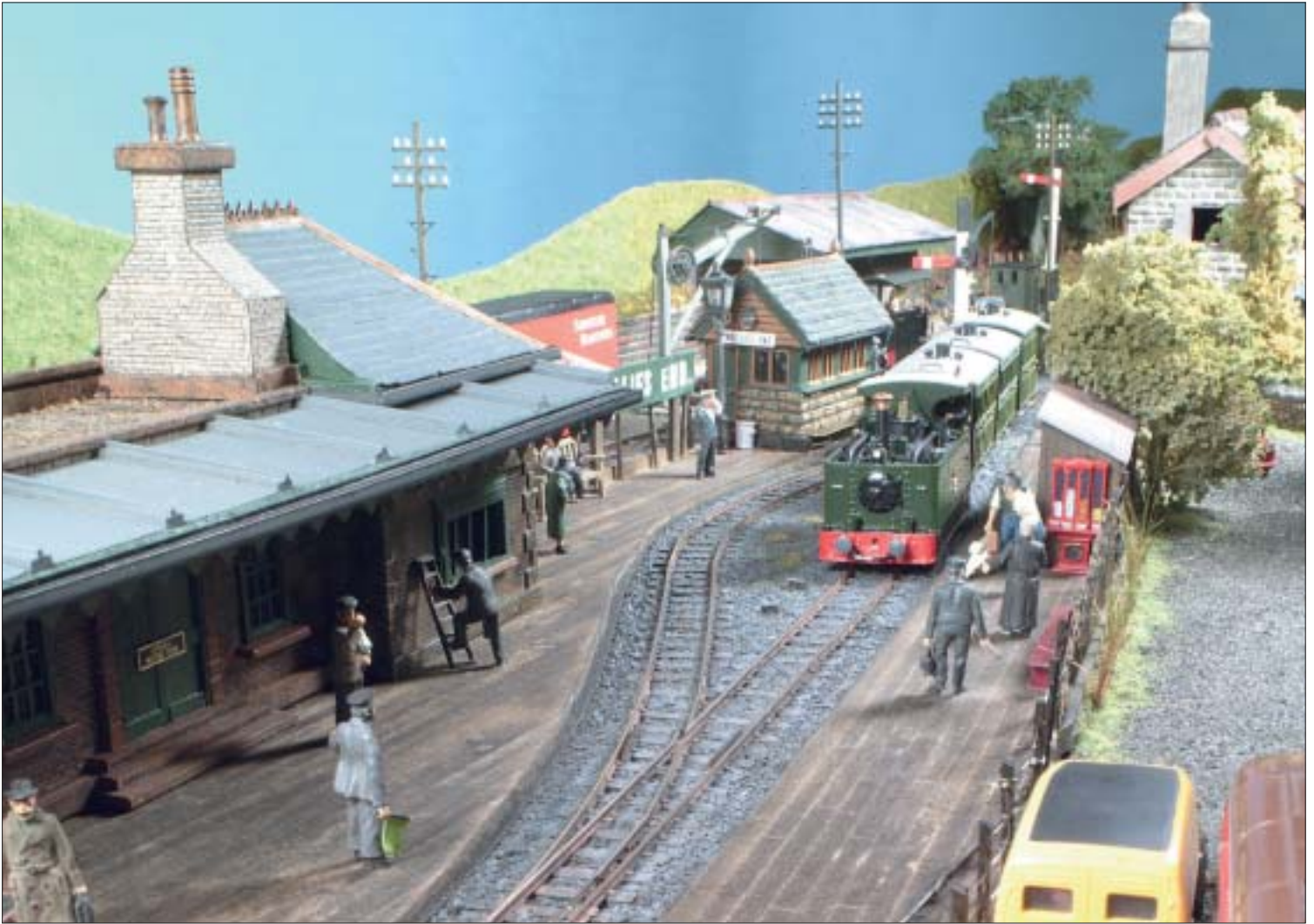
We have devoted two pages this month for a full evaluation of the Hornby live steam system. We, like many others we suspect, have until now only been able to view the remarkable A4 and its intriguing controller at shows, or at the launch last year at the Goodwood Festival. Clearly Hornby has been able to fulfil demand for these sets without the added bonus of press coverage to stoke up orders, so we apologise for the time it has taken for us to review a sample: we have been waiting with as much anticipation as everyone else!



CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.



Railway of the month

Hollies End

A narrow gauge exhibition layout in 0-16.5

Brian Stubbles tells the story.

When after surgery on my spine I was told that I was paralysed from the waist down and would be confined to a wheelchair for the rest of my life, a chain of events brought me into model railways. They say that life begins at forty. I was forty-two, but how could this be life?

Up until then I had been into radio controlled boats, but after this setback my wife was worried that water and wheelchair were not compatible. She wanted me to pack up making and sailing boats, but I needed a hobby, more so now.

It just so happened that Basildon MRC was holding its annual show at a venue close to where I lived, so on the following Saturday I went along to see what it was all about. I had

been interested in trainspotting as a kid and I still looked upon steam with great affection.

The Basildon show lit the fuse of eagerness and within two weeks I had sold my two prized boats and, armed with the cash, went and joined the Club. This is where I bumped into Andrew Griffiths. A good modeller for many years, he took me under his wing and gave me the confidence to do a couple of years' modelling in 00. But then one weekend Andy was showing his narrow gauge layout *Taly-bont* at a local show and I asked him if I could help out. He said yes and this is the result of that show. I was hooked on modelling in 0-16.5 and *Hollies End* was conceived.

The aim was to exhibit the layout if it was

good enough, and it had to be fictitious so that I had a free slate to do as I wanted, within reason.

The layout had to be built as cheaply as possible, i.e. manually operated points, and most things – buildings, scenery, rolling stock etc – should be built from scratch.

The main aim was to make sure that I enjoyed exhibiting and that members of the public went away from *Hollies End* glad that they had stopped and watched its movements and taken in what I had made over a year and a half.

Baseboards were made of 3" x 1" and consist of two boards measuring 5' x 3' with legs mounted inside the the framework making

Left: view of the terminus with a local passenger service arriving at the main platform.

Right: single deck buses await passengers while the shops prepare for a busy day.

Photographs by Len Weal. Peco Studio.

each board self standing. This forms the viewing area of 10' x 3' and a third board mounted piggyback style, also from 3" x 1" and measuring 2'6" x 3', forms the fiddle yard. All three boards were covered in 1/4" plywood glued and screwed, suitably braced underneath with 2" x 1".

The fiddle yard has a mimic board at the front which has a track plan with isolating toggle switches on it as well as various controls for other electrical gadgets.

All three transformers are mounted underneath the fiddle yard and encased for protection leaving the whole upper area for cassettes, six in all. The cassettes were made from melamine material with the track glued to it and 1" angled alloy each side of it to carry the electrical current.

I find these cassettes very good with hardly any problems. With everything in front of me I can sort out the next rake of stock to enter the layout while a train trundles along in view of the public.

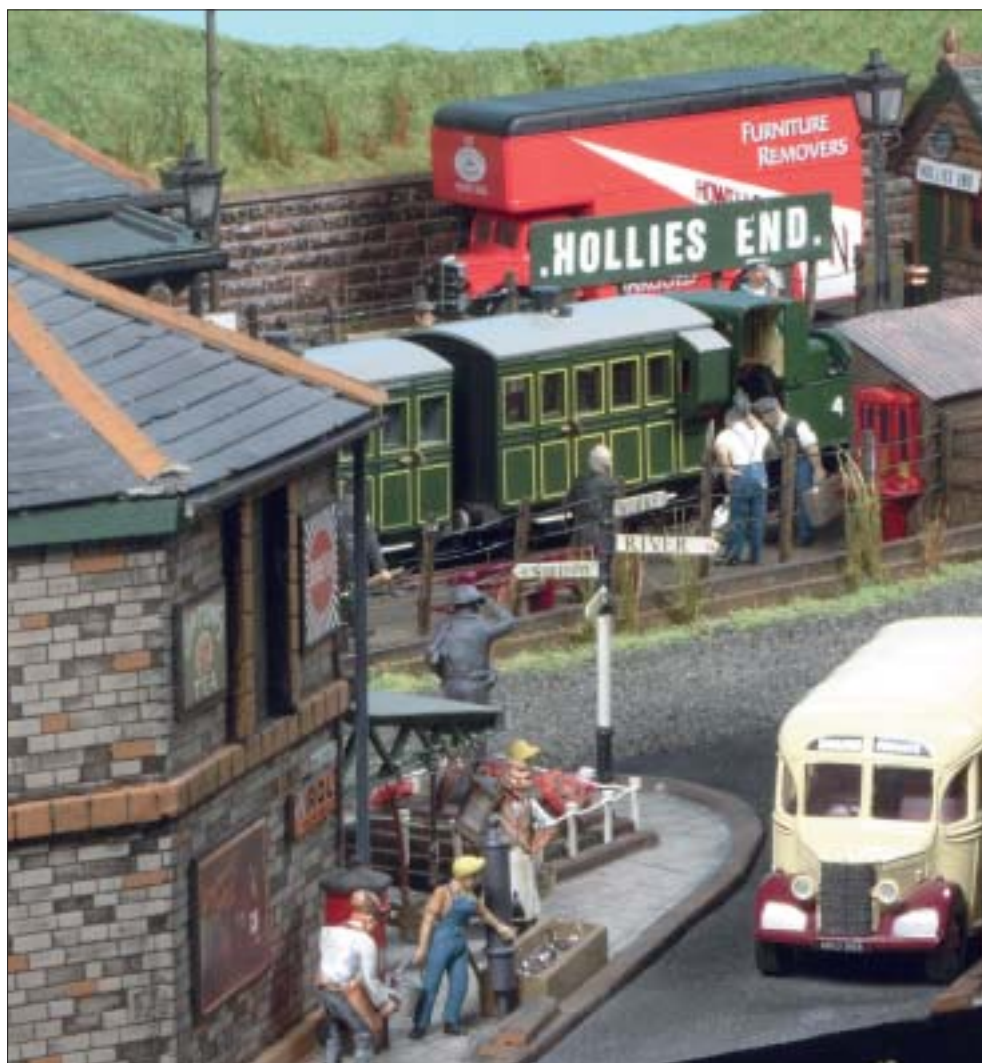
Lighting is by two gallows brackets at the back of the layout. These are evenly spaced and hold two tungsten spot lamps which illuminate the layout most effectively. The fiddle yard is independently lit by an 18" fluorescent tube which gives ample light for assembling various rakes of stock. The nameboard is fixed to the brackets and stops the public getting dazzled by directing all the light onto the layout.

All along the viewing front of the layout I have installed 1/4" thick Perspex with smooth rounded top edges so that no little fingers or big ones touch any of the intricate detail. The fingerprints after a day's exhibiting are just like Interpol's dabs department but they soon come clean with a rub over with polish.

So in all the layout measures 13' x 3' but I have to have 5' extra at the back to manoeuvre my wheels around. This size of layout fits into my friend Robert's van with my wheelchair as well with just inches to spare.

Trackwork and electrics

Track is all Peco 0-16.5 flexible type with electrofrog pointwork: this type of point is the best for slow running as constant current flow through them helps the short wheelbases of most of the narrow gauge locos pass over the



points without too much stuttering, if any.

The track is kept in tip top working order by a Gaugemaster electronic track cleaner. This keeps track cleaning by hand to a bare minimum and also reduces dirt pickup on the wheels.

Put simply this is made as easy as possible. I've found out that you don't need to go all high-tech. Two plugs connect the power to everything on the layout. Power flow from board to board is by 25-pin computer type plugs. Control of the locos is by hand-held controllers, one at each end of the layout. This enables Robert at one end to shunt while I move something else on the layout. The hand-holds are Gaugemaster feedback type and they work very well at a slow running pace.

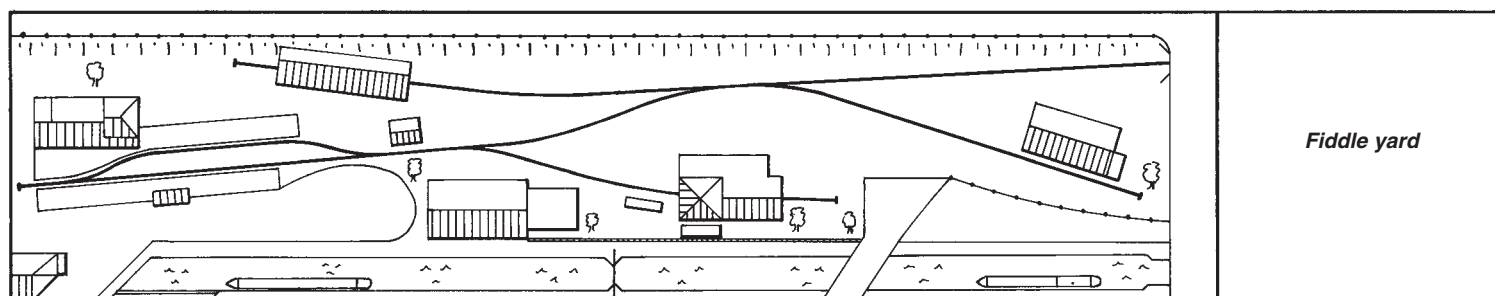
All wiring under the layout is routed as neatly as possible to the sides and tagged to prevent it getting pulled apart accidentally when in transit.

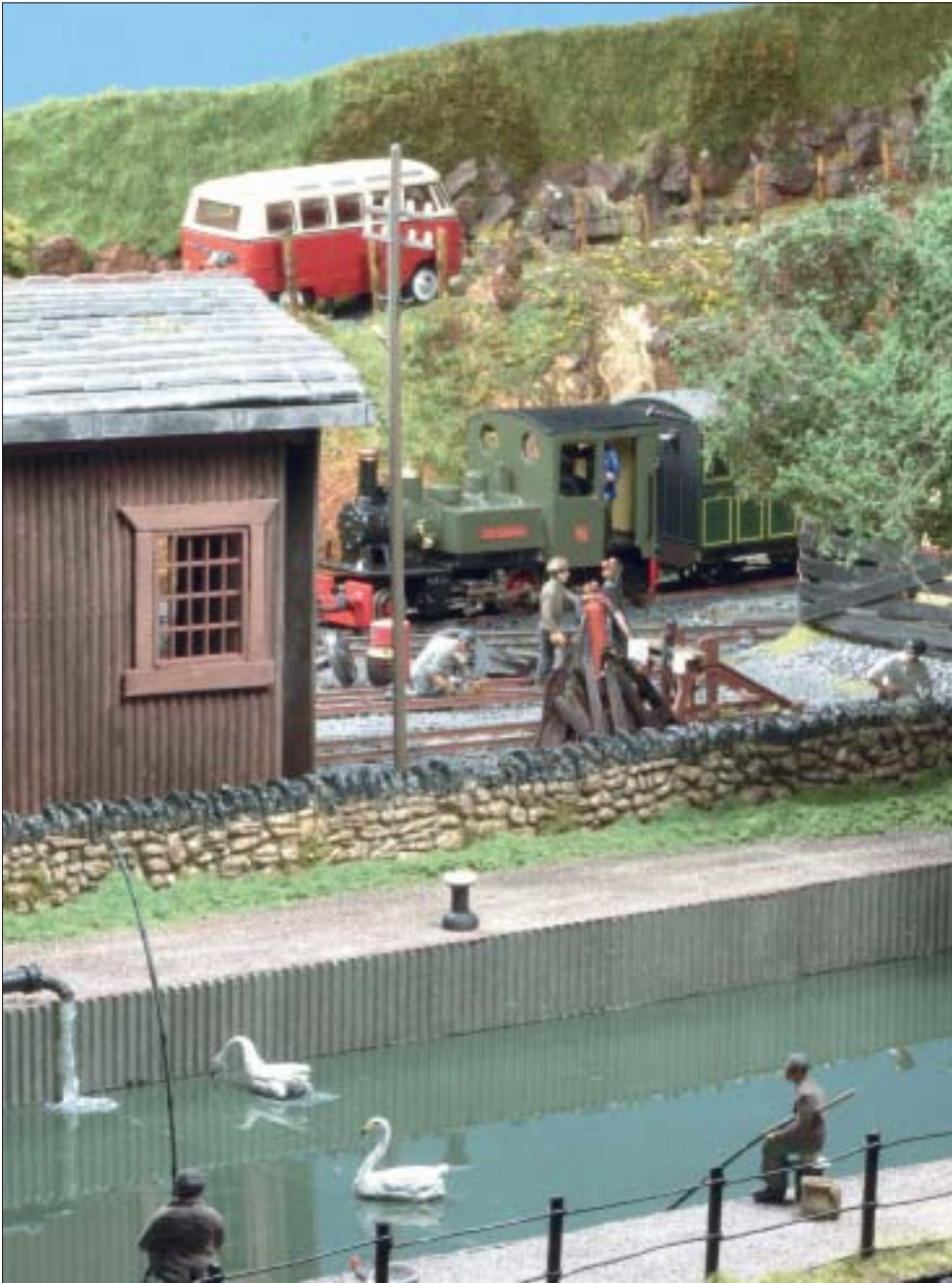
The sound effects speakers are fitted facing towards the public and covered to protect them and also deepen the tone of sound coming from them.

The fascia board above the layout with the name on it holds the two tungsten lights. It also stops the light flowing forward and reflects it down onto the layout surface. Lighting in my opinion is essential as it gives the layout life. Spare bulbs are carried in the stores box along with fluorescent tubes for the fiddle yard.

Scenery and buildings

This is the part I like doing most, as it is when the layout starts to come to life. The landscape was formed with polystyrene blocks stuck together and when set cut to shape. These were then covered with a mix of Artex and a colourant with a dose of liquid PVA mixed with the water. This makes the mixture flexible and also prevents chipping if knocked.





Left: activity in the shed yard.

Below left: the lock gates – note the lifebelt.

Once dried all Artex work was brushed over with neat PVA to seal this porous material and then painted with cheap watercolours to get the effect I wanted. When the paint was dry I fixed it with cheap hairspray.

All that was left was to put various scatters in the areas decided upon. I used the Set Scenes product which is good and does not fade too much with constant daylight on it.

I look around for natural items like pebbles, grit, and even earth; can't get more natural than that. Trees are a mix of handmade and some mass produced. The handmade ones are wire bound with horsehair stretched over the branches with various greens mixed together scattered over that and all held in place by cheap hairspray. Bushes are clumps of horsehair with scatter sprinkled over them and held in place by spray.

Fences were made from matchsticks drilled so that fishing line is threaded through the holes. They were fixed in drilled holes with PVA. When dry I took a brush and painted the matchsticks with dark oak woodstain, so when dry a natural effect was obtained.

All buildings were scratchbuilt, most being of buildings I have seen on my travels, with minor detail changes to them in order to accommodate them on the layout. I use an MDF frame and clad it with either card or embossed plastic depending on the structure of the building. Before painting I brush neat PVA all over the structure and when it's dry it hardens the card, making it more solid and also gives a good key for the paint; a much more even coat can be brushed on. I finish the buildings off with weathering powders to tone down the colour and to match in with their surroundings as much as possible.

The engine shed was made of corrugated cardboard from packing cartons borrowed from supermarkets.





Above: an 0-4-2ST alongside the coal stage.

Above right: a passenger train passes the engine shed yard on its way up the line.

Right: the woodshops yard is fast filling up.

Below right: RAC Morris van attends a breakdown while the local bobby watches.

The little workshop in front of the main engine shed is the only cast metal building on the layout: it is fitted out with a bench with vertical drill and a plan on the wall. This looks very effective when the light inside is switched on.

All figures are Phoenix or Langley cast metal and are placed on the layout in little cameo scenes.

The trees are placed so that viewers have to look around either side of them and in so doing stumble on things hidden from view on the other side. The wildlife is well represented by various animals, such as rabbits, fox, badger, ducks, swans, heron, magpies, pigeons and crows to name but a few of them. These keep the children amused looking for them, and some that they say they have seen I forget were on the layout.

The canal

This was only added to the layout in 2002 and I found the canal running all along the front of the layout added a new dimension to it.

The water effect is made with 1/4" thick Perspex screwed to a frame under the layout and painted with various tones of greens until the desired effect was gained. A trip to the local library gave me the measurements for scratch building a 72' working barge. This turned out very well indeed, and I've been asked to build a couple for someone. The houseboat is a model I bought at a show looking more like a toy, but with a bit of hacking it about I managed to get it to look not too bad.

The lock gates hide the join of the boards. Future detailing work around the canal area is in the pipeline, this being to add lily pads and reed bushes at intervals along the bankside. The towpath along the canal side is going to





be planted with various wild flowers and nettles, not forgetting good old dock leaves.

Locomotives and rolling stock

I have a stock of six locos, as detailed in the table below. Three are one of each of the Peco range. Another is from the River class, and one is from Avalon. The last one is built from a Branchlines kit. All chassis are Branchlines

and the motors are all Mashima 12mm flat cans which give sweet slow running and are very reliable. They all run on Romford wheels and are secured with Locite just to make sure that nothing comes loose at a show. I have got into a routine the day before a show, and that is to take every loco and give the wheels a good clean. I use a wheel cleaner made by Peco attached to an old controller. The loco

sits in a homemade cradle while I clean all wheels. I use dental floss to get any fluff out of between axles and push rods, it also takes care of the delicate pickups making sure of good electrical current flow.

I finish off with a small drop of oil on all moving parts but be conservative with it or you will have more problems than you can cope with. I also clean all rolling stock wheels with surgical spirit. It's no good keeping your track clean while neglecting the rolling stock as all your hard work will be to no avail. Clean wheels and clean track equals good running.

The basic intention was for a little of each type of transport, ie. various goods traffic, and small passenger traffic. I don't run a timetable layout which is just as well for when we have a busy audience in front of us it can get more like Kings Cross in the rush hour with trains coming and going.

We have attended 25 shows up to now, with a full book for 2004. It looks as if we will be still taking the layout out in many years to come. We are always adding to the layout, so if you see us have a chat to either of us. Don't forget that Robert is the engineer.

Acknowledgements

Too many to remember, but the main ones are as follows: Andy Griffiths, for getting me into narrow gauge in the first place, and for his help and advice; the 7mm Narrow Gauge Association and all its members, too many to mention, but the two Howards and Graham the editor, and to Brian Cameron (get well soon); to the Basildon MRC for putting up with me all these years.

Hollies End LR locomotive fleet

<i>Loco</i>	<i>Livery</i>	<i>Description</i>
0-4-0 No.7 <i>Hannibal</i>	maroon	Springside River body kit, Branchlines Eagle chassis
0-4-0ST No.5 <i>Kennet</i>	light blue	Springside River body kit, Branchlines Eagle chassis
0-4-2 No.3 <i>St Paddy</i>	dark green	Peco Glyn Valley tram body kit, Branchlines chassis
0-4-2ST No.4 <i>Pinza</i>	dark green	Peco Fletcher Jennings body kit, Branchlines chassis
0-4-0ST No.425 <i>Flying Flea</i>	tan	Peco Manning Wardle body kit, Branchlines chassis
2-4-0T No.17 <i>Hercules</i>	olive	Scratchbuilt body, Fleischmann H0 chassis
2-4-0T No.656 <i>Busy Bee</i>	black	Fleischmann H0 chassis
0-4-0 Slate mine loco	black	Avalon Line body kit, Tenshodo Spud chassis

The eight locomotives in the Hollies End fleet were all bought from bankrupt companies' sales and surplus stocks along with spares. HELR head office is in Hollies End station. There are two other locomotives that are soon to be bought from a defunct line. These locos will be stripped and overhauled before being placed in service with HELR. There is no set colour scheme. If a loco needs painting, then whatever is in the paint shop gets used, saving money and getting rid of incomplete stocks. Typical narrow gauge policy.

Left: postman delivering to the houseboat.

Right: the engine shed yard with bonfire and many other details.

Lower right: a view across the canal of the woodshop.

Below: a low level view of Hollies End station.

And last but not least to Robert (engineer) Woodhouse, because without his assistance lugging the layout to and from exhibitions, and setting it up more or less single handed, I would not be enjoying this great hobby of ours, but mostly for being such a great friend. Thanks Robert and thanks to anyone I've missed.

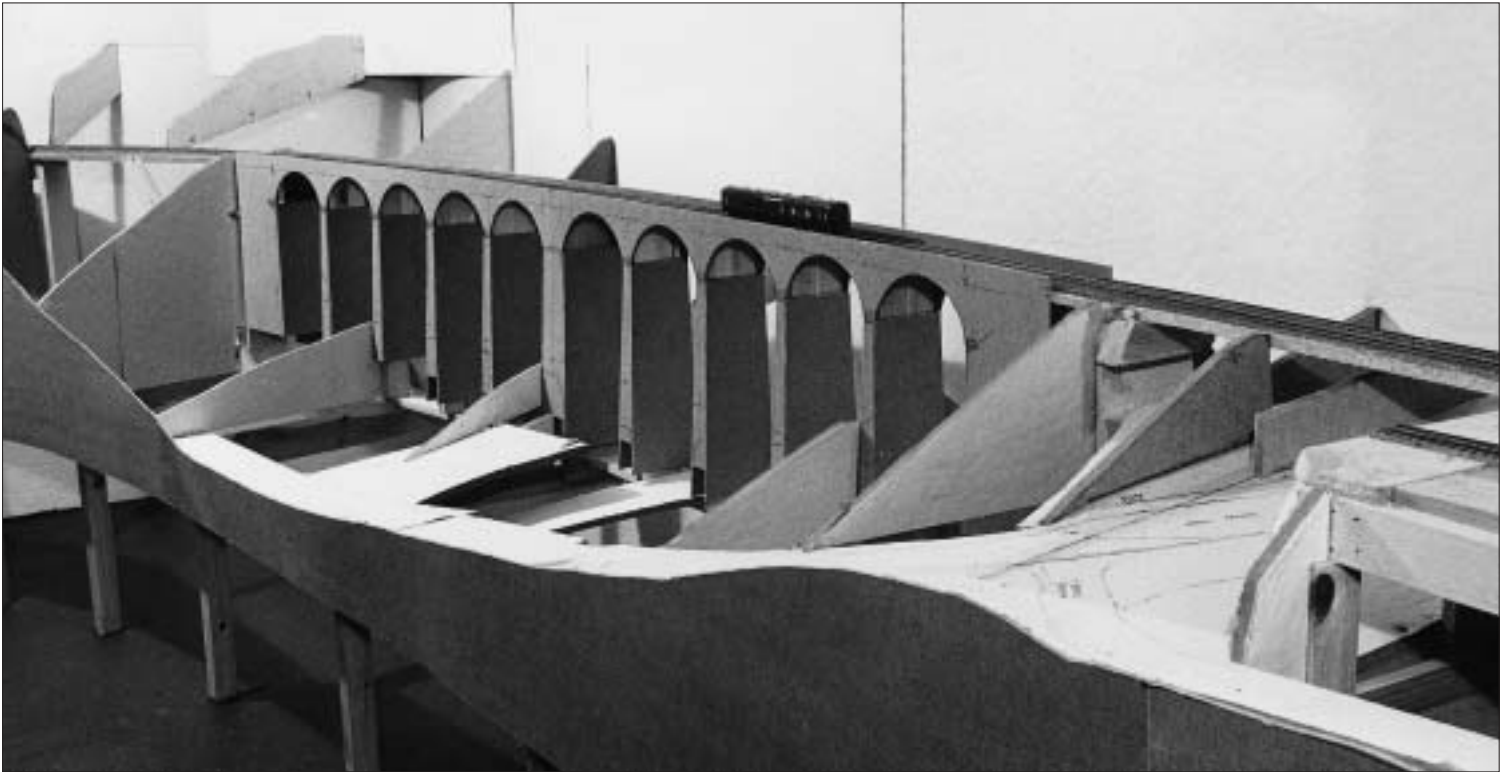
Hollies End will be attending the 25th anniversary exhibition of the Basildon MRC on 3 & 4 July 2004.

What's in the name?

Many people at exhibitions have asked politely why *Hollies End* and not a Welsh one? Well it goes back to December 1993. I was very fortunate to be selected to appear on Noel Edmonds' Christmas Presents BBC TV programme on Christmas day, just after the Queen's speech. I was given my own private concert with the 60s pop band the Hollies, singing in my back garden. They performed my favourite song, the lyrics of which are dedicated to my mate Robert Woodhouse, the man without whom I would not be exhibiting on a regular basis.

The Hollies are still going strong 40 years on and are chuffed (pardon the pun) to have the layout named after them, it's a first for them. We get to talk about the layout now and then when I meet up with them on their annual UK tour. They always say I'm on the road longer each year than they are! But then I love exhibiting as much as they love playing music.





David Jenkinson

An appreciation

*We are grateful to **Bob Essery** and **Cyril Freezer** for contributing to this obituary.*

With the death of David Jenkinson BSc on April 27 at the age of sixty-nine, our interest and industry has lost a personality who influenced the course of historical research and model making over a period of more than three decades.

Born in Leeds in 1934, David was educated at Prince Henry's Grammar School, Otley, and London University. He was captivated by a school field trip along the Settle & Carlisle line in 1951 and his teachers at that time could not have even guessed that their influence would lead to the authorship of a standard work on that magnificent railway, its engineering and geology (*Rails in the Fells*, Peco Publications 1973).

At university David met Sheila whom he married at the start of his service with the Royal Air Force in which he served as an officer from 1956, retiring in 1972 with the rank of Squadron Leader. While stationed at Seletar, Singapore, he co-founded a model railway club in 1960.

Other interests included croquet (he was a good player), naval and airforce history, classical music, and architecture.

After RAF service and a spell in teaching he became Head of Education and Research at the National Railway Museum in 1973. Following management changes at the NRM he retired and purchased Atlantic Transport, publishers of *Backtrack*. Later he launched

Modellers Backtrack and the Pendragon Partnership Imprint, publishers of specialist railway books.

He was a member of a number of societies. A founder member of the LMS Society, and President for a number of years, he was also the long serving President of the Wakefield Railway Modellers and a long standing member of the HMRS and Gauge 0 Guild.

It was during his time with the RAF that David built his mould-breaking EM gauge layout *Garsdale Road*, representing an imaginary station on the Settle & Carlisle line in the late 1930s. After first appearing at Hemel Hempstead in 1969, the layout was exhibited at Central Hall Westminster in April 1970 and featured in RM in April and May of that year. *Garsdale Road* succeeded *Marthwaite* (RM October 1969), an S&C branch terminus which was planned to have been part of a large layout entitled *Dent Head Junction*. Even today, an insight into David's modelling philosophy can be gained by referring to his two articles *The Long Drag in reality* and *Modelling the Settle & Carlisle* which shared the subtitle *Reconciling fiction with fact* and appeared in RM for January and February 1966.

After achieving his first permanent home in 1973, and continuing his search for perfection in modelling the S&C in 4mm scale, David embarked upon the *Little Long Drag*. This remarkable layout was built in a large pur-

pose-built shed and incorporated *Garsdale Road* as just one of its many features. Cyril Freezer described the project as 'one of the most ambitious 4mm scale layouts ever built' and articles covering it appeared in RM May, June, July, October and November 1973 and October 1975. The taking up of his very high profile job at NRM naturally led to a break in both layout construction and the writing of articles, but ultimately the future of the *Little Long Drag* was threatened by something which affects most railway modellers at some point in their development: the change of scale that cannot be denied.

Model making in 7mm scale was not new to David, for his superb coaches in this size were and still are objects as beautiful as their prototypes (*Building your own coaches*, RM April, May, June and July 1979). The 0 gauge layouts, *Kendal I* (1977-1981) and *Kendal II* (1982-1990), culminated in the final *Kendal Branch*, commenced in mid-1995 and housed in a 32' x 18' shed (RM January and February 2003). This latter project was the first we saw that reflected David's growing interest in the pre-Grouping period of his favourite theme. He had turned the clock back some ten years from the days of the EM layouts, and there were more red engines at *Kendal*.

The success of the outdoor section of *Kendal II* inspired David to do the same sort of thing in Gauge 1 live steam where the theme



Left: the Little Long Drag under construction c1973, showing the basis of Dent Head viaduct with a coach atop to give scale. Photos unless credited otherwise: Ron Prattley.

Above: Ribbleshead viaduct, signature of the Settle & Carlisle and where it all began. Photo: Tim Rayner.

Below: LMS (ex-M&GSW) first class diner No.99 is evidence of the coachbuilder's art in styrene. Paintwork by Larry Goddard.

was Trains of Many Nations and stock included French and German prototypes.

During the time that the many RM articles mentioned here were published, David was the most faithful and reliable author that any magazine publisher could desire. In his introduction to *Historical Railway Modelling*, no less a practitioner than Jack Ray wrote: 'What he sets out to do and succeeds in doing is to stimulate thought ... Not all writers on railway subjects have David's easy and fluent command of our rich English language – more's the pity'.

We knew that David's contributions helped to imbue RM with an air of scholarship and quality, and happily such sentiments were reciprocal. Years after *Marthwaite* he wrote, in a draft for *The Kendal Branch*: 'Since it was RAILWAY MODELLER and its then editor Cyril Freezer who gave me my first step up the ladder ... nothing would please me more than to have my latest, and hopefully final, layout make its first appearance in the same journal wherein I had started the story those many years ago and for whose strong support down the years, I remain so very grateful.'

Further notes by Cyril Freezer

When David submitted the first article on *Marthwaite* to RAILWAY MODELLER, both Sydney Pritchard and I were overjoyed; a quality branch terminus of some size that was *not Great Western* was exactly what we needed. The photographs were of high quality and the accompanying text did them justice. Above all, *Marthwaite* could only have been an offshoot of the Settle & Carlisle.

I was fortunate enough to see the line at several exhibitions as well as in David's quarters while he was still a serving officer in the RAF. Thereby hangs a tale. Knowing that RAF houses are built to a common design and that he could be sure of finding a similar sized railway room, he constructed the layout to fit snugly on site. Then he gained a well-earned promotion. With a higher rank he had a superior house. *Marthwaite* did go into the room, but it was quite a squeeze to get into the operating area.

I was sorry to see *Marthwaite* go, since while *Garsdale Road* was technically a better model, operationally it was a case of 'watching the trains go by'. On a lesser layout this would have been acceptable. David certainly showed



how this type of layout should be run: the trains did not lap more than once, but emerged in sequence and were run at a satisfyingly realistic speed. Since the majority were expresses, one simply did not have time to inspect every coach, let alone fully appreciate that the formations were exactly as on the prototype. I was privileged to go backstage where one could appreciate to the full the glory of the trains.

I enjoyed my only visit to the *Little Long Drag*: it had enormous potential and an ideally proportioned site, a very long shed, only wide enough for the sweeping end curves, so emphasising the length of the main line. I

think this was the first British layout to be so arranged and it doubtless has had an influence on the larger club layouts now on circuit, where we can see models of actual trains running on an unencumbered stretch of main line.

In later years we met at exhibitions; inevitable since we were both hooked on shows. Therefore, it was doubly sad that I learned of his death at the recent Hatfield exhibition. One could say, a full circle. CJF

A personal appreciation by Bob Essery

My first meeting with David was at the New Horticultural Hall London in September 1963. We were both responding to a letter that had been published some weeks earlier in RAILWAY MODELLER. This led to an invitation to meet to see if it was possible to form a small society catering for those who were interested in the LMS Railway Company. Within an hour we had decided to form the LMS Society and the founders were also committed to fill a complete edition of the June 1964 RAILWAY MODELLER with LMS material. We had one problem, the Railway of the Month: only one of the founder members appeared to have anything that would meet the criteria required; this was David Jenkinson, who said that his *Marthwaite* layout, based upon an imaginary ex-Midland Railway branch in Yorkshire, would be suitable.

Three of the founder members lived in Hertfordshire; we considered ourselves to be the Headquarters Section so Don Field and I decided that we ought to go to inspect his layout. When we arrived we were made most welcome but, years later, David wrote about our visit and used the words of Shakespeare to describe what happened. We said, 'There's no ballast, the signals don't work, I wouldn't do that etc'. He wrote something to the effect that, 'The summer of this son of York quickly became his winter of discontent. Notwithstanding our remarks, the RM project was a success and David's article won him the 1964 RAILWAY MODELLER Cup. He went on to win the cup again.'



David's first article to be published in the model railway press was a piece on the Grassington branch; this appeared in the May 1955 edition of the *Model Railway News*. His writing career was to span almost fifty years; his last book on the Highland Railway has just been published, while I still have two further articles that will be published in *LMS Journal*. He wrote many books as both sole and joint author.

Our association began a few weeks after the inaugural meeting of the LMS Society when he was staying overnight with my wife and me to review progress. While I was busy applying the final touches to an 0-4-4 tank engine that was to feature in the Push Pull article, he sat quietly smoking his pipe. When I had finished I showed it to him. 'What do you think?' His response was what I later came to know as pure Jenkinson. 'It looked better before you put the transfers on!' In vain I protested that the transfers I had used were the only ones that were available and I knew they were the wrong size. It was probably two or three large whiskeys later that he said, 'If we are going to get a transfer manufacturer to make proper transfers for the hobby we had better find out what the LMS did!' This marked the beginning of a partnership that saw our first book published in 1967 and the last in 2000, seventeen books that included one with another LMS Society member, Roy Anderson.

Because I had never really done any prime source research David became the project leader and I was the ferret. My work took me all over the United Kingdom so it was not too difficult to find and then to make regular visits to see the owners of photograph collections and then to borrow hundreds of pictures that

were used as the basis of the locomotive livery research. The livery code that is used today was David's idea as indeed are the other codes that appear in our joint author publications. After a few months of steady research David wrote to me to say that he thought that we had enough material to write a decent magazine article on the subject. How wrong can you be? First came *Locomotive Liveries of the LMS*, published in 1967 and after that went out of print the work was greatly enlarged and expanded to five volumes entitled *An Illustrated History of LMS Locomotives*, published from 1981 onwards. The rest of the story is history. PC Models made the transfers and today they are marketed by the HMRS.

There is one story from this period that I would like to tell; it is about David's identification code for carriages. Within a few months of beginning to research the livery of LMS locomotives we decided to widen our horizons and to cover the LMS built coaching stock as well. This was a complex subject but one evening, it was probably well after midnight with the wine or whiskey flowing freely, when David made one of his profound statements and said, 'You know Bob, there are three distinct design phases'. He went on to explain what he meant. 'I think that we should call them Period I, Period II, and Period III. Understandably these terms are in everyday use within the hobby, but there is more to come.

One day, when I was in my office, the phone rang and I listened to the excited voice of David, who was calling from his office at the National Railway Museum. He said; 'You are never going to believe this. I've just had a phone call from a senior manager at

Doncaster. He said, Mr. Jenkinson we have a LMS passenger brake van that is surplus to our requirements, we think that it ought to go to the museum.' Isn't that what they are supposed to do?' was my reply, but I was totally unprepared for what came next. David continued, 'He said to me, it's a Period I vehicle; Bob, British Rail are using *our* codes to describe their vehicles.' His laughter and joy were overwhelming. There is also a pointer to his character in this story. The codes were his, he could have said, they are using my code, but he didn't. We were a partnership and our success was shared equally.

We did not always agree. For example, David firmly believed that French red wine in general had no equal in the world. In my view the best red wine comes from Australia. One day, when he was staying with us, I offered him wine from a decanter and invited him to tell me what it was. He was deeply puzzled, but finally decided that not only was it very good indeed but that it was rare Burgundy. I showed him the bottle and label. Then I listened to his U Turn as the Australian wine went from excellent to just about reasonable. The inhabitants of a house in Downing Street would be green with envy at the skill he used to get out of what he had stated previously. However, it must be said that I did not often score points over David in this manner.

There are many stories to tell of my friendship with David. One is his phone call to me when I was at a trade exhibition at Brighton. David came straight to the point, 'We need to raise £X thousand to put *Duchess of Hamilton* back in service. Would Arthur Price (of England, the company for which I worked) sponsor it?' My response was 'not likely', but I quickly grasped the extent of the problem. It was a quiet day at the exhibition and within an hour I had an idea about how money could be raised. On an adjacent stand a Fine Art Company was promoting the idea of using limited edition prints to assist marketing



Above: a local train, composed in part by ex-G&SW stock and with horsebox at rear ambles along part of Kendal I with Midland Belpaire-boiler Class 3 4-4-0 No.773 in charge.

Left: the outdoor section of Kendal II was ideal for 'watching the trains go by', in this case headed by (naturally enough) 'Royal Scot' No.6159 The Royal Air Force.

Right: Kendal Castle, the terminus of the 2002 layout. Ex-LNWR 2-4-0 No.5012, just signalled to depart with a local passenger working to Barrow and one of only four of the class to have received the red livery, is by Geoff Holt

Middle right: the station and part of the town of Kendal.

Lower right: Full Circle. Marthwaite station on the Kendal Branch. Photographs by David Jenkinson.

products. 'Have you ever thought about a railway subject' was my opening remark to them? 'Yes', they said, 'but we don't know much about the subject.' I explained what I had in mind and they quickly warmed to the idea. By the end of the day the deal was done and in due course the profit from the prints of the picture painted by Terence Cuneo generated a fair sum of money. Although the prints would produce a sizeable sum, it was not enough to restore the engine to working order, and it was now that David pulled off his masterstroke; he persuaded the Friends of the NRM to write an open cheque for the shortfall.

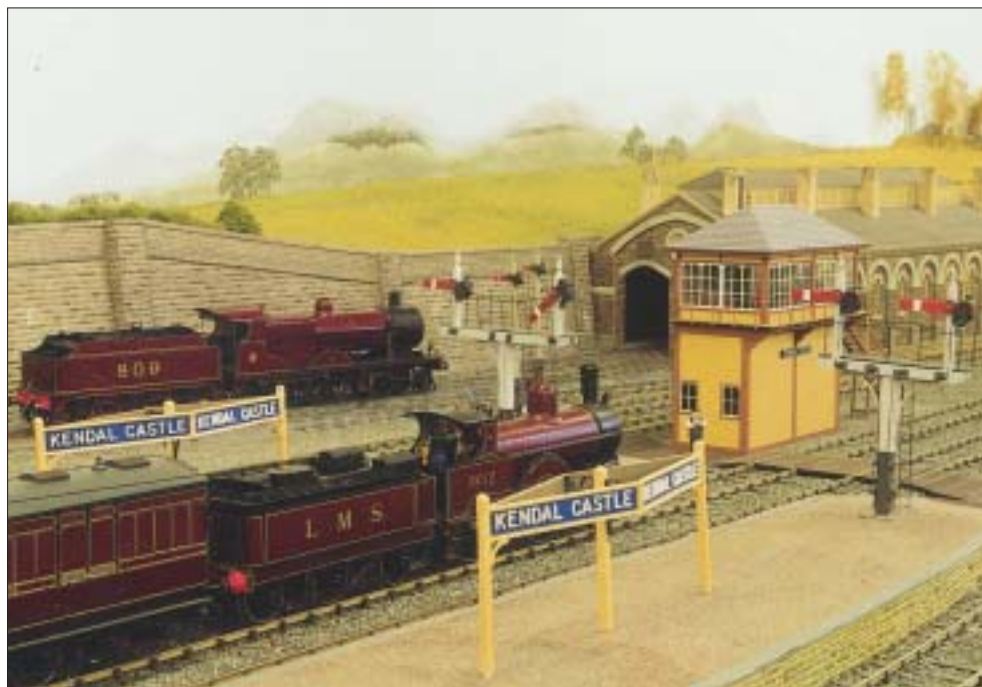
As a result of his efforts The Red Duchess went into service pulling passenger trains; but the composition was not entirely David's ideal, Utopia was a train made up entirely of 1st Class Diners with sufficient Kitchen cars to meet the travellers' needs in both food and that splendid red liquid, which he adored.

David built many fine models. In my view his expertise was at its best when building carriages. I am sure that in the years to come a coach that was built by David Jenkinson will command similar or even greater respect to the locomotives that were built by James Beeson. One thing is certain, his coaches are very accurate. Apart from building coaches he also wrote extensively about them. My area of input to our joint work was largely in the realm of non-passenger carrying stock; David was the master of the rest of the story. His numerous books on the subject covered Midland, L&NW and a two-volume overview of 20th Century British practice. He was a good draughtsman and apart from his drawings being included in many of the carriage books he combined with Nick Campling to produce an entire volume of carriage drawings.

In addition to writing about aspects of the full size railway he was very well known for his modelling ability. His ideas and work were shown in his books devoted to modelling that began with *Modelling Historic Railways* and concluded with *Historical Railway Modelling*, published by the Pendragon Partnership.

To conclude my personal appreciation of David Jenkinson. On *Desert Island Discs* the interviewer always asks a question which I am going to copy. If you could take but one memory what would it be? There can be no doubt; it was David's method of classifying problems. A minor problem would be described as not a one-bottle problem. If it was more serious, then it was a one-bottle problem, but if it was really serious then it was a two-bottle problem.

Rest in peace dear friend, it was both a privilege and honour to be your friend. I know that you would never let me down and I hope that



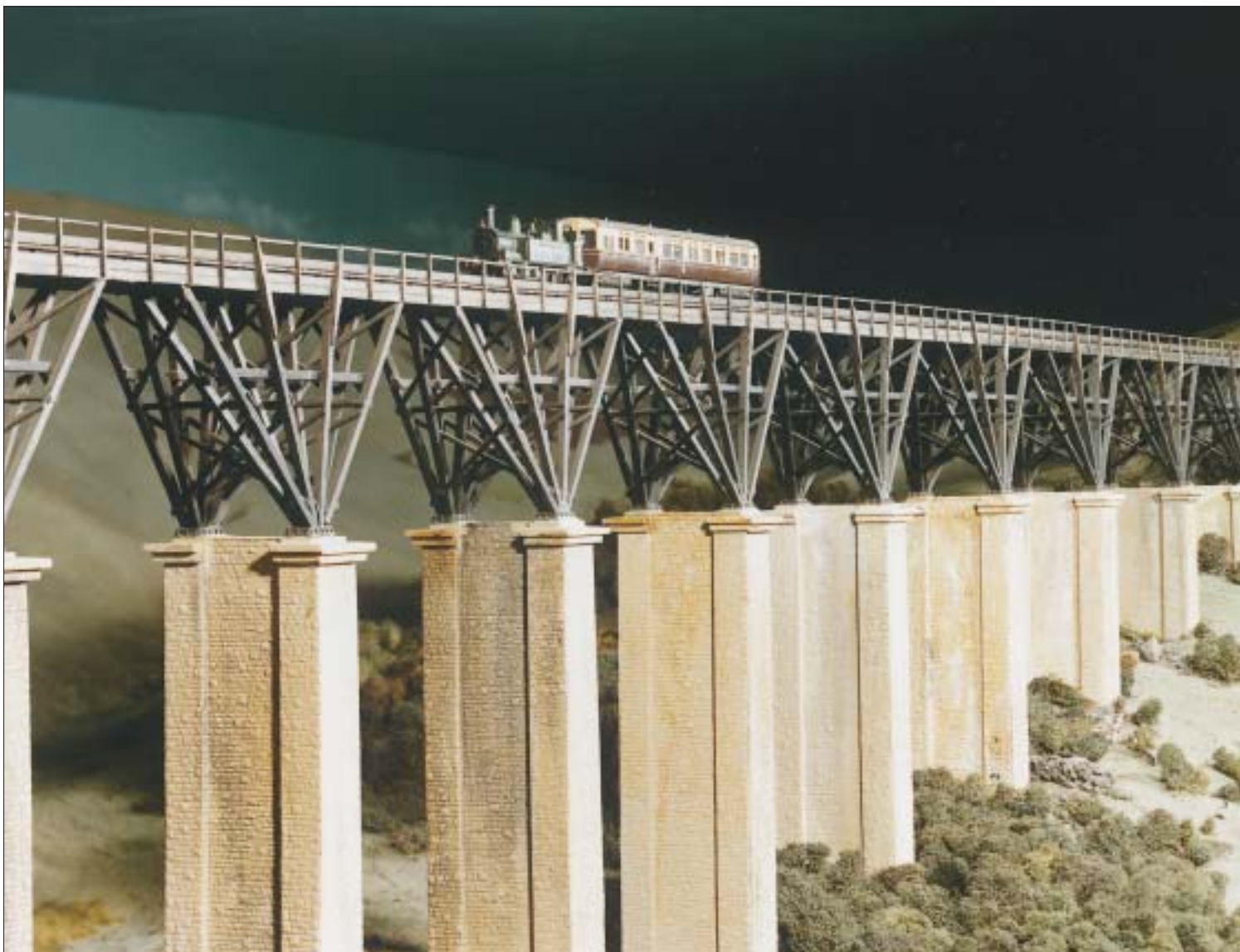
you felt likewise. Your legacy in your writings and inspiration that you gave others will live on. Your friends will always remember you. RJE

The funeral was held at St. Mary's Parish Church Raskelf, North Yorkshire on 5 May

2004. The small church was filled with about eighty members of his family and friends.

Our heartfelt condolences go to David's wife Sheila and their four children Christopher, Timothy, Hilary and Nicola.





Pendon Museum 1954-2004

Half a century of the 'Pendon standard'

Jeff Askew tells the story so far.

Let me model the main line of the GWR in all its infinitely varied traffic just as I found it, setting it in a stretch of the countryside with a thatched village yet unspoiled on the slopes of the hills nearby. If the beauty of the past must be lost, it could still be held captive in miniature.

These words were written by Pendon Museum's founder, the late Roye England. They eloquently describe the inspiration that drove him to create one of our hobby's most remarkable models.

It is some time since Pendon featured in the pages of this magazine, and with the advent of our Golden Jubilee, it seems time to bring readers up to date with progress.

Although Pendon and its models are well known throughout the world, inevitably there will be some readers who may not be aware of

our existence. A brief introduction may therefore be useful for those unfamiliar with our history.

Roye England first came to this country in 1925 from his native Australia, initially to patent an invention for the automatic control of model railways. He was soon persuaded by the modellers of the day that they much preferred to operate their railways themselves rather than have a machine to do it for them. This was of no great consequence. By then Roye had settled with relatives in the village of Wanborough in the Vale of the White Horse, where he rapidly became totally captivated by all that he saw of the English countryside. Change was, however, in the offing, as Roye later wrote, in the 1980s in *The Vale that inspired Pendon*:

'Until modern spoiling began, there was perhaps no stretch of country more peacefully beautiful than the Vale of White Horse. It was a chalk land, where grassy hills, softly contoured, tumbled abruptly into the tree-lined wheat fields below; while strung along the foothills and in the Vale itself lay a chain of thatched villages where the passing of hundreds of years had had very little effect.'

Roye quickly determined to capture this rural idyll for posterity through the medium of modelling. Pendon owes its origins to Roye's twin inspirations of those early days of the 1920s and 1930s: the excitement and grandeur of steam railways and the special beauty of a part of the English countryside that he realised would soon be transformed and lost for ever.

Left: the Pendon 'trademark, the fine sixteen-pier model of a Brunel timber viaduct by Guy Williams.

Photograph: Len Weal, Peco Studio.

Right: Roye England with the newly installed viaduct in 1955. The model nearest to Roye is the Waggon & Horses which was not set within its surroundings in the village until around 1968.

Centre right: the Waggon & Horses today.

Below right: Roye's last major work for Pendon was his model of Priory Cottages, Steventon. on the left of the picture can be seen the partially completed building called 'Godfrey's'.

All other photos: Pendon Museum Collection.

Roye's first model, the *Waggon and Horses* inn, was started in 1931. Village modelling was at this time something entirely new. There were no established methods to be followed, and Roye had therefore to develop his own techniques. That he was stunningly successful is apparent. This pioneering work forms the backbone of finescale architectural modelling, not just at Pendon but the world over.

With a forced return to Australia and the intervention of the Second World War, it was not until the early 1950s that Roye began to realise his dream.

In 1953, he purchased the *Three Poplars*, a former public house in the village of Long Wittenham. He established a youth hostel there, and it was to hostellers that Pendon's models were first shown on 8 July 1954. These first showings were on a rather small scale in relation to what was to come. They consisted of one locomotive, a few items of rolling stock, and the first buildings for what would later become Pendon Parva village. No one could have perceived at the time how this project would develop. Indeed, when asked how big the finished scene would be, Roye is quoted famously as stating '...at least twenty feet long'. (The Vale scene at Pendon eventually turned out to be some 70' in length.)

By this time, Roye had met Guy Williams, who subsequently became well known as a locomotive builder *par excellence*. Pendon's first loco, 0-6-2T No.5624, had been delivered in 1951 but Roye had bought this and other engines without knowing that they were Guy's work. At about this time Ken Budd also joined the team as a builder of superb coaching stock. The group that would push back the boundaries of finescale modelling and create models to what would become known throughout the world as the 'Pendon standard' had been formed.

In 1954, Pendon acquired its first building, an ex-RAF wooden hut. It has to be admitted that its assembly lacked an architect's precision, and some rather interesting curves appeared in its 60' length. The hut henceforth became known as 'Marilyn' (after the 1950s sex symbol and film star Marilyn Monroe). Members of a cycling club erected the shed; their leader, Paul King, became one of Pendon's stalwarts and still serves on the Museum's council to this day.



With suitable accommodation available, thoughts turned to providing a layout to display the growing collection of stock. As it happened, Guy was at this time moving house and had to dismantle his EM gauge layout. This included a fine Brunel timber viaduct of four piers. Modelled on Walkham viaduct near Tavistock, this had been built from drawings published in the March 1953 *RAILWAY MODELLER* by Cyril Freezer. Guy agreed to extend the model to sixteen piers to form the centrepiece of Pendon's first display. On Sunday 17 April 1955, a train ran across the viaduct to inaugurate Pendon's first working exhibit. There's another anniversary to look out for: watch this space! Originally conceived as a temporary exhibit to display the trains that would eventually run in the Vale, Dartmoor became an integral part of the Museum and could be said to have gained iconic status.

In 1963, Pendon received on permanent loan the late John Ahern's legendary *Madder Valley* layout, which formed the centrepiece of the developing relic room. This pioneering model is still a popular attraction today. Because the models are now fragile, we have to restrict operation to a few days a year; details are given below.

Progress continued steadily throughout the 1950s and 1960s. Although it was not possible to start the construction of the Vale scene, village modelling continued and a few modellers joined the team. During this period, Roye's 'chapel group' was completed. Considered as his masterpiece, the group now takes pride of place in the top corner of Pendon Parva village.

By the end of the 1960s, 'Marilyn' was giving cause for concern, with numerous leaks devel-



oping in its increasingly fragile structure. Fortunately, Pendon was now able to fund a new building on the same site, and construction began in 1971. It is this building, since extended, that forms the basis of the facilities we enjoy today.

With the new building erected and 'Marilyn' dismantled, it was possible to begin work on the upper gallery that would house the Vale scene. This sizeable project took several years to complete. In 1982 a milestone was reached when the first sections of the village of Pendon Parva were installed in their final positions and work commenced on the trackwork for the Vale railways.

Work has continued on both the village and the railways. Regular visitors will be aware that a large part of Pendon Parva is now in place and that work is continuing on the Great

Western main lines. In 1994, the year of Pendon's fortieth anniversary, it was possible to show trains in operation in the Vale scene for the first time. Running of test trains has since continued. During the past few years, we have been able to demonstrate a limited number of 'proper' trains on a regular basis.

Having established the Museum, Roye gathered a team around him to drive the project forward, recognising all the time that this was at least a lifetime's work. And so it proved. Roye had always declared that he would never see the project finished in his lifetime. He completed his last model for Pendon in 1985. Although by then almost 80 years old, he seemingly had lost none of his talent for colouring and texture. His last work, Priory cottages and Godfrey's from Steventon, is truly a masterpiece of the modeller's art.



Roye Curzon Cursham England died peacefully on 3 September 1995, just short of his 89th birthday. A remarkable man of deep convictions, he had an amazing ability to inspire people to model for Pendon and help him to realise his dream. Pendon Museum is Roye's memorial, and this year, in our fiftieth anniversary, we are proud to present the results of the considerable progress that has been made.

New for 2004

The Vale scene is more than 160 square metres in area, which is an immense undertaking together with the new scenes which we shall be unveiling this year to celebrate our Golden Jubilee. Scenery will be installed for the first time along the entire 70' length of the scene on each side of the 'Oxford' lines. Notable among the new vistas to be seen will be Britchcombe farm, which has been on display for some time in an adjacent room. Pendon Parva station will also be complete. Although the scenery alongside the lines will be substantially complete, detailing work to complete these areas to the full Pendon standard will continue for some time.

Of special interest to railway modellers will be the operation for the first time of a full sequence of trains on both of the 'Oxford' lines. We shall initially be presenting a sequence of ten trains representing the period from 1923 to 1934. These trains, which will be operating under automatic control, will show a representative selection of trains that ran in this period. As one would expect at Pendon, each train has been researched extensively to ensure that it is correctly made up of vehicles in the right livery for the period, hauled by a suitable engine from an appropriate shed.

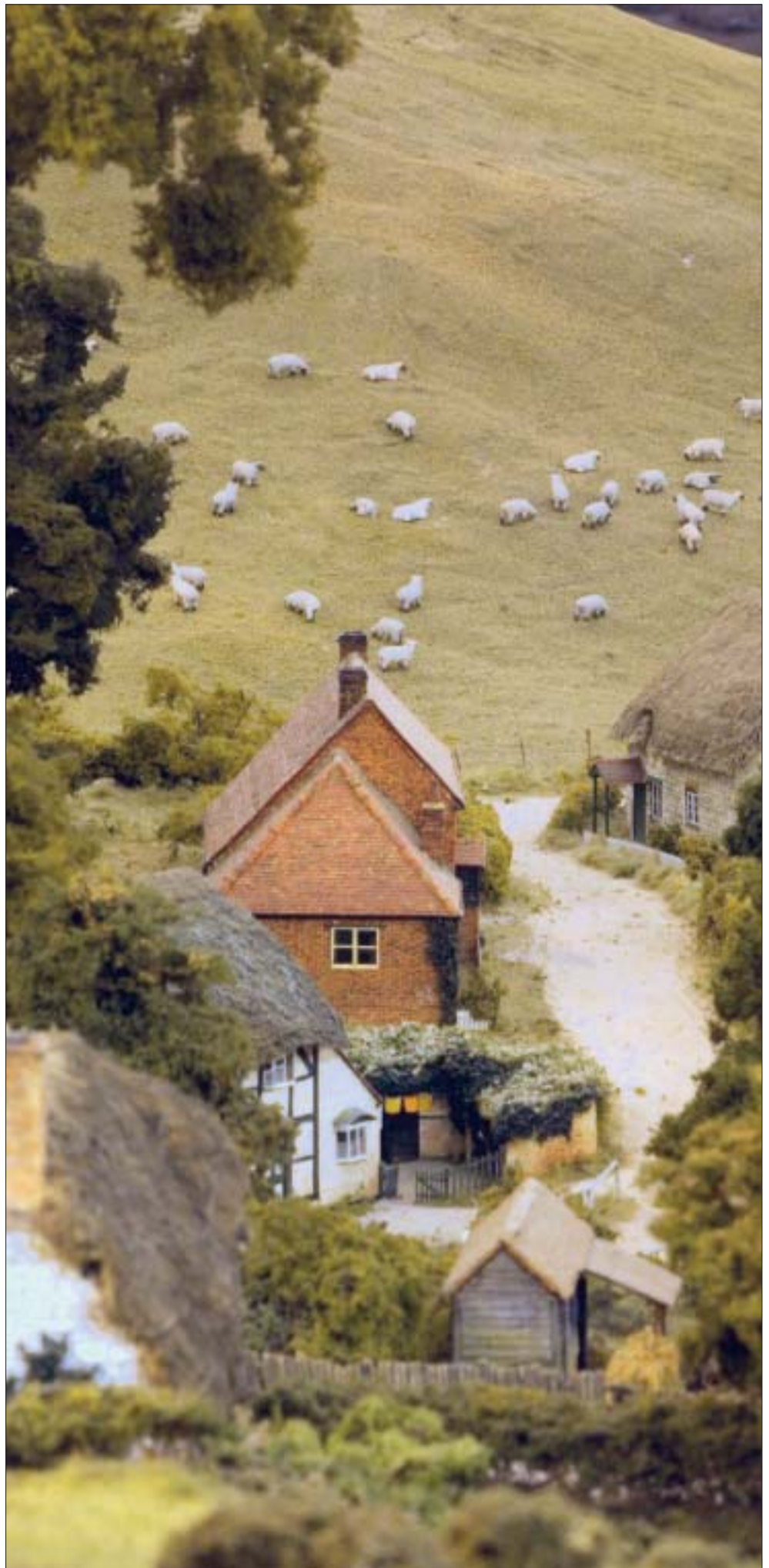
A wide variety of Great Western motive power will haul these trains. As well as the typical Churchward and Collett standard classes we shall be operating such gems as No.104 *Alliance*, one of the DeGlehn compounds purchased by the GWR for evaluation. Also of note is the ex-GCR 'ROD' Class 2-8-0 No.3022 on a mixed goods train. This loco runs as a tribute to the late Tony Smith, another of Pendon's stalwarts. The 'ROD' was Tony's favourite class of locomotive.

The actual anniversary weekend is on 10 and 11 July. On both days, Pendon will be open from 1100 to 1700. There will be a special celebration in conjunction with the village to mark our fifty years in Long Wittenham and to commemorate the 'Pendon period' through a range of exhibitions and demonstrations of rural crafts, agricultural machinery, fairground attractions, and so on of the 1920s and 1930s. For this weekend of 10-11 July only, the Museum car park will be closed. Visitors are asked to follow the local signs to a nearby car park, from which a minibus will convey them to the Museum.

Above left: Much Madder station and village, on John Ahern's original Madder Valley, displayed at Pendon Museum.

Left: Ashbury Cottage.

Right: Mill Cottage.





In addition to the Vale and Dartmoor scenes, the Madder Valley Railway will be in operation on both days. Details of other opening dates and events are given at the end of this article.

Having reached this milestone, what can we expect to see in future years?

The Vale scene will continue to develop. As already mentioned, there is a great deal of work still to be done in completing and detailing the new areas that have been installed this year. The next major task will be to bring the 'Bristol' lines into full operation. This will entail

a substantial amount of work on the electronic control system, but we hope to complete this phase in a relatively short time.

There is also a large area of scenic work still to be done. A realistic estimate is that it will probably be ten to fifteen years before the Vale scene can be considered to be complete. It is nevertheless gratifying for the modellers who have worked so hard for many years to be able to see that completion of this vast project is in sight.

Apart from the models themselves, Pendon is committed to improving the Museum and

the 'visitor experience'. The first phase of this work is scheduled for later this year. It will provide a new entrance and introductory area to the Museum, together with an extended shop and tearoom. We intend to provide interpretive material that will put the Museum's aims and the displays into context. Whereas the pre-war 'Pendon period' could be remembered by most of our visitors not so long ago, few of today's visitors have any personal memories of the 1920s and the 1930s, which for them belong to history. It is therefore important that we show what life was like in this period; for instance, by illustrating how important the railways were to the community.

We hope that that we have whetted your appetite sufficiently for you to want to visit the Museum before too long. This is a very special year, not just for Pendon, but also for modelling at large. The Pendon influence can be found throughout the hobby, having encouraged modellers and manufacturers alike to raise standards.

Roye England was without doubt a remarkable man. Few people could have both the vision and the determination to pursue a pro-

Above: the Harrow Inn.

Left: the cart barn, Bradbury Farm.

Above right: reflections in the water at Upper Mill, as a GWR delivery lorry makes its rounds.

Right: Badminton heads a train of GWR clerestories.





ject of this magnitude. Even so, we doubt whether he, or any of the other early members of the Pendon team, could have imagined that his 'dream' would ever achieve the international renown it enjoys today.

Pendon is a voluntary organisation, supported and financed mainly by our visitors and by the Friends of Pendon, an association made up of people who, in sympathy with our aims, make a tangible contribution to the development of the Museum and its models. For a small annual contribution, our Friends have free access to Pendon whenever the Museum

is open, together with a number of other benefits, including receipt of the *Pendon Paper* (published twice a year). New Friends are always most welcome.

Perhaps you might consider helping to run the Museum? If you feel that you would like to be involved, please either enquire in person at the Museum or get in touch with the secretary of the Friends of Pendon, who will be delighted to hear from you. Whatever your skills, interests, or inclinations, you could help to make the dream a reality.

The Pendon Museum is open throughout

the year, except at Christmas and the preceding two weeks. Saturdays and Sundays 1400 - 1700. Bank Holiday weekends Easter to August and special events 1100-1700. Wednesdays 7 July to 1 September 2004, 1400-1700.

**Pendon Indoor Model Village & Railways,
Long Wittenham, Oxfordshire OX14 4QD.
Tel: 01865 407365.**

**The secretary of the Friends of Pendon is
Dave Badminton, 68 Humber Road,
Chelmsford, Essex CM1 7PG.**



Midland 48' brake composite (Dia.508)

In LMS condition, modelled in 4mm scale

David Tillett used Ratio parts as a basis for this 'cut and shut' conversion with much added detail.

Inspiration for a model can come from many sources. This coach came about through a photograph that has appeared in two books in my collection, namely *The 4mm Coach Part One* by Stephen Williams and *Historic Carriage Drawings, Vol 2, LMS and Constituents* by David Jenkinson. This picture shows vehicle 3052 running in LMS condition, minus its original step boards, and with an excellent view of the third class end, which includes details such as the train alarm gear and steam heat piping. Originally the door toplights were glass, but these had been replaced by vents by the time that our model is supposedly running. The steam heat piping was also an LMS modification. I chose to model this coach running with replacement Bain 8' bogies.

The first task of course is to gather the parts required for this coach. I used the Ratio plastic kit of the Clerestory Composite (Ref.722) as a starting point. This is something of a hybrid if you build it straight from the box as it has mouldings for the original Clayton underframe and bogies, and LMS style vents. At the same time as these vents were fitted the step-boards were removed from the vehicle. The replacement bogies had already been fitted by the Midland Railway, originally with step-boards. The LMS vents will be valuable to us, as they will save some tricky work later.

It will be necessary to add several components to model this particular vehicle. I used whitemetal Bain 8' bogies supplied by 247 Developments (ref.C478), which come with brass bearings; these are fitted with Jackson 14mm plain wheelsets.

As we are modelling the Brake Composite a spare set of Ratio Lavatory Brake Third (Dia.499, Ratio kit ref.720) sides will be needed. Ratio can supply sides from its kits by mail order from the factory (ref.720/114 in this case). Both sets of sides will come in for some major surgery, as we shall see later.



Oval pattern buffers were also replacements and these are supplied by ABS (ref.714). As I will describe, much use will be made of brass wire and strip, together with Slaters' microstrip and microrod, to fabricate the details specific to the prototype.

Construction begins

So it's time to reach for the razor saw, scalpel blades and files, and modify our four sides to achieve the desired configuration of panels windows and doors that represent Dia.508.

Begin by mounting one of the original kit sides against a square surface; a mitre block is ideal. You only need two cuts on these sides, one to the immediate left of the toilet window, and the other to cut off the very end right hand small panel, which will be needed for the curve at the bottom to marry in with the right hand end profile. Please note that I am describing the side of the vehicle portrayed in the drawings on page 97 of David Jenkinson's book referred to above. You will need a mirror image of these panels when considering the other side, beware!

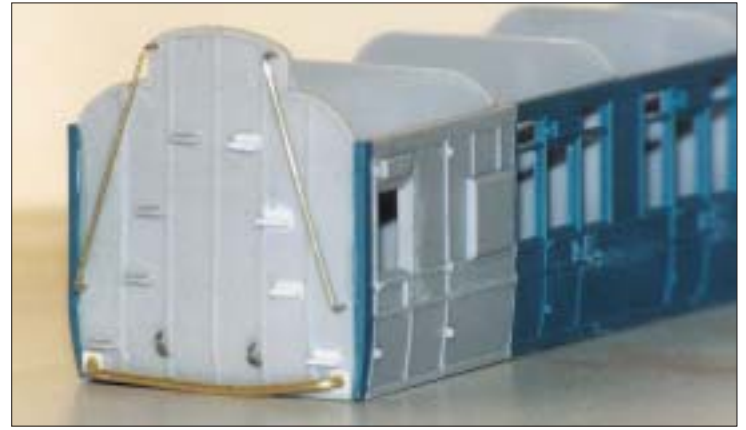
Now we get to a tricky bit. Take the brake third side with the guards' ductet to the right hand end, and cut three sections from it, a total of five cuts. The first cut needs to be made

two compartments and the first large panel in from the left hand end. As this will fit next to the toilet window already provided from the composite side, you need to check that the width of the beading between the two is correct, and file as necessary. Also you need two sections requiring four cuts to be taken from the guard's end of the brake third, so as to provide the paired doors and guard's ductet with its associated three small panels. Again you need to decide where the beading will come from to achieve continuity of spacing. I chose to keep the doorframes with their associated hinges, whilst cutting the guard's ductet section inside of the beading.

Having followed the drawing for the first side you will now need to make a mirror image from the remaining two whole coach sides. Use the first prepared side as a guide and, as you prepare each piece for the second side, put it next to its equivalent from the first side, roof lines together. The compartments and panels from both sides should line up if you have done this correctly. Each side component will now need to be checked for door and grab handle position. Although mostly correct, it will be worth paring off the plastic moulding representing these components with a sharp blade (take a little of the depth off with each pass of the blade). Then drill each end of the grab handle position, and the centre of the T-pattern door handle with a 0.5mm drill. My door handles are from the Comet range of parts (ref.C6) and the grab handles were bent up from 0.45mm brass wire, ideally in a jig, but don't fit either of these yet as they need to be added after the coach has been painted.

To secure the component parts of the sides together, a half-high strip of plasticard was glued onto the reverse side between the waist panel and the floor-locating strip provided on the moulding. Fill any remaining gaps with Milliput and carefully sand down with wet and dry paper, but be careful not to remove any of the panelling.





Left: the finished coach, photographed by the Peco Studio at the Derby show 2003.

Below left: component parts, showing the bodyside sections used from the composite (dark grey) and brake third (light grey).

Above: end detail differs – note gas supply. Construction photos by the author.

Detailing the ends

The first task on the ends is to remove the moulded representation of the grab handle, but again it is crucial to keep both the beading and the footsteps, which are going to be part of the final model.

Now there is quite a lot of detail to be added to each end of this coach, so a deal of patience will be required in completing an accurate example. You will need to fabricate – from brass wire, microstrip, and microrod – steam heat piping, lamp irons, train alarm gear, grab handles, gas feed pipe, and brake telltale. Note you only require train alarm gear, gas feed pipe and brake telltale at one end of these coaches and that for this diagram they are located at the compartment, rather than the van end. Turning briefly to the associated headstocks you will also need whitmetal castings for the vacuum brake pipe and steam heat connection, and those replacement buffers I mentioned earlier. Your choice of coupling will also have to be considered, as the amount of detail on the headstock will be dictated by the clearance necessary to accommodate your choice.

The steam heat piping, other than the whitmetal connecting pipe (MJT ref.2951), was made by bending 40 thou diameter microrod to shape using Mek-pak to soak the plastic. The lamp irons are 1mm wide brass strip made up as described in Stephen Williams' book. Much use of 5 amp fuse wire has been made for the gas pipe runs, and

brake telltale bar, whilst 0.45mm brass wire was used for the grab handles, and train alarm bar. A small block connecting the T of the brake telltale can be produced by taking two 60 thou x 60 thou squares of microstrip, and filing a T shape into one side of each with a triangular needle file. One of these can be glued behind the wire used for the pipe run, T face uppermost, and the second glued on to it, T face down, so as to clamp the wire in the channels. Also you will need two end supports for the cross link formed by drilling a 1mm brass strip with a 0.45mm hole drilled through one end, before cutting off a length of approximately 4mm and filing the width of the opposite end so as to fit a 0.5mm hole drilled in the end moulding.

You are now in a position to assemble the sides and ends, taking care to get them square, and fit the floor moulding. Having built the sides from your prepared components there is a possibility of error in the overall length of the sides so check the dimensions carefully before applying any glue. Once fully dry, it is a good time to spray the base colour of LMS crimson lake onto the bodyshell. I used Railmatch No.610 applied with an airbrush.

Underframe detail

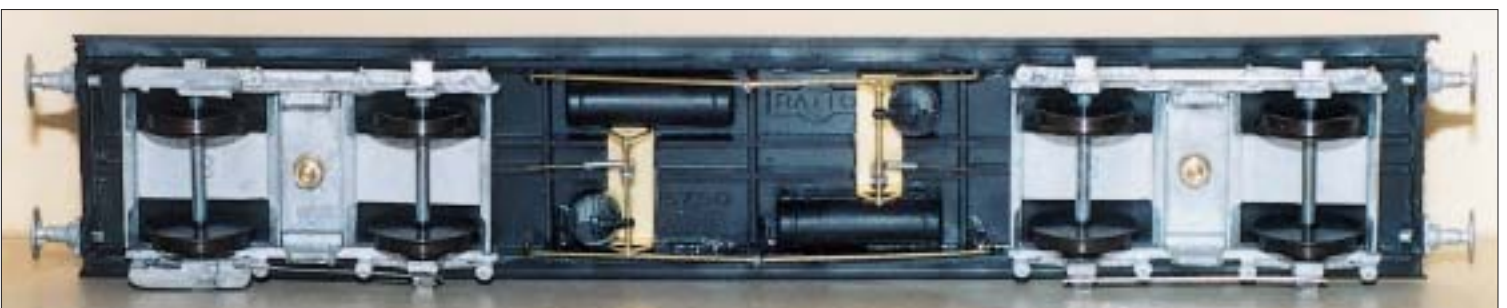
We can now move on to the underframe. Firstly remove, with a slitting disc in your mini drill, the solebars only. Leave behind on the sprue the representations of the stepboards, trussing and queen post. Once cleaned up, the solebars can be glued to the floor with standard polystyrene cement. The headstocks will need the ABS buffers glued into them either with two-part epoxy or superglue, before gluing to the floor.

Now it is time to consider making the replacement trussing from $\frac{3}{32}$ " brass wire and splitpin for the queen post. You will need to drill three holes on either side of the floor, just

behind each solebar. First mark out and drill the queen post hole equidistant from each end. Then the truss holes can be plotted from these 30mm on either side of the queen post. Now fabricate the truss rod allowing enough $\frac{3}{32}$ " brass wire to provide for the vertical fitting behind the solebar, using a suitable photograph or drawing to form the characteristic shape of this component. Position the split pin at the bottom of the V of this truss and solder it to secure and fill the split. Once cool, epoxy or superglue into the holes you have already provided.

Underframe detail between the truss rods is represented by the kit's own gas cylinders, still relevant as at the time of this representation of the model the coach had yet to be converted to electric lighting. The vacuum cylinder and V hanger assembly will need developing to appear correct. You can either modify the cylinder supplied in the kit to receive $\frac{3}{32}$ " brass wire, or replace it with a whitmetal casting from ABS. The V hanger can be obtained as a brass etch from Comet although these days you will have to buy its pack ref.C1 – which also includes cross trusses – to obtain them. Brake linkage can also be fabricated from spares and brass wire. I used ABS whitmetal pull rods extended with 0.45mm brass wire glued into the pull rod after first partly drilling the whitmetal end. A delicate task!

The bogies will need some careful preparation in order that they may appear correct, and run smoothly. As we are running in LMS condition the first thing to consider is removal of the stepboards. Bear in mind that from photographs, these bogies retained a tiebar between the axleboxes after stepboard removal so you have a choice as to whether to remove all the stepboard and then fabricate a replacement tiebar from brass strip, or only to remove enough material to cause the stepboard to disappear, leaving a whitmetal





tiebar. Also the small stepboard on the axlebox beneath the guards' door needs to be retained but this is best rebuilt from brass strip after removal of the whitmetal.

In the end I managed to retain the guard's stepboard in whitmetal, but fabricated the tiebars from 1mm strip. Either way it is a delicate process to ensure retention of the axle box detail. Again try to remove material a little at a time, and only apply gentle pressure to the knife blade as slippage could cause a catastrophe. Try to use the blade to remove as much of the excess material as you can because cleaning up whitmetal with files is difficult as they clog easily and require meticulous cleaning with a knife blade.

Once you are satisfied with your work on the frames, it is time to consider assembling the bogies. This is where you will feel you need several pairs of hands to keep everything in position whilst building a square bogie and still leave one hand free to apply the glue. Start with a flat surface, and place the main stretcher plate on it in an upside down position: being soft whitmetal it will be necessary to check that it is flat and square before attempting to attach the frames. The same caveat will also apply to the frames, as the work to remove the stepboards will have almost certainly bent them out of true. Use small wooden blocks and a setsquare to align these frames against the stretcher plate and adjust with the fingers as necessary.

Before you fit the axle bearings and wheels check that the bolts needed to secure the bogie to the bogie bolster will fit freely through the hole provided: if it does not use a circular needle file until it just does. Fit the brass bearing cups and place the wheelsets between the two frames to check the width of the stretcher plate. If the wheel pinpoints are too loose file back the stretcher plate, if too tight or the stretcher plate does not reach, drill out the recess in the back of the axlebox using a pin chuck to deepen the fit of the bearing.

Once you are satisfied all is well it is time to mix some two part epoxy and commit yourself to the assembly. Using the blocks to hold the frames upright and to align the frames against the stretcher mount the wheels into their bearings and run a fillet of glue along the stretcher plate frame joint with a cocktail stick. Continue to check and adjust the components in the few minutes whilst the glue is still active and don't forget to check all three dimensions before it is too late. Once the glue has gone off put the units aside for at least 24 hours before continuing.



Roof detail

While you are waiting, an area to consider is the roof. Bearing in mind the changes we have incorporated into the sides, the gas light holders and torpedo vents will need to be positioned to correspond with the new door positions. First make up the basic clerestory from the mouldings to give a base from which to work. Check this for fit on your already built body and file as necessary.

Now mark the lower roof using a soft pencil with the centreline positions of each door and toilet window, including both guards' doors. This last position needs to be thought out carefully as it is the inboard door of the pair on both sides that has the light above it. Drill 1mm diameter holes to accept the lamp covers, and then measure 5mm to the left of each hole and drill for the torpedo vent position. I fitted the plastic components from the kit, which, with a little cleaning up look perfectly OK, but you could of course go the whole hog and purchase whitmetal replacements.

Now it is time to add some detail, firstly by taking a gas pipe run of 5 amp fuse wire along the side of the clerestory riser, around the opposite end roof line and back down the other side as far as the last gas lamp top, securing with a thin grade of superglue. Before you commit yourself to gluing this, ensure your pipe run matches up with the end that carries the vertical pipe run up from the underframe

supply. The second consideration is to beef up the rain strips using 10 thou x 30 thou microstrip simply overlaid onto the representations provided on the moulding.

By now your bogies will be thoroughly dry so it is time to add some brakes to them. I used the shoes from the kit, drilling 0.5mm holes through them to accept 0.45mm brass wire as a representation of the linkage. Using superglue again these can now be mounted on the bogie stretcher plate taking care not to foul the wheels and apply some real braking! My shoes collapsed under the pressure, so are not on the model at present.

The final stretch

The bogies and underframe can be painted matt black either by brush, aerosol or airbrush. Similarly the roof can be painted light grey. I also took the opportunity to paint the inside of the roof gloss white so as to reflect a little light into the interior. The sub-assemblies, with the exception of the roof, can be glued to each other always checking the fit before applying adhesive. I choose to fit a brass washer between the bogie stretcher plate and the bogie bolster to aid smooth lateral movement. The bogie is bolted to the floor pan using a brass nut and bolt having drilled through the plastic floor.

We now need to consider the inside of the coach. You can add as much detail as you wish, but I have confined myself to glazing, partitioning the compartments, and providing the correct seating layout. The first two items are supplied in the kit, but you will need to source the seats separately. I was able to find the ten benches required from my spares box, but if necessary you can get these from a number of sources, including Colin Ashby, Slaters and Ratio. First class seats were painted royal blue and third class brick red.

Now it is time to add the lining. The straw goes on first in one broad strip using acrylic paint in a bow pen. Once this is dry, I added the black. As you can see from the photographs lining is not my strong point. If anyone has any advice for me (other than to give up!) then please contact me via the editorial office. Then it is time to add the T-pattern door handles and L-shaped grab handles fabricated from 0.45mm brass wire to the sides of the coach, securing with superglue.

To finish, add passengers to taste, and secure the roof with adhesive. The photos of the finished vehicle show that the roof is yet to be secured as it awaits patronage.



Loco building on the cheap – 2

Constructing a LNER J19

The second installment of a six-part series in which **K. Chadwick** describes how to construct 00 gauge locomotives currently unavailable as ready-to-run models using Hornby parts rather than kits

In 1934 someone at the LNER (probably A. H. Peppercorn but maybe even 'Grizzly' himself) decided to fit an ex-Great Eastern Railway Class J19 0-6-0 with a Class B17 boiler as had already been done with Classes B12 and D16, bringing about dramatic improvements to their performance.

The rebuilding of the J19 must have been a success because by 1939 the other twenty four members of Class J19 had been so treated along with the ten members of the almost identical Class J18 to make up a thirty five-strong class. All the locos survived into nationalisation and two locos (64657/64664) survived until the end of steam on the Great Eastern in September 1962.

Many years ago I read about Crowline producing a Great Eastern tender kit to fit around the Hornby 'Patriot' tender drive power unit in order to convert the Hornby B17 into one of the early examples with the small GE tender.

Given all the foregoing information I arrived at the following formula:

Hornby B12 tender + Hornby 'Patriot' power unit + Hornby B17 loco body + 4F loco chassis + 4F running plate and splashers = LNER J19.

Items required

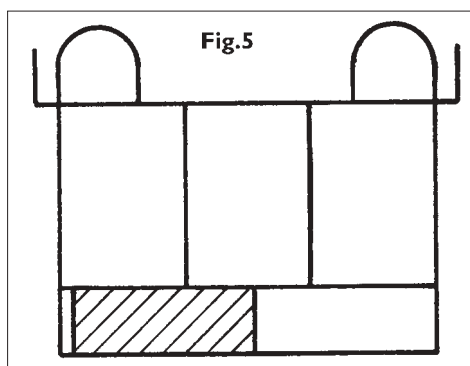
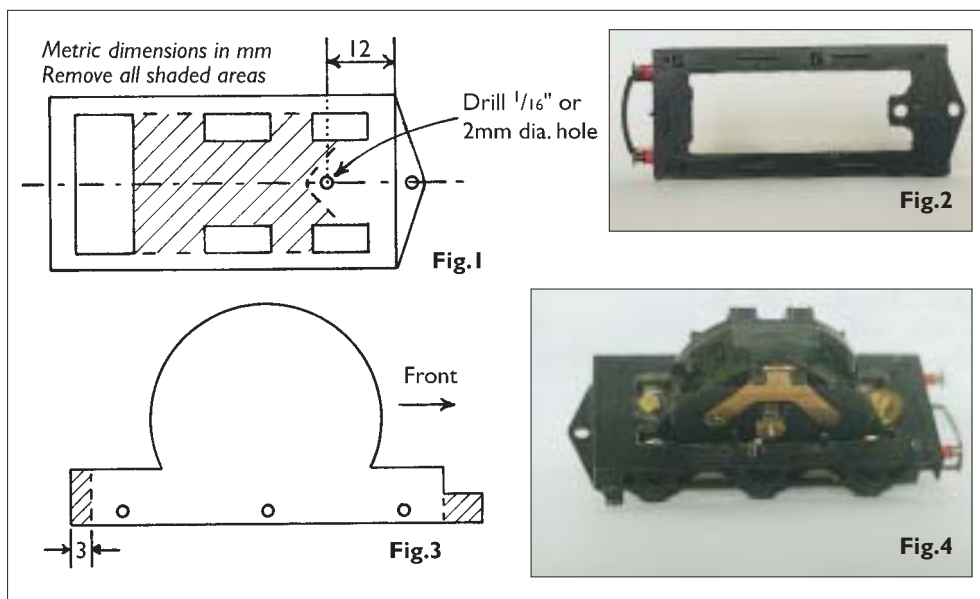
Hornby B12 tender plus Hornby 'Patriot' drive-unit (X1075), Hornby B17 loco body plus Class 4F loco body and chassis, two 8BA screws and one 4BA washer.

Stage one – the tender

First of all dismantle the B12 tender completely and remove sufficient material from the tender floor/underframe to clear the motor housing and gears of the power-unit (see figure 1). Next drill a 2mm or $\frac{1}{16}$ " diameter hole 12mm from the front of the tender frame (see figures 1 and 2).

Remove the wheels from the front (stepped end) of the 'Patriot' power unit and remove the step with a hacksaw. When this is done replace the front wheels and remove the rear wheels. Remove 3mm from the rear of the power unit and test fit to the tender frame and keep filing until the power unit fits inside the tender frame ensuring that the rear wheels are clear of the coupling (see figure 3).

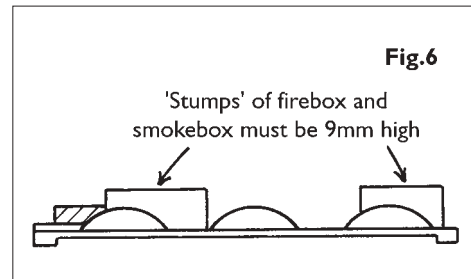
With the power unit in place inside the tender frame, fit an 8BA screw into the hole that you have drilled through the tender frame in order to hold it and the power unit together. Fit the second 8BA screw, along with the 4BA washer, into the rear hole of the power unit. The washer overlaps the edge of the tender frame and holds it and the power unit firmly together (see figure 4).



Finally, remove the screw/bolt housing from inside the tender body, then remove part of the tender body underneath the footplate to allow passage of wires from the loco to the power unit (see figure 5).

Stage two – the 4F body

First remove the body from the chassis (held in place by two screws, one at each end of the chassis), then remove the cab (it clip-fits onto the footplate so a penknife should do it).

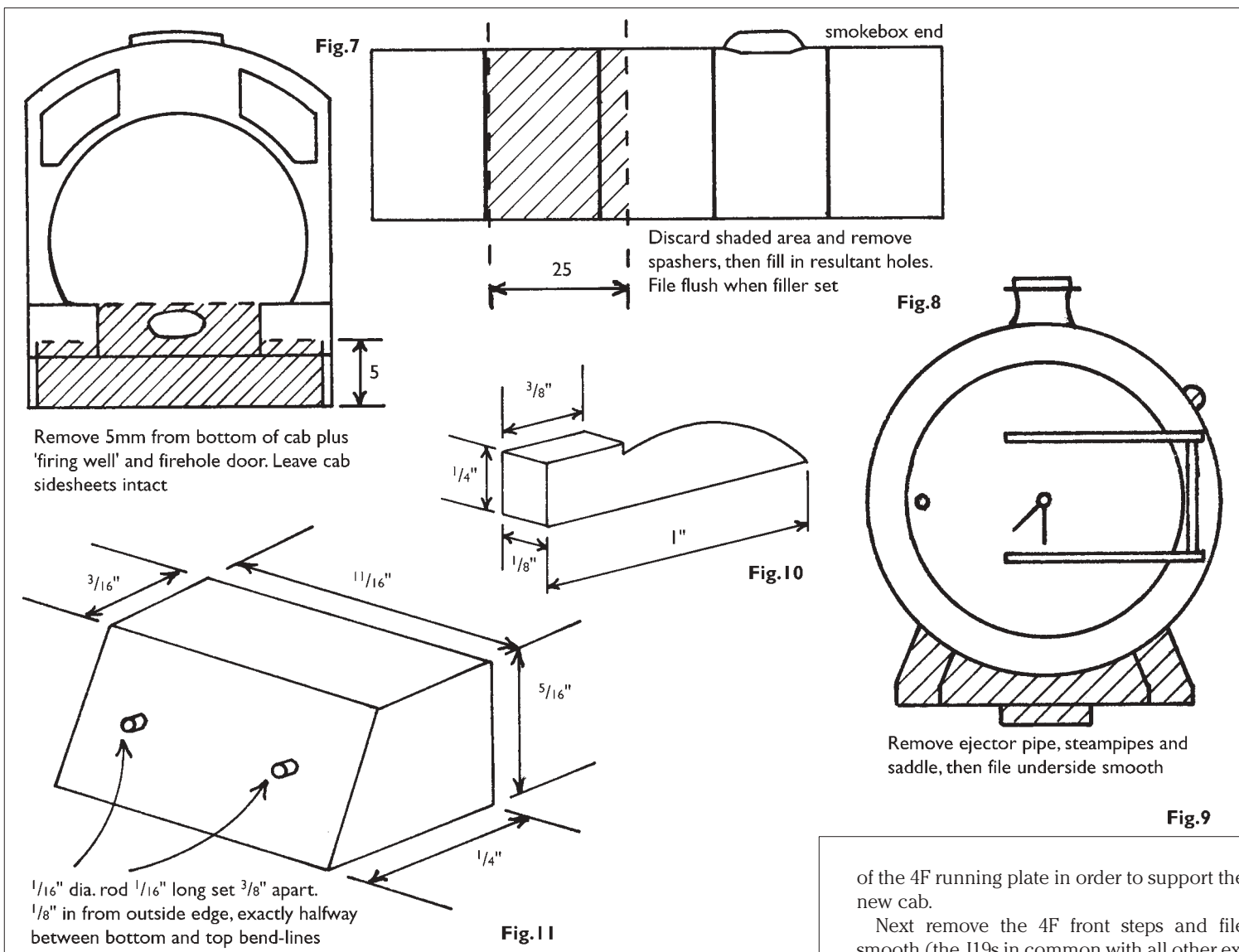


With a hacksaw or craft knife, remove the boiler and reversing rod from the running plate and splashers whilst leaving behind 9mm of firebox and smokebox saddle (see figure 6).

Finally, remove the raised platform in front of the reverser handle in the cab (see figure 6) and retain the safety valves, whistle and lead weight for further use.

Stage three – the B17 body

The Hornby B17 body comes in three separate parts: cab, boiler and smokebox (which makes modification easier).



Firstly remove 5mm from the bottom of the cab plus the 'firing well' and firehole door, but leave the cab side sheets intact (see figure 7). With these modifications the B17 cab should fit onto the rear of the 4F running plate.

Remove 25mm from the B17 boiler: first cut through the boiler just in front of rearmost boiler band, with the second cut 25mm forward of the first (see figure 8). Then, with a craft knife, remove the ejector pipe from the remains of the boiler: the J19s were all right-hand drive whereas the B17s were all left-hand drive. Remove all remaining splashers from the B17 boiler and fill in the resulting holes in the bottom of the boiler with filler reinforced with paper (i.e paper stuck on the inside of the boiler with filler on top). When the filler has set, file flush.

We next turn our attention to the smokebox. With the craft knife, remove the ejector pipe from the side of the smokebox.

Now we have to make a decision about the chimney. Do we want to retain the Hornby moulding or fit a better one (many of which are available on the market)? The J19s had a standard 'flower pot' as carried by the D16s, D49s and J39s among others. If you want to change the chimney this is the best point to remove the old one, however take care not to damage the snifting valve in the process.

Next remove the steam pipes and saddle from the underside of the smokebox and file the underside smooth (see figure 9).

Stage four – the J19 body

Stick together the two remaining parts of the B17 boiler and ensure that they are correctly aligned. While the glue is setting, remove 5mm from the 4F lead weight with a hacksaw. When the glue has set, put the lead weight inside the boiler and secure it in place with Milliput or similar.

Attach the B17 cab to the rear of the boiler in such a way that the forward protrusions fit around the lead weight. As the B17 cab is wider than that of the 4F, the latter's running plate needs to be widened at the cab end. Stick a piece of card or thin plasticard 21mm long x 3mm wide on each side at the rear end

of the 4F running plate in order to support the new cab.

Next remove the 4F front steps and file smooth (the J19s in common with all other ex-Great Eastern 0-6-0s did not have front steps).

Return to the B17 boiler and cab when the glue and Milliput have set and the lead weight is nicely secured in place, glue the smokebox to the boiler and ensure everything is square and in line.

Stick a piece of card or plasticard across the remains of the 4F firebox to form a platform for the B17 boiler to sit on. When the glue has set offer the B17 boiler/cab/smokebox to the 4F running plate and check that the top of the boiler is level and straight, if not then use scrap pieces of card under the smokebox or firebox until level. When satisfied, glue the cab/boiler and smokebox to the 4F running plate, check that everything is square, straight and level and put aside to dry.

When the glue has dried, fill in all the gaps in the boiler, bottom of cab, joins between smokebox and saddle and join at the bottom



of the firebox. On the firebox join I used a couple of pieces of paper.

The final result isn't too bad, especially after a couple of coats of paint to strengthen it. N.B. Don't forget to fill in the front of the firebox underneath the boiler.

Stage five – detailing the body

First, if you have opted to fit a replacement chimney, this is a good time to fit it.

Next manufacture two rear sandboxes from card or plasticard $\frac{1}{8}$ " deep x $\frac{3}{8}$ " square and then do the same for the two centre sandboxes – $\frac{1}{8}$ " deep x $\frac{1}{4}$ " square and glue in place (as per photographs).

Manufacture an ejector pipe from heavy-gauge wire or plastic rod $2\frac{7}{8}$ " long and stick this in place on right hand side of the loco, $\frac{1}{10}$ " above the boiler handrail. Manufacture a reversing rod from scrap brass microstrip 2" long and $\frac{1}{16}$ " wide and glue to the right hand side of the loco. The rear end of the rod should be fixed $\frac{3}{16}$ " below the boiler handrail and the front end should be fixed behind the centre sandbox.

Fit medium sized handrail knobs into the existing holes in the B17 boiler and then thread through the handrail wire. Fit safety valves and whistle (from the 4F), vacuum pipes and cab footsteps.

Manufacture front sandboxes and splashers from card or plasticard (see figure 10) and glue in place (as per photographs). Manufacture 'piano front' cover from card or plasticard (see figure 11).

Take a wooden cocktail stick or $\frac{1}{16}$ " diameter plastic rod, cut two pieces $\frac{1}{16}$ " long and glue to the front of the 'piano front' (see figure 11). When the glue has set, stick 'piano front' over the raised central portion of the 4F's front running plate. Finally, glue the Wakefield lubricator to the leading side of centre sandbox on right hand side of loco (use the photographs as a guide).

Stage six – the final touches

Manufacture a tender drawbar from wire or scrap brass; being an 0-6-0 with a short wheel-base tender you shouldn't need to worry about sharp track radii. My model has the loco and tender coupled together as close as possible and it still negotiates Peco Streamline small radius points and Hornby second radius curves.

Hopefully your 4F loco chassis has plenty of wire attached to it so that all you have to do to get it operational is to solder the wires from the loco chassis to the terminals on the power-unit (and if you get the wires right first time you're very lucky).

When you've got the loco running OK you can fit a vacuum pipe to the rear of the tender, fire irons, crew and transfers.

N.B. Be careful when selecting an identity for your loco as some members of the class ran around with weather boards on the front of their tenders, namely 64662/63/64/65/70 according to the RCTS 'Green Book' part five. The J19s were good looking and useful locos and one would be a useful addition to any Great Eastern layout.



Home town Pacific

No.6249 City of Sheffield in 00

P.D. Smith modelled 'his' LMS 4-6-2 in 1944 condition.

I have recently taken early retirement, which gives me more time to work with my models. I do not have a layout, so I have a display case in which I show some of my collection.

In order to do something 'different', I have changed locomotives' identities for my own pleasure, and as a talking point. To this end, when I saw a picture of my home town locomotive *City of Sheffield* in an unusual as-built condition, I decided to make a model of it.

The Prototype

On 1 November 1944 LMS Pacific No.6249 was officially named *City of Sheffield* at a ceremony at Sheffield Midland station. A picture of this event was published recently in the book *North Midland – Portrait of a Famous Route, part 2: Chesterfield to Sheffield*, and as can be seen, its unusual appearance was due to a non-streamlined locomotive being coupled to a streamlined tender. This was the result of a change of instructions in the workshops during construction, as it was originally ordered as a streamlined locomotive.

The model

I first obtained a new loco-driven Duchess, model ref.R2230 *Duchess of Buccleuch*. This is the only model currently available (autumn 2003) which has a double chimney, fully cylindrical smokebox and curved footplate. The streamlined tender was obtained as a complete spare from East Kent Models.

Work on the locomotive first consisted of separating the body from the chassis. The chassis can then have the brake rodding fitted, and the cylinders painted black.

In order to re-spray in black, the whistle and safety valves were removed. It was at this stage

that I found out that the Chinese build was far stronger than Margate. The smoke deflectors are glued in place, and require breaking off: the resulting holes in the footplate were filled and smoothed down.

The makers plates, lubricators and windows were covered with Maskol to allow for the respraying. I found that Modelstrip was required on the cabside numbers to help remove them, although they still lurk under several layers of spray paint. I used Halfords satin black, which gives a good finish. The boiler side handrails each require an extra knob at the front of the smokebox, as the clips on the smoke deflectors originally held them in place. I also added a brass smokebox dart to the front of the locomotive, to replace the original plastic unit supplied. Before the final spray coat of satin black paint, I added etched name and LMS smokebox plates from the 247 Developments range to the body, along with an etched shedplate. After the paint had dried, these were rubbed over very lightly with very fine emery paper, to bring up the relief detail.

HMRS Decals were added to the cabside, and the body was finished off with a coat of Railmatch satin varnish after the removal of the Maskol. The whistle and safety valves were returned to the body, and the body was reunited with the chassis. Brass wound vacuum pipes were added to locomotive and tender, and then the locomotive was coupled to the streamlined tender, and placed in prime position in my display.

This loco combination has created interest among my friends, and when seen always raises questions, which I am pleased to answer.

I hope this project will be of some interest to other modellers.



Cornish China Clay

Transporting processed china clay

Ian Simpson's 00 layout shows the journey from South Fraddon dries to Fowey.

During my fifty or so years as a railway modeller I have never failed to be fascinated by the industrial history of Britain and its association with railways. There has been such a wide variety of subjects on offer to be created in model railway form.

My first major GWR layout was featured as 'Railway of the Month' way back in May 1971 entitled *Kemble Junction and Tetbury*. This layout established my long lasting association with the Great Western Railway to this day.

Having read and studied the origins and development of the china clay industry in Cornwall, I set out to create features of the railway system associated with that industry albeit at a considerable distance from the prototype, and arrange it as authentically as possible in a space of 5.8m x 2.4m.

Much valuable information and many photographs were gleaned from the excellent publications by John Vaughan enabling some of the buildings to be constructed by reference to the photos.

The layout plan included shows the overall arrangement.

I have learned over the years that all model railways should have a definite purpose to be able to gain maximum interest and entertainment from the hobby, thus my objective was to transport processed china clay from the dries to an export point at Fowey and return empties and other products back into the system.

The journey starts at South Fraddon dries on the old Retew branch, via St. Dennis Junction to Lostwithiel and thence to Fowey. Having a main line included also allows other traffic to be interwoven with the china clay function



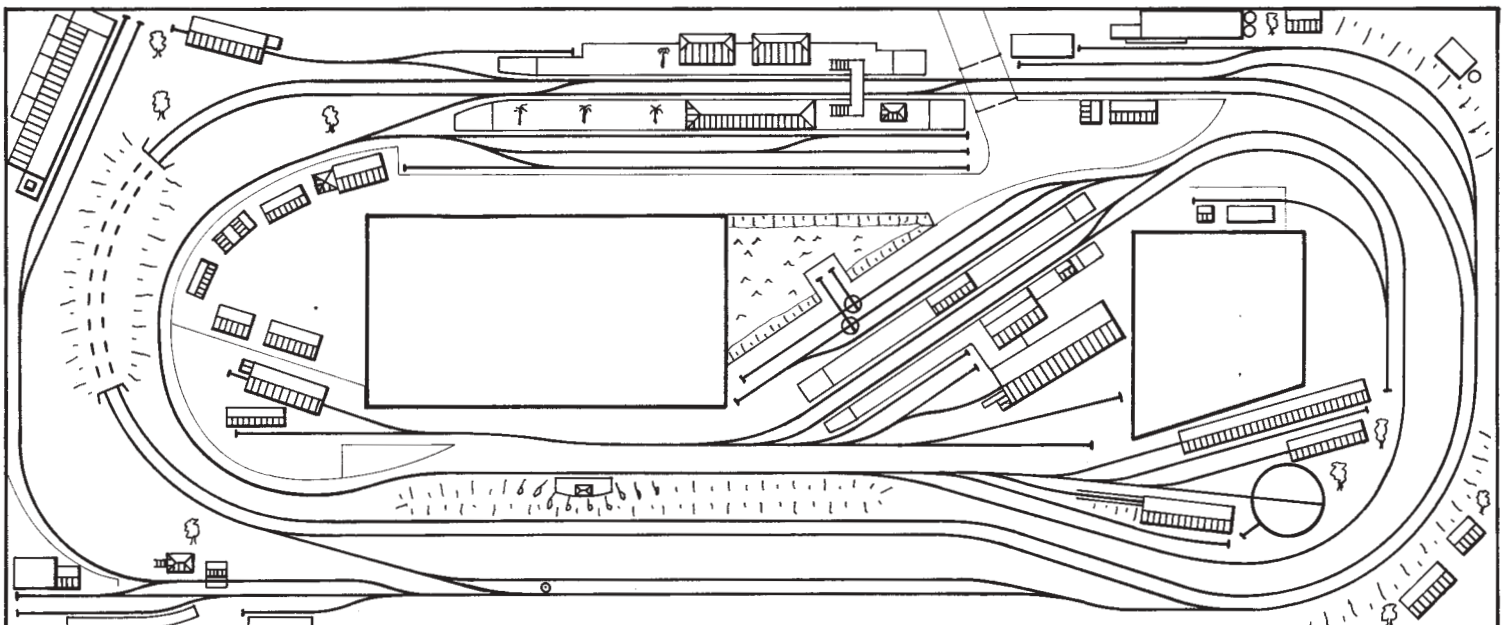
such as the *Cornish Riviera*, Plymouth/Penzance locals, milk traffic, vegetables and flowers, branch passenger trains.

The area also enabled the use of a wide variety of locomotive stock which adds much operational interest.

Baseboards

The method of construction goes back a long way to *Building The Baseboard* by C.J. Freezer ('Shows You How' booklet No.2). I have adhered to this construction with all my lay-

outs – 2" x 1" lattice framing covered with a softboard known here in Australia as 'Canite'. Although requiring extra support to prevent sagging it has to me many advantages. The construction is light and easy to handle. The material accepts pins and rail spikes without having to use hammers, it accepts glues and paints readily, is reasonably quiet and the off-cuts can be used for landscape profiling minimising waste. Operating spaces have been incorporated at the Lostwithiel and Fowey locations.



Left: milk for London en route behind 'Hall' Class No.6962 Soughton Hall.

Right and below: tank locomotives shunting clay wagons at Dock No.2. Access to the dock lines is by two wagon turntables with a steam crane for unloading.

Below far right: Fowey goods yard with station in the background. Passenger service parked in bay to allow passage of a clay train. Photographs by the author.

Trackwork

For years myself and my colleagues have resorted to hand laying track mainly to be able to vary curvatures and arrange track in a given space. Originally it was the old Peco SP4 sleeper base combined with code 100 rail. Now with the advent of the excellent Peco track system the job has become much easier and quicker, thus the layout comprises Peco flexible track and associated points.

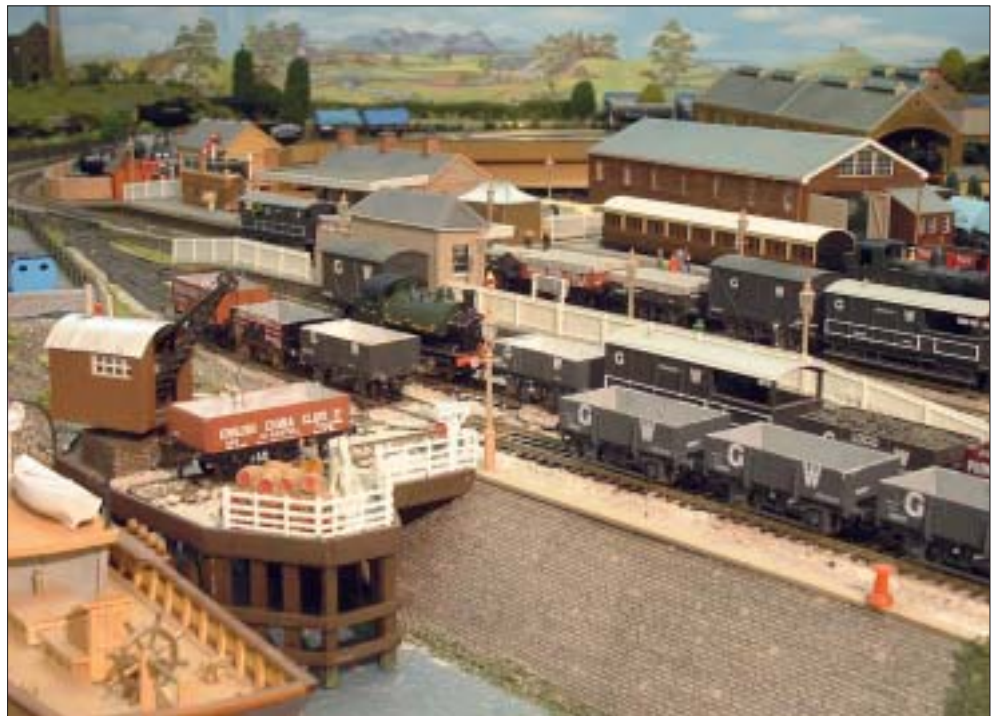
I have found it is an advantage to use Electrofrog points, as having a number of four-coupled locomotives in my stud, stalling on points is virtually eliminated. My trackwork is trouble free simply because I have taken great care in laying it to be true and level.

Ballasting follows the much easier method of adding chippings to the track dry and fixing them using diluted white glue which dries colourless.

Control

Once again I have adhered to an old method, that being cab control. My layout basically has five sections to allow a group of operators to run it, however switching is incorporated to enable a sole operator to follow a train from the point of origin e.g. at the clay dries to its destination at Fowey dock no.2.

In this day and age electronic controllers are available, mine are constructed from a local Australian circuit which incorporates inertia and braking if desired. The unit is easy to make, cheap to produce and gives excellent control over a wide range of motors e.g. from early Hornby Dublo to the latest Hornby and Bachmann.



Locomotives

As you can imagine over a period of some fifty years my stud is extensive. Just about every GWR type is represented.

The whole business started with a GEM pannier tank with a wonderful five pole motor (which eventually wore out) followed by those ground breaking kits by K's and Wills – these are still running to this day.

The industry now provides quite remarkable items, many of which have been purchased for use on the layout.

Rolling stock

In keeping with the layout theme, a large number of china clay wagons are apparent - both proprietary products and made up from kits to represent the many private owners that operated in the area.

Additional wagons cater for milk and coal traffic (which needed to be imported as Cornwall has no coal industry of its own).

Coaching stock comprises early Airfix *Cornish Riviera* stock and Collett coaches with Ratio four wheelers for branch line use.

Scenery

The tunnel and embankments are profiled using the aforementioned Canite. Over these profiles is laid aluminium fly wire mesh packed up underneath where necessary with crumpled paper. An earth mix is made up of builders plaster mixed with sawdust and coloured brown with cement dye. This mix is spread on with a spatula, profiled where necessary and left to dry. Finally coloured scatter is added using liquid gum followed by grasses, shrubs and trees.

Buildings

Many of the buildings have been adapted from commercial kits such as Superquick and Ratio. Some have been constructed from the ground up using John Ahern and Edward Beal





Clockwise from top: 'Castle' Class No.4073 Caerphilly Castle departing Lostwithiel with the down Cornish Riviera Express, and seen exiting Treverrin tunnel a little further on its journey; a more modern image - Class 37 No.37 675 William Cookworthy with CDAs; pannier tank No.5704 shunting clay wagons at South Fraddon Dries; running round at Lostwithiel in preparation for the journey to Fowey; No.6962 Soughton Hall collects tankers at the Unigate milk factory siding.

space available. John Ahern's lovely little farm scene fills one corner and the remains of the engine house at Scorrier the other.

Construction material is mainly good quality card supplemented by plasticard and brick and stone papers, with buildings being weatherboarded using manilla card where appropriate.

Other projects I have worked on include the building of a module of the complex at Middleton Top on the old Cromford & High Peak Railway. This was incorporated with other modules created by members of The British Railway Modellers of Australia for use at exhibitions. Currently I am building a commemorative module to Edward Beal of his Colstead Station.

Conclusion

A typical operating session whereby a clay train travels from South Fraddon dries to Fowey docks takes about twenty five minutes with a similar return journey after shunting etc. (comprising empties and loaded coal wagons). All this is interspersed with other main line traffic and branch passenger traffic.

This layout has been an absolute joy to create and continues to give much entertainment with the various traffic movements that can be initiated.

designs, however the real challenge was to construct the characteristic buildings at some of the locations. One advantage here is that local building dimensions were based on English standards e.g. brick and brick course dimensions and door opening sizes. By the use of these dimensions accompanied by a protractor for roof angles it has been possible to model said buildings fairly accurately.

The main examples are the old Cornwall Railway goods shed (which was later destroyed by fire) and the Unigate dairy at Lostwithiel; the station buildings at Fowey; and in addition the No.2 wharf with its steam crane. A plan in an article by C.J. Peacock (RAILWAY MODELLER January 1965) was used to construct the South Fraddon dries.

The village is totally freelance to fit the



Benfordby revisited

A lesson in forward planning

Ray Hogben describes extensions and modifications to his N gauge layout.

The reason for this follow-up article is a lesson in forward planning. As I said at the end of the first article in the August 2000 issue, as the layout had been built for home use I had not thought about how much room would be needed for the control panel and operators. This turned out to be a real problem and the fiddle yard was found to be a little short and very restrictive in use. The control panel was also very cramped and awkward for two people to use and there were also parts of the layout with which I was not happy.

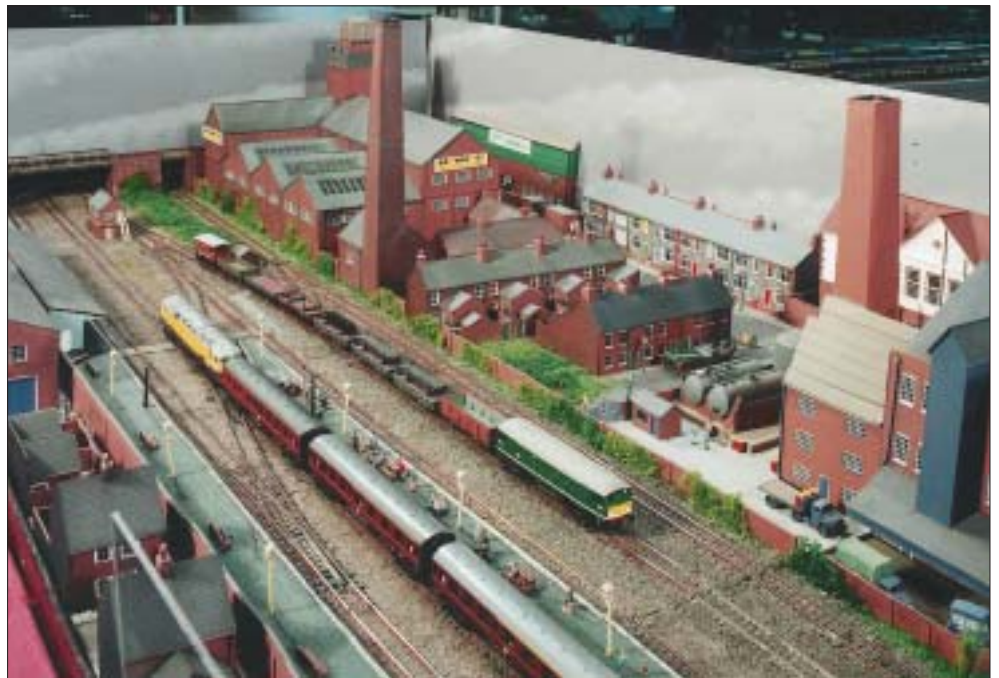
The goods yard was a little small and the coal yard should have coal drops instead, being North Eastern, so a decision was made to enlarge the layout for exhibition use. This would of course mean it could no longer be put up in its home shed or even in the house, but because of bookings the layout had to be operational for shows when required.

The control panel

A plan was drawn up to extend the layout by 3' on all sides. This would give enough space in the centre for a larger control panel with plenty of room for the operators.

The original panel was quite small and only worked the scenic boards as the points in the fiddle yard were hand operated. The new yard would be controlled from the panel along with the rest of the layout, so a new panel was built. This consists of two parts, a stand which contains a cupboard for the cables, the large CDU and the H&M Duette transformer, which has been altered, to power two hand-held units or be used itself by changing a 5-Din plug. The new panel measures 42" x 12" x 12" with the panel sloped to give a 42" x 15" area for the mimic board. I thought that this would be ample space but although it worked for the scenic area the fiddle yard area is still a little cramped. Point control is by stud & probe through a capacitor discharge unit. The wiring in the panel had to be much neater this time as with over 40 section switches on the scenic side and over 55 for the fiddle yard plus two per point there would be a lot of wires.

Each board is wired to multipin connectors, then via a jump lead to the rear of the panel, then to chocolate blocks in the control box and from there to the correct place on the panel ie point, switch or common return. This keeps everything tidy. A careful record was kept of all wiring and is kept with the layout to aid faultfinding. All tracks that could be used in either direction are wired to DPDT switches so either operator can have control. Where this would not normally happen, single pole switches are used. It would have been nice to have lights on the panel to show live sections but with the number required it was too cost-



ly and think of all those extra wires, so the switch position tells you who has control, up for up operator, down for down operator, simple! Because each board is wired direct to the control panel each board is capable of being used by itself for faultfinding etc.

Scenic extensions

The first extension to be built was to add 3' into the station side. This meant I could lengthen the platforms and put in the other station throat to bring the tracks back to two main lines, so improving the versatility of the fiddle yard and station. A loop with headshunt was added to make the goods warehouse area more useable. Trip workings from the docks (fiddle yard) can reverse into the headshunt, pull forward into the loop, then run round.

The platforms were extended using the same method as before ie strips of card were used for the outer walls with strips folded in a multiple 'W' pattern on the inside to support a card top overlapping the outer wall. The walls are then covered with brick plasticard and the platform surface has 2mm plastic strip glued on the edge. Then the rest is covered with fine sandpaper which can be painted to represent tarmac but I have used dark green sandpaper which seems to look all right. As it is at the end of what was the last scenic board the backscene was angled with a road overbridge to hide the entry to the fiddle yard. The backscene was removed and the bridge rebuilt. A flat backscene was put on this board and low relief buildings made (bus depot, fire station, and some large houses). A road was

put in front of this and then a seed mill was built to fit the space between the track and road where the backscene used to be. The road was continued on to the new board in the same manner with low relief buildings this time, a school copied from photos of the one I attended, a sports ground, and more houses.

The rest of the seed mill site, some more houses and a large factory were built in full relief to fill the remaining space. This board is now the entry to the fiddle yard, so a backscene was put across the end. Another bridge was built, this time a railway bridge, at a slight angle to hide the hole in the sky.

The second scenic extension was put in on the front or long viewing side, again 3' long. This was going to be the hardest to do if it was not to look like a later addition. The track layout was altered so access could be made to coal drops and still have access to where the coalyard used to be. This area was altered to fish and fruit platforms and a cattle dock area. The coal drops were built in two rows with loading area between, an unusual layout but trying to represent how business had improved. An office block, stables and weigh-bridge etc complete this area. Houses along the front help blend the boards together.

At the rear of the board the goods yard layout was altered to allow locos to run round

Above: view showing the side extension, the seedmill, wireworks and excursion platform. Kestrel is leaving platform 2 for the carriage sidings and a Silver Fox Class 24 heads to the goods yard.



their trains and improve shunting movements greatly. I have always liked the early container system so wanted to represent this scene. I scratch built an early crane using the Ratio 00 model as a guide. Low relief warehouses, a BR road motor depot, and just a few houses finish this area.

Other alterations

The other extensions were all fiddleyard boards, meaning a completely new layout for the fiddleyard. There are now 15 roads, 7 down and 8 up. The two centre roads are connected so you can change the direction of a train, should you wish, though this very rarely happens at exhibitions. Each track takes 2, 3 or 4 trains dependent on length. Each board is a section, so between 40 and 50 trains can be used. I originally said I did not need lighting on the layout, as I wanted it to be a little dark to suit the weather on the backscene (just before a storm) but at one show it was so dark you had trouble seeing the layout, so with help from friend and fellow club member Paul Derrick a lighting gantry was made to light all scenic boards using spotlights run through a dimmer unit so that I can control the amount of light. This has really improved the presentation of the layout.

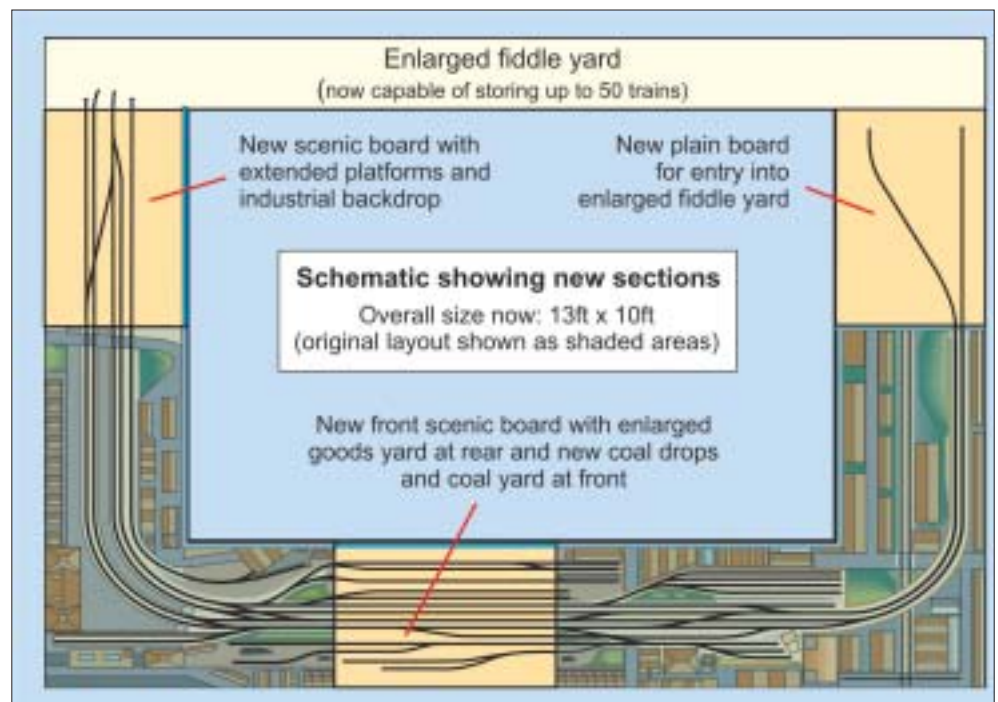
Clear acrylic panels have been fitted to the viewing side of all scenic boards. This has saved quite a lot of damage to the layout and speeded up setup and knockdown at exhibitions as protection boards do not have to be

put on. The layout is now 13' x 10', comprises 11 boards, and takes about one hour to erect.

Rolling stock

Fellow club member Neil Ripley, normally a 4mm EM gauge modeller, has been at it again. This time he has modelled prototype diesels *Kestrel* (a BH brass/whitemetal conversion

kit) on Farish 47, handpainted livery and Fox transfers, and *Falcon* (a BH brass/whitemetal conversion kit) on lengthened Farish 47 body mounted on Farish Class 50 chassis, handpainted livery with Fox transfers. Also there is a Class 16 Bo-Bo (Parkwood resin body) on a Farish 20 chassis and a Class 23 'Baby Deltic' (detailed Silver Fox resin body) on a Farish 25



Clockwise from top left: busy times at the coal drops.

Benfordby Wireworks is the major structure on the new board. An 08 shunter drifts down to the yard with a couple of vans.

View of the low relief school, which is copied from the one I attended many years ago.

The seedmill with the school and bus garage in the background.

Right: the new station throat showing Falcon entering platform 3 to form a London service. Cement for export is heading to the docks.

Below right: station garage with the cattle dock behind rarely used by this time.

Photographs by Steve Flint, Peco Studio.

chassis. An assortment of old tank engines has been weathered heavily to represent a line of scrap locos and he has weathered various wagons and coaches. Future proposals using available parts, continental donor chassis and scratch building include Crosti boiler and Tyne Dock versions of 9F 2-10-0; rebuilt Gresley W1 4-6-2-2, WD 2-10-0 or Lickey Banker 0-10-0. Goods stock is run in fixed trains representing import and exports from the docks ie coal out, timber in, with the empties running the opposite way.

Goods stock is a mix of Peco, Farish and Lima, with a few kitbuilt N Gauge Society bogie bolsters. Passenger stock again is a mix of Lima, Farish, Minitrix, and Mike Howarth coach kits, mostly close-coupled in semi-permanent rakes.

Also to be seen in the carriage sidings along with the scrap locos are some condemned coaches in a very rough state. These were done for me by another Hull club member, Steve Pugmire.

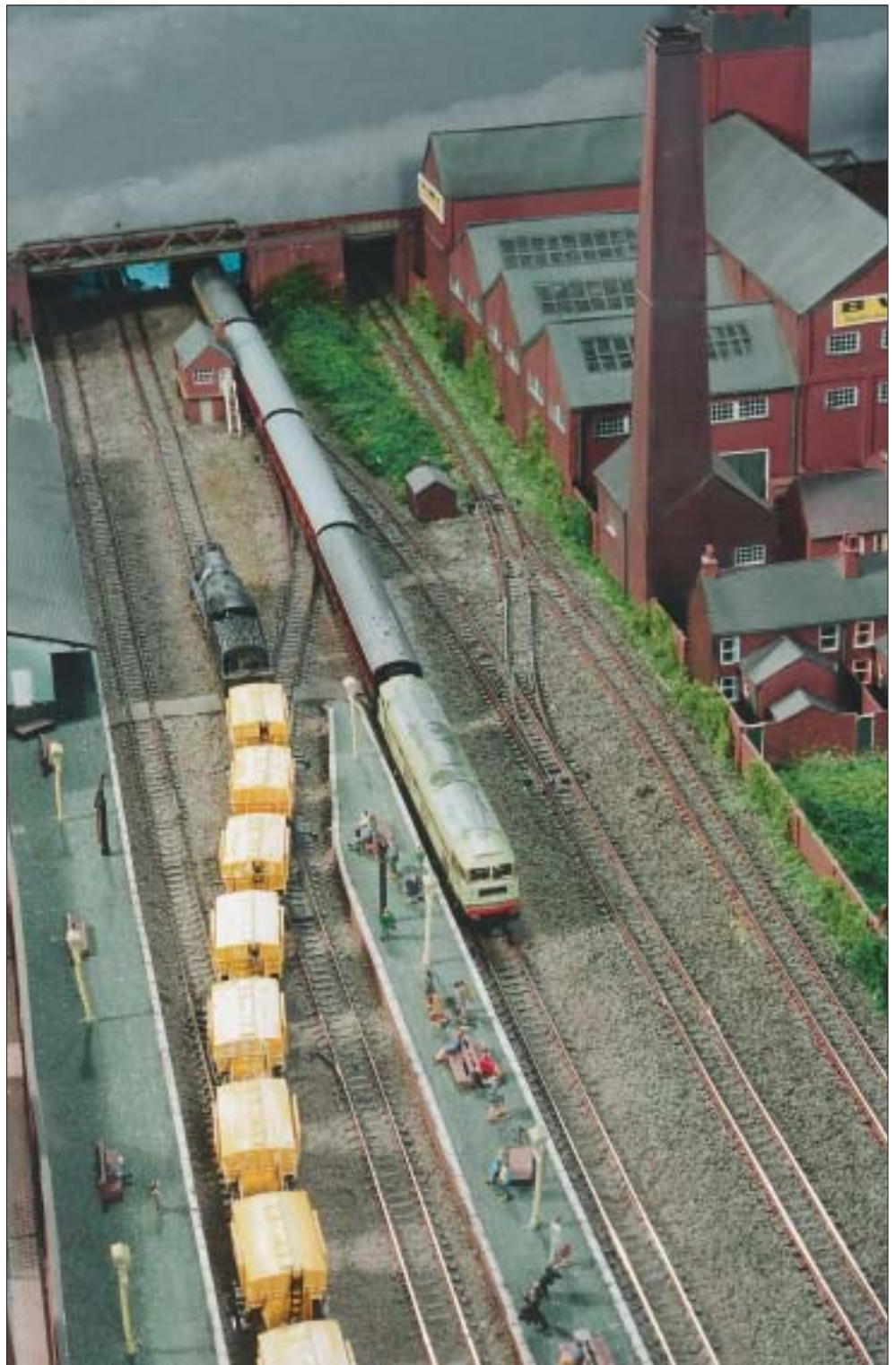
Future plans

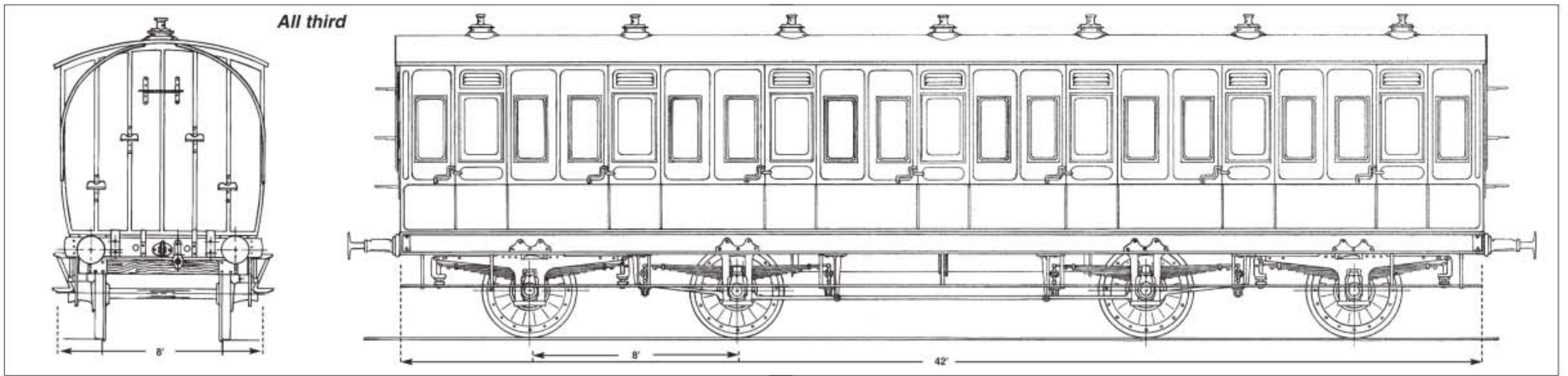
Plans for the layout are rather vague at the moment. Because I am unable to put up *Benfordby* at home and things are quiet on the exhibition front, a start has been made on a new layout. Unfortunately, if I want to use this new layout, then *Benfordby* will have to go as there is nowhere to store it. However, I still have some exhibitions booked, so the decision to sell or strip down does not have to be made just yet. I will carry on making buildings for the new layout and see what happens.

Thanks

To come to a close, once again I must thank all the lads from the Hull MRS for their help and encouragement, especially Neil the loco builder, Steve, Paul, Malcolm, and the two Davids, my operators at exhibitions, Steve Flint for the excellent photographs and last but not least my wife Sue for her help (she paints and places all the people) patience, encouragement, and the push to keep me going when I get despondent. If you see us at a show and you have any questions please do not hesitate to ask.

The layout will be appearing at Firerail Wolverhampton July 2/3 (see 'Societies & Clubs') and Hull Nov 13/14.





Scale drawings

LNWR 42' radial coaches

An interesting Victorian carriage for 0 gauge

RM Staff built the Northstar Design all third kit.

During the 1880s FW.Webb started to apply his radial axles to eight-wheeled vehicles of a new 42' length. These had two (outer) radial trucks with the centre pair of axles rigid in the frames.

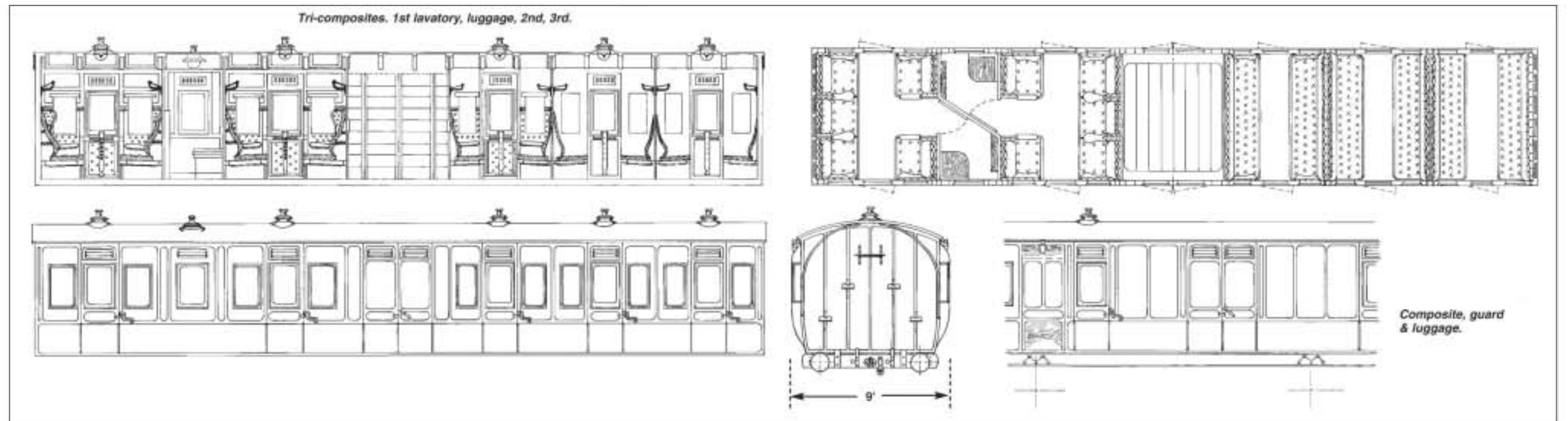
At this time the 42' length coach was a major force on the LNWR, but not an overwhelming one. The variety of interior layouts has been described by David Jenkinson as 'confusing' – and he was correct, given that there are no fewer than 19 permutations of non-corridor 42' ordinary coach interiors listed in his volume on LNWR coaches (see bibliography). Admittedly some of these were bogie coaches from new, so technically fall outside the scope of this piece. Whatever the accommodation, the stock was a uniform 8' wide. 42' West Coast Joint Stock was dual-braked, Westinghouse and vacuum; those for 'internal' LNWR use were vacuum-fitted only. Gas lighting was fitted on introduction, but the spread of electric lighting was eventually to encompass examples of these vehicles.

The radial underframe did not go down too well with the LNWR's northern relay partner on the West Coast Main Line, the Caledonian:

Right: LMS No.19412 is a lavatory composite to Dia.159, built in 1894 with one coupé compartment and mounted on bogies. The last examples of this type were withdrawn in 1941. The photograph was taken by the late J.P. Richards at Parkside; the Huskisson memorial is just off the shot to the right.

it proposed that bogies be fitted from the outset, but Crewe refused. History has shown that the 'Caley' may have had a point...

Perhaps the finest 42' radials – for 'ordinary' travellers, that is – were built in 1884 for luxury traffic. Four broadly similar four-coach rakes were assembled, and the coach descriptions speak volumes about the intended clients: Brake Third; Ladies' Saloon; Gentlemen's





Saloon; Brake Composite. (This last vehicle was a second/third vehicle too, but with guard's accommodation at the end of the coach.) Contemporary views reveal sumptuous interiors, as one would expect from the company's craftsmen. These were topped, naturally enough, by the 42' radials in the LNWR Royal Train of the time: 8'6" wide and later gangwayed, they were designated 'Special Saloons', and were used by the Prince of Wales (later King Edward VII) and his entourage. They were converted to bogie coaches in due course, but did not make it to LMS stock.

The last two 42' radials to be constructed were WCJS Nos.114 and 303, two lavatory tri-composites built as accident replacements in spring 1890: in October that year the LNWR board decreed that bogies should be employed henceforth on new stock.

Some coaches saw exciting times: during the 'Races to the North' in 1888 one of the West Coast trains was formed of 42' radial stock, two brake thirds and two tri-composites. One radial carriage is preserved: the TPO at the NRM.

Above: a standard 7-compartment 42' third, built in 1891 to Dia.292. Note that both end compartments are lettered third smoking – in those days one could smoke where indicated and nowhere else, the opposite of today. It has Truss patent torpedo ventilators on the roof (introduced on the LNWR from 1894), 1901-pattern Jubilee oil axleboxes, end alarm gear (introduced in 1901 to replace the old Harrison cord with rings along the outside of the carriages), and a white roof which was normal for new, or newly painted carriages, though they soon turned grey! The photograph was taken in the carriage sidings at Crewe, possibly in 1901 to show the new features.

Below: an unidentified lavatory brake composite to Dia.227. 26 were built in 1895 on bogie underframes, and the last example was withdrawn in 1943. They were thus of similar age then as BR Mk 1s are now.

Photographs courtesy the LNWR Society.

Notes on the drawings

The principal side and end elevations are of the seven-compartment all-third, and are reproduced to 7mm scale.



The supplementary drawings, to 4mm scale, show interior detail and plan of the Diag. 165 tri-composites with luggage compartment, 16 of which were built circa 1887. The companion end elevation shows the shape of guard's lookouts on stock so fitted, and the scrap side view is of a 4-compartment brake composite (one second, next to the guard's lookouts, and three third) variation with enlarged luggage and guard's accommodation. 58 were turned out between 1885 and 1889. Note that the sides here were not mirror image: the lookout here was opposite the guard's door on the other side, and vice versa.

Outlined on the same February 1886 Crewe Works drawing from which these details were taken are an interior layout of a 6-compartment luggage third.

References

An Illustrated History of LNWR Coaches, D. Jenkinson (Pendragon Partnership 1995, ISBN 1 899816 01 1).

A Register of West Coast Joint Stock, R.M. Casserley & P.A. Millard (Historical Model Railway Society 1980, ISBN 0 902835 04 1).

The Northstar Design kit

The prototype for this 7mm scale model is the thirty 42' seven-compartment arc-roof 70-seat third to Diagram 292, which were built during 1892-3. They weighed 20 tons tare. Many later ran on bogies and some survived to serve in LMS ownership, but they were taken out of traffic in the early 1930s. All the parts are crisply etched and supported by clear step-by-step instructions. Wheels are not supplied and we used Mansell coach wheels from the Alan Gibson range.

The parts all fit together and need only a smooth-over with a file to remove the etch tags left when parts are cut from the frets. The holes for the axle bearings needed opening out slightly to get a snug fit.

The kit replicates the radial movement of the outer axles (*see photograph, right*) but although a 6' radius curve can be negotiated easily, we feel that a good many modellers will



follow prototype practice and replace the radial underframe with bogies. Northstar can supply suitable parts if requested.

The seats are provided as plaster castings and parts of some had to be carved away where they sat over chassis fixing bolts. We made the internal partitions from styrene sheet, detailed and painted appropriately.

The roof is intended to be fixed in place, but we made a sub base for it from styrene so that it is removable, allowing the addition of passengers and other internal details. It was also easier to have sub-assemblies for painting, the coach breaking down into 'bogies', chassis, roof and bodyshell. The painting was achieved using Phoenix Precision LNWR Coach White and Coach Plum, airbrushed on the body, with lining carried out with a bow pen. As yet no transfers have been applied.

Chassis and roof are also spray finished.

Overall, this kit is straightforward to assemble, and care taken will result in an excellent model. A definite must for the 'Premier Line' enthusiast.

Northstar Design, Llety Adar, Llanelian, Colwyn Bay LL29 6AT. Tel: 01492 680659.



Editor's note. We acknowledge the assistance given by the London & North Western Railway Society in the preparation of this article.

Membership details can be obtained from Christopher Hill, 33 Forest Glade, North Weald, Epping, Essex CM16 6LD. A book on the 42'

radials and all the other 8-wheeled non-corridor carriages is due for publication by the Society later in the year.



Model photographs by Len Weal, Peco Studio.

Plan of the month

Wandsworth Park

South west London to the Hampshire coast in N

*Complete with 3rd rail and Battersea power station, modelled in around 9' x 6' by **Geoff Green**.*

I started like many other modellers with an old Hornby 0 gauge tinplate layout on the dining room floor at the early age of 8. This soon progressed to an 00 gauge layout on a wallpaper-pasting table, which in turn led to a larger 8' x 4' layout in the bedroom. Then along came the teenage years, and railways were given up for booze and girls, only to resurface again after marriage, and a meeting with other modellers while at work. I then built a fine scale 00 layout of Ashburton, but decided this scale was too big and it was sold. After a couple of house moves and three previous N gauge layouts, the current layout is the subject of this article, having been built during the last six years or so.

The layout was built in modules around the room (previous layouts have always been an oval design) which I now consider to be the ideal way to achieve distance and give the illusion of travelling from A to B. Also it can be built and extended on baseboards, which are easily managed. How many times have you looked at a large partly completed layout and thought 'which bit should I model next?'

Baseboards and trackwork

The layout is situated in a small bedroom which gives it an approximate size of 9' x 6'. The baseboards are insulation board glued with wood glue onto chipboard, which in turn is framed by 50mm x 25mm softwood timber. All this is supported on homemade cupboard units with hinging doors giving access under the layout and providing storage space for tools, models and other household items.

The harbour station, Portsea, with the corner module was built first with the addition of a small five-track fiddle yard. Then a desk and a

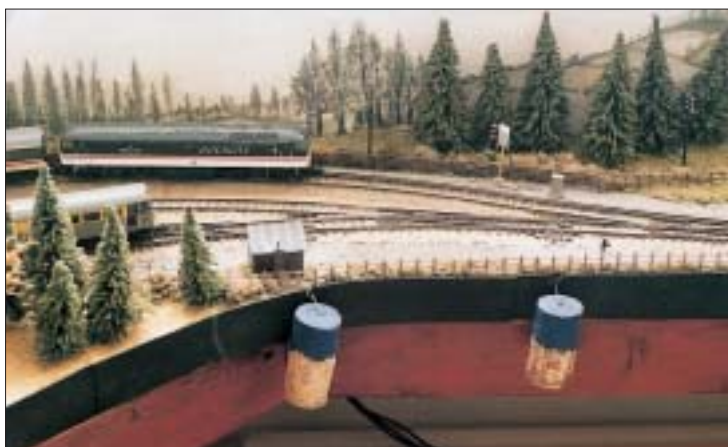


freestanding wardrobe were removed from the bedroom and this allowed the city terminus Wandsworth Park to fit. Finally another wardrobe was removed and this allowed the locomotive yard to be inserted to show the layout in its present form. The only drawback to building it module by module is that I should have planned it as a total layout rather than as space became available. For example, I should have put a fan of turnouts under the tunnel to enable trains to use all four tracks leading to Wandsworth Park.

The track plan was drawn full size (a great advantage with N gauge) onto a roll of paper complete with all buildings, signal locations,

platforms etc. The sidings were checked for correct length of five coaches plus a locomotive and clearance checked for passing trains. The point templates supplied by Peco were very helpful at this stage and when the plan was transferred to the baseboard, only very minor tweaks were needed during track laying eg a slight curve added to the loco shed headshunt at Portsea looked more realistic than being straight.

Laying track is similar to cutting wood; measure twice and cut once! Traditional code 80 Streamline track has been used throughout. This was laid and pinned directly to the insulation board and then the sides of the rails



were painted with track colour, a lighter colour for newly laid and darker for well used track.

The ballast was added by using an old shaving brush to brush the ballast evenly along the track, and then Resin W mixed with water was applied by using an eyedropper. When this had dried, I sprayed the track with more track colour using my airbrush. Some areas where locos would stand were darker than other areas such as new track, which was painted much lighter. I consider that when done correctly, code 80 can look almost as good as fine scale track. By viewing along the track when laying it, checks can be made for consistent curvature and tangency, thus ensuring that a smooth passage for rolling stock is achieved. Derailments are as rare as hen's teeth!

I have tried to lay the track in the current Network Rail fashion with correct 6' way spacing for pairs of up and down lines, and a wider spacing between the main lines and sidings. Points are controlled by the wire in a tube system, with the plastic tubing sunk into the baseboard top by cutting slots in the insulation board surface. One end of the wire was bent upwards to locate in the tiebar, and the other end bent downwards at the edge of the baseboard. Wine corks were then pushed on to these ends to act as handles. These were then painted in different colours to represent whether a siding, main line or loco yard had been selected.

Uncoupling is achieved by using large-headed nails, which locate in holes drilled between the sleepers. These are then pushed into wine corks under the baseboard. When the dropper on one of the couplings is over the nail head, the cork is pushed upwards, the nail head lifts the coupling, and this separates the train. But remember to pull down the cork afterwards!

Cast concrete ducting and orange plastic conduit for the electrical control boxes for points and signals (plasticard strips and insulation from thin wire respectively) are shown, as are dummy point motors (Knightwing) on main lines and manual point levers in the yards.

Third rail electrification (non-working!) has been modelled on most of the layout to suit the EMUs and the Class 73 electro-diesel, and is simply odd pieces of old rail from previous layouts glued to the top of the sleepers. I hope that this, together with the buildings and signals, gives a Southern atmosphere to the layout without the need for trains to be running.

Electrics

The layout is wired for Cab Control using two ECM controllers through 2-way switches to enable any section to be powered by any controller. There are also isolating sections at the end of most of the sidings to allow two locomotives on the same track at Wandsworth Park and for shunting at Portsea. A Relco unit is also wired into one of the circuits, and this seems to work very well keeping the track clean. However, a good wipe using an old handkerchief is still done if the layout hasn't been used for some time.



Travelling the line

This layout might best be described by a journey along its length and therefore we will start at Wandsworth Park. The fictitious Wandsworth Park is located in the shadow of Battersea power station, south west London, somewhere near Stewarts Lane shed.

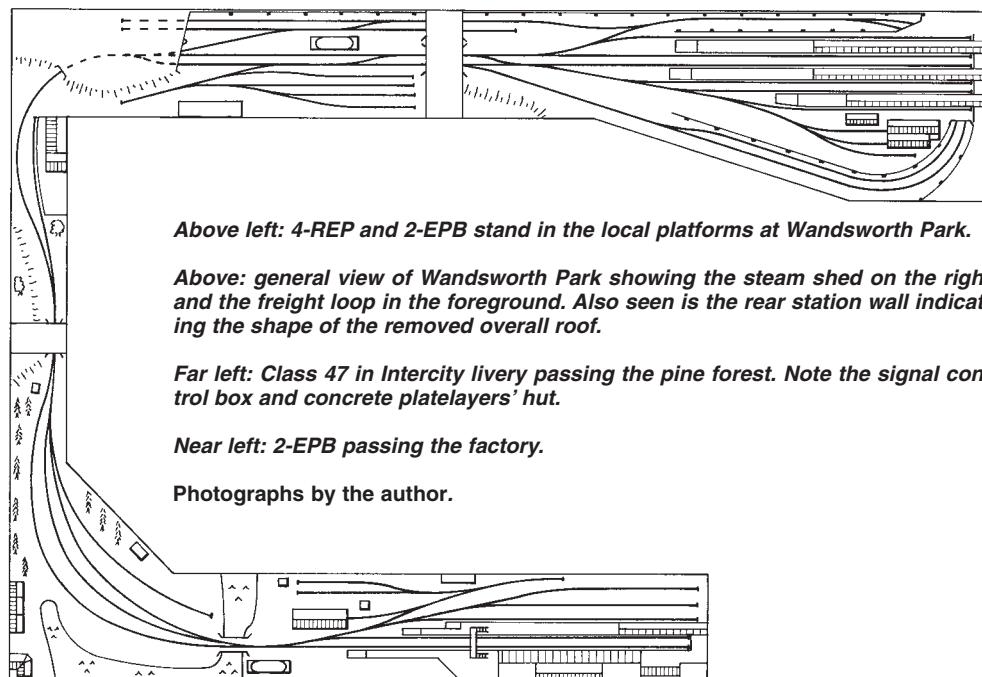
The stairs up from the underground station are just off stage behind the ticket barrier, as is the station concourse. The rear wall of the station shows the remains of the shape of the overall roof, which was removed when it became unsafe. Platform canopies were then built from Ratio kits.

The station has six platforms, one of which is for parcels, and two are for the local EMUs.

We arrive in good time to greet the *Orient Express* for our day out! The Pullman cars are in platform 4 and are waiting for our steam locomotive 35028 *Clan Line* to move from the shed to head our train to Portsea. Another

Bulleid Pacific, but unrebuilt and in the original Southern Railway livery, is also on shed. A Class 47 with matching Network SouthEast livery Mk 2 coaches arrives in platform 2 as our locomotive couples up and prepares to depart after the Intercity Class 47 in platform 3.

On either side of the station are tracks which dive under the platforms. These connect with the other regions (as at Kings Cross), and in reality this is the reversing loop for the freight trains as there is no fiddle yard on this layout. On departure, we pass the permanent way gang who are remodelling the station throat and this gives a good reason for the civil engineers' trains, which visit regularly. Behind them is the park and the stone embankment wall is similar to the one at Wandsworth Common, near Clapham Junction. I spent many a happy day train spotting in this area during my youth watching the last of the steam thundering through the platforms.



Above left: 4-REP and 2-EPB stand in the local platforms at Wandsworth Park.

Above: general view of Wandsworth Park showing the steam shed on the right and the freight loop in the foreground. Also seen is the rear station wall indicating the shape of the removed overall roof.

Far left: Class 47 in Intercity livery passing the pine forest. Note the signal control box and concrete platelayers' hut.

Near left: 2-EPB passing the factory.

Photographs by the author.

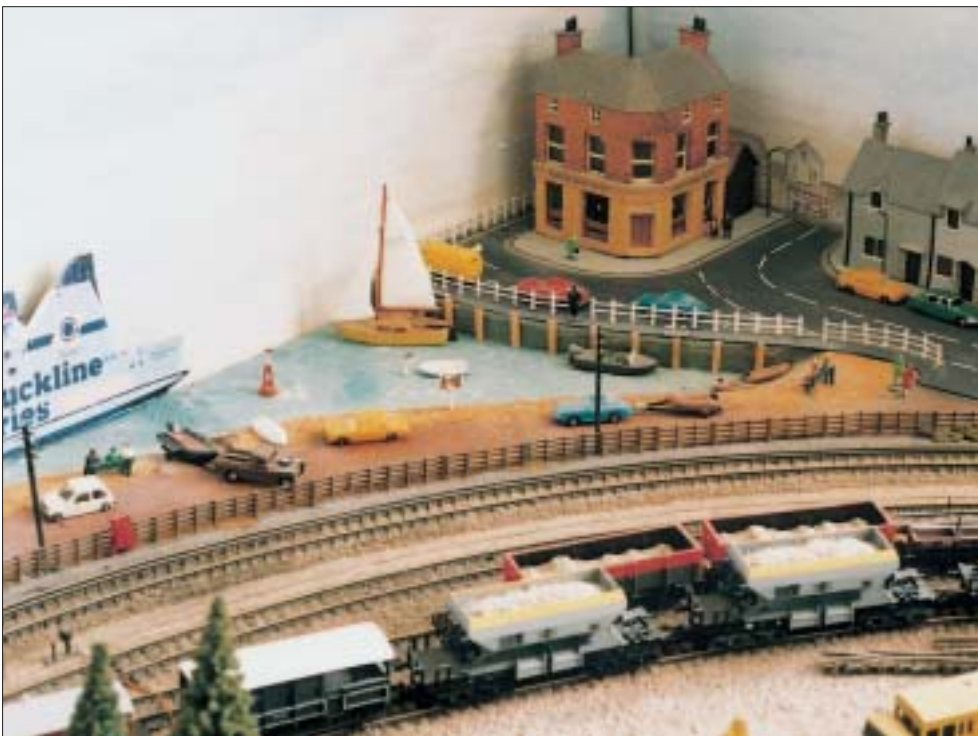


Left: Class 33 ready to leave Portsea with empty oil tankers. Station building is based on Eastleigh.

Below left: village of Portsea showing beach and permanent way yard.

Bottom left: 2-EPB emerging from the tunnel and about to pass the loco depot at Wandsworth Park.

Below: Art Deco style signal box at Wandsworth Park. The railings protect the signalman from the main line.



After passing under a main road, the diesel loco yard is on the left. The headshunt was part of an old branch line, hence the facing points on the main line. On the right is an original Southern Railway 'glasshouse' signal box based on a design similar to Woking and Surbiton boxes. This was made entirely from plasticard. The backscene was made from photographs scanned into my computer and then enlarged before printing. This also gave a slightly misty effect, which in turn gives the effect of distance.

We then enter a short tunnel to disguise the merging of the twin main line tracks into one which also gives a short cut through the countryside of Surrey to the Hampshire coast at Portsea. A campsite is passed on the right and then a small factory on the left. Emerging from under another road bridge, the permanent way yard is passed. Locomotives to be found here are the Class 33 and the excellent Class 31 both in civil engineers livery. The stone ballast is mined locally and tipped here by lorry for onward movement by rail. A JCB loads the wagons. On the right hand side is the small seaside town of Portsea. This has been loosely modelled on Blakeney in Norfolk with its creek and railings along the water's edge. The cross channel ferries on the backscene were cut from travel brochures and my father-in-law, a local watercolour artist, painted some of these backscenes.

The journey ends with our train pulling into platform 1, and soon the buffer stops will be crowded with photographers. The station building is based on Eastleigh from photographs in an earlier RAILWAY MODELLER. I always look forward to reading articles on pro-



totype stations etc to gain ideas for future layouts. These are very useful for us modellers.

The Class 08 shunter will then re-marshal the train for its return journey. Another 'glasshouse' signal box, similar to Portsmouth Harbour box, controls the station. Next to the bay platform is a small freight depot for van trains and oil tankers refuelling the ferries. I did think of modelling something like Weymouth harbour station and tramway; perhaps next time!

Locomotives and rolling stock

A 4-REP 4-car EMU in blue and grey livery was built from Taylor Precision Models parts. This matches a 4-TC unit built for a previous layout but unfortunately eight cars are too long for the platform lengths on this layout, and so the 4-TC unit is used with Class 33 suitably equipped with push-pull cables etc. There is also a 4-BEP in original green livery.

The 2-EPB unit is from B H Enterprises and has etched brass sides. All have white metal driving cabs, which are cast very crisply. The excellent Graham Farish railcar chassis, which has very smooth, slow running and the correct length for the coaches concerned, powers these units. All locomotives are from Graham Farish as are all the coaches. Freight wagons are nearly all by Peco.

Scenery

The loco shed at Wandsworth Park was scratchbuilt from brick embossed plasticard and is similar to the Peco design but is a longer 2-road building to suit the location. Other buildings have been made from plasticard and also cardboard covered in brick and tile paper. Most have waste and drainpipes added from wire offcuts. Some buildings are very old, having been used on many previous layouts.

The dummy colour light signals were made from brass tubing, wire, cardboard, plastic fencing and white metal or brass ladders. The signal heads were carved from rubber and the lens hoods were offcuts of plastic point control tube. The trees were made from florists' wire twisted together to make the trunk and branches, and then sprayed with adhesive. Fluffy string was teased out and cut up into



Above: Network SouthEast liveried Class 50 flanked by Class 47 on parcels duty and 4-REP at Wandsworth Park. Battersea power station, M15 building and GPO tower in the background. Note 3rd rail, signal control boxes, conduit etc.

Below right: engineers' Class 33 approaching permanent way staff remodelling Wandsworth Park station throat.

Below: Class 37 showing Railfreight Distribution branding from Fox transfers. Knightwing fuel depot and canopy at Portsea loco stabling point.

5mm lengths and then sprinkled over the branches. When sufficient of these smaller branches were on the tree, it was all sprayed with matt black paint. Another coat of adhesive was applied and Woodland Scenics scat-

ter material was then sprinkled on to give the leaves. Finally one last coat of adhesive was applied to finish.

Small details complete the layout, such as bicycles leaning against various huts, double yellow lines on some of the roads, post boxes, lamp posts, speed restriction signs etc.

Conclusions

They say that a model railway is never finished, but I think that I must be pretty close. Perhaps a few more passengers (sorry, customers) on the platforms is all that is needed.

Many thanks must go to my wife Julie, who has put up with the layout dominating the spare bedroom, but all good things must come to an end, and the layout will soon be dismantled to make way for a new one, but this will be built in the loft.





Standard gauge G scale

Otherwise known as Gauge 3 or G64 scale 1:22.5, gauge 63.5mm

John Hipwell of *Garden Railway Specialists* introduces a useful outdoor scale/gauge combination.

Gauge 3 was originally produced by Bing, Märklin, Carette, Bassett-Lowke etc. in the early 1900s and was revived in the early 1990s by the Gauge 3 Society and Garden Railway Specialists.

GRS started into the gauge with the advent of Leek & Manifold transporter wagons. Customers asked for a standard gauge wagon to go on it and of course the track to make the standard gauge siding complete with transfer buffer stop. After initial hesitation we decided that there was no reason why we should not manufacture these products, but we fully realised where this would lead. It would obviously not stop there!

In making this momentous step for such a small company as ours, we felt that there had to be parameters within which we would operate. It seemed to us to make good sense to limit ourselves to a branch line image. In so doing, we were keeping the locos and stock to

a reasonable size and there would be more chance at keeping the minimum track radius required to a lower figure. This in turn would enable more people with relatively small gardens to have an interest in the scale.

We have always considered that the standard gauge was an extension of our interests in the 'normal' G45 gauge. We needed to make use of our existing customer base for future sales and build on it if we were to succeed in our aim of reinventing the scale. Neither could we rely on existing users of the scale or the Gauge 3 Society, which were both small in numbers and in many instances not really interested in what we were trying to achieve.

Locos should be produced for both live steam and electric. As regards the latter, all wheels would be insulated to allow for either track current or battery operation. We estimated that roughly half of our sales would be for live steam models.

Coaches, when produced, would be of shorter prototypes to fit in with our stated aims, and preferably no longer than a 60' prototype length.

Wagons should be of prototypes found on a typical branch line.

All the loco and rolling stock kits were to be produced with an eye to ease of assembly. It was hoped that if this latter feature was achieved, there would be more chance of producing RTR models at a reasonable price.

With the foregoing in mind, it was first decided to tool track for both the ordinary 63.5mm gauge and dual gauge 63.5/45mm. We would use an existing brass G Scale rail as used in the 45mm Tenmille track. This would be perfectly compatible with the rest of G Scale if the tracks were mixed in a dual gauge scenario. We realised that some people would criticise us for not using a bullhead rail, but this would not have been compatible with the G45 sys-

Left: pannier and prairie at work in the garden.

Right: the GWR 2021 class pannier was the first Gauge 3 loco from GRS.

Below right: an ex-Midland 1F 0-6-0T followed. Photographs supplied by the author.

tems and dual gauge would then not be an option.

To go with the the track we would also produce wood sleepereed pointwork, handbuilt in quantity for certain radii, together with custom pointwork for those requiring it.

At this point we realised that we needed to standardise on a minimum radius. After a number of experiments with various locos and other rolling stock, we arrived at a figure of eight feet. We realised that this was a very small radius for such a large scale, but it followed the G Scale philosophy to which we were committed.

In order to complete the track package, we produced a rail-built buffer stop and the transfer buffer stop as used on the L&M with the transporter wagons.

One of our major suppliers of British G Scale rolling stock for 45mm gauge was very interested in expanding his range into the standard gauge. With this in mind, a number of common open wagons and vans were produced using sheet plastic and whitmetal. This had the advantage of offering a reasonable range of products without a huge investment and would help to get G64 off the ground. A three hole disc wagon wheel was also produced for these wagons.

The first loco to be produced was to be a GWR 2021 class pannier tank. This loco would be produced in both live steam and electric versions. The former would have a 5:1 geared twin cylinder self starting oscillator steam motor with internally gas fired boiler. Speed and direction would be radio controlled. The latter would use are new 1:36 standard brass gearbox with Bühler motor with current sup-

plied by track or battery. Construction of the loco would be in brass from an etched kit.

At the same time a GWR railcar, the original streamlined version which is modelled much less than the more angular version, was to be produced using new injection moulded resin techniques and a modified USA Trains power unit for both bogies.

As far as coaches were concerned, with the experience gained using modular techniques and injection moulding in the G45 field with the L&B and W&L coach kits, it was decided to produce a modular version of the GWR four wheelers that had proved so popular in 4mm scale. In addition the modules could be used to produce other GW coaches such as clerestory examples.

During 2001 we had broadly achieved our initial aim for the manufacture of the above

products with the possible exception of the GW coaches. We had also begun to think about further products, one of the earliest being the production of a Midland 1F 0-6-0T loco. However, both locos had caused a lot of problems with the supply of wheels and it is only very recently that the problems have been finally solved. In the meantime the Midland 1F had been so seriously delayed, that it was decided to produce other locos to fill the gap.

We had felt that whilst the two locos being produced so far were broadly satisfactory, part of our original idea was still not being attained. The kits were still not user friendly enough for our liking and whilst this ideal was not always attainable, the situation could be improved. Furthermore with improved modern techniques now available, it was possible





to simplify construction which would in turn allow small batches of locos to be built RTR. The next batch of locos would therefore be partly made from resin.

To this end, both the GW 1366 class saddle tank and its precursor the North Cornwall Railway saddle tank, together with a Stroudley 'Terrier' loco would have steel footplates with three piece resin bodies which were screwed to the footplate with half a dozen self tapping screws. The chassis would be a bolt-together 'Meccano' job using brass spacers and steel frames and buffer beams. Rivet detail etc would be supplied in the form of brass etch overlays. Very little soldering would be required and the time taken to assemble would be minimal with a good chance of having the locos available RTR. With the BR class 08 diesel shunter, the process was taken a stage further with a one-piece resin moulded body and a modified LGB™ chassis on a foldup brass footplate.

Other locos in the pipeline and nearing completion of development are a Sentinel, a GW 14xx class auto tank and a Midland 1F 0-6-0 tender loco. The latter is our first tender loco for the scale but by no means the last! These three loco kits are traditional brass kits. Two other locos also being developed are an LNER/GC N5 class 0-6-2 tank using the steel footplate and resin techniques mentioned earlier and a brass kit for a GW Dean Goods 0-6-0 tender loco, which will make an appearance during 2004. For the future, there is a distinct possibility that a SR/BR unrebuilt West Country Pacific and a set of Pullman coaches could be on the cards together with a BR/LMS Ivatt 2-6-2 tank or tender loco. The latter would be a Chinese brass model RTR.

Left: the Terrier tank was an early GRS Gauge 3 loco to use the steel footplate/moulded resin body technique.

Middle left: in the pipeline is the little Sentinel.

Lower left: the ex-LNER ex-Great Central N5 Class 0-6-2T working a mixed freight.

Right: the Class 08 features a one-piece resin-moulded body.

Lower right: the 14xx with an auto train.

On the coach front Midland bogie coaches will be developed and also the first of the LSWR/SR coaches will be available. These will be followed by GW panelled four-wheel coaches and clerestory bogie types. All these coaches are being produced in injection moulded plastic modular form allowing greater flexibility in assembly and chosen prototype. At the time of writing, there would also appear to be GW 'Sunshine' 1936 bogie coaches, possibly some Stanier types and Stoves, GUVs and CCTs on the horizon. These would be produced in small batches using brass sheet and fibreglass resin moulded roofs. The designs for these are still at a very early stage but signs are hopeful.

There are some twenty odd wagons currently available. These include three-, five- and seven-plank opens, seven-plank coke, salt wagons, and 13T and 16T steel mineral types. The GW types include ventilated vans planked and plywood versions in 10' and 12' wheelbases, Mica, Mogo, Macaw, Toad brake van and shunter's truck. The LMS wagons include three-plank open, corrugated end vans in ventilated and fruit versions, cattle vans, six-wheel milk tankers (three liveries) and 20T brake van. Other wagons include LNE brake van, lowfit and horsebox. For the future, BR vehicles will make an appearance together with a GW cordon gas tank, petrol tankers and a typical SR elliptical roof van are all planned.

Originally a lot of enquiries regarding G64 had come from existing G45 users, who wanted to extend their garden layouts with some standard gauge. Whilst this is still the case, it is becoming increasingly obvious, that some newcomers to the scale are only interested in standard gauge. Many times the comment is made 'if only you had produced these models earlier!' Some enthusiasts have also changed from narrow gauge to standard gauge G Scale, because they had really always wanted the latter but were prevented from doing so by lack of product.

For the future, we will continue to expand the range available and to this end we are always interested in hearing from customers what models they would like to see in the future. Some suggestions made in the past are already coming to fruition.

The original concept of branch line models to allow tight radii in relatively small spaces may now begin to change somewhat, with the advent of some of the larger locos and rolling stock planned. This factor will however always take note of our original ideas where possible, as there will always be a requirement for smaller models in confined spaces.





...an exchange of railway modelling ideas for beginners of all ages

The Alexander County Railways

A first attempt in 00

Mike Timms hopes to inspire other beginners with the tale of this layout.

This is an attempt to summarise some of the things that we discovered or learned when building our first layout. We made some good decisions and some of the not so good variety. With luck this article may inspire others who are about to start out for the first time, and by sharing our experiences may prevent others making the same mistakes. Instead, they can make some different mistakes!

It all started when my youngest son Alexander decided to buy a new engine with money received for his tenth birthday, or was it when he was donated his elder brother's rather old and somewhat battered remnants of a Hornby 00 train set? Whatever the catalyst, in October 2002 Alexander arrived home the proud owner of a *Mallard*, purchased second hand, vintage circa 1978 and in pristine condition. His 'layout' consisted of a couple of loops, a two-point crossover and a single siding all fixed to a painted sheet of plywood. Clearly this was not up to the standards he now required for the new acquisition.

Our household always seems to have a couple of 'projects' on the go, and this one started out innocently enough. The old 6' x 4' plywood sheet was inverted and extended with another to become 11' x 4', on a 2" x 2" softwood frame. To make the most of the available space within the attic room chosen, the baseboard had to be just 18" off the floor – but more of this later.

Planning

Family discussions resulted in lots of ideas, requests and demands for special features –

running water, real fire, passengers alighting from trains, cars, trucks and boats that moved (*à la* Legoland) were all vetoed. Lighting, people, roads, houses, shops, sound and tableaux depicting events associated with the family were agreed upon. The end result was a fairly unbalanced list of potentials. It could be said that the planning for *Alexander County Railways* was 'organic'. However some might say we made it up as we went along. As we were not modelling reality this approach generally seems to have worked well enough as themes often suggested themselves to fit available space. However, it was sometimes necessary to compromise and details such as road widths were sometimes cut to the limit.

Given that a ten year old and his friends are not necessarily the most gentle of creatures, the whole thing had to be fairly rugged, so different levels were crafted using offcuts of timber, mainly 1" thick MDF from some old cupboard doors and 2" x 1" softwood, glued and screwed to the plywood sheet (see photo below left). Almost everything is strong enough to stand on and a cut out panel makes it possible to get into the middle of the layout for building and maintenance.

Trials with lengths of old track and bits of string served to come up with a layout that provides two largish loops with crossovers to transfer from one loop to another, regardless of the direction of travel. This represents the 'main line'. A further 'country track' was incorporated that climbed over the main line, progressed through a series of curves, leaving and rejoining the outer main track. This was

achieved by crossing the inner main line using a diamond crossing, which added an area of operational interest. All three tracks are routed through tunnels at one end of the layout, the two main tracks at baseboard level, the country track above them. The tunnels are open on the inside to provide a single access space to recover from any disasters. The track layout was completed by the creation of some sidings to provide shunting practice and to store unused trains. All turnouts were located towards the front of the layout so that the inevitable derailment could be sorted out with relative ease.

We added to the existing supply of Hornby track and laid it on cork tiles to suit, making suitable holes for point motors and wires as we went.

It was at this point that we discovered RAILWAY MODELLER. We discovered that there were lots of suppliers other than Hornby. We learned about rolling stock, scenery, figures, buildings and building techniques. We also picked up ideas and plenty of websites. And so some more decisions were made. No signals was one – they were considered too delicate, although in retrospect I feel that this was one of the not so good decisions. Using Peco turnout motors was a good one – they can take a variety of switches and can be hidden under the baseboard – ideal. We also learned that a capacitor discharge unit (CDU) would prevent eager fingers from burning out turnout motors.

About this time we started to firm up some other decisions. Alexander County became firmly fixed in the south east of England, no rocks and mountains for us but gentle hills, brick and a little stone for contrast. The season became early summer, the time late morning on a warm and sunny day with a light southeasterly breeze. Sunshine was added in the form of a couple of 40 watt reflector spots. These give a good light and soften the shadows, reminiscent of the sort of day depicted in a Constable painting. Because buildings and other features would have internal lighting, to show this up we decided to add night lighting in the form of a single, blue reflector spot. A





simple switch achieves the change from day to night, although it would perhaps be a nice touch to fade from one to the other. By installing these lights early, it was possible to see how things would look as they were built, which showed that some colour choices were not what they were initially thought to be.

Wiring and controls

Wiring was the next big task. There are three main track circuits, controlled using Hornby 2000 controllers. Each circuit is fed to at least two diametrically opposite positions on the track by soldering directly to the underside of the rails. This ensures a good supply of power with no dodgy spots. Various isolators were added to separate the circuits including a manually operated switch that permits a train to be held in the country station whilst movements are carried out in the sidings.

A safety zone was created that prevents a train on the inner main line hitting a train crossing from the outer main line to the country track across the diamond. This was achieved using a switch connected directly to one of the turnout motors. When the outer track turnout switches from the main line to the country track a section of the inner main line is isolated. The effect is that any approaching train stops either in the tunnel or at the station – rather an abrupt stop really, but then not all engine drivers were perfect!

Everything is operated from a single control area (see photo far left) that comprises Hornby 2000 controllers for each of the three tracks, a panel containing eight sound buttons and the two-panel control unit. In this unit the main panel controls the turnouts and the station isolator whilst the smaller upper panel contains switches to control feature lights and motors.

The main panel was marked out with a representation of the busy section of the track. Holes were drilled for switches and the LEDs that when lit show the selected path. Although a lot more wiring was involved, I decided to power the LEDs directly from switches attached to each turnout motor. If for some reason a turnout does not physically switch properly, this is immediately apparent from the control panel as the appropriate LED will not light. At the crossovers both turnouts operate

together and are controlled from a single switch. When the main line is selected, two LEDs identify the path. When both turnouts are physically in the position to change tracks, a single LED illuminates. This was simply achieved by wiring through both turnout motor switches.

The problem of how to represent the tracks on the control unit panel took a while to resolve. After some experimentation, a solution was found in a kit for painting stained glass. This kit included some quite thick self-adhesive black lines that were simply stuck on the panel and the whole thing given two coats of spray varnish. The upper panel was easier – a label printed on the computer identifies the function of each switch.

The control panel is powered from three supplies:

1. A switched 240 volts main supply that also controls the main 'day' and 'night' lights separately. Integral transformers and circuitry convert mains power to provide 12 volts AC and 12 volts DC. The former powers grain-of-wheat bulbs used to light buildings. The latter powers LEDs and the flicker unit that drives the lights representing the welding shop and fires.
2. 16 volts AC is taken from the Hornby 2000 controller to drive the turnout motors. The CDU is also incorporated inside the control unit.
3. 9v DC (from a battery) powers a unit that flashes LEDs on the fire engine and pedestrian crossing beacons (not yet in place).

All connections within the control unit are soldered for reliability. The business ends of wires terminate at connection blocks from which the devices are then connected. This provides available electrical pickup points for fault finding and enables turnouts and other fittings to be wired independently from the layout in the form of sub-assemblies. One slight variation of this arrangement occurs with power to the buildings where the type of plug/socket connection found in mobile telephones is used to the same effect. This also has the potential to change building location by plugging them in.

To avoid wiring muddles inside the control unit, all the negative wires were terminated at common connection points, whilst the posi-

tive wires terminate at the switches – it's pretty crowded in there! Wires are colour coded and run through 'trunks', plastic tubes left over from the children's Postman Pat play tent. A general principle was adopted to separate different types of wires. Power to the track is routed towards the back of the layout, power to turnouts to the front and power to everything else in the middle. Short lengths of wire were run either through drinking straws or simply stuck to the underside of the base with masking tape. The odd fault has been resolved with the aid of a £5.99 multi-meter. The most common problem has been with switches coming away from the underside of turnout motors (originally fixed with Superglue, but we found that ordinary PVA glue more reliable).

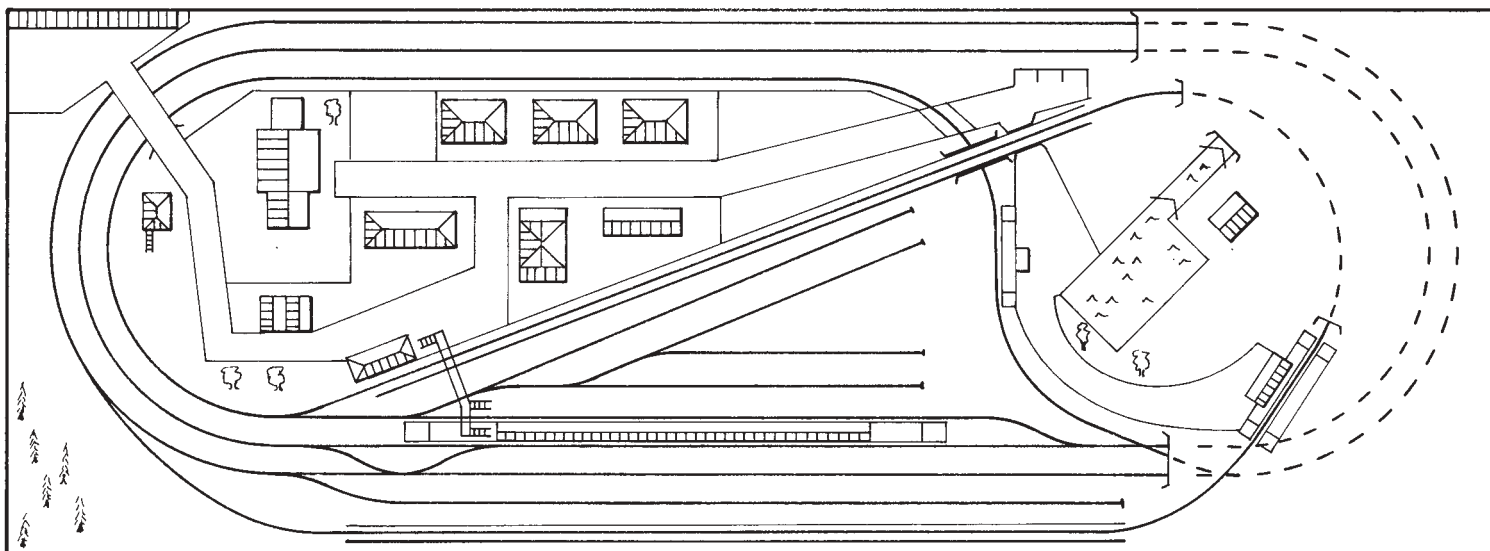
One last point on wiring. The layout main board is just 18" from the floor so quite a few hours were spent in a horizontal position in this small space – not recommended!

Scenery

It was decided that the countryside should be at one end of the layout and the town at the other end. This arrangement has worked out well. At the country end (see photo top left), rail tunnels run underneath the hills, windmill, fields and country station. Lower down is the canal basin with its lock, a country lane and the long gradient from the lower to the higher level. The addition of the welding shop is another of those 'organic' things.

The town is on three levels (see photo top right and below). The highest level represents the high street and consists of low relief buildings and a road. A bridge over three tracks connects this to a mid-height area with the





church and a garage, then down again to the station entrance, roads and houses.

Joining these two areas in the middle of the layout is a slightly scruffy district (see photos right and below) with sidings, coal yard, a street with a pub and corner shop and level crossing.

Offcuts of MDF, plywood and wood blocks were used to create height and to form the rough shapes. To make the hills, wooden strips from an old window blind were glued to shaped plywood frames fixed to the baseboard. Next came a covering of card stapled in to position, then strips of newspaper stuck down with diluted PVA glue. This process turned out to be surprisingly fast and produced an extremely strong construction. We used sheets of Busch grass in several textures for the fields and meadows. The ploughed field was created from corrugated cardboard, sawdust and brown paint. A variety of scatter mixes were applied to vary texture and to create highlights. PVA glue smoothed in with a brush and then sprinkled with scatter created the finer detail of lawns, paths and other areas. The dirty-brown water is varnish. We learned that applicators for scatter could be made



from old yoghurt pots with re-sealable lids – a $\frac{3}{8}$ " punch was used to make holes in the lid.

Ballasting the track was a tedious task and although acceptable, we all feel that the colour uniformity is somewhat unrealistic and the granule size too large. We also missed out on painting the rails before track was laid – we never thought about it! However, time with a small brush and some acrylic paint is slowly overcoming this. We're also experimenting with colouring some of the ballast.

Walls, bridges and station platforms were made from a combination of plywood, hard-

board, softwood blocks and old cereal packets, usually covered in a mixture of card finishes and/or scatter. One advantage of such a solid construction is that it is easy to drill holes to take figures and features. It's also strong enough to stand on. We found a useful technique was to kneel or stand on an old kitchen cutting board laid directly on the track.

Buildings were selected according to what we felt would look right and acquired as needed. We used a mixture of cardboard kits from Metcalfe and Superquick together with plastic kits from Dapol, Wills and Ratio. One challenge to make the windmill sails go round was achieved by linking the sails to a small electric motor using some gearing hidden below the surface level. However, being an AC motor, it does not always revolve correctly which usually results in a chorus of disapproval – we found out that windmills in England always revolve in an anti-clockwise direction! Switching off and on again generally resolves the problem. The motor from a rather ghastly old 'glass fibre flower' lamp now turns the roundabout in the children's playground. A use was found for some of the glass (plastic actually) fibres. These were used to transfer light from flashing LEDs hidden under the baseboard to the tops of road traffic cones around the road works. After a few seconds each cone flashes at a different speed to the others, an effect that is quite realistic, although best seen under the 'night' lighting. Even the plastic from the case was pressed into service, becoming a sheet for scratch building.

The larger buildings are lit with grain-of-wheat bulbs, including the church with real stained glass windows (see photo above right). To vary the effect, dividing floors and walls were added so that light is visible in only part of the building. Some bulbs were wired in series (which roughly halves the light output) to provide different levels of brightness. We found it necessary to black paint the inside of some models to prevent light showing through the walls. Lights are operated in groups from the control panel to provide a variety of effects.

We found that 3mm LEDs with their panel sleeves inserted into washers and painted made quite acceptable station lights.



Detail was added in many ways. Hedges were constructed from scouring pads, cut for a trimmed hedge, torn for a rough hedge, soaked in PVA glue and dipped in scatter. Odd bits of green foliage were applied to vary the appearance. A left-over length of manila rope provided vast quantities of material from which reeds and other plants were made. Fences and other features were made from a variety of kits to provide contrast. Quite a lot of the tableaux scenes were sourced from Langley Models and we have recently added some trees and are quite pleased with the result.

Hiding a flickering blue bulb behind the welders and the vehicle they're working on simulates the welding shop. Red bulbs wired in series provides lesser intensity light for the cubs' camp fire, workmen's brazier, garden bonfire and barbecue. A single intermittent flicker unit powers all these lights, that they flicker in unison is not particularly noticeable.

Metcalfe kits were used for the roads, pavements, bricks and stone. In retrospect I feel that the lack of texture and the necessary joins between pieces of card are drawbacks for the road surfaces, however we're not too displeased with the overall results.

The fire engine was a toy, taken to pieces, drilled, fitted with two 3mm blue LEDs connected to a flasher, sprayed red, detailed, reassembled and fixed in place.

On a whim, we purchased a couple of Dapol sound sheds. Experimentation proved that these worked best in the tunnel, which amplifies the sound. The two sounds tend to work together to provide the effect of a steam train



movement and the whistle. The units are controlled from a switch in the control unit. After a while they do tend to irritate and it's nice to turn them off. We wanted to add the sound of bells to the church and have recently cracked this one. Greenweld sells sound modules for greetings cards, but these can be recorded as well as played. At less than £5.00 each, they provide adequate sound and are small enough to be located in suitable places on the layout, so the sound comes from the proper place. Sounds were sourced as .wav files from the Internet and we now have sheep bleating, playground noises, a frog, fire engine siren and birdsong in addition to the church bells. Each plays for about 10 seconds and is activated by a push switch.

Rolling stock

We've not been too fussy about accuracy and by the standards of many readers are probably committing heinous offences with our selection of rolling stock. Selection has been because someone likes that particular model. Mum is responsible for the Doncaster guards van on the coal train that has somehow lost its way from Birmingham. *Mallard* takes pride of place, followed by the diesel, a Lima model (again acquired second hand by Alexander spending his Christmas money). This unit is very powerful but quite noisy. One of the inherited locos was a rather unrealistic little red tank engine named 'Roger', but a respray with matt black paint and the application of some transfers has turned it into something tolerable. Lead weights have been added to reduce its excessive side-to-side motion.

We experienced problems when different makes of trucks and coaches were in the same train. Some derailed and we have one coach that will not run over turnouts at all. Our compromise is to keep the stock in each train from the same manufacturer. To date we have resisted any temptation to build our own.

Details

We've perhaps gone a bit overboard on some of the detailed modelling. Ideas generated more ideas and so we have little scenes, many of them related to the family or special events. Examples include a station halt and a garage, both named after Grandads, narrow boats to remind us of a particular holiday, a cub camp with an Australian flag, a wedding scene, children's playground, a badger returning to its sett, a vegetable garden, a man cleaning his car and lots more. The only limitation seems to be space – where to include yet another idea!

Overall

We started the project in October 2002 and have completed what is shown in the photographs. More detail will be added as time and enthusiasm permits, although not too much was done during the summer when outdoor activities took precedence.

It's certainly provided a great talking point over the dinner table, has developed a whole new range of model making skills and is producing a layout that is enjoyed by family and visitors alike. Sure we've made mistakes. Most have been sorted out to a greater or lesser degree, a few we live with. In retrospect we have collectively learned quite a bit and would recommend anyone with aspirations to build to just get on and start.

What's next?

The old adage that 20/20 hindsight is good vision is probably true. Certainly there would be differences if (when) another layout were built. But until then, children and visitors alike have something a little bit different to play with. In the meantime there's plenty more to do. Two stations and a footbridge are not yet complete, pedestrian crossing beacons are needed, and all those extra bits of detail can go on for ages.

Photographs by the author.

What we learned – some good decisions

- * Because we were not modelling a real scene, we didn't spend too much time planning accurate detail. We agreed some overall ideas and just got on with it.
- * We let available space suggest what could be added and allowed the detail grow organically much just like it does in real life. We usually found places to incorporate any new ideas.
- * We did a lot of experimentation. If something didn't work out, we ripped it out and did something else. We found that most mistakes could be corrected.
- * We learned that a Capacitor Discharge Unit is essential for good turnout operation and to prevent enthusiastic little fingers from burning out turnout motors. We noted that lots of variations in height and texture help to provide realism nature rarely exists in straight lines.
- * We used all sorts of bits and pieces to make things. Old cereal cartons, wood off cuts, bits of rope, gears and plastic from old toys, toothpicks, sawdust, fire ash and fishing line were all pressed into service. We've become quite expert in picking up unwanted things and suggesting new uses for them.
- * We always tried to enjoy what we were doing. When we got fed up doing one job, we simply moved on to another and went back to the earlier job when we felt like it.

What we learned – could do better next time

- * We under-estimated the length and number of sidings. There's not enough in the layout to hold all the rolling stock.
- * 00 gauge track ballast is too big. Next time we'll use N gauge and one colour of ballast is very boring, better to try a mixture.
- * 18" between the floor and the underside of the baseboard is not enough, but keeps this old fellow quite fit!
- * Even when laid on cork, running trains create a great deal of noise – better soundproofing is necessary.
- * There were a lot more wires than originally anticipated. The 'trunks' should have been bigger.
- * A heavier gauge wire would have avoided problems with voltage loss. Next time I would use 16/0.2mm, not the usual 7/0.2mm.
- * We should have bought PVA glue in bulk. We've used about 6litres so far!
- * We should have incorporated signals to add to the reality.

READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

THE LATE DAVID JENKINSON

I was saddened to read of the death of David Jenkinson in the editorial of the June RAILWAY MODELLER. Regrettably I never did properly make his acquaintance – I met him only once, and then briefly, by chance when we happened to visit the National Railway Museum library on the same day.

As stated in the text, Mr. Jenkinson was a noted railway expert, writing with authority on many aspects of both the real thing and models, but if I may highlight one work, it would be his book on modelling carriages. This is, I think, probably one of the best written and most useful model railway books ever published, and likely to remain so as far as I can see into the future – though I personally model a different scale, country and gauge from Mr. Jenkinson's beloved LMS, a copy is always within reach of my workbench.

The book, and the illustrations within it, beautifully summed up his modelling philosophy, and despite the modest protestations of the author, showed that in the hands of a master, less really is more. Likewise his 0 gauge layouts in their successive incarnations, *Kendal Branch*, published in RM last year (January and February), naturally being the best yet – maybe not quite finished (and what layout ever is, this is a hobby after all), but a staggering convincing illusion of a real railway, and an inspiration to me at least.

I would like to join the team at RAILWAY MODELLER and modellers around the country in expressing my condolences to his family.

JONATHAN JOSEPH

It was with great sadness that I read of the death of David Jenkinson in the June RM. Although I never knew him personally I have always admired the layouts he built and found his books a great source of inspiration.

David was a modeller who did not concern himself with pedantic detail but rather worked to achieve realistic models finished in a realistic time. His research work has opened many new avenues for other modellers and helped save much information for future generations.

My concern now is over the future of his last great work, the *Kendal Branch*. Surely if there was ever a time when we need a national model railway museum it is now. The preservation of this work would stand as a lasting memorial to one of the hobby's greatest figures.

PAUL CLARKE

THAMES SIDE PROMENADE RAILWAY – INFORMATION WANTED

I am researching the history of the 10¹/₄" gauge miniature railway that ran along the Thames Side Promenade Railway, near Caversham Bridge, Reading, Berkshire. This was there in

1945/6 and between around 1950 and 1957.

It was operated by a 4-6-2 steam locomotive built by Thurston.

I would be grateful for any further information, photographs or memories readers might have on this little known railway. All costs will be refunded.

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HELLIFIELD

Regarding the article *Hellifield* in the April issue of RM, I did scratch my head on reading that the Blackburn branch was closed in 1962. This is mentioned in the picture description at the bottom of page 184.

According to memory and holiday records, I travelled on this line to Blackburn on 4 May 1985 from Glasgow Central to Euston on my way to Chelmsford. The train was going this way because a bridge was down between Carlisle and Preston.

The train left Glasgow Central Station at 1610 stopping at Carlisle before diverting on to the Settle Valley line on which we stopped at Appleby, Kirby Stephen (for a long while), Settle, and then on to Blackburn.

At Blackburn there was another long stop due to points failure, before going on to Preston, arriving at Preston about 2130. The train crawled all the way from Carlisle to Blackburn, which made it a field day for train spotters.

After reversing the loco at Preston, the train carried on the normal route to Euston arriving at 00.38, too late to get to Liverpool Street Station for the last train to Chelmsford, so the night was spent on Liverpool Street Station waiting for the first train. The saga did not stop there. There was track work being carried out between Shenfield and Ingatestone, so we left the train at Shenfield to be taken by bus to Ingatestone and finally arriving at Chelmsford at 0732 on 5 May. In normal circumstances I should have arrived at Chelmsford in the evening at 2221 on the previous day!

No that was not the worst journey I had on the railways. That distinction applies to a journey I made from Portsmouth to Taunton in the early 50s. On that journey the train left Portsmouth at 1930 stopping and changing trains at Salisbury, Westbury and Bristol before arriving at Taunton at 06.30 the next day. There were four changes of train on that journey!

D.R. CLARKE

We presume that 1962 saw the cessation of regular passenger service over this section of line – Ed.

I read Stephen Rabone's two part article with considerable interest, espe-

cially the portion about West Coast diversions.

There were one or two interesting features that the author may not have been aware of.

Originally, only a few diverted trains stopped at Hellifield for connections to Lancaster but it became painfully obvious that passengers were being over-carried from Preston, where they should have changed for Lancaster, and many trains then stopped there out of course to put these people off rather than have them carried still further to Carlisle. British Rail then decided to stop all trains in both directions at Blackburn and Hellifield, not only to overcome the Lancaster problem but also to provide an all-round connective service for S&C line stations, Leeds, Lancaster, East Lancs and Manchester. This proved to be quite popular as it avoided routes becoming more circuitous than they already were. It also generated quite an enthusiast market for each day that the diversions operated.

British Rail also felt that waiting facilities were totally inadequate at Hellifield and on diversion days decided to ask Blackburn coach operator, Aspdens, to provide a coach, parked at the station front, to act as a waiting room. With all trains eventually stopping there the coach soon took on the role of conveying passengers to other locations for which a train service could not be provided for a long time. It made several trips to Lancaster because of the sparse nature of the train service in that direction and several evenings it returned to its depot in Blackburn after taking the last few passengers who had alighted from Southbound trains to Leeds.

It was with some amusement that because of the lack of toilet facilities on the station the coach was often used to take passengers into the village to use the toilets there. It would otherwise have been far too long a walk and fortunately the facilities were kept in excellent condition and British Rail was not in the least bit concerned at passengers having to use them, but eventually, Aspdens agreed to provide a coach fitted with a toilet.

With today's shortened platforms, better on-train announcements and better S&C line services, it would be neither possible nor necessary to repeat the procedures adopted in those days.

J.G. BALAAM

MODELLING THE NORTH STAFFORDSHIRE RAILWAY

A copy of the April 2003 issue of RM has just come my way and I read Mr Lundberg's letter with interest.

I sympathise with him entirely concerning the availability of accurate documentation on this fascinating rail-

way. I have been studying and collecting information for many years with varying degrees of success.

When No.2 was to be sent for repainting in an approximation of NSR livery for the Stoke-upon-Trent Jubilee celebrations Mr. George Dow was the Divisional Manager at Stoke. For reasons which nobody knows a copy of the Vulcan tank livery was supplied and this had separate lining on the sandbox and splasher. The difference was not spotted until the work was too far advanced to amend.

No.2 as it is at Cheddleton is definitely wrong. The lining should be a single enclosure of the splasher and sandbox.

The other point to note is that the Madder Lake shade has a distinctly brown hue to it and it is to BS 007.

I.G. LANCEFIELDWALKER

ROAD VEHICLES

Trawling through back numbers of RM I came across Phil Parker's article *4mm Scale Road Vehicles* (RM December 2003).

It sent me back to when I started building road vehicles from plastic, previously I had used card and balsa. That started at school during the 40s working mainly from the old Modelcraft plans. I'm glad he didn't fall into the horrid error of a coal lorry from the Matador gun tractor, think of the struggle to get hundred weight sacks of coal on and off a flat that high from the ground. Apart from that, here are a few points I would like to make.

The Cooper Craft Monarch appears to be based on one of the early 30s versions when the supplier of the body often also built the cab. The cab roof on these was virtually a timber and canvas version of the earlier folding type. The shape changed in the mid 30s when AEC and Park Royal designed more modern cabs. The radiator is far too short, even for the early vehicles, much better shaped radiators for many makes are to be had from ABS or Langley. The less said about the Cooper Craft Bedford ML the better. The best part is the wheel set which can be used for scratch built trucks and can be bought separately.

Photo 2 looks to me like one of the resin cabs produced by Roadscale and intended to be a 1950s Leyland, they made a series of cabs to fit EFE chassis and later produced a very nice range of 50-60s trucks including a Bedford 0 series in several forms. Unfortunately the owner stopped advertising them when he retired from the day job though he does attend shows occasionally. If you see him buy some of his kits, they are perfect for early BR layouts.

When I first saw the Lledo pre-war Scammell I bought one and checked it against scale drawings. It must be the first model ledo produced that is useable on 00 railways as it is as near as you could wish to 1/76th, rather like the Leyland Beaver that Dinky made as one of its first new models after the war; all that needs is scale wheels and perhaps a little work on the body.

Now the interesting bit, photo 7 (the Airfix Fire appliance) is not a Bedford but an Austin K6 so the modification comes out as a K2 three tonner, though it should really have had the front end from the K2 ambulance to be correct. Only the K6 had the WD type radiator.

My old RASC unit had a K6 wrecker and a fleet of K2 GS trucks. Strangely enough Kelley's book on GWR road vehicles has a photo of an Austin wrongly captioned as a Bedford.

Photo 6 (the telephone van) is a nice model but they didn't have chrome shells in service. The other van is a Thornycroft A1 30cwt: the kit for this is based on some of my drawings published in the December 1973 issue of *Model Railways*. Having only a photo to work from I made the wheelbase about 1' shorter than it should have been though the width was right at 6'6". The kit is too wide at nearly 8' and the cab roof too short, still it was a cheap kit when first produced and still is even though it has gone through one or two hands since, and it is not too difficult to correct or even kit bash to make some of the other vehicles that the GWR motor dept. built on that chassis.

I do like the crane conversion, just what I need for the timber yard on my present 009 layout. Now where did I put that spare recovery set?

JOHN CROFTON

THE RAILWAY HISTORY OF DORSET EXHIBITION

The Dorset County Museum and Weymouth Model Railway Association are jointly arranging an exhibition depicting the many facets of Dorset's interesting railway history.

It will take place over Easter 2005, using the Museum's presentation hall in the centre of Dorchester. This most attractive venue has never previously hosted an event of this kind, and we would like to put on a top quality show, in order to foster the image both of the Museum and the hobby.

We intend to involve not only the preservation aspects of the railway activity, but also the various historical societies with an interest in Dorset.

We would like to invite layout owners with models that depict parts of the County's railways to contact us regarding showing their work at this event.

If you have or know of any such layouts of exhibition standard in any scale up to 0 gauge, we would very much like to hear from you.

In the first instance, please contact either the Hon. Secretary of Weymouth MRA, Mr. David Riches, at 43 Wyke Road, Weymouth, Dorset, DT4 9QQ. Tel. 01305 784672, or email: david4iches@supanet.com Alternatively please contact me.

HARRY MARSHALL,
21 Vespasian Way, Dorchester,
Dorset, DT1 2RD. Tel: 01305 268364.

RTR BOGIE SCENERY VANS

Might I ask for assistance in finding some ready-to-run vans. If not completely RTR then a non-brass kit (my skills with this material are hopeless).

My query takes me back to my youth when, instead of the usual paper round, I obtained a part-time job at the local theatre. At the beginning and end of the summer and pantomime season the scenery would arrive at Weymouth station in Bogie Scenery Vans or as they were sometimes known 'elephant vans'. Usually three or four made up the rake and they would have been brought into Weymouth on the rear of a passenger train. Once all of the end doors were opened and the joining floors flapped down you could walk

from one end of the rake to the other. There was no internal lighting and you could only see by the daylight, or more usually the dim station night lights, coming through the side windows.

The station was, and still is about 1 or 1½ miles from the theatre. The scenery was loaded onto a flatbed lorry, tied down and taken to the theatre with the stage crew hanging on, on the top of the load.

All very romantic of days gone by before 'Health & Safety' was considered but come the dark and wet days of January at the end of the panto season and two or three trips from theatre to station somehow lost their attraction.

So, from reminiscences to the purpose of my letter! The vans were Bogie Scenery Vans, 50' long, 25 tons, built 1949 onwards and were used up until the early 80s when all scenery travelled in covered articulated lorries right to the theatre door. As far as I know two are 'sort of' preserved on the Swanage and Bluebell Railways. If an exact model is not available then a passable substitute would be accepted.

Thank you for continuing to be, in my opinion, the best model railway magazine for content and price.

PETER COTTON

INFORMATION REQUIRED FOR WEST MIDLAND LAYOUT

In March 1989 you published an account of my *West Midland Lines*, designed and built with the help and advice of Edward Beal. The article evoked a huge correspondence and the generous gift of some of the original Exley West Midland coaches and, from another source, a gift of some original bogie freight stock.

Then came a move to a modern rectory having no space for the layout. Another WM enthusiast, Vic Harman, generously agreed to give it room in his home. So, the lines and its stock now operate in Lincolnshire as part of a much bigger system. Ted Beal would have been delighted!

At the age of seventy five, I have recently started to build a small layout in which I hope to incorporate some West Midland features. I have most of Ted's books and letters as references – but there was once a film! I have a *Model Railway News* in which the Club News refers to this film of the West Midland and the Craigard Lines being shown as part of the Model Railway Club programme. Does anybody know if a copy still exists?

I am also hoping to include some Merco litho wagons on my layout and would like to know where I may find a suitable chassis? Hornby supplied my original ones but times have changed.

Finally, Ted's early West Midland motive power included a Bond's 4-4-0 tender loco which was wired for six volts. His was modified a number of times and became *Jamaica* on subsequent systems. Has one survived or, like the Leeds 4-4-0 and 4-6-0 0 gauge tanks, have all succumbed to the touch of the grim reaper?

This may sound like an exercise in forlorn hopes. But, one thing I have learned in sixty five years of model railways, is that there is always someone who may have the answers one seeks.

Strange things do happen - witness the original West Midland stock now running in Lincolnshire!

KENNETH NEWBON

BLAKECASTER

With reference to the above article published in the May issue of RM, I can put Mr Clarke out of his misery with regards to the two names in Norfolk used to make up *Blakecaster* by the late Mervyn Axson.

The two towns in question are both located on the North Norfolk coast and they are undoubtedly 'Blakeney' and 'Brancaster'. Both are delightful and not far from local steam attractions.

Many thanks for the interesting layouts that you continue to feature.

CHRIS BONE

STAINES WEST BRANCH

I read with interest the above article by Giles Barnabe in the June issue of RM which recalls the Staines end of this branch and its demise.

I well recall seeing a 14xx tank and auto trailer plying between Staines and West Drayton, also the ubiquitous AEC Railcar and the BR(W) successors. Back then there was no link with BR(S) on Staines Moor and no M25 either.

I was a platelayer on the Windsor & Eton Riverside branch BR(S) for some time but left the railway service for a career in the Army. The WR branch as we called it had an hourly service, and we could hear its approach echoing over Staines Moor for quite a long time before it crossed over our metals. There was never a great deal of freight on this line but I understand that there was more at Colnbrook which was the first stop after leaving West Drayton.

The 'Muddy Lane' mentioned by Giles may well have been 'Moor Lane' before it was cut by the M25.

Being a 'Southern' modeller in N gauge, the Staines West branch is the only one that I have been tempted to research for modelling purposes.

BILL AVERY

ADVICE ON CONTROLLERS

I would be interested to hear any comments readers have with regard to the reliability of current suppliers of controllers.

Re-commencing railway modelling eight years ago I purchased three twin-track controllers from two individual makers at that time.

Two of these units have been re-tuned twice for repairs and have now developed a further problem with voltage drop.

The other twin-track unit from a separate maker also had to be returned after about three years usage.

I have two very old units namely made by Doverbeck and Marshall with a combined age of some seventy years, much abused and used for circuit testing and initial wiring and running in of scratch-built engines, which have yet to fail in use.

So what I would like to ask is do other modellers think there is a problem with controllers or is this purely bad luck?

JOHN BRIGHAM

SKOMA TROLLEY AND TRAILER

I have just bought a Bachmann model of a SKOMA permanent way trolley and I am looking for information so I can build a trailer that was used with it.

Was this a conversion from a wagon not used anymore or were they specially made for the job?

My layout is based in Scotland and I have seen them in Scotland but sadly

did not get a photograph of one.

I hope that somebody can help me and would be most grateful for any information.

PETER DYKES,
6 Pearwood Crescent, Balby,
Doncaster, South Yorkshire, DN4 9BZ.

SCARBOROUGH TERRACE, YORK PHOTOS REQUIRED

I am particularly interested in modelling the area around York (NE) loco shed which is now the National Railway Museum site. The era I wish to model is 1960 to the end of steam.

I have some excellent plans and maps of the area and aerial views, however I am short of ground level photographs of Scarborough Terrace/NE Crescent area prior to 1970, when they were knocked down.

I would appreciate any help on this project and will reimburse for postage/packing and re-prints etc.

PETE BRADMANE
37 Valley Road, Overseal,
Swadlincote, Derby. DE12 6NL.

HAVE A GO

As a very modest contributor to your excellent magazine, may I record my thanks for publishing my article in the Right Away section of the February issue of RM. I hope that this will encourage others to have a go.

My gratitude also goes to Ben Dickinson, fellow enthusiast and friend, who took the photographs without which, I am sure the article would not have been printed. I regret I am no photographer!

WARWICK BILLMAN

LAYOUT ON A BUNK BED

I am an eleven year old boy who, having helped my grandad build and operate the 00 gauge layout in his garage, longed for a layout of my own.

I have a very small bedroom and I thought it impossible to fulfil my ambition. Then I had a brainwave! I swapped my bed for pine bunkbeds. I removed the mattress from the top bunk, and replaced it with a baseboard.

Now I am building an 00 gauge layout, comprising an oval with railway crossing, and two sidings running into the middle of the layout. I am marking out roads at present, and I have room inside the oval for buildings. I am planning a steam era village theme, with a travelling fair arriving on the field. I will be able to remove the front safety rail for an unobstructed view of my layout, and the back safety rail will be perfect to which to attach background scenery posters.

Maybe other young readers will find my idea useful. Think how much space a bunkbed provides for modelling in N gauge. The best thing though is that you can operate your trains as soon as you wake up, and last thing before you go to sleep!

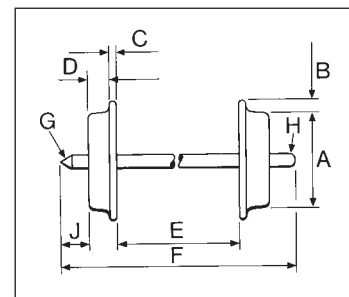
GARETH MORGAN

WATLINGTON – CORRECTION

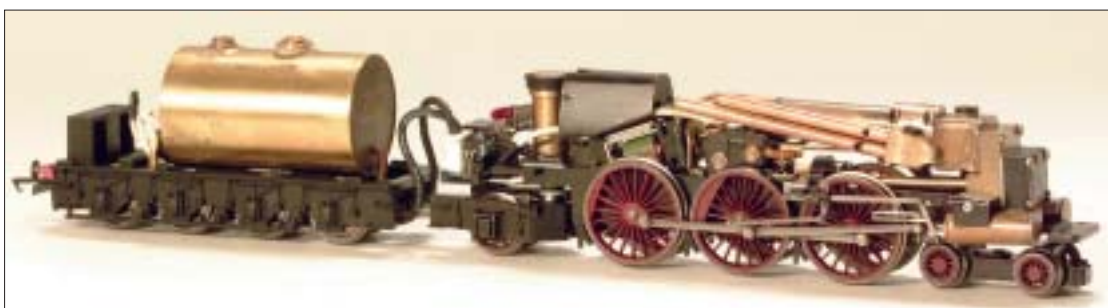
In the letters page of the May issue of RAILWAY MODELLER, we published a letter from Christopher Hart on the subject of Watlington, but unfortunately an incorrect telephone number was published. The correct number on which to contact Mr. Hart is 01844 347408 (evenings). We apologise for any inconvenience this may have caused.

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Live steam set in 00 from Hornby



As mentioned in our editorial, we have only just received a sample of the new Hornby live steam system for evaluation, some six months after release at the end of last year. It is a testament in itself to the popularity of what Hornby describes as 'a remarkable miniature engineering achievement', as the large entry in our competition bears out.

The idea of steam power to drive machinery is, of course, very old. Evidence exists of primitive Roman clay turbines made with spouts pointing at a tangent from a small spherical boiler. Leonardo da Vinci produced drawings to show that he too had thought about the use of steam. So in a nutshell, steam power started small,

got bigger, more sophisticated and very important, then fell out of favour for transport purposes but now has a vital use in generating electricity. The secret of success, however, was in finding an effective way of controlling this powerful driving force to advantage.

Through all of this, there have been model makers who produced reduced-scale replicas of almost anything and for almost any purpose; perhaps for commercial use as salesmen's samples, architects' building models, concept cars or simply as a hobby for personal satisfaction. The aim of combining modelling activity and efforts to harness steam power on

a miniature basis seemed to be inevitable.

So Hornby took the initiative and set about creating a live steam locomotive in 4mm scale that fulfils the criteria of actually moving under steam power and providing a degree of controllability that gives the operator a sense of what the driver of a full-size engine experiences.

The suitcase-sized box from Hornby contains everything necessary to get going. The instruction manual comes supplied both as a book and as a CD-ROM. It really is wise to read through it all before you go any further; it is not a big book and it is written clearly with plenty of illustrations. Doing this means

that you leave nothing to chance. It is sometimes tempting to skip the safety warnings, but steam hurts – lecture over!

Apart from the loco and tender, you get enough standard two-rail track to form an oval on which to learn to use the loco (space required 244cm x 107cm), the controller and transformer, protective gloves, a bottle of the correct oil syringes for oil and distilled water and some maintenance tools. The required distilled water is available separately in 1 litre plastic containers (ref.R8207, £5.00). The A4 Pacific in the box was *Mallard*, but the others listed in the current catalogue are *Seagull* (ref.R2259), *Silver Link* (ref.R2367), *Golden Fleece* (ref.R2368) and *Dwight D. Eisenhower* (ref.R2277), the latter in BR livery (price £325.00 each).

Setting up is quite easy and safe if the instructions and graphics are observed accurately. It is worth mentioning, as do the instructions, that some steam, water and oil will be deposited on the track area, so consider carefully where you operate.

The steam is made without the need for flames powered by gas or spirit. Instead, low voltage electricity sent safely through the track to the tender where a small reservoir holds distilled water. An electric heating element in the tender heats the water. The hot water passes through a small pipe from the tender to the loco and is superheated in the loco. Safety is provided by pressure release valves (right) and a boil-dry boiler protection device in the controller. Signals from the controller travel through the track to open and close the steam valve. When the valve is open, steam is forced into the double-action cylinders and the locomotive moves off.



The exciting part starts now. Put the gloves on, remove the coal load from the tender. Add the distilled water to the reservoir using the correct syringe; hold the syringe vertically so that the whole 25ml is loaded easily without overflow. Then remove the loco chimney and use the other syringe to add the correct amount of oil to the loco's reservoir; be careful not to put in too much oil. This also applies when refilling for subsequent runs when the previous dose of oil may not be used completely. The unit is now ready for you to learn how to operate it. Let us be in no doubt about one thing, operating the unit takes plenty of practice; reference to the practice required is made on several occasions in the book. Reading the instructions for this initial stage is absolutely essential.

Time taken now will be rewarded with satisfactory operation of the loco and efficient use of water and oil. Use the steam regulator to apply the current as instructed. After about seven to ten minutes, when the water is at the required working temperature, the indicator light in the loco cab changes from red to green; make sure you are in a good position to see the indicator light. Follow the instructions carefully that deal with the whistle and the method of using the speed regulator. Any impatience here will result in perhaps no movement or the loco accelerating like a dragster car! Remember too that some running-in is necessary and the locomotive's own performance may also improve with use. Full instructions for reversing and stopping follow those for forward motion, but it seems a good idea to find out how to stop the loco first!

The spring-loaded speed regulator is operated using a series of flicks with some guidance from the whistle that sounds when the red light in the cab turns green; the instructions will tell you more. The green light shows when the loco is ready to operate. When the test loco began to move, the operator stopped flicking the regulator and the



loco gradually gained speed. A few more flicks made it accelerate further. Stopping and reversing were achieved effectively and simply by using the regulator in the opposite direction. A small steam valve actually does the work. There is one thing to bear in mind: the reaction of the loco to the commands sent from the regulator takes time; it is not an instant response. Anticipation is an important factor in successful working and again practice pays dividends. On a layout that belongs to a staff member who owns one of these locos, he remarked that the proximity of the loco to the track current connector seemed to make a difference to how easy it was to control. Our suggestion is to add extra electrical feeds in order to keep the voltage and amperage even throughout the track system. Remember that oil and dirt will

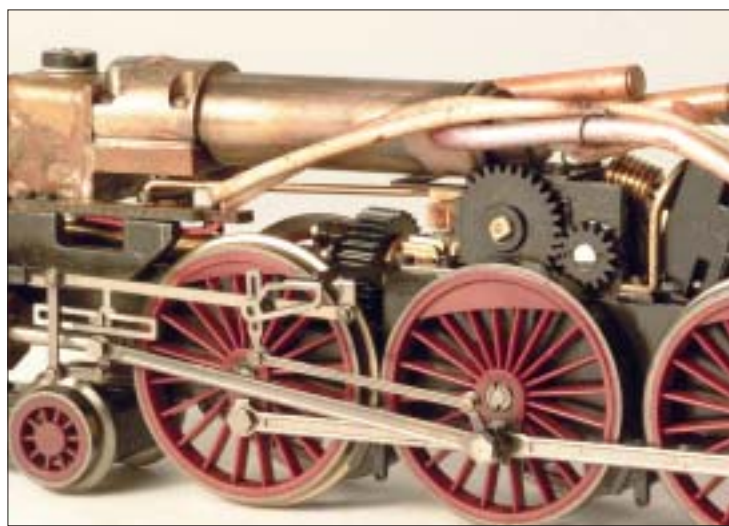


soon accumulate around conventional rail joiners and cause voltage drop.

One load of water enabled the loco to work for about twenty-five minutes, but this will vary according to how it is used. It worked very efficiently and hauled a rake of ten coaches without any sign of fatigue.

If the whole water load is used, the current is disconnected and an alarm sounds. Make sure at the next steaming that the red and green cab lights are displayed correctly; our staff owner found on his loco that it was necessary to move the regulator to the forward position until the steam valve closed.

Track cleanliness is important both for electrical conductivity and wheel grip. The loco produces a small but pleasing amount of visible steam. A trace of oil was evident on the outside of the loco boiler during running which could get onto the track, so have a cloth handy. One unexpected result occurred when the smoke alarm in the room was activated; maybe some extra ventilation would be a good idea. A colder working environment should



produce more visible steam, but the instructions ask us specifically to use the train inside only. Although some might think it appealing to run it outside on a pleasant, bright frosty morning, this would contravene Hornby's wishes.

Parts of the steam plant get very hot so it is essential to use the gloves.

In use, the 17volt live steam system and ordinary 12volt DC systems do not mix on the same track. Owing to the nature of the electrical demands of both, they are not compatible, but no doubt an interesting layout could be created to accommodate both systems. This was exemplified when our staff member experienced arcing through some live frog points which resulted in some melted sleeper bases. Make sure all the track connectors are making perfect contact. In addition, it is a good idea to insulate all round any pointwork and crossings, as the fine wiring underneath the frog cannot handle the amperage involved.

The chassis appears to be little changed from the old (i.e. pre-'Super Detail') A4, complete with flangeless centre coupled wheels. Nevertheless the loco traverses code 75 track and pointwork with ease. The rear coupled wheels have two traction tyres.

Just as with the real thing, maintenance is essential and full guidance is given towards the back of the instruction book. This will, of course, ensure a long and trouble-free life for the loco and is something of a pleasure in itself. This should make the Troubleshooting section of the Instruction Manual one to which you refer rarely.

For an investment of £500, this live-steam product from Hornby provides serious fun; these last two words are carefully chosen. It must be taken seriously owing to the fact that steam is used; it is therefore **not suitable for children**. The adult user will have great fun learning to operate and maintain the loco. How well it can be incorporated into an existing layout is a matter for the owner to decide. Some might regard 00 steam as a gimmick or a product that for some reason is an unsuitable item for the seriously dedicated modeller; that would be a pity. Some of the high quality fine body detail that we have now come to expect from Hornby's non-steam products is not present, but there is a great deal to compensate for this. So why not just have some fun?

It really is 'a remarkable miniature engineering achievement', so build an independent track circuit and enjoy Hornby's live-steam offering.

For 00

SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICE
ref.R1041, £500.00
Other prices in text.

WHEEL DATA
B. 0.8mm, C. 0.7mm, D. 2.5mm,
E. 14.5mm.

'Westerns' and Class 25s in N from Graham Farish



Of all the revamped and reintroduced Graham Farish diesels now in the Bachmann stable, the ones this writer has been waiting for most are the Class 52 'Westerns'. Well, that wait is over, as to hand are D1023 *Western Fusilier* in maroon (ref.371-400), and D1030 *Western Musketeer* in blue (ref.371-401). The former is of course modelled on the 'Western' in the National Collection, whilst the latter carries the so-called 'chromatic blue' livery, lighter in shade than Rail Blue and dating from 1966-1971.

'Westerns' show off the wheel profile of a model like few other diesels (only 'Warships' top them), as four of the six are exposed all round. The new Bachmann wheels look especially good on these locomotives, and they even boast representations of the 'hub-cap' axle end covers. Performance from the new mechanism is as good as the rest; all axles are driven and all collect current. Eight coaches were handled with ease by both classes, and operation across a dead-frog diamond was very smooth. D1030 was a touch noisy, but should quieten with use.

Painting and finishing are excellent, with silvered window surrounds, neat printing (even to the steam-type shed-plates, 81A Old Oak Common on D1030, 86A Newport Ebbw Junction

on D1023) and handrails and marker lights picked out in appropriate colours. Fittingly, headcodes are all for Class 1 trains: two Up, one Down, one to the London Midland.

Also received recently are a couple of Class 25s, in two-tone green as D5237 (ref.371-075) and weathered

Rail Blue as D7667 (ref.371-076). These too have been finished very attractively, and a few strips of microstrip to represent the cab quarterlights are about all that we would want to add. The blue 25 features the tiny 'M' of the early 1970s era, i.e. Region responsible for works attention.



The standard N gauge couplers are fitted, and those wishing to reunite the lower part of the air dam on the 'Westerns' with the superstructure will need to do some careful cutting to avoid getting material in the gear train.

Recommended all round for the diesel fan, and especially for the early 1970s WR modeller, as 25s and 52s ran side-by-side, the former having replaced the North British Class 22 diesel hydraulics.

(As an aside, the green 25's catalogue reference is listed in the Bachmann price list as being that of celebrity *Tamworth Castle* in blue, but the item numbers given here are those quoted on the packaging.)

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES
'Westerns' £73.95ea
green 25 £62.95
blue 25 £66.10

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.

Bachrus, Inc. rolling road

Sunningwell Command Controls announce that it has recently become dealers for Bachrus, Inc., which manufactures rolling roads suitable for 16.5mm and smaller gauges.

The idea of a rolling road is that a locomotive can be tested under power, actually running on and collecting current through its wheels rather than lying upturned on its back with wires attached, while remaining in one place so that the mechanical performance can be examined easily. It also allows those without a continuous circuit to run in a loco.

The Bachrus system involves two elements: the 'saddles' are the roller bearing-fitted units, while the 'stirrups' are auxiliary supports for pony trucks, bogies, tenders, etc.

Three sizes are available: the 30 series, for 16.5mm; the 40 series, which can be adjusted for gauges from 6mm to 11mm; and the 40z series, of fixed 6.5mm gauge. We illustrate the variable gauge 40 series.

The metal bearing blocks of the 'saddle' can be adjusted for gauge by sliding them along an insulated spacer or spreader bar, and are locked in position by a set screw; the necessary Allen key is supplied with the base set.

The spacers have two horizontal



ports, one at one end and one between the bearing blocks; 1/16" outside diameter tube (not supplied) is to be threaded through these ports to keep the saddles in horizontal and vertical alignment, matching the desired wheelbase.

The blocks are intended to sit on a piece of track, from which they transmit current to the loco wheels, thereby genuinely testing wheel/rail contact and the pickups. To facilitate this, the blocks have a flange on their inner ends designed to engage with the rail.

The base kit consists of four 'sad-

dles', and the add-on pack of two further 'saddles'.

The 'stirrups' pack includes five units – two short (10.5mm wide, for a single axle), two medium (24mm, for a two-axle bogie), and one long (113.5mm, for a tender). These are essentially the bearing blocks without the rollers, and can be adjusted on the spreaders – and have the spreaders positioned along the tubes – just like the saddles.

Overall, an ingenious and versatile design. All the components are beautifully engineered, and clearly of high



quality. If cleaned, maintained, and stored as recommended they should perform well and last for years.

For various gauges

IMPORTED BY
Sunningwell Command Control Ltd.,
P.O.Box 381, Abingdon, Oxfordshire,
OX13 6BY.

PRICES
Small 40B or Bz base £49.00
Small 40A or Az add-on £25.50
Small 40S stirrups £28.50

Latest BR-liveried versions of Hornby 8Fs in 00

The 2004-vintage 'Super Detail' 8Fs are now to hand from Hornby. They represent two of Stanier's heavy freight 2-8-0s in British Railways condition, namely No.48119 in weathered finish and early BR crest (ref.R2395) and No.48773, pristine and with late crest (ref.R2393). This latter machine is a 'war baby' – North British 1940 – and now preserved on the Severn Valley after a long and eventful career. Note the cabside embellishments: the diagonal yellow stripe denotes the machine's prohibition from energised overhead live wires on the West Coast Main Line, and the yellow star was applied to several 8Fs that had had adjustments made to their balancing to permit 50mph running.



In other respects the models are of uniform high quality with earlier examples. Fit the tender rigging supplied in the packaging, front steps if curves allow and you're away, perhaps with a railtour in the case of No.48773.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICES
both types £85.00ea

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

LNWR-style signal box and huts from Metcalfe Models

New to the Metcalfe Models range of pre-cut card kits in 4mm scale is this signal box and huts pack (ref.PO233).

The box is patterned on a London & North Western design, an instant 'spotting feature' being the panelled brickwork around the locking room. Sensibly, much leeway has been built in (the green 'woodwork' for example), to allow the model to look in place on other company lines. Notably for a Metcalfe kit, the stairs and finials are moulded in self-coloured plastic, although some flash and production imperfections needed cleaning away on our sample.

Otherwise, construction is as enjoyable as any Metcalfe kit, being simply the pleasant assembly of boxes, following the clear and well-ordered instructions. Bargeboards are laminated from several strips of card – the only slightly fiddly aspect of the building process – and this builder's self-rolled paper chimney looks a bit too much like a gas pipe...

Footprint of this attractive model is c.155mm long over stairs, 50mm wide and 103mm high over finials. There's much the builder can do to detail the structure, such as edging in the exposed areas of white card, fitting out



the interior, and perhaps adding a plankway across the gap for the point rodding and signal wires at the base of the building's front wall.

Included with the box are two huts: a platelayer's (c.75mm x 35mm x 65mm high over chimney pot) and one for lamps (c.27mm square x 33mm

tall). The former boasts an ingenious wraparound construction, and the latter is best assembled with its roof pre-shaped around a suitable former, such as a broomstick.

Metcalfe kits are distributed to the trade via the Pritchard Patent Product Co., Beer, Seaton, Devon EX12 3NA.

For 4mm scale

MANUFACTURED BY
Metcalfe Models & Toys, Bell Busk,
Skipton, N. Yorks. BD23 4DU.

PRICE
£7.50

CIE Deutz in 4mm scale from Worsley Works

Worsley Works has recently added a kit for the CIE Class 611 Deutz 0-4-0 130hp diesel shunter to its range of 'scratch aid' etched brass body kits in 4mm scale. This is a little different from the usual narrow gauge offerings, even if it looks rather like a narrow gauge engine on a broad gauge chassis!

As usual, the parts are very neatly etched, with accurate detail and construction lines on both sides of the metal. There are half-etched guide lines on many components to aid assembly, and the cab and bonnet are single piece etches, with half-etched relief lines to aid forming the curved corners.

It has not been possible to recreate the complex shape of the front of the bonnet from flat etches. The top curved areas will need to be slit and/or



cut away to allow the taper sections and the front to be shaped. A former is supplied for the top outline of bonnet front, in plan; this would have been even more useful if it had a section which folded up at right angles at its back edge with a profile to define the curve of the front of the bonnet top.

The instructions recommend building up the top front of the bonnet with layers of plasticard and filing to match.

The grilles etched into the sides and front of the bonnet are beautifully fine, but fragile.

The engine room doors are built up with separate frames and 'pressed' panels.

The rear buffer beam and main frames foul the locating slots for the tabs on the bottom of the cab – these should be filed back to ensure the cab is seated properly.

Do not forget to solder chassis retaining nuts in place on top of the footplate before the cab and bonnet are attached permanently.

The builder needs to supply axleboxes, buffers, and any other 'solid' fittings, plus brass wire for the handrails,

though locating holes are ready etched and in most cases only need clearing out.

A separate nickel-silver etch is provided to form the chassis and motor mount for a working 21mm gauge model; plastic gears are included but the builder must provide motor and wheels.

For 4mm scale broad gauge

MANUFACTURED BY
Allen Doherty, Worsley Works,
19 Douglas Road, Worsley, M28 2SR.

PRICE
£30.00
Please add £1.00 per order for
postage & packing, and make
cheques payable to 'A.Doherty'.

34051 and another 'spam can' in 00 from Hornby...



The two latest unrebuilt Bulleid Light Pacifics are to hand, representing 34051 *Winston Churchill* (ref.R2385) and 34083 *605 Squadron* (ref.R 2388): the former is in late BR livery – note the cut-down tender sides – whilst the latter carries the early emblem.

34051 is another in the Hornby series that replicates items in the National Collection, and thus sports the special commemorative packaging. Both have been finished expertly,

and the printing of the Churchill family crest and the squadron badge is very good (legibly, 605 squadron is the County of Warwick detachment, Royal Auxiliary Air Force).

Mechanically the models are fully up to the standards of previous versions. On the test track the five-pole motor performed well and was able to pull at all speeds with ease. A little extra weight in the locos might have prevented the slight wheel spin that was

evident when hauling ten coaches around some tight curves, but this slippage could be regarded as a realistic characteristic, for instance, when pulling away. Make sure the wheels and track are clean for best results.

Each detail pack contains a front coupling, vacuum pipe, front steps, brake rod detail, fireman and driver, fireman's tools, lamps and white discs: the instructions give clear placement details, and sample route codes.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate, Kent CT9 4JX

PRICES
both types £95.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

...and 34051 and another 'spam can' in N from Graham Farish



N gauge fans will be pleased to see these Battle of Britain and West Country class locos reappearing. Latest identities are 34051 *Winston Churchill* in early BR guise (ref.372-277), and 21C101 *Exeter* – doyen of the 'West Country' fleet – in Southern green (ref.372-275).

Always well presented in clear plastic boxes with foam protection, these models are accompanied by the Bachmann guarantee and advice on maintenance; this is certainly worth

reading especially if you are new to the hobby. The details of the Collectors Club might also interest you.

Bearing in mind the potential limitations of the scale, the overall representation and detail work are good with clear printing that stands up to close inspection. The colours are fine and the names and emblems on both locos are strong and clear.

The motion is a good depiction of the real thing, but the front bogie wheels are somewhat small.

Both locomotives trail original-style tenders, with full height sides.

On the track, both engines performed well, but the operator must make sure that the track and wheels are absolutely clean; they seemed susceptible to even the smallest contamination, particularly over crossings and turnouts where current collection could be patchy. Slow running was impressive and there was plenty of lively performance available.

Two musts for the SR modeller.

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe PLC, Moat Way, Barwell, Leicestershire LE9 8EY.

PRICES
both types £83.95

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.

Special run private owners in 00



All the profits will be used towards volunteer projects on Peak Rail. The price is £7.50 (p+p £1.50) or £14.00 (p+p £2.50) for both wagons. They are also available from the Peak Rail Shop at Matlock.

Peak Rail Stock Fund, 13 Trenchard Drive, Buxton, Derbys. SK17 9JY.

The **Peak Rail Stock Fund** is a small independent fundraising group which acts in support of the Peak Railway project. It has raised money towards the purchase and transport of rails, sleepers and rolling stock, especially in connection with the development of the Rowsley site.

The group has commissioned a limited edition of 500 seven-plank side and end door coal wagons from Dapol, the second in the series. It is a wagon in the livery of Frank Lomas of Bakewell. The first wagon, Tom Wright of Darley Dale, was seen in our March issue.



Ballards of Tunbridge Wells has commissioned from Dapol a version of the seven-plank wagons used by London coal merchant Wallace Spiers, but advertising Crystalate billiard balls.

The link to Ballards' home turf – the



theme behind its wagon commissions – is that there was a factory outside Tonbridge, where the Endolithic Company made records and snowscene paperweights. A photo of the wagon shows Spiers' address on the end door, but this has not made it to the model. The wagon is priced £8.00 (P&P £1.00).

Ballards, 54 Grosvenor Road, Tunbridge Wells, Kent TN1 2AS.

TOYS2SAVE Collectables has commissioned two wagons: from Bachmann a 1-plank lowside to contin-

ue its Garstang & Knott End theme, which we understand has proved popular with the first two wagons (see RM April and August 03). There are 504 wagons in the run, price £6.00.

On the other side of the Wyre, 250 Dapol salt wagons have been produced in the livery of ICI Fleetwood salt. The tiny 'empty to' lettering has been reproduced legibly – well done. Price £7.50; postage on any consignment is 50p.

TOYS2SAVE Collectables, Marsh Mill, Craft Village, Thornton-Cleveleys, Blackpool, Lancs. FY5 4JZ.

Latest A4 and V2 in 00 from Bachmann

Three new releases from Bachmann are sure to delight the LNER and Eastern region modeller. Two are of preserved machines, so there's ample excuse to run them further afield.

Firstly there is A4 No.4468 *Mallard* (ref.31-952), in garter blue and with valances present. Although it is seen in the Bachmann catalogue minus its world speed record plaques, they are clearly present here. Painting and finishing are neat and crisp, and the lining around the curvature at the front end (always a bit tricky to achieve) is good on our sample. Secondly single-chimney V2 No.60834 has received



the weathered look, and trails a group Standard tender (ref.31-562).

Mechanically the models match their predecessors, which means good

performance even at low speeds with ten on, but at the expense of tenders just along for the ride. No sockets for digital command control decoders are

provided either. Brake rigging, brake pipe standards and crew figures are provided, as are mouldings for the cab 'bucket' seats, so beloved of Southern crews during the brief time that V2s were found there, during the Bulleid Pacifics' hiatus.

*SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.*

*PRICES
A4 £88.95, V2 £79.95*

*WHEEL DATA
B. 0.6mm, C. 0.5mm, D. 2mm,
E. 14.4mm.*



New transfer sheets for 4mm scale containers from C-Rail



Arran Aird of C-Rail Intermodal has been busy adding further transfer sheets to his range of 4mm and 2mm scale container-related items.

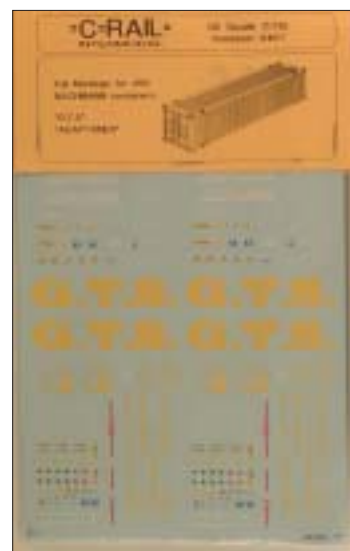
The latest sheets, as before produced by noted US waterslide transfer manufacturer Microscale, are for Bachmann 'boxes: for the 45' type there are sheets available (£4.95ea) for Malcolm Logistics Services, GTS and Adaptainer; and for 20' and 40' vari-

eties the MSC company (£3.95, not illustrated). Each sheet has been produced very neatly.

For 4mm scale

*AVAILABLE FROM
C-Rail Intermodal, Morven, Roome
Bay Avenue, Crail, Fife KY10 3TR.*

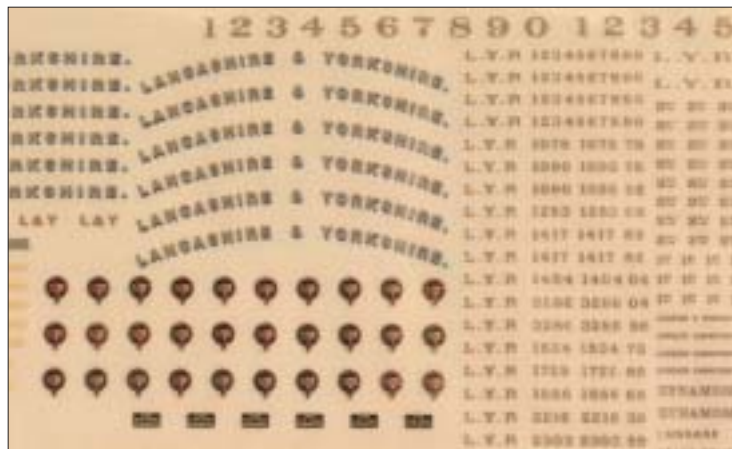
PRICES in text



Limited run 'Lanky' transfers for 4mm and 7mm scales

The Historical Model Railway Society has added Sheet No.19 to its range of Pressfix and Methfix transfers. It contains sufficient Lancashire & Yorkshire lettering, crests and numbers for at least five locomotives, a similar number of carriages, NPCs and some 'break' - sic - vans and other freight vehicles, plus depot names etc along with full details for correct application. The sheet has been produced in co-operation with the Lancashire & Yorkshire Railway Society.

We illustrate just part of the sheet, which is limited to only 750 in 4mm scale (made up of 500 Pressfix type and 250 Methfix), and 250 in 7mm scale (of which 175 are Pressfix, the remainder Methfix).



The sheet has been printed excellently, with good rich colours and gold effect. Indeed, the HMRS considers this sheet to be of higher quality than others, hence the rise in the prices.

Numbers have been grouped sensibly to suit available kits - a boon, especially in the smaller scale.

A must-have for pre-groupers.

For 4mm and 7mm scales

*AVAILABLE FROM
HMRS Transfers, 8 Gilpin Green,
Harpenden, Herts. AL5 5NR.*

*PRICES
4mm: £7.50 + 60p P&P
7mm: £20.00 + £1.00 P&P.*

Book Reviews

Swindon to Newport

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.

240mm x 170mm 120 plates
Hardback £14.95
ISBN1 904474 30 6

This standard Middleton route monograph deals with the line which is well-known, above all else, for its inclusion of the Severn tunnel. Naturally several pages are devoted to this engineering masterpiece, including rarely seen pictures of the steam pumps (electric since 1961) and boilers which work constantly to keep the tunnel dry. An interesting section is devoted to the Severn tunnel car-carrying service, a boon to motorists in the days before the Severn road bridge. For readers like your reviewer who 'collect' glimpses of Henry Casserley's Hillman Minx JY4711, this book includes three shots of it.

As usual, the photographic selection is excellent, covering a wide time span ('Bulldogs' to HSTs), and there are OS map fragments giving a good idea of the trackplans of stations on the route ranging in size and scope from Undy Halt to Severn Tunnel Junction.

Class 50s in operation

David N. Clough
Ian Allan, Hersham, Surrey
KT12 4RG.

260mm x 205mm 160pp
Hardback £19.99
ISBN 0 7110 2971 7

This is a warts-and-all overview of the last express passenger locomotives built for British Rail, the English Electric Class 50s. 'Express passenger' was naturally their main use, but the London Midland used them as mixed-traffic machines far more than the Western, the locomotives' second home, ever did.

Mr Clough is a noted authority on the Class, being involved as an enthusiast, photographer and preservationist for many years. He gives an unromantic account of the often troubled class, its availability and expensive refurbishment programme, designed to cure several persistent problems. The text is sufficiently non-technical to enable those less well versed in engineering to follow the story, and includes full biographies of each class member from start to finish. Several 50s survive in full working order, whilst others survive...

10 broadly similar machines were built for the Portuguese Railways, the 1800 Class, and a chapter covers these in similarly good detail.

The author set himself a target to include at least one photograph of each 50: he has succeeded, though some appear only once (and of these, D401 only very fleetingly – a surprise). Photographs are well reproduced and printed, but the only pity is the paucity



of colour: the dust jacket and endpapers, but nowhere else, even when colour originals have been used. Some odd choices of photographs have been made, one for example to illustrate diverted 50s in the Southampton area, and a view in the 1800 chapter is clearly of the Sorefame/Alstom 1900 Class Co-Cos.

This aside, the book is recommended to all who remember these throaty locomotives at work, either in pairs on the West Coast; climbing the Glyn Valley with the *Cornish Riviera*; or frightening commuters in the London suburbs. (I know – I was that basher...)

Glyn Valley Tramway Goods

Bernard Rockett
Theodore Press,
Orchard House, Manor Farm
Lane, Oldbury, Bridgnorth,
Shropshire, WV16 5HG.

210mm x 150mm 48pp
Softback £7.95 + £1.45p&p
ISBN 0-9523223-1-5

Having produced an excellent work of reference on Glyn Valley Tramway coaches, which included drawings to 7mm scale, it is only logical that the author and publisher should turn their attention to providing a guide to the goods stock.

Horses provided the motive power for some twenty years, so the wagons only had to be lightly constructed to carry modest loads. When steam power was adopted, larger, heavier, more robust stock had to be acquired, though for economy some of the earlier vehicles were adapted.

After a short historical introduction, the book describes in detail all the freight stock – mineral wagons, slate trucks, covered vans, bolster wagons, and special vehicles like the horse dandy and the tar tanks – which ran on the GVT from the 1870s to the last days of goods traffic in 1934, in both the horse-drawn and steam eras, with private owner wagons included as well as company vehicles. The origin and history of each type is followed from manufacture through the years of service.

There are forty major drawings, plus more than forty-five detail diagrams at a larger size, showing details of certain constructional elements – running gear, brakes, couplings, hinges, and strapping, plus coverage of the lettering styles. The line work is consistently clear and accurate, with shades of grey used to differentiate significant features.

Whenever considered conjecture has been employed to create a con-

Above: 50 044 Exeter in the erstwhile stabling area at Waterloo prior to working west c.1983. As an aside, what happened to all the BRUTES?

Photograph: Tim Rayner.

vincing representation, this is stated – a commendable and responsible historical approach.

Wagon numbering and typical train formations are also discussed, and ten clearly reproduced black & white photos (one on the cover) complete the picture.

A list of published references is given, plus sources for 7mm scale models and materials.

Potential modellers should find in these pages the information required to accurately recreate GVT wagons.

One assertion caused us to ponder: the livery of the vans is said to have matched the coaches, described as medium or 'holly' green, which is said here (though not in the coach book) to be probably similar to LNER apple green – but surely holly would be a rather darker shade? Old photos as published do seem to show a range of colour, originally quite dark and later much lighter on some vehicles, though this is most likely due to the effects of weathering.

As with the work on coaches, there is also a version for those modelling in 16mm scale, but this time it has been published alongside the 7mm edition. (ISBN 0-9523223-2-3, 40pp, £11.95 + £1.75 p&p). To accommodate the larger drawings in 16mm scale it is A4 and landscape format, but otherwise the text is practically identical, except that the arrangement of the larger drawings on the page dictates a different layout.

The modelling sources and materials quoted are specific to 16mm scale, and the chronology of which types of wagon were in use when is presented in tabular form. There are no prototype photos in this version: the only two photos (black & white) are on the front cover, and show 16mm models.

As if the 7mm and 16mm publications were not sufficient, there is also a version for G scale (defined for this book as 1:22.5, or 13.5mm to the foot) (ISBN 0-9523223-7-4, 32pp, £7.45 + £1.65 p&p). It is also presented in A4 landscape format, but uses a plastic comb binding, which lays conveniently flat. There are no photos at all, and the work is printed on matt paper, though this does not affect the sharp reproduction of the drawings. It is simply intended to offer the drawings at the right size for the convenience of those working in this scale.

There is no list of modelling sources, as nothing is offered commercially.

Private Owner Wagons

a second collection

Keith Turton
Black Dwarf Lightmoor, 120
Farmers Close, Witney,
Oxfordshire OX28 1NR
215mm x 275mm 128pp
Hardback £14.99
ISBN 1 899889 14 0

The first collection has been a notable success (see RM December 2003). This second in the series continues the theme. The majority of this book shows coal wagons in their many guises and, in itself, is a mine of information for both researcher and modeller.

Chemical tankers, salt and brick wagons feature too, and the constructional and exterior marking details are well presented from information gained from authoritative sources.

Over 140 black and white illustrations depict the corporate identities of dozens of the greater and lesser private owners, particularly in the coal mining industry of the twentieth century. Captions, some lengthy, accompany each shot and clearly contain all the available relevant material. Descriptive text introduces each colliery or other wagon-owning company and gives a basic background to the company and the reasons for the importance of having the wagons.

All sorts of statistics about tonnage dues, purchase prices, annual mine outputs *et al* create a full and fascinating backdrop to how the wagon industry was managed and served its customers.

As a rolling advertisement too, the wagons were important to their owners. A long line of identically lettered wagons makes an impressive sight and leaves no doubt about the status of the wagons' owner. Much care was taken to impress and, for instance, the fashion of black shading behind white lettering created a great impact. Many paint combinations distinguished the companies. For the modeller, this information is invaluable, particularly if creating bespoke stock. Information is included for each owner company stating if a model is obtainable and who produces it. If there is a specific private owner company that interests you, this could save time.

All the photographs are reproduced at a good size, but their quality sometimes indicates their age; they are included for content and historical reasons. Intelligent comparisons are made between apparently similar wagons and the finer points are drawn to the notice of the reader.

The book continues throughout in a similar vein, but towards the end there is a very informative section about being at the colliery and coalyard. Wagon repairs are then featured as is the Metropolitan Railway and its stock.

Those who have the first in this series of books will appreciate the Errata section that refers to that previous book. The reasons for its inclusion are openly described.

A book like this relies on reference sources; a substantial acknowledgements section complements the bibliography as a source of research fodder. Further books are planned.

Railways in Retrospect 2 Highland in LMS days

David Jenkinson
Pendragon Partnership,
P.O. Box No.3, Easingwold,
York YO61 3YS
215mm x 275mm 88pp
Softback £15.00
ISBN 1 899816 12 7

This, the second in the new series of *Railways in Retrospect* books from the Pendragon Partnership, was one of the last works to be published by David Jenkinson before his death.

The writing style of this book is very different from the first in the series although the format of photographs, extended captions and text remains to be the emerging signature of the series. A more formal approach to the text adds a more definite feeling of structure, with incidental references to other parts of the book clearly pre-planned. The fluency lends authority and a continuity that is reflected in the dignified way the Highland Railway's identity survived the LMS period. The book concentrates on showing how the LMS set to work maintaining its existence.

Chapter one 'The LMS Inheritance' gives us a concise reason why the Highland was looked after. The history of the Highland is not regurgitated in this modest-sized publication, but plenty of useful references are provided in the bibliography.

The reasons for the railway's existence are further supported by the technical improvements in loco performance, the considerations necessary for economic civil engineering and the demands and challenges put forth by the geography of the region. Chapter two looks from all angles at the feasibility aspects of routing and construction as well as drawing our attention to the individuality of architecture.

The rolling stock and the purposes for which it was used are laid before us together with tables and descriptions selectively outlining the passenger services during 1929 and 1936. Highly detailed photographs of engines and carriages provide excellent modeller's fodder. This, sensibly, leads the reader to the Highland branch lines; the local politics and the balanced social approach, necessary both to provide

appropriate services and to ensure the best use of the facilities, are presented in a clear manner that reflects the changing circumstances of a developing region.

The cover has a digital colour conversion on the front to continue the idea started on book one of the series. The back cover has a clear and very useful map of the area to which the reader will refer on many occasions.

This is a well-balanced account of the Highland Railway that more than matches the first in the new series.

London, Brighton & South Coast Miscellany

Kevin Robertson
Oxford Publishing Co.,
Hersham, Surrey KT12 4RG
280mm x 210mm 128pp
Hardback 19.99
ISBN 0 86093 583 3

The author has assembled a splendid selection of LB&SCR photographs, virtually all dating from the 'genuine' pre-Group era. He starts with a readable introduction and a selection of early views including a few Craven engines and a scene showing Brighton running shed in 1859. Thereafter, apart from the locomotive classes, both tank and tender, the subjects include stations (naturally with special attention to Victoria, London Bridge and Brighton), rolling stock, loco sheds, signalling, electrification, accidents, steamers and staff.

The photographs are well reproduced and the captions are adequate. A section is devoted to photographs of Brighton shed and works by W.G. Tilling which show clearly the extent of the engineering infrastructure needed by even a relatively small railway company.

Images of the far-sighted AC electrification of 1909 are not forgotten, and two of the Company's steamships (*Arundel* and *Normandy*) are also illustrated.

Mr Robertson has created a pleasing tribute to a railway company which could display great variety in all its ways and works, from the South London suburbs to the South Downs, from Balham to Brighton and from tiny 'Terriers' to beefy Baltics.

London & North Western Railway Company Houses

R.W. Miller
The London & North Western
Railway Society, 15 Park Road,
Loughborough, Leicestershire
LE11 2ED.
295mm x 205mm 64pp
Softback £7.95 post free.
ISBN 0 9546951 0 0

This is No.16 of the Society's 'Portfolios' dealing with some aspect of the Railway. Its subjects are the thousands of properties built by the LNWR to accommodate various grades of employee.

The book is well illustrated with both photographs of the many surviving houses and elevations, floor plans etc.

It will come as no surprise to readers to learn that F.W. Webb, the Company's CME from 1871 to 1904, took a keen interest in the design of the dwellings so that nearly everything in their construction except the slates and cement came from Crewe. The bricks, woodwork, doors, windows etc and all metal fittings for the Webb standard cottages were made to a uniform pattern in Crewe Works. With a large number of new timber signal boxes and stations being provided at this period, the joinery shops were well equipped for the mass production of all the woodwork required for the new dwellings. More than a thousand of these standard cottages seem to have been built, mostly by the Railway's own direct labour for between £175 and £200 each, not including the cost of the land.

The author includes a Gazetteer of over 330 places where some 2,000 LNWR houses of various types can still be seen, with an index by county so that a localized selection can be made quickly.

This is a well-organized and thoroughly researched account of an important social aspect of a large railway company.

On the Rails

Two Centuries of Railways 1804-2004

Anthony Burton
Aurum Press, 25 Bedford
Avenue, London WC1B 3AT
265x230mm 208pp
Hardback £20.00
ISBN 1 85410 981 2

There is a great deal in this book, but with two hundred years of history to recount, this is to be expected. Based on a Discovery Channel TV series *Mark Williams on the Rails* devised by Anthony Burton, this book is easily able to stand alone and it is not reliant upon seeing the programmes.

Richard Trevithick leads the way, of course, with his Penydarren locomotive and although the facts might be familiar, the presentation is enhanced

Left: best of Brighton in 7mm scale – 'Gladstone' No.184 Carew D. Gilbert poses for its portrait on the renowned layout by the late W.S. Norris.

Photograph courtesy Russell Studio.

by in-depth coverage of his professional relationship with his pioneering contemporaries who were vying for superiority as engineers and designers. A great sense of self-belief and pride on behalf of these original minds emerges and the reader is drawn into the struggles, triumphs and failures that accompanied the progress.

This essential foundation of the story establishes the basis from which the railways grew. As the first giant figures like Brunel and the volatile Stephenson father-and-son team were succeeded, their influence carried on to affect the construction of railways worldwide. The lavish illustrations of original and replica locomotives add tangibility to the history, whilst the text has a lively narrative style. The full-page shots and double-page spreads are carefully chosen and do justice to their subjects.

Considerable emphasis is placed upon civil engineering. The reader can marvel at the immense British viaducts, such as the forty-arch example at Welwyn and the huge achievements in America, Asia, Africa, India and the Continent building trestle bridges and boring long tunnels through mountains in an effort to make the tracks as gradient-free as possible.

Ingenuity is a word that comes to mind when examining the variety of locomotives and rolling stock that were purpose-made to deal with specific problems. For instance, to illustrate the collaboration between the railway and other modes of transport, special two-section canal boats were constructed to overcome the Alleghenies between Philadelphia and Pittsburgh where the canal did not run. These boats were split and mounted on purpose-built railway wagons which were hauled over the hills using a cable system and reconnected later on the next section of the canal. This was a demonstration of the broad approach to solving problems that existed even in the nineteenth century.

The methods used for tunnel construction are well detailed and the dangers accompanying the task are graphically documented. To enlighten us further, a chapter dealing with safety puts the bravery of the men and the methods used to improve safety into perspective.

The book is certainly not entirely about the early days and gives plenty of space to the achievements of the twentieth and twenty-first centuries. Speed, power and vast dimensions seem to go hand-in-hand with railways and chapters nine and ten entitled 'Speed and power' and 'Beyond the steam age' paint a spectacular but realistic view of the state of railways today. Hints of things to come provide tantalising reading and show how one small development can lead to a new avenue of progress such as the Maglev (magnetic levitation) system. All the time, references to history are made relevant to the present, encompassing commercial, social and political changes.

Anthony Burton's authoritative text, useful diagrams and stunning photographs also create a memorable backdrop for further reading to explore specific aspects of rail travel. There are no wasted words or superfluous pictures and the reader will be assured of a concise and illuminating history.



Hornby Gresleys in OO approaching



Shortly after we closed the June issue we received some views from Hornby of the near-completed Gresley 61'6" coaches, and very nice they look too.

Note on the brake vehicle the handrails and door handles standing proud of the bodywork, and the domed roofline. We await review samples with great interest!



Wisbech & Upwell for standard gauge G



Garden Railway Specialists has announced a Wisbech & Upwell Tramway coach kit for 63.5mm gauge (£149.50). These coaches ran with the Y6 tram locos on the tramway and this kit complements the Y6 tram loco kit, designed for electric propulsion, available from GRS (£215.00).

The body has resin parts for the main body structure whilst the bogies and small detail parts are cast in whitmetal. The balcony railings are brass wire with whitmetal castings.

37mm diameter Mansell wheels, sprung buffers, screw couplings and transfers are included.

Two new 20-ton brake vans have been introduced, a version for LMS and another for LNER/BR (£93.00). The scribed plastic bodies come with brass and whitmetal castings for rivet detail, strapping and hangers. The chassis is whitmetal with sprung buffers, and brass wire is included for the handrails. The roof is pre-shaped plastic. Wheelsets, 3-hole disc or 8-spoked (£8.95 for 2 axles) are available separately.

Garden Railway Specialists, Station Studio, 6 Summerhayes Road, Princes Risborough, Buckinghamshire HP27 9DT.

DCC weekend at Pecorama a hit

Aided by glorious weather on both days, the 'Digital – as easy as DCC' weekend at Pecorama on 22 and 23 May proved resoundingly popular with both enthusiasts and retail trade representatives who turned out in their hundreds.

The aim was to promote the concept and wider understanding of Digital Command Control systems and a small but lively exhibition was staged by several DCC manufacturers and suppliers in a marquee. The event also included several illustrated talks, presented in the purpose-built lecture theatre within the Millennium Gardens.

Within the exhibition, the major brands demonstrated were Lenz (represented by MacKay Models), Digitrax (represented by Sunningwell Command Controls), Fleischmann, ZTC, ESU (represented by South West Digital) and newcomers to digital Bachmann with its E-Z Command unit (mentioned briefly in the March issue).

Each stand included a demonstration layout powered by examples of the DCC equipment. This allowed visitors

to try out the systems first hand and seek answers to individual questions.

Generating particular interest was the latest ESU cordless handheld controller (June RM) on the South West Digital demonstration layout.

All the lectures proved popular and standing room only was often the case, with plenty of questions flowing from the audience.

In addition, Peter Martin exhibited his German HO layout *Bahnbetriebswerk Mayfeld* (CM June 2002) which uses DCC equipment from the specialist Austrian firm Zimo, and runs mainly sound-equipped locos. Fascinated visitors of all ages were invited to take the controls and find out for themselves how easy it is to 'drive'.

All the regular attractions at Pecorama – the model railway exhibition, model shop, Beer Heights Light Railway, extensive gardens, and restaurant – were also open, providing further enjoyment for visitors.

All in all, a wonderful weekend, which we hope to repeat on a similar basis in the future.

Electronix Connections AC/DC converter

Electronix Connections has just released a new AC/DC converter to convert 16v AC to 12v and 3v DC. 12v is suitable for grain of wheat or any 12v bulbs, whilst 3v is fine for any size LED.

The basic connections are made by a terminal block at one end and a pair of wires for the AC connection at the other. A green LED illuminates when the unit is on.

The unit with plug and socket has two connections for LEDs and two connections for 12v DC with common neu-

tral. A six-pin DIN plug and socket can be fitted at the customer's request.

Both units come with installation instructions and are ready to install.

The cost of the basic unit is £7.95 and the unit with plug and socket £9.50.

You can contact Electronix Connections via its website:

www.electronixconnections.co.uk
Electronix Connections, 33 St. Leonard's Road, Lowestoft, Suffolk NR33 0EL. Tel: 01502 511764.

SMEE engineering course news

The demand for places on the basic training course exceeded the expectations of the Society of Model & Experimental Engineers. The Society therefore decided to use the time allocated for the planned engine building course to run the basic course for a second time in 2004. This allows the students who enrolled to do both courses to do so, but still in chronological order.

The engine building course will be rescheduled for a later date; everyone affected has been contacted.

The basic course begins with issu-

ing course notes and discussing building and setting up a workshop, followed by a survey of model engineering subjects. After this, the lathe and its applications is the topic. Measuring and marking out is next with the emphasis on acquiring sufficient tools without excessive cost. Milling and milling machines then follows in a similar format to the lathe presentation. For more details, visit www.sm-ee.co.uk

The Society of Model and Experimental Engineers, Marshall House, 28 Wanless Road, London SE24 0HW.



SHOP NEWS

Crichel a prizewinner at 7mm NGA show

OPEN

Sheffield Transport Models

This year is a time of celebration for David Tummon because he has been in business for twenty years in an area well-served by model shops.

His backbone trade in Hornby, Bachmann, Peco and other leading brands is supported by die-cast models, slot cars and a fascinating range of transport books. David is also very happy to deal with special orders for modelling items that may not be commonly obtainable.

His specialised knowledge and friendly advice are always available whether you are a beginner or seasoned modeller.



Sheffield Transport Models, 206 London Road, Highfields, Sheffield, S. Yorks. S2 4LW. Tel: 0114 255 3010.

Transport Models, Southport

The premises formerly occupied by the business known as The Hobby Shop in Bold Street, Southport, have been acquired by Transport Models of Preston as part of its expansion programme.

The premises have been modernised and re-equipped, restocked with model railway products, both OO and N, associated buildings and scenery mate-

rials, plus slot car sets and track, plastic kits together with all ancillary finishing materials and diecast models.

The shop is open from 09:30-17:00 Monday to Saturday, with Sunday opening planned for later in the year.

Transport Models, 25 Bold Street, Southport PR9 0DB. Tel: 01704 532337.

Windmill Junction, Kettering

The first anniversary of a shop is always noteworthy, so proprietors Suzie and Jason Warner will be celebrating.

Windmill Junction is a model shop within a painting and decorating shop in Kettering, Northamptonshire. They specialise in OO scale, and carry all the best ranges of track and rolling stock, plus scenic materi-

als. The shop is open from 09:30-17:00 Monday to Saturday, with Sunday opening planned for later in the year.

Windmill Junction, 60 Windmill Avenue, Kettering, Northamptonshire NN16 0RB. Tel: 01536 522533.

als. The shop has grown, like so many, from a hobby. Jason, a soft-

ware engineer, who has always been involved in the hobby and Suzie, a marketing manager combined their knowledge and resources to form a thriving centre for model railways.

The website is: www.windmilljunction.co.uk and you can e-mail the shop at sales@windmilljunction.co.uk

Windmill Junction, 60 Windmill Avenue, Kettering, Northamptonshire NN16 0RB. Tel: 01536 522533.

A.P. Models, Newport (Salop)

This is a brand new shop! Angela Hill was fascinated when her partner Paul introduced her to model railways. He has a layout, in which their son is now interested, and then Paul took her to a swapmeet at Buxton; Angela was hooked.

Much of their stock is OO, but Angela has a strong interest in N gauge which will be developed as the business grows. Hornby, Bachmann and Peco inevitably feature significantly amongst their growing stock, but scenic material

is also gaining ground to complete the picture.

It is a small shop but with great promise; Angela says that six customers make something of a crowd, but they have ideas about expansion when the time is right.

You will get all the friendly advice you need, so visit the shop or give Angela a call.

A.P. Models, 4 Salter Court, 3 Lower Barr, Newport, Shropshire TF10 7BE. Tel: 01952 812153.

Forth Model Railways – correction

In last month's 'Shop news' the opening hours for Forth Model Railways at Cowdenbeath were inadvertently transposed. The

shop is open as follows: on Sundays 12.00-16.00; Mondays to Saturdays 10.00-17.00. Apologies for the inconvenience.



The 25th anniversary convention of the 7mm Narrow Gauge Association which took place on May 8 was a great success. Seventeen layouts and thirteen traders attended.

The Don Mason Shield for the best scratch-built locomotive was won by *Gowrie*, the Hunslet single Fairlie of the

North Wales Narrow Gauge Railway. The loco was built by Tony Bond.

The David Taylor Cup for the best layout in the show was won by Ray Wood's 0-16.5 layout *Crichel*, the first instalment of the feature on this layout was in the June issue.

Photograph: Len Weal, Peco Studio.

West Coast Kit Centre moves

The West Coast Kit Centre has moved from its Ivybridge location. From May 5 the new address is as shown.

West Coast Kit Centre, 40 Belair Road, Peverell, Plymouth, Devon PL2 3QH. Tel: 01752 786304.

Dapol wagon raises funds for school

A limited edition of a hundred Dapol wagons has been commissioned to raise funds for St. Matthews Primary School in north east Leeds.

The funds are needed to replace the windows at the school. The school's logo and the 'Tuck Shop Supplies' message are on the side of the salt wagons, each of which is sequentially numbered on its box.

Parents and friends of the school have already reserved several of the models, but the remainder are available with a minimum donation of £10.00 to the school.



Full details are obtainable from Rod Ash at the address below.

Rod Ash, 18 Whinbrook Grove, Leeds LS17 6AF. Tel: 0113 268 1321.

Titfield Thunderbolt 2004

On July 25 and 26, the Titfield Thunderbolt is staging Camrail 2004, an exhibition of high quality minor railways of Britain, in miniature.

The show, which is now in its eighth year, will be at St. Margaret's Hall in the centre of Bradford on Avon. There will be at least twelve layouts in addition to specialist trade support and modelling demonstrations.

Entrance is £2.50 for adults, but free for accompanied children and will include a replica souvenir railway ticket. Access is easy by car and bus; cyclists can follow the signs to the town centre from the towpath. There

are full disabled facilities now that the hall has been refurbished, although access to the stage is via a small staircase.

Last year, the show made a profit of £100.00 which was donated to the Railway Children Partnership and profits from this year's event will again go to this charity.

Contact Simon Castens on 01225 470079 or simon@titfield.co.uk, or at The Titfield Thunderbolt, The Old Railway Station, Limpley Stoke, Bath BA2 7JG. The latest information is available from www.titfield.co.uk. See *Societies and Clubs* for full details.

SLPTF seeks funds for Caley 0-6-0

The cost of restoring Caledonian 0-6-0 No.829, on the Strathspey Railway has taken a £42,000 hike. Following a detailed examination of the boiler, further defects have been discovered. It has been decided to purchase a new boiler barrel at a cost of £65,000. The increased cost is disappointing, but discussions are in progress with the

Heritage Lottery Fund who are supporting the overhaul.

The loco's owners, the Scottish Locomotive Preservation Trust Fund have opened an appeal to raise funds towards the increased cost. The fund is a registered charity and can be contacted at **29 Earlsparke Avenue, Glasgow G43 2HN.**

See *Corris* at the Tywyn show 2004



Tywyn & District MRC is holding an exhibition at Neuadd Pendre Tywyn on July 24 and 25.

Supported by the lottery funded grant programme Awards for All Wales, there will be the superb layout by Peter Kazer of *Corris* railway station as it was in about 1890 (photo Steve Flint; see RM May 1999).

The layout is very well known throughout the UK and has appeared at major exhibitions including the Warley National Model Railway Exhibition at the National Exhibition Centre in Birmingham.

The exhibition will have twelve layouts and some trade stands. See 'Societies & Clubs' for full details.

North Eastern Railway 150

The North Eastern Railway was formed on 31 July 1854 by the amalgamation of three companies, the York & North Midland, the York, Newcastle and Berwick and the Leeds Northern.

The event will be commemorated in the north east by railway-minded groups and the preserved railways. The North Eastern Railway Association has produced a replica of the zero milepost, containing constituent company names, which used to stand in York station. This will be reinstated and unveiled at a ceremony on 31 July.

The NER Association exists to con-

serve the history of the NER with talks, lectures, tours and books to help others who wish to learn more about the North Eastern, and Hull and Barnsley Railways. The interest continues through the LNER and BR periods to today's privatisation. NERA have a library of photographs and drawings, together with the material in the Ken Hoole Study Centre at the North Road Museum in Darlington.

If you would like to know more, visit the website www.ner.org.uk or contact the Membership Secretary, 8 Prunus Avenue, Willerby, Hull HU10 6PH.

News from ABS

Adrian Swain, the proprietor, announces that although he will no longer be supplying to model retailers, he will be offering a full mail order service from the address below.

For the current ABS catalogue, send five first class stamps to:

ABS Models, 36 Field Barn Drive, Weymouth, Dorset DT4 0ED. Tel: 01305 772687.

New charger

German electronics firm Compit has announced three new products: the FX200 CD newcomer kit which is a basic battery charger with four NiCd AAs, the FX200 MH NiMH-photo kit consisting of a basic charger plus four NiMH AAs in a blister packaging and there is the FX200 charger also in a blister packaging.

These are all well designed, high quality products. UK sales partner:

Haredata Standard Products Ltd., Hyde House, Victoria Avenue, Harrogate, North Yorkshire HG1 1DX. Tel: 01423 543000.



R.W.G. Bryant

We were sorry to learn, from the pages of *Mixed Traffic*, the 3mm Society Magazine, of the death of Ronald William Gower Bryant in Ottawa on 3 December 2003.

Born in Manchester in 1915, Ron Bryant was a graduate of Aberdeen University. He served in the Royal Artillery in the early part of the war, being transferred to Intelligence and retiring with the rank of major after several years in the Middle and Far East theatres. He was one of the pioneers and an early practitioner of railway modelling in the sub-4mm scales, namely 2mm and 3mm. His *Inversneaky & Drambuie* in 2mm scale was begun in 1946, achieved wide recognition, and featured as our Railway of the Month for February 1954. This beautifully constructed end-to-end layout based on Highland

Railway practice was built in a guitar case and two mandolin cases. The high level of detailing included point rodding and signal box interiors well before such things were commonly found in much larger scales.

He also embraced TT3 scale and, along with his cousin Mike Bryant, contributed many useful articles in the model railway press in the early years of the scale.

Ron was involved in the formation of the Montreal chapter of the British Railway Modellers of North America and his own TT3 scale *North Caledonian* layout filled a great part of his basement.

We are grateful to the editor of *Mixed Traffic* and his contributor Donald F. MacLean for the sad news of the passing of this pioneer of modern sub-miniature railway modelling.

Alfred H.G. Scott (Jim)

It is with regret that we mark the sudden death of Jim at the age of 83 years.

He was in Ilfracombe setting up his layout for the local club's 25th Anniversary exhibition on Good Friday afternoon when he collapsed. Despite great efforts by the paramedics and the intensive care unit at the hospital he passed away the next day, 10 April 2004. Members of Barnstaple 0 Gauge Group ran the layout for him.

Born in Wisbech, Cambridgeshire, where he worked as an engineer, he was in the Parachute Regiment during World War 2 and was at the Battle of Arnhem.

He also spent twenty years living in Australia. When he and his wife

returned to England they initially spent time in Wisbech before making their home in Barnstaple.

He joined Barnstaple 0 Gauge Group and Barnstaple Model Railway Club where he served as both Treasurer and Secretary for many years. He will be sadly missed.

Our condolences go to his wife Win and family.

Editor's note: We are obliged to Len Yeomans of Barnstaple for the foregoing obituary.

Below: a short goods 'gets the board' guarding West Bay station throat. The layout, by Jim Scott, featured as the Railway of the Month in July 1992.

Photograph: Len Weal, Peco Studio.

Coming next month



Out on Thursday 15 July

GREEN END

David Gander has produced a compact terminus in 4mm scale narrow gauge.

LOCO BUILDING ON THE CHEAP – 3

Ex-GER J15 and E4 in 00, modelled by K. Chadwick.

GREAT WESTERN MIGHT-HAVE-BEENS

Richard Bardsley has built some plausible locos in N.

VALE OF RHEIDOL 2-6-2T

Geoff Thompson reports on these splendid 16mm scale steamers from Roundhouse.



RAILWAY MODELLER

AUGUST 2004

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GREEN END – Essence of W&L Distilled in 4mm Scale
VoR LIVE STEAM – New 16mm Scale Model Reviewed
BITZA SULZER – Class 24 Diesel Conversion Project in 4mm
SCALE DRAWINGS – Atkinson-Walker Geared Locomotives



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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

August 2004 · Volume 55 · Number 646

Shows you how – every month

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COVER: with the new brake composite on the real W&L, this scene on Green End could be realised. Photo: Peco.
BELOW: Vale of Rheidol 2-6-2T No.9 Prince of Wales at Devil's Bridge on 12 May 1992. Photo: Frank Hornby.

RAILWAY MODELLER

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Back numbers information – see Classified advertisement under 'Trade Sales Books'.

CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.

The great outdoors

Traditionally, the August issue has the most 'outdoor' interest, although these days that is a bit of a misnomer as we have at least one garden railway feature every month. Nevertheless, the summer is (Great British Weather permitting!) the time to turn the planning and scheming into action. Although just like the 'real railway' a garden line can be operational all year round, and there is something to be said for steam in autumn or on a crisp winter's day, the summer is its 'high season'. It is the time for intensive running with visiting friends' locomotives, or perhaps just letting a train amble round the circuit on a warm evening, watching with glass in hand...

For the indoor railway modeller venturing outside tentatively for the first time, there is much to recommend the 'up on stilts' type of garden railway, whereby the line is nearer to or at eye level on posts. Scenery, even ballasting can be omitted (and often is), as the operator can 'tune out' such omissions when the railway is seen in concert with a natural background – a hedge, for example. Traditional 'indoor' baseboard techniques apply, of course, and the railway may even be made portable, to be stowed in the garage or shed come autumn.

For many, though, the elevated scene will not do: the railway must be embedded in the ground, for all the implications this entails with civil engineering (and on the knees!). The railway must, as with its full size counterpart, be surveyed for its best route – Mother Nature was there first in both cases, after all – to avoid expensive-to-work gradients or over-sharp curves. Ground level does not have to mean fixed in concrete for ever, with little margin for error: our reviews pages contain an evaluation of an intriguing support system that allows track lifting and repositioning – and no cement mixer hire!

Elsewhere in this magazine we have a 'road test' of the new Vale of Rheidol 2-6-2T from Roundhouse. Notwithstanding the relative merits of a 'generic' loco for the garden – one designed with 'full size' fingers in mind – there is something about a miniature version of a real locomotive that sets the mind wandering...

Someone who certainly will be doing more than planning is Roy Fitzsimmonds of Felixstowe, who is the lucky winner of our live steam competition. Mr Fitzsimmonds will be receiving his Cheddar Models prize very shortly, and we will have a report on the presentation in next month's issue. Well done!

Finally, if proof were needed that garden railways are enjoying great popularity these days, we were almost literally swamped by the entries to the competition – nearly 2000 in fact – and as far as we can tell all outdoor large scale railway modellers.

Whoops-a-Daisy...

An unfortunate glitch crept into the production process of last month's issue, which rendered the LNWR 42' coaches slightly shorter than they should have been, for which we apologise. (We noticed that part of the drawing had been scanned back-to-front too late as well...)

Readers wishing the correct complete works, to 7mm scale, can obtain a photocopy by sending an A4 SAE to the address alongside: should you wish an unfolded copy please send an A4-height tube and return postage.





Railway of the month

Green End

A minimum space layout in 4mm scale narrow gauge

David Gander *learned to stop worrying and love his layout.*

Green End, in its original form, was born out of frustration and failure. Frustration because my previous layout *Nantgwyn* (RM September 1989) was getting old, had attended something like seventy or eighty exhibitions both at home and abroad, and took up too much room to have set up permanently at home; and failure because I had spent several years planning a new layout and building stock, succeeding only in filling empty ice cream boxes with half built kits. I had so many false starts, putting the great day off 'until next weekend' that years passed and I lost hope of ever having another layout. My story of this period – *Procrastination and the Art of Model Railways* – will be available at a later date.

It was in Easter 1990 when I finally took the plunge and put pencil to graph paper. A swift evening's search revealed all the necessary equipment and materials. Timber was found in the garden shed, track was to hand, rakes of

Hornby wagons were bartered for Peco 009 points at my local model shop (a good use for old Hornby trainsets!) and 50p at IMREX that year bought me the rest of the bits I needed. Bored with the James Bond repeats on TV, I got down to layout building with a vengeance. It was only meant to be a simple test track but, being typically over ambitious, it eventually emerged as a fully fledged terminus station, complete with a totally impractical 8" traverser to swap trains about, all in a space of 3'6" by 10" – and designed to slot in over the top of my workbench.

I was happy, and by the time the holiday ended I had a working layout, bare of scenery but a good basis for the future. It was then that things started to go wrong. Not having thought too much about the context of the model or the proposed scenery, I struggled to put the station into its setting. How was I going to fit in my favoured stone and slate? Perhaps an industri-

al building would look good, or a thatched cottage? Perhaps I should think about this later and get on with ballasting the track. Disaster struck! Being a stubborn soul, I wanted to do it my way and try out some new techniques. Having read about the method of putting the ballast down dry and then soaking it with diluted glue, I only succeeded in floating the stuff down the river and off the baseboard, having it set in all the wrong places. Amid much wailing and gnashing of teeth, the board was consigned to the shed at the bottom of the garden where, incidentally, *Nantgwyn* still resides, waiting for the day when someone will excavate it for a heritage model railway exhibition!

Fast forward to Christmas 1993 and I had reached much the same state as before – bored and running out of space for all those ice cream boxes – when salvation came in the form of my old layout, retrieved and resurrect-

Left: about to pass the short water tower, Countess arrives at Green End with a short freight train, including a cattle wagon marshalled behind the locomotive.

Right: waiting for the train. The Welshpool influence on Green End is evident here with both the station building and the goods shed recognisable as those to be found at Llanfair Caereinion station. The brakevan was scratch-built by Stephen Sullivan and represents one of the later enclosed vehicles.

Photographs by Steve Flint, Peco Studio.

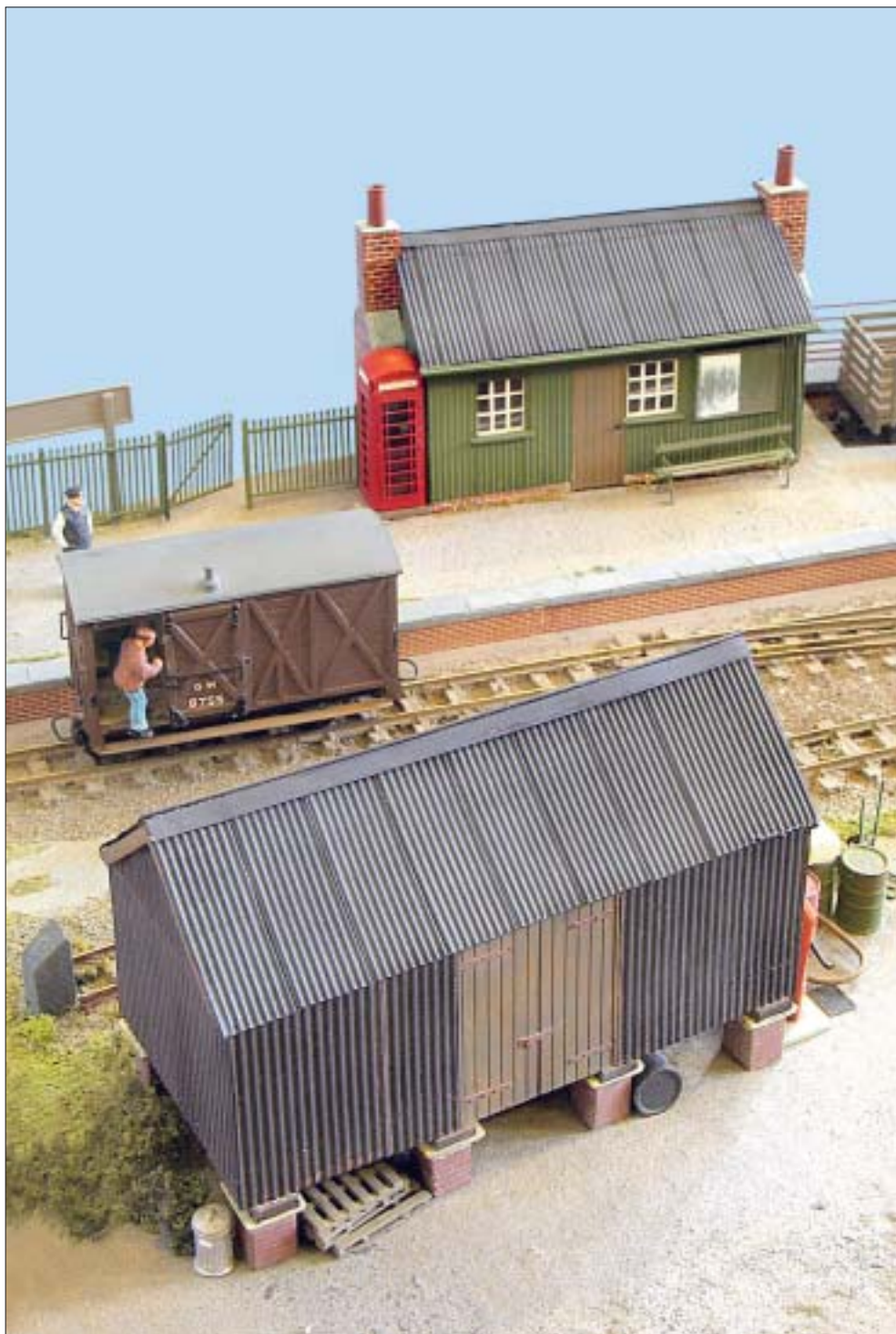
ed by my father, who had found the layout in the shed and thought that something was needed to keep me occupied. With the ballast scraped clean, the traverser removed and a second board added, it was looking more like a layout. What I was presented with was a layout some 7' long by 10" wide, with my original terminus now running out through countryside to a small fiddleyard at the opposite end. The layout looked fine sitting on top of some bookshelves at home and with some basic trees and structures made a good starting point from which to work.

There is a lot to be said for planning a layout careful before starting any work. The most convincing models are those where the railway sits in the countryside and not those where the countryside is fitted around the railway. Much has been written over the past few years on the subject of layout design, and it is good to see the subject moving to the forefront of model railways. Certainly a lot of it goes way over the top, but there is also a lot of common sense, resulting in some very fine layouts. Having said that, there is nothing new, for when you look back to those layouts – *Madder Valley, Craig & Mertonford*, even *Ynys Gwyntog* – which took 4mm scale modelling away from the designs of the tinsplate era, much of what we do today is rooted in the past.

Green End, as we have seen, followed none of this advice, having developed out of disaster. The layout works for me, however, because of a number of factors. By keeping the width of the layout down to 10", the eye exaggerates the length, giving a false impression of the overall size. By therefore restricting myself to only using small structures, this optical illusion can be maintained by ensuring that nothing dominates the scene.

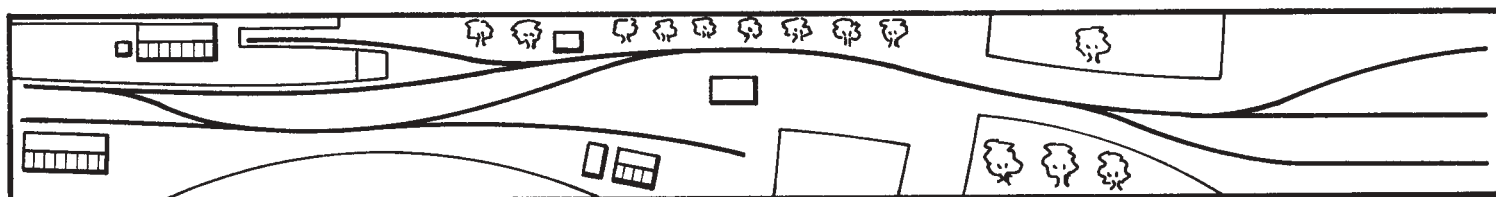
The lack of any form of backscene also ensures a more open appearance to the layout. I also tried to ensure that lengths of straight track were kept to a minimum, for curves are much more pleasing to the eye. Although there are of course areas where straight track is required, the use of curves allows the scenery to produce natural view blocks, leading the eye more easily from one part of the layout to another.

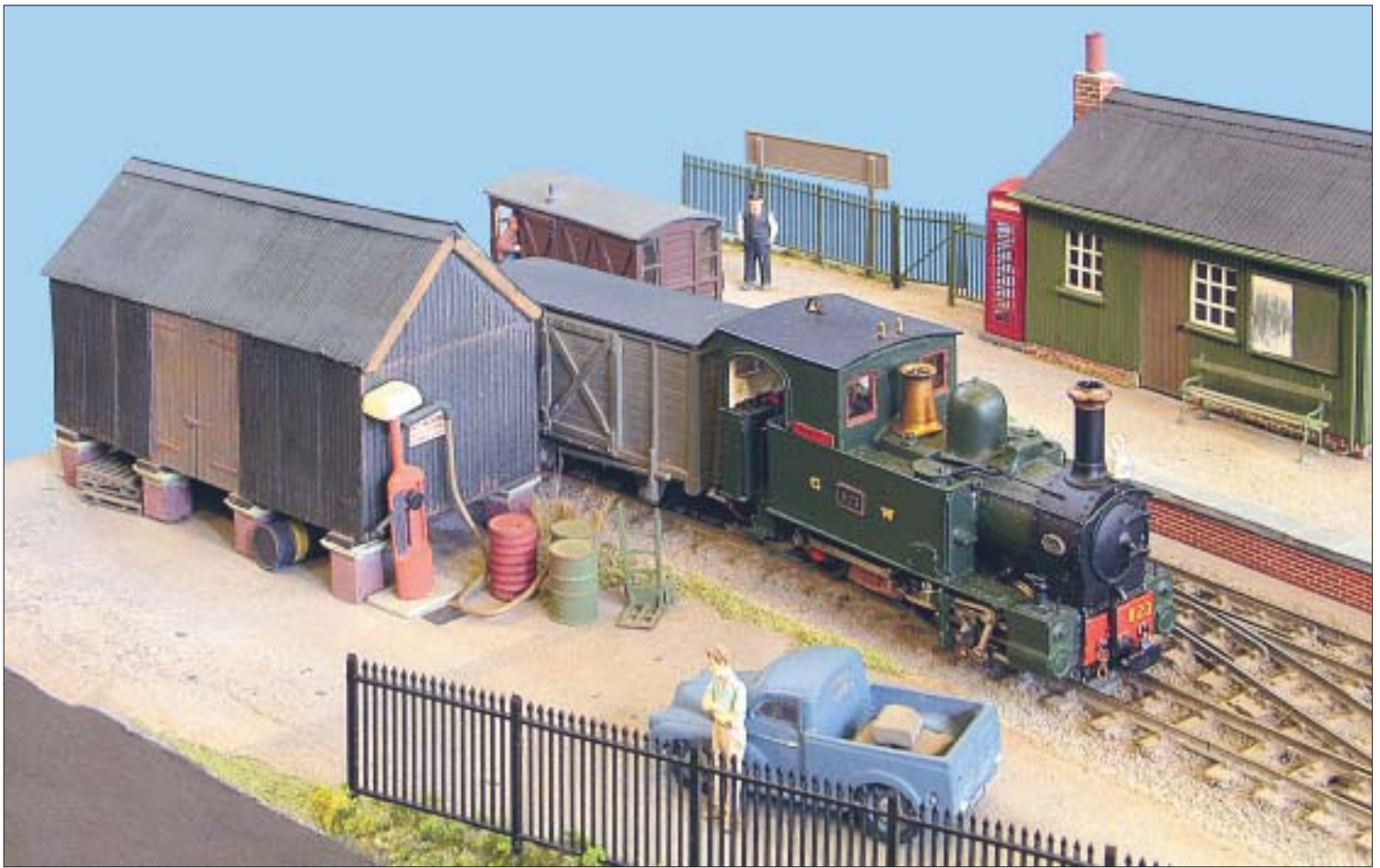
I laboured for some time in deciding a



theme for the layout. Space was most definitely limited so as 'less is more', it had to be a rural setting. In settling upon an agricultural theme for *Green End*, I sought suitable inspiration from the prototype. I was a latecomer to the attractions of the Welshpool and Llanfair Light Railway; it was always a line that we passed on the way to and from the Welsh 2' gauge but never had time to stop at. When I did though, and found out more about the history of the railway, I was hooked. I have since

collected over 150 old photographs of the line and many of the available publications which have led me to choose the railway as inspiration. The railway in the 1940s and 50s, when *The Earl* and *Countess* ran the freight only service, has produced some of the most evocative images from any railway. Perhaps the old ways are stronger than I thought and I am just a frustrated standard gauge modeller, but this is one Great Western branch line that deserves to be built.





I was determined also that *Green End* should not be a 009 layout, but a 4mm scale narrow gauge railway. It has become ever more apparent to me, particularly having edited the 009 Society's magazine for something like nine years in total, that there is a widening division between 009, which seems still to exist primarily in the form that it developed over twenty five years ago, and 4mm scale narrow gauge modelling. I'm not talking about the introspective distractions of 'finescale' and its

attendant standards, but more about the taking of narrow gauge 'principles' and applying them to the concept of the model.

To me many 009 layouts fail to convince because they either rely too heavily on gimmicks or it is assumed that by building a standard gauge design to narrow gauge proportions an effective layout can be produced. This is simply not the case. The prototype needs to be studied carefully and the rules applied. Most narrow gauge railways were tailored

specifically to the surroundings in which they were built. Of course, there were standard gauge railways 'in miniature' such as the Lynton & Barnstaple, Leek & Manifold and Welshpool lines, but these were the exceptions, not the rule. If a 009 layout has narrow gauge atmosphere then it is right, if it doesn't, it simply makes me wonder why it wasn't built to standard gauge – lack of space or understanding probably.

Whole books have been written on the subject of baseboard construction, again much of it based on what has gone before. Both *Green End's* boards are simple pine/deal timber frames topped with Sundeala board. No distortion has occurred, despite the lack of cross supports, but experience elsewhere has shown that this rather old fashioned combination can lead to a representation of the 'Big One' at Blackpool Pleasure Beach if exposed to the rigours of central heating and double glazing. These days, I would probably settle for plywood or MDF. At home, the layout sits on top of a run of bookshelves from a famous Swedish outlet. At exhibitions I use a small version of a cantilever trestle design which my father and I have used to support our exhibition layouts for many years. Although I have not seen it described anywhere else, I'm sure it is not an original idea.

Trackwork is all Peco, not having plucked up the courage to trust my own point building skills. Despite its 009 'crazy track' appearance, it is tough and if ballasted properly looks OK. Points are operated by the wire-in-tube method, from either side of the baseboard, and rely solely on the point blades to switch



Left: Countess shunts goods vans into the sidings whilst a local leans patiently against his Morris pick-up, waiting for his deliveries to arrive.

Below left: time to talk while waiting for the next load of coal. I enjoy all the detailing work that brings a model to life. Relaxed poses for figures and items placed where you would leave them yourself all add up to a much more convincing appearance.

Right: another favourite photograph. Countess and a train of coal wagons is about to cross the road on its way towards Green End station. The first wagon is a model of one of the original private owner wagons which operated out of Llanfair Caereinion station.

the polarity. This does mean that track cleaning is more important, particularly at exhibitions, but since there is little depth under the boards for wiring in point motors, it was the only option available to me. Having exhibited *Nantgwyn* and *Green End* at nearly 140 exhibitions over the past twenty years, we have only ever experienced one point failure in all that time – pretty good I'd say!

Agricultural narrow gauge lines seldom thought big and small structures were the order of the day. This is lucky in helping to maintain the illusion of length by ensuring that nothing is too overpowering. If everything is balanced and in proportion the overall scene looks much more convincing.

I needed a small station building and had toyed initially with the idea of building a version of Chirk on the Glyn Valley Tramway, but I could never manage to cut the Wills Scenics brick sheets accurately enough to get the mitred corners level. I therefore settled on the Welshpool & Llanfair and constructed a three-quarters relief semi-freelance version of Llanfair Caereinion station using the Wills Scenics clear plastic corrugated iron material overlaid on plasticard. This is a lot easier to work than the normal sheets as it can be cut to size with scissors and, provided the plasticard shell is sufficiently strengthened, will not warp. The chimneys on either end of the station are about as far as I got with the brick sheets, but don't look too closely at the corners! One of the benefits in modelling the Welshpool line is its reliance on corrugated iron for cladding its buildings – something which has made life a lot easier!

Green End goods shed is the stores building from Llanfair and follows the same construction method as the station building, although the roof is corrugated aluminium from the Eastwell Iron Company, via Ambis Engineering. The brick plinths are sections cut from the chimney in the Ratio Highley Signal Box kit. Available as a separate item, this at least ensures accurate brick courses close to the front of the layout. The water tower is also by Ratio, and is designed for 2mm scale. It is, however, just right for narrow gauge with the addition of 4mm scale ladders and pipework.

The only other buildings on the layout are in the coal yard. A modified Wills Scenics lamp hut and a Coopercraft platelayers' hut are too obvious, but the third is a corrugated iron shed from Crowsnest on the Snailbeach line which



still exists today, or did the last time I visited the area. This was built from drawings published in the 7mm Narrow Gauge Association's *Narrow Lines* magazine, many years ago. The yard office is a 'travelling van' which usually accompanies one of the Springside steamroller kits. The firm very kindly supplied me with the parts separately and this has been detailed accordingly.

On a layout of this size, there is not much room for scenery so this was deliberately chosen to enhance the setting of the railway, not dominate it. Without any form of backscene, however, I was keen that there should be some form of limit to the back of the layout and pinched an idea from Barry Norman's *Lydham Heath* layout. The stand of trees forms a natur-

al, softer break at the back of the layout and does not box it in too much in the way that a painted backscene would. I had thought of making all operators wear pale blue tee shirts to give a sky effect but this was vetoed by those concerned! The trees are simple twisted wire trunks with Woodland Scenics or HekiFlor foliage. Whilst those at the back are a general tree shape, I tried to give those at the front – screening the entrance to the fiddle yard – a more accurate appearance. With a layout as small as *Green End*, I felt it more important to give an impression of trees rather than accurate miniature specimens. After all, a real mature Oak or Elm would scale out to almost 12" in height and would totally spoil the other proportions of the layout.



The actual landscaping is minimal, relying on polystyrene ceiling tiles and Polyfilla™ to provide the few contours that rise above the flat Sundeala board. I have used varying colours, textures and sources of flock powders to suggest different types of grass and plants. Touches of colour also help and these have been added by bedding in clumps of weeds including bracken (etched brass from Scale Link), nettles and Rosebay Willowherb, typically seen alongside railway lines. I wanted to create an impression of countryside, rather than providing too much fussy detail which could distract the eye. Road and platform surfaces were laid out in card, textured with exterior paint containing a fine sand and then coloured with pastels, chalks and waste from Pete Wilson's slate quarry. Again, keeping it simple and subtle makes all the difference, ensuring that nothing stands out.

One of my favourite tasks is in the detailing of the layout. Figures are chosen for their relaxed poses – hands in pockets rather than gesticulating in mid air – and are positioned carefully. There are only four figures on the whole layout, two talking to one another and two staring out into space. The chap with his Moggy pick-up has been waiting for a delivery for years! The key, again, is not to overdo it.

Keep it natural and uncluttered. Think where you would leave things and place them accordingly. Placing figures in mid-stride or in some action pose just doesn't help to convey atmosphere.

As with *Nantgwyn* before, I have always been extremely lucky to have access to the locomotives built by my good friend Stephen Sullivan. Perhaps this is why I still never seem to build anything larger than an 0-4-0 or 0-6-0! I am, however, starting to get to grips with the products of Backwoods Miniatures and am rather enjoying the experience. A much-modified Golden Arrow *Countess* now hauls much of the traffic and has recently been joined by a Golden Arrow *The Earl* built by my friend Neil Sayer. These are joined by a range of other Welshpool locos which operate on the preserved railway today. These include a Chivers Finelines *Joan*, a Golden Arrow *Monarch*, a Parkside Dundas Sierra Leone Hunslet 2-6-2T and a Langley *Sir Drefaldwyn* – rather large and heavy but useful for dropping on the fingers of those who venture too close! A number of other suitable narrow gauge locos are run from time to time at the request of the operator, but they must be in keeping with the setting of the model.

Rolling stock is constructed from plastic kits

produced by Nine Lines, suitably modified where kits don't exist for prototypes. The photographs give an indication of what has been built. I have always declared the line to be 'freight only' but Stephen's pair of Golden Arrow coaches are too good to leave in the box and do occasionally make a fleeting appearance at exhibitions, usually when I'm having lunch. All stock is fitted with Bemo couplings which does mean that some manual intervention is required when shunting. If I were starting again I would use an automatic magnetic coupling, such as the Greenwich Coupling, to provide hands-free operation. Operationally the layout is very simple, trains are run and shunted at the whim of the operator and at exhibitions this does mean that there is always something to watch.

I cannot believe that it is now more than ten years since *Green End* was built and my whole attitude to the layout has changed over that time – hence the subtitle of this article. Failure at the first hurdle was frustrating but the subsequent rebirth and success have proved to be a boost to the morale. I've often had a bit of a 'love-hate' relationship with *Green End* and always considered it to be a lot of fuss about nothing but comments received at exhibitions seem to indicate that people enjoy the layout.

Left: visiting locomotive Atlantic from the Campbeltown & Machrihanish Light Railway in the west of Scotland was built from a Chivers Finelines kit with a much modified Bachmann chassis. The loco heads a short train of vans waiting to leave Green End.

Right: a passenger train approaches the road crossing on the approach to Green End station. The rear of the carriage here looks as though it is off the track but is in fact running over one of the points into the fiddle yard. The trees behind the train are actually at the front of the layout and are positioned so as to screen the entrance to the fiddle yard.

If it does have a purpose, it demonstrates the ability to construct a realistic, operationally pleasing, layout in such a small space and, if it has turned people on to the beauty of 009 and 4mm narrow gauge modelling, then it has been worthwhile. It has not been as successful as *Nantgwyn* in terms of the number of exhibitions attended although we have been to most of the narrow gauge shows, including Expo Narrow Gauge in Swanley and Expo Metrique in Paris and a number of general shows throughout the UK. We even took it to the last Garden Railway gala exhibition at Llanfair Caereinion – its spiritual home, I suppose!

The time has come, however, to call a suspension to services and *Green End* will see its last departures at the Porthmadog Railway Exhibition on July 31-August 1 (*full details in 'Societies & Clubs' – Ed.*), although, like Frank Sinatra, I'm sure if the right offer came along...! I don't yet have anything to replace it, although the railway exhibition in my head has more layouts than could fill the whole of the NEC each year!

There are a few points which have been learnt as a result of this whole exercise. Firstly, plan carefully in advance what you are going to do through to the end. The finishing of a layout is much easier if you can work out how it will look when finished. By initially planning a layout in terms of its usage, patronage and geographical setting, decisions can be made early on about the scenery, architecture, rolling stock etc and carried through to completion. Set clear objectives – write your own 'history of the line' if you want and plan from that.

The second point is to ensure that the layout is completed. Wise old modellers say that if a layout isn't finished once it's started, it won't get finished at all. This might sound blindingly obvious, but the longer a layout takes to complete, the less likely it is to get finished. Working to one's own standards means that we will all invariably work at different speeds, but by careful planning in the early stages, the layout should be capable of holding interest through to the end.

Thirdly, never work to a deadline. Having made a number of decisions regarding the type and setting of the model I wanted to produce, I started work, only to find myself committed to a local exhibition some two months away – Rule Number One: Never volunteer for anything! To be asked to exhibit a layout is very flattering, but when the layout is not finished, time just flies by. Paint won't dry, glue



won't set and the layout will never have the appearance of reality.

Lastly, and most importantly, ensure that you're having fun!

009 and 4mm scale narrow gauge modelling do now have a large commercial following but I would urge anybody thinking of modelling in 4mm or 3.5mm narrow gauge to join the 009 Society, which has been supporting narrow gauge modelling for thirty years. The Society publishes a monthly magazine *009 News* which contains many articles of interest as well as news of new products and developments, and there is a large network of local groups where members can meet and

exchange ideas. Details of membership can be obtained from: **The Membership Secretary, The 009 Society, 70 Grove Road, Shirley, Southampton, Hampshire SO15 3GG.**

Although I am not a great one for all those acknowledgments at the end of articles, I do want to thank my father, a fine modeller himself, who taught me how to do all this – and probably regrets every minute of it! My thanks also go to Stephen, a good friend, cooperator and source of fine locos and rolling stock; to Steve Flint for the superb photographs, which belie the true size of the layout, and to Barry for all the phone calls.



Victoria Square

Scratchbuilding in 4mm scale

Ken Ball constructed these buildings for a very specific location.

The buildings illustrated in this article will ultimately form part of the backscene for the large LMS main line station which featured in the April 2001 issue. A road bridge spanning the five tracks, together with a high level signal box will occupy the right hand approaches to the station. The prototype for the signal box is illustrated on page 57 of Jack Nelson's book

LNWR Portrayed and is at Duston Junction West, Northampton. The modification to the prototype layout is that the bridge is over the tracks instead of the high-level rail lines.

It was the construction of this bridge that was instrumental in the complex design and positioning of the buildings in the 'Square' itself. The central building was to be triangular

in design, and flanked on either side by the other two buildings. These arrangements would conceal the exits from the pedestrian walkways, when viewed directly from the front across the bridge.

As part of the commission, I was to construct a hotel of modest proportions, which was to be known as the North Euston Hotel, together with a row of typical Georgian houses in half relief on a gentle slope leading down to baseboard level. The concepts for the remaining buildings were to be left to my imagination!

Civic Offices

The ornate design for this building was taken from a photograph showing the approaches to Victoria Station, Manchester. Several of the more prominent features from this building were included on the drawings. A rummage through the 'surplus mouldings' scrap box revealed the two semicircular double window sections and a couple of odd mouldings, which support the clock tower. The balustrades are from the Scale Link range, and capped by sections of plastic strip filed to shape. The clock face is from the same source. The semi circular fan shape above the clock is actually half a Slater's cartwheel, and the windows are the ones supplied by Modelex. I decided to include a pair of French windows and a balcony above the main entrance, as



this would be where civic dignitaries would make their official announcements whilst wearing their regalia.

The building is constructed from three laminations of plastic sheet reinforced inside with 5mm thick foamboard. Before fitting the windows into place, the model was given a spray of Tamiya Flat Earth as a base colour. This was followed by a very light spray application of Tamiya Flat Brown, which enhanced the moulded detail and created that subtle stone finish.

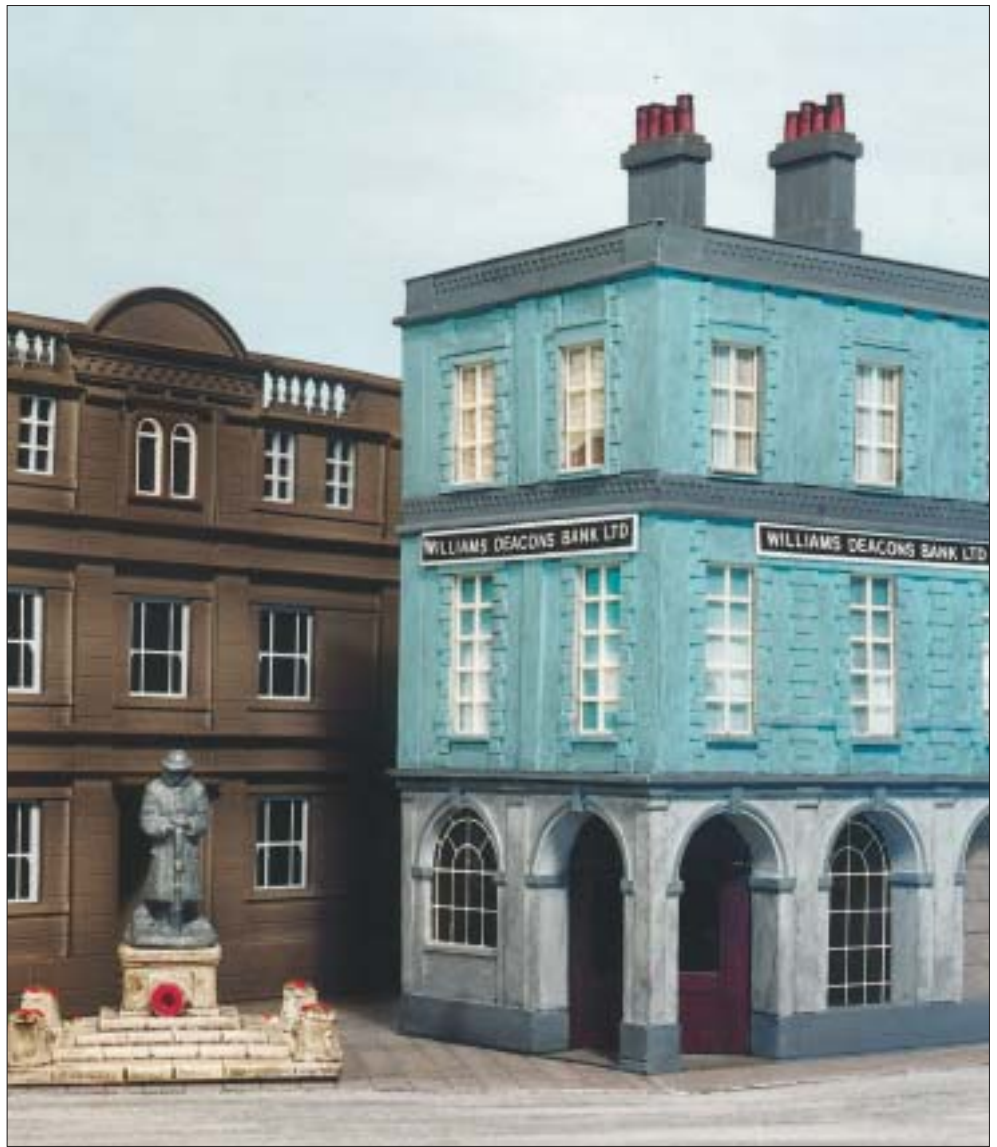
The North Euston Hotel

Dimensions for this building were calculated from the etched brass Georgian window fret supplied by Scale Link. I decided to include a stone facade to the ground floor, with the upper two storeys in brick as a contrast. The photos show just how effective the brickwork is when using artists colouring pencils as described in the *Railway Modelling Explored* fact sheet 8.13. Colouring of the stonework was achieved by painting the whole surface with Buff acrylic paint, and then when thoroughly hard, dry-brushing over the area with Olive Drab.

The hotel sign was 'acquired' from its name-sake's brochure at Fleetwood!

Williams Deacons Bank Ltd

This was the only building in this diorama where I didn't need to produce a drawing before constructing the model. Practically all the components were found tucked away in a box of parts left over from a large continental kit 'modified' over thirty years ago. There were sufficient sections remaining, including windows (with the exception of the ground floor, where the Downesglaze industrial windows were substituted), to construct the model as illustrated. Only the rear walls, roofs and chimneys were added. I chose the colour scheme of Ice Blue from the Miniature Paints range, suitably weathered. This colour scheme provides a sharp contrast with the stonework of the Civic Offices.



Euston Terrace

Typical of this type of property at the end of the 19th century are these two blocks of houses, with flights of steps leading up to the front doors, and down to the basements and gardens.

As these dwellings were set back from the roadway, it was necessary to construct them in low relief. Again, the Scale Link etched brass frets for the doors, windows and stone lintels were used. The flights of steps were taken from Ratio kits for the Southern Railway footbridge.



The canopies over the front doors are taken from the Dapol/Airfix station canopy kit. The iron railings are from the Ratio spear fencing range. The buildings have been weathered to emphasise their rather run-down appearance. Curtains are courtesy of the familiar mail-order catalogues!

The Duke's Head Public House

This model was designed to contrast dramatically with the hotel in the 'Square' – this being the local 'watering hole'. The commission included an off-licence. In my part of the country, these were more commonly known as 'selling-out shops'.

Sandtex paint was applied to the upper storey and heavily weathered to portray a rather shabby appearance. As the off-licence would have been a later addition, this was finished in stone as a contrast. The sheet of pub signs from the Tiny Signs range only contained two small examples of the Duke's Head signs. These were much more suitable to use as the wall hanging variety of sign. So I painted a larger reproduction of these to fix above the main entrance.

The Salvation Army Citadel

This building was originally constructed with my own *Thetford Junction* layout in mind. Eventually, the model became surplus to requirements, but I thought it would make an ideal companion for the pub next door. The Salvationists wouldn't have far to walk to sell the *War Cry*!

The origin of this model was an American clip-together kit bought second-hand in the early 1960s. It was missing its roof and one side window, but I was rather impressed by the imposing entrance. As a result of the missing window moulding the decision was made to slice it in half and set it at an angle to the backscene. The window mouldings were considered to be rather crude for my purposes. They were filed down and micro strip plastic added to give extra relief. The remaining moulded detail was quite acceptable. Altogether, a real gem acquired for the princely sum of 50p.

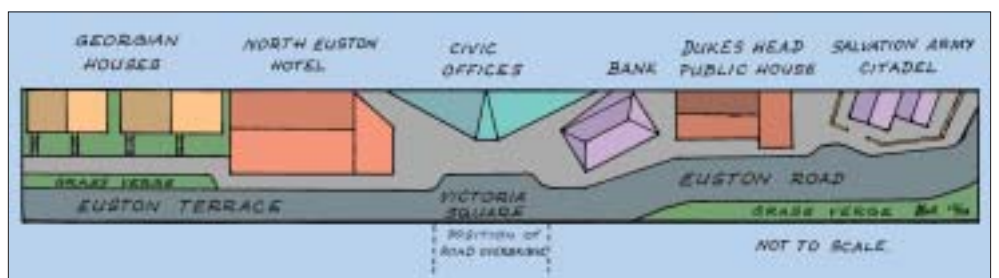
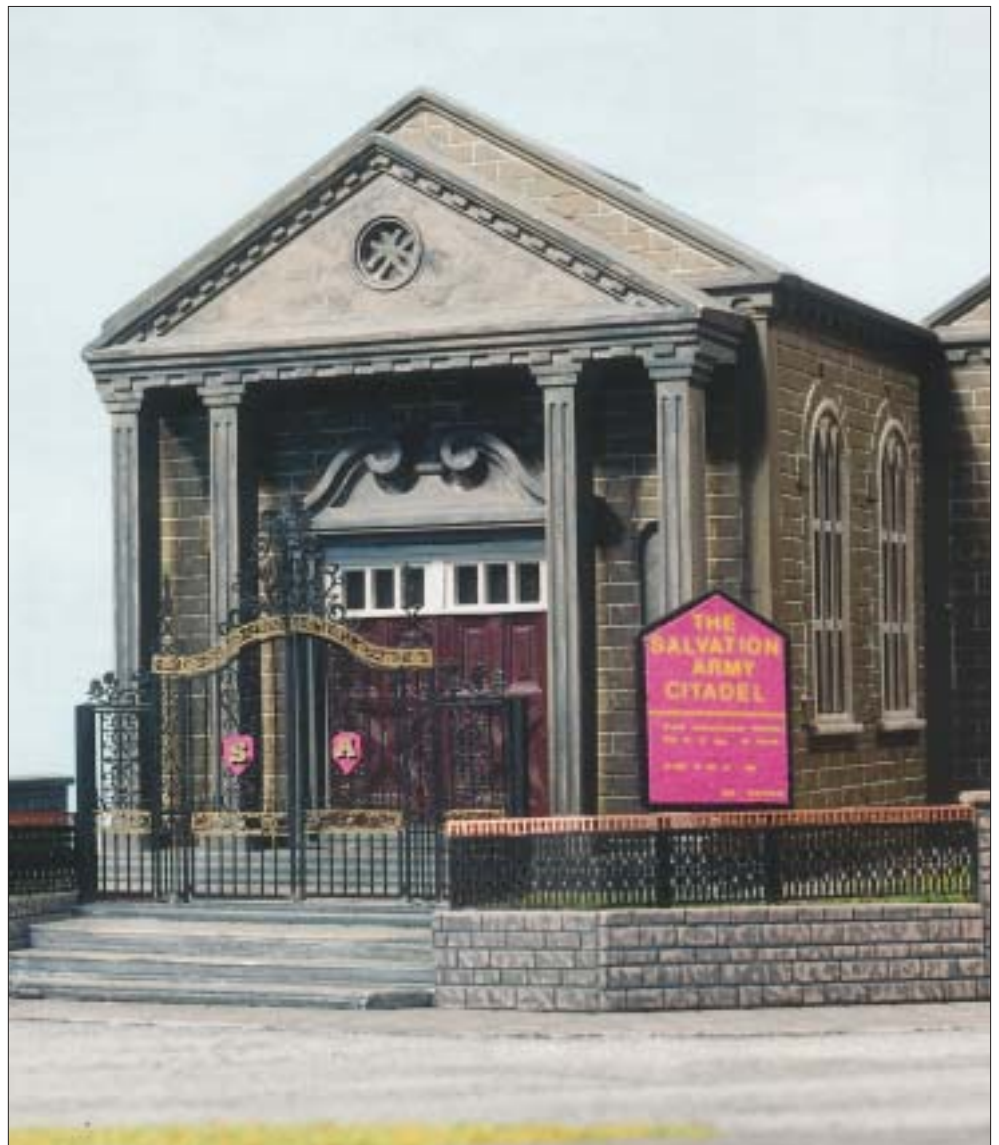
Ornamental gates and railings are from the Scale Link range, whilst the notice board has been made using Letraset dry-print. The mortar courses were given a diluted wash of Tamiya Deck Tan, then the stonework was dry-brushed with Tamiya Khaki.

None of the buildings will be fixed permanently to their sub-bases until eventual location on the layout, hence the unsightly gaps at the bases of the models!

Plans for all the buildings were drawn to scale on A3 size sheets of metric graph paper. This makes the job of calculation and measuring dimensions on the various building materials so much easier.

My thanks to David Moore for giving me the opportunity to create from his vision this very interesting collection of model buildings. As always, I am indebted to Steve Flint for the superb photographs.

Photographs by Steve Flint, Peco Studio.



Scale drawings

Atkinson-Walker geared locomotives

Small industrials drawn and described

Neil Burgess has researched and modelled a useful machine in 4mm scale.

Some while ago I was looking for a suitable prototype for a small industrial shunting locomotive to work on my layout *Blagdon*, a representation of a fictitious branch of the Somerset & Dorset line with connections to the Bristol Waterworks reservoir at Blagdon in north Somerset.

I had thought of a Sentinel geared steam locomotive and considered several of the firm's varied prototypes. I also looked at the contemporary Clayton locomotives from Lincoln, which were produced in very small numbers during the 1920s. Then, looking through Rowland Abbott's *Vertical Boiler Locomotives and Railmotors built in Great Britain*, I happened upon a description of the geared steam locomotives built by Atkinson-Walker at Frenchwood Works, Preston, with a photograph of one built for Richard Briggs of Clitheroe, and named *Lazarus*. This seemed just the thing for which I had been looking.

This article is therefore an outline of the relatively sparse details of these engines, along with a brief description of my 4mm scale model.

The geared steam locomotive

Geared steam locomotives were a combination of two technologies, neither specific to railways. The first, and oldest, was that of steam traction as applied to road vehicles, particularly heavy lorries. The main contribution here was the vertical high-pressure boiler, offering a compact and efficient source of power. The second technology was that of enclosed engine units, as applied to both steam lorries and internal combustion engines, which promised low maintenance costs and efficient transmission of power through gear and chain drives to the road wheels.

The emergence of the geared steam railway locomotive can now be seen as a brief interlude between the use of the long-established Stephenson-type reciprocating locomotive and the diesel locomotive, lasting for only fifteen years or so from the end of the Great War in 1918. However, the Sentinel Waggon Works of Shrewsbury, which had pioneered the technology, championed geared steam locomotives and it was it which produced by far the largest number of units over the period 1923 to 1958.

The geared steam locomotive was hailed as a major source of operational economies at a time when railway costs were rising and rev-



Above: the model view shows Bristol Waterworks engine Blagdon (works No.115 of 1928) at the Somerset & Dorset station of the same name. Driver Ernie Pillinger is leaning out of the cab, the other side entrance of which has been fitted with a makeshift wooden door. For this machine's part in the working of the Blagdon Goods, see RM April 2004.

Model photographs: Steve Flint, Peco Studio.

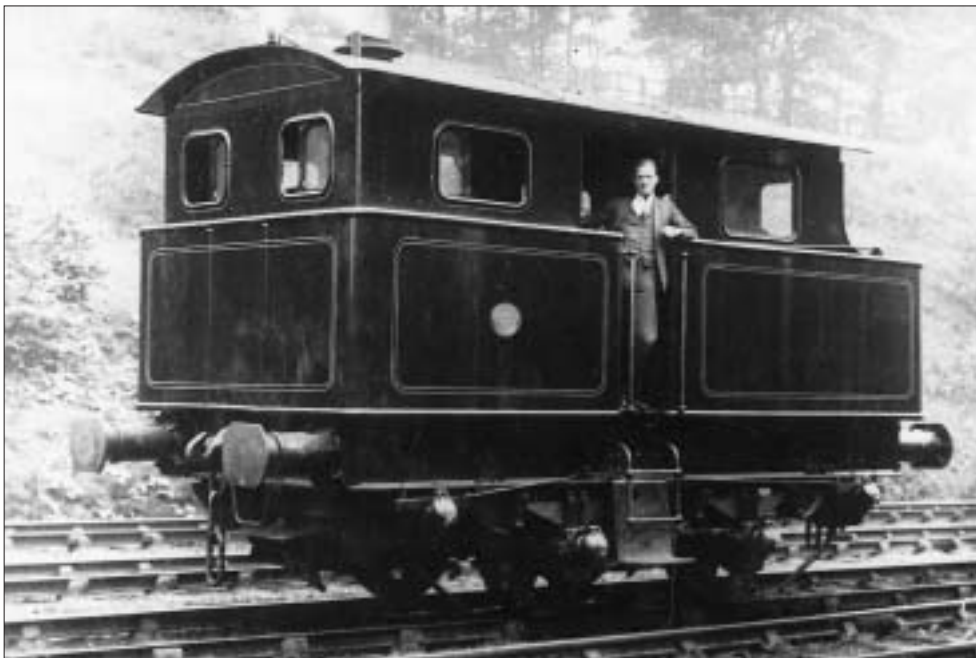
enues looking increasingly precarious. The introduction of the eight-hour working day for the railway industry in February 1919 pushed up wage costs already affected by wartime inflation. Geared locomotives offered to reduce operating costs by dispensing with a fireman and allowing single-crewing.

By greater thermal and mechanical efficiency they also held out the prospect of getting more work for a given cost out of locomotives engaged in shunting, an essential but unremunerative aspect of operation, particularly for the goods services which comprised the railway companies' principal source of revenue. Also, since the locomotives themselves could be adapted to become the traction units in passenger railcars – something tried by both

Sentinel and Clayton – there was also the possibility of more economical operation of branch lines, the earning potential of which was under threat from urban tramways and rural bus services.

The builders

In view of the technology involved, it comes as no surprise that, like Sentinel, Atkinson's main business was (and is) the production of road lorries. Walker Brothers, of Pagefield Ironworks, Wigan, had more experience of railway engineering, having built around twenty-five conventional steam shunting locomotives in the years 1872-1883, mainly for use in collieries and on public works contracts. Although the new construction was a sideline, the company also undertook repairs on a range of locally based locomotives after that time. During the 1930s it made a further brief foray into railway work, constructing a number of diesel railcars for the 3' gauge West Clare Railway in Eire. The firm's main business was in general engineering, and it built a number of heavy road cranes in the 1930s, some of which were owned by the LMS.



Left: a B type engine, apparently running trials at Bridgewater Collieries, Manchester, around 1928. The engine differs from Lazarus in terms of its upper cab panels, window layout, foot-steps and axleboxes. Since the table of locos built does not indicate that Bridgewater Collieries bought one of these engines, it is a moot point which it is – it is possible that it was one of the Shap Granite pair or one of the three which went to Arnold's of Doncaster. If the latter it might have been works No.118, if this had a career as a demonstrator.

Photograph courtesy Jim Peden.

Atkinson's and Walker Brothers collaborated to produce a limited number of locomotives of five main types over the three years from 1927. After this the experiment seems to have died a natural death, probably as a consequence of both the Great Depression and the expansion of Sentinel's, which company effectively saw off all rivals by the early 1930s. The table summarises, from several sources, the engines known to have been constructed.

For details of Walker Brothers, see *The Industrial Railways of the Wigan Coalfield, part 2; North and East of Wigan*: p355.

Notes on the drawing

This is a sketch plan based on published dimensions of the B type engines in Abbott and Lowe and reproduced in the table below. These dimensions are shown on the plan. Other dimensions, such as the height of the buffer centres above rail level, are standard figures. The dimensions of the vertical boiler are scaled from a drawing in the article in *The Locomotive*. The proportions of the water tanks are an estimate given that the volume of 1,000 gallons of water is 160.5 cubic feet. The precise layout is conjectural, though the side tanks would need to balance each other for stability and a front tank could be used to counterbalance the weight of the vertical boiler, as in Sentinel locomotives.

Fittings varied between locomotives. *Lazarus* had cylindrical axleboxes, but those on the Bridgewater engine in the photograph are squarer, with domed ends. Footsteps also varied in shape and construction. Buffers on *Lazarus*, the Bridgewater demonstrator and *Goliath* seem to have parallel bodies with large diameter circular heads 'clipped' top and

Atkinson-Walker locomotives built 1927-30

Works number	date	type	notes
102	1927	A	to Henry Latham, York
109	1927	A	to Oxford & Shipston Cement, No.2
103	ns	B7	to Walker Bros., Wigan for works shunting; named <i>Mary</i> . Rebuilt in 1947 with a diesel engine; photo as converted in Townley, Smith & Peden p.356
104	1928	B	to Richard Briggs, Clitheroe; named <i>Lazarus</i> . Photos in Abbott, p.7, Lowe, p.32 and <i>The Locomotive</i> p.207
111	1928	B3	3' gauge; to Ivybridge China Clay Co.; named <i>Lady Mallaby Deeley</i>
112	1928	B	to Shap Granite Co; named <i>Felspar II</i> , although Abbott cites the name only as <i>Felspar</i>
115	1928	ns	no details of this engine beyond a mention in Lowe, p.32
116	1928	ns	see note above
117	1930	B	to H. Arnold & Sons, Doncaster, No.1
118	1930	B	to H. Arnold & Sons, Doncaster; ran trials on LNER; date quoted as 1928 in Townley <i>et al</i>
119	1930	B	to H. Arnold & Sons, Doncaster, No.3; date quoted as 1928 in Townley <i>et al</i>
31790	ns	ns	to Shap Granite Co; named <i>Wasdale</i> ; only listed in Townley <i>et al</i>
113	1928	C	to Blaxter's Quarries Ltd., Elsdon; photo in Abbott, p.8
110	1928	D	to Oxford & Shipston Cement, No.1; named <i>Goliath</i> . Only known type D. Photo in Abbott p.8
105	1928	NG	to Singapore Municipal Council, No.1; photograph in <i>The Locomotive</i> p.210
106	1928	NG	to Singapore Municipal Council, No.2
107	1928	NG	to Singapore Municipal Council, No.3
108	1928	NG	to Singapore Municipal Council, No.4
114	1928	NG	3' gauge; to Clogher Valley Railway, No.8
ns:	not stated		

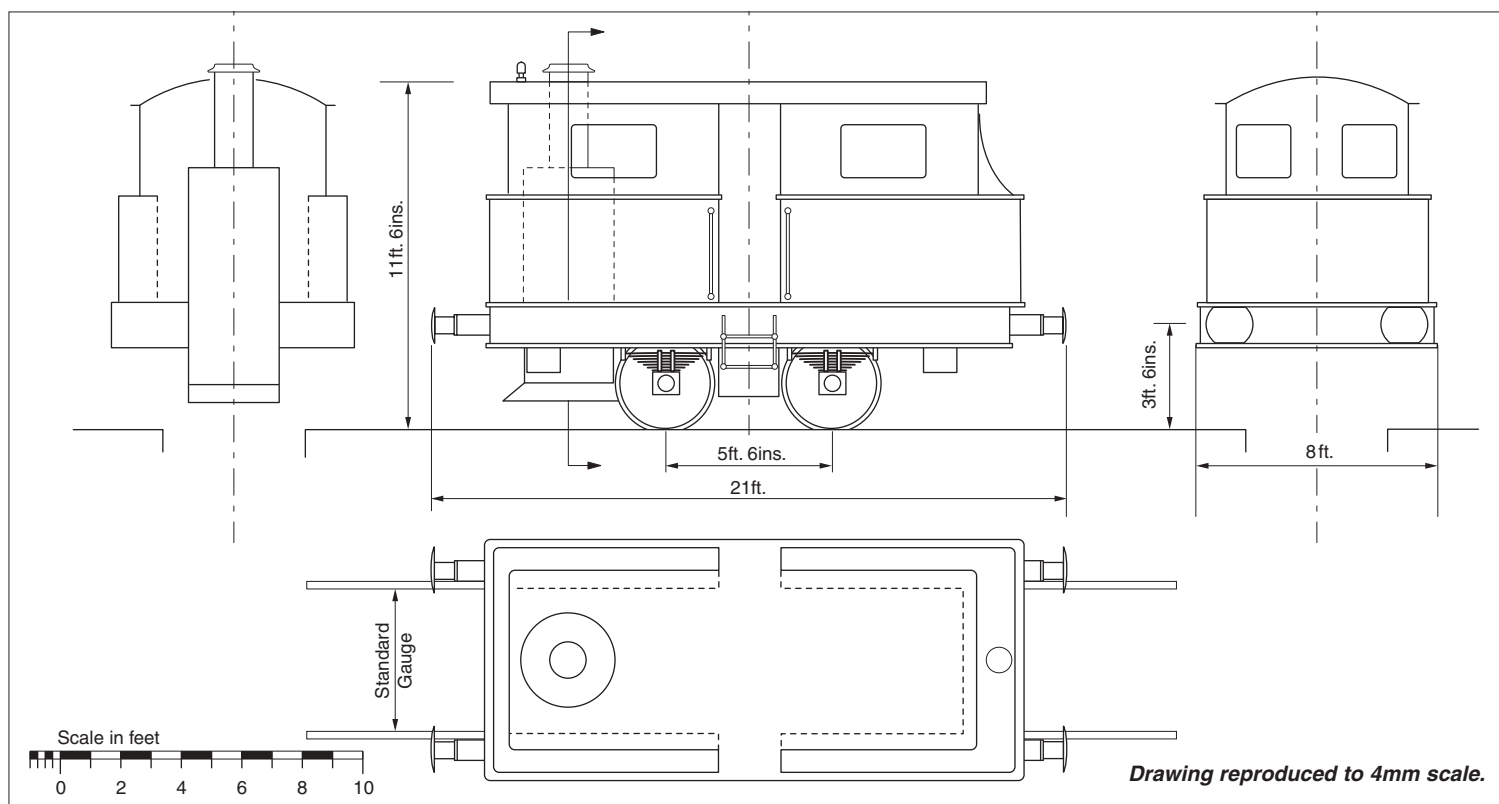
Locomotive types; main characteristics

A	Four 3' wheels, outside bearings, 2-cylinder vertical engine with 7" x 10" cylinders
B	As type A, but with three cylinders
C	Four 2'3" wheels, inside bearings, 2-cylinder horizontal engine with 7" x 10" cylinders
D	Six 3' wheels, outside bearings, 4-cylinder vertical engine with 7" x 10" cylinders
NG	Four 2'4" wheels, outside bearings, vertical cylinder engine, various gauges

Principal dimensions, type B engines

Overall length	21'
Overall height	11' 6"
Overall width	8'
Boiler heating surface	125 sq. ft.
Working boiler pressure	230 lb/sq. in.
Grate area	7 sq. ft.
Cylinders (3, vertical)	7" bore, 10" stroke
Coal capacity	6 cwt.
Water capacity	1,000 gallons
Weight in working order	35 tons
Wheel diameter	3'
Wheelbase	5'6"
Power output at 150rpm.	250 bhp.

Overall length quoted above is presumed to be over buffers.



bottom, rather than elliptical ones. This was no doubt to counter end-swing arising from so short a wheelbase on sharp curves in sidings and on industrial lines. *Lazarus*, *Goliath* and the C type illustrated in Abbott (p.8) also had sliding windows in the sides and ends of the cab, as shown on the drawing. The Bridgewater engine had smaller single pane windows which also appear to have been sliding. The sandboxes on the Bridgewater engine are also more square in end view than the other engines.

It would be going beyond the available sources to claim this as a definitive drawing of the locomotive, but it can be used in conjunction with photographs to produce an acceptable model. If anyone has a full set of general arrangement drawings for these engines tucked away under their bed, I will stand to be corrected on any point: but if these drawings exist, I must beg ignorance of where they have so far been published.

Sources

Rowland A. S. Abbott: *Vertical Boiler Locomotives and Railmotors built in Great Britain*, Oakwood Press 1939, pp.5ff
 A. Allen: *The 'Atkinson-Walker' Steam Locomotive*, in *The Locomotive* dated July 14, 1928, pp.207ff
 James W. Lowe: *British Steam Locomotive Builders*, Guild Publishing 1989, pp.31ff
 C. H. A. Townley, F.D. Smith & J. A. Peden: *The Industrial Railways of the Wigan Coalfield, part 2; North and East of Wigan*, Runpast Publishing 1992 pp.507ff.
 Illustrated feature in *Industrial Railway Record* No.49, August 1973 pp.83/4.

The model

Blagdon, my model Atkinson-Walker, is a type B locomotive, based on the Bridgewater

demonstrator in the photograph. The power unit is a Tenshodo Spud with a 24.5mm wheelbase; not strictly accurate as it is 2.5mm over length, but a reasonable compromise given its ready availability.

The bodywork is 10 thou nickel silver sheet on a 25 thou footplate, formed from a large piece of etch scrap from a 7mm kit – it pays not to throw things away! The body was weighted by two pieces of 1/16" lead sheet inside each of the sections of the side tanks and this gives sufficient adhesion to get reliable performance from the tiny motor. The locomotive will handle twelve weighted plastic-bodied wagons on level track, which would probably have been a reasonable load for the real thing.

Details are from brass and nickel silver tube, wire and strip. The buffers are some old brass coach types with new parallel bodies from brass tube and heads 'clipped' top and bottom, while the axleboxes are much-reduced BR tender types from Comet Models. The sand-

boxes were made from plastic sheet since this removes the risk of shorting between the sand-pipes and the locomotive body if the former touch the rails. The finished engine was given a coat of car aerosol grey primer and finished with Railmatch Southern Railway light olive green. Although the Bridgewater demonstrator and *Lazarus* were lined out I thought better of this since, unless done delicately and unobtrusively, lining can overpower a small engine. The etched nameplate, *Blagdon*, came from the Jackson-Evans range.

Acknowledgement

I am grateful to the staff at the National Railway Museum Library at York for their assistance in locating material used in this research: and to Jim Peden for giving permission to reproduce the photograph.

Copies of the photograph, plus many others depicting railways in the North-West and elsewhere, can be obtained from Jim Peden, at 18 Rockhill Road, Liverpool, L25 8RB.





Great Western might-have-beens

Simple locomotive projects in N gauge

Richard Bardsley imagines that the GWR had absorbed a fictitious Welsh railway.

It's hard for me to believe that it's about 15 years since the publication of my first piece for the model railway press, *Two Unusual GWR Engines* in the N Gauge Society's Journal 1/89. A lot has happened since then, not least of which I have somehow managed to end up as editor of that very magazine!

The premise for that article was that the many independent Welsh railway companies all had engines great and small prior to the 1923 Grouping, and that you could throw any collection of locomotive bits together and get something that resembled an actual engine. A quick browse through Jim Russell's book *Great Western Absorbed Engines* is all you need for some inspiration. I was certainly inspired and these are the results.

No.1

It all started because I like War Department J94s. However, being a GWR modeller, I couldn't find an excuse for one on my original lay-

out, since the private owner sidings were not big enough to boast a dedicated shunter. A solution to this dilemma was found when I bought a copy of Jim Russell's book. It features three examples of engines which meet the general specifications of the J94, that is, a fully enclosed cab, a full length saddle tank, a short 0-6-0 wheelbase and inside cylinders. These engines were supplied by private locomotive manufacturers such as Peckett and Hudswell Clarke & Co., and the origins of the J94 itself were industrial with the Hunslet Engine Company of Leeds.

There are certain small differences between these engines and the J94, such as the shape of cabs and coal bunkers, but overall, there is a strong family resemblance. All these 0-6-0s were originally owned by independent railway companies in Wales but they were taken over by the GWR at the Grouping in 1923. Some remained unaltered and lasted well into British Railways' ownership, while others were

scrapped or received 'the Swindon treatment', such as pannier tanks.

I decided to model one of these 0-6-0s for my layout by simply repainting the Graham Farish J94. It's easier to do this with the body detached from the chassis, the buffers pulled off and the coal insert put to one side.

If you simply paint the body at this stage, there's a good chance that the BR emblem printed on the saddle tanks will show through even a couple of coats of paint. Therefore, I used a glass fibre burnishing brush gently to remove them. It's worth also giving the body a quick wash afterwards as this process tends to generate quite a bit of dust. I painted the body GWR Loco Green, and applied Cav'ndish Methfix transfers. Re-assembly is easy and it's finished – a very simple conversion.

Some modellers may wish to add a few details such as tool boxes, sand pipes, springs or other pipework to move away from pure 'austerity' lines.



No.2

In the foreword to his book, Jim Russell suggests that taking any collection of loco 'bits and pieces' and sticking them together, would result in an absorbed engine from Wales, such was the variety! With this in mind, I bought a Graham Farish General Purpose Tank, which does not appear to be based on any particular prototype, and repainted it in the same way as the J94.

I always thought that this engine closely resembles the Rhymney Railway Class S as shown in Jim Russell's book and Langley Models now produces a conversion kit.

No.3

The third engine to receive the repaint treatment is actually the 'Shredded Wheat' loco, so called because it was offered free by Shredded Wheat for the requisite number of tokens from its packets. I got mine the easy way (not that I have anything against Shredded Wheat) by virtue of purchasing it at an exhibition. It cost me five pounds about ten years ago; I wonder how much they are worth now as a collector's item?

The body was prepared and painted as above. The only additional work was to paint the bright red plastic coupling rods a steel colour. The model is un-motorised and does not have standard N gauge couplers, so it's not much use other than as a static model, though you could add a few bits of wire to the front and back and put it in-between a motorised

Heading picture: Ready for work. The GWR's new fleet of absorbed engines posed on shed. Left to right are Nos.5, 3, 2, 4 and 1.

Top left: No.1, the locomotive that started it all.

Top right: No.2 waits in the bay platform.

Above left: the unmotorized No.3 stands out of action under the shear legs.

Above right: No.4 prepares to lift a train of empty coal wagons out from the docks. Photographs by the author.

loco and a train to make a double header. Mine spends most of its time languishing at the back of the loco shed under the shear legs as a loco 'waiting for attention'. I am sure that the GWR was less than impressed with a lot of the locos it inherited, and despite the best attentions of Swindon, many quickly went for scrap.

The 'Shredded Wheat' loco is another model of sufficiently vague prototype that it can represent a generic Welsh 0-6-0. However, many feel that it has a certain family resemblance to the LMS 'Jinty'. Indeed, the late Andy Calvert famously took a 'Shredded Wheat' loco and turned it into a 'Jinty' – I think it was even motorised. Then, of course, Graham Farish produced a proper 'Jinty' soon after – but Andy always said that just proved Murphy's Law of railway modelling! The true 'Jinty' is itself another strong candidate for a repaint but I have not yet got round to that one.

No.4

This locomotive began when I purchased an old style Farish 94xx pannier tank and rather clumsily managed to break the running plate on both sides while trying to take it apart to check the motor. I could have stuck it back together, but I had the idea of using it as the base for a conversion, especially when I unearthed a cylinder block and coupling rods in the bits box, surplus items from a Farish 'Hall' chassis from many years ago when my father made a Langley 2251 kit for me.

The resulting Frankenstein's monster is not based on any particular Welsh prototype, though I did flick through Russell's book for ideas. I was also quite attracted to the 15xx panniers built in 1949 which had outside cylinders, no running platform and welding to join parts rather than rivets, though the Walschaerts valve gear was always going to be beyond me. I had done a fair amount of kit building and detailing work but was not yet brave enough to scratchbuild an engine, so this project was a way of gaining experience without having to worry about trying to reproduce an exact prototype.

Firstly, I cut away the remains of the running plate under the saddle that supports the smokebox. Then I filed the underside of the saddle carefully to ensure that it was level, and until the cylinder block would fit snugly between the chassis and the saddle such that the locomotive body was level. I had to trim some of the rear of the cylinder piece so that



it did not stick out too far. Inserting the cylinder block meant that the small screw that goes through the hole in the front of the chassis into the body to secure them together would no longer reach, so I substituted a longer one from the bits box, though I believe the required length screws are available from BR Lines as spares. The buffer beam was cut away from the remains of the running plate/saddle and stuck to the front of the cylinders with Araldite.

The coupling rods would always be a challenge since my father had simply cut them off the original Farish chassis to avoid having to remove the pin that held them to the wheels. On the pannier chassis, I found that the pins pulled out quite easily using a pair of pliers. Firstly, I trimmed the coupling rods to the same length. Next, I drilled holes big enough to accept the pins at one end of a small rectangle of thin brass; I then rounded that end with a file. The coupling rod was then soldered to the brass; at this point, the brass is wider than the coupling rod, but it makes the job of soldering such small components much easier. It was then a simple job to file the brass down to the coupling rods. I painted all the motion with Humbrol Metalcoat which buffs up to give a shiny/oily look.

The coal in the rear bunker is part of the metal body casting. It's not a bad representation, certainly better than moulded plastic, but nothing looks like real coal better than real coal. I removed the metal coal using a slitting disc in a mini drill, being careful not to damage the sides of the bunker. It's not a job to be rushed, and the aim is to remove just enough to make a sort of 'dent' into which you can get enough crushed real coal to cover the top of the bunker without it looking as if it's overflowing massively. The real coal was held in



place after the loco had been painted by a few drops of a 50/50 mix of PVA and water with a touch of washing up liquid, just like you would use for ballasting.

I made the new sides for the tanks out of 10 thou plasticard; I had to file some of the rivet detail and handles off the existing tank side in order to get a flat surface to stick to. I took the sides far enough down to cover as much of the motor as possible. They look a little odd without any rivet detail, though my argument is that the tanks have been welded together – perhaps too modern for the supposed age of the locomotive, but this is fantasy after all. Finally, I added transfers from the Cav'ndish sheet.

The finished loco looks quite formidable. I imagine it to be a heavy shunting loco, used to marshal the heavy coal trains on one of the many docks of the South Wales ports, perhaps charging up a steep gradient from the dockside to return the empties to the marshalling yards. Made by an independent loco builder around the turn of the century as a one-off for a small Welsh railway, it would have been absorbed in 1923 and 'Swindonised' soon after with a GWR cab, dome and chimney. It would have seen heavy use during the war years and although lasting into BR ownership, the worn

Top left: Farish pannier body after surgery.

Top right: view of cab and running plate helps to see where clearance will be required for the new body.

Above left: new tanks fitted to running plate.

Above: shows how the new body was built.

Left: the coupling rods for No.4. Top one complete, bottom one shows piece of brass prior to being soldered on to end of the rod.

out engine would have soon been scrapped rather than overhauled. It's a fanciful potted history, but it probably rings true of many a real engine.

No.5

This is the most recent engine, about two thirds scratch built, and the culmination of what has now become a long running project. The starting point once again was a Graham Farish 94xx pannier tank picked up cheaply second hand. Spare bodies are even cheaper as the chassis are popular with 009 modellers, and one was obtained for a pound in a bits box at an exhibition. Just as well, as my first attempt did not go according to plan!

The idea was to cut off the existing boiler and tanks, leaving the cab and footplate. I reasoned that the latter would be the hardest to make, while the former are really just a tube stuck in a box. What about the obviously Swindon styled cab? I hear you say. Well, many of the Welsh locomotives were overhauled at Swindon after the 1923 grouping, and it seems that the Swindon officials didn't like the appearance of some of them as they substituted classic GWR cabs as well as the more obvious fittings like chimneys and safety valve covers. So that's what 'happened' to No.5.

Right and below right: No.5, working yet more empties from the docks and posed in all its filthy glory. The wagon behind the buffer beam is an N Gauge Society kit.

The only way to perform this surgery was to use a hacksaw. The cast metal body is made of a fairly light alloy, so it cuts without too much effort. Only two cuts are required, the first being just above the smokebox saddle. However, as I did the second cut between the cab and the firebox, I got a bit carried away and went through the footplate on one side! Thank goodness for the spare body, and with a bit more care, this one was successfully operated on.

I already had a smokebox door, chimney and dome; these are lost wax brass castings by N Brass Locomotives for an LNER J50 (they were purchased a few years ago, but the range is now much bigger). Therefore, I selected a boiler size that best fitted these pieces; it is little more than a tube from an old pen. I have a box full of round tubes from a variety of pens. Having been a student and then worked in offices for years, there has been a steady supply of all shapes and sizes, and when they run out I keep the tubes (the inner tubes that hold the ink are also good for making pipes). The tanks are rectangles of 80 thou plasticard. Onto the end and side of this was laminated 10 thou plasticard so as to give a lip at the top. The thick plasticard clears the motor and gives a base for tank tops.

Next came the most complicated piece – the boiler. The first thing to do was get a clean cut at 90 degrees for the smokebox door but this was easily achieved with my trusty Xacto razor saw and mitre box. To give the smoke box a bit of substance, I wrapped a strip of 10 thou plasticard around the end of the tube. The trick here is to give it a bit of a natural curve, and this was simply done by pulling it between my thumb and the edge of the worktop, a few times each way. It was cut to length so that the ends meet exactly. This was glued on in several sessions – if you try an do it in one go, the plasticard will spring off, and trying to wrap it in elastic bands does not allow for fine adjustment. Where the plasticard meets defines the bottom of the boiler. The top required two holes to be drilled in line, to accept the locating spigots on the chimney and dome (you could remove the spigots and just glue them on, but then they would be more prone to being knocked off). Then the underside of the boiler was cut and carved away slowly, a small bit at a time, until it cleared the motor successfully. The boiler/smokebox was glued finally to the smokebox saddle; the chassis was kept in while the glue set as the other end rested on the top of the motor.

The tank tops are 30 thou plasticard and the edges were rounded underneath where they butt up to the boiler. Some Araldite was added underneath to make a strong join. Tank filler flaps are from some old Hornby track pins I had, inserted into drilled holes. The tank vents are Peco track pins similarly installed. The top of the firebox was made from 60 thou plasti-



card, with the edges rounded with a file and it is simply glued onto the tank tops between the cab and the boiler. A hole drilled in the centre of the firebox top takes a piece of brass wire to represent the whistle, though this was fitted after painting. Finally, the chimney, dome and smoke box door were fitted. You could probably get a bit of lead in the boiler and the tanks for adhesion, but this little loco will only ever have light duties so I was not too worried.

The bunker and coal were treated in the same manner as for No.4. Painting and lettering were as before but this time I decided to weather the loco heavily to anything but pristine condition. We have an image of steam locomotives always being shiny, but photos seem to suggest that these forgotten little workhorses came low down the list for the cleaners' priorities. It seems a horrible thing to do after all the effort that went into making it, but these days I prefer the grimy look to the 'out of the box' look.

Flight of fancy

It is said that to model faithfully every last bit of Waterloo station in 00 gauge would require the space of a tennis court. Few have that kind of space available, so models of prototype locations are usually a compromise – a siding lost here, a platform there. Most of us take the easier route of a fictitious location (the 'might have been' if the such-and-such railway had carried on past somewhere) but still faithfully reproduce everything else, be it LMS, LNER or whatever. American modellers make all these compromises, but many take the 'might have

been' approach a stage further. Some layouts are completely fictitious not only in their location but also in the name and the livery of the railway company. With independent locomotive builders in America, it is plausible to assume that they supplied the same equipment to the imaginary railway company as well as the real ones.

I cannot recall any British outline modeller ever being brave enough to take this approach in recent years, apart from the narrow gauge fraternity, where the informality of the prototype seems to extend more easily to the modelling of a fake company. The Somerset & Dorset Joint Railway had most of its stock supplied by Britain's once huge locomotive building industry, and of course, its famous 7Fs came from the Midland Railway. It would be easy to take this a bit further and develop your own imaginary 'independent' line with motive power supplied by the locomotive works of the main railway companies of the late nineteenth century.

I've gone part way towards this idea with my five GWR might-have-beens. A fictitious Welsh railway company with an imaginary route from the valleys to the docks, struggling to stay solvent until it was finally absorbed into the Great Western Railway, probably long before the 1923 grouping. I think that this is a good way for GWR modellers to extend their loco stud, using whatever skills with which they feel comfortable, from simple repainting to scratch building. Of course, these engines would not have seen much service outside Wales but there are always excuses to overcome this.





Vale of Rheidol 2-6-2T in 16mm scale

The latest steamer from Roundhouse depicts the hefty VoR Prairies

Geoff Thompson discusses the railway and the engines.

Doncaster has a long and proud association with the steam engine. Note that I write *has*, because the tradition continues, albeit on a rather smaller scale, and in more ways than one. Roundhouse, based in Doncaster, has been producing live steam locomotives for 16mm and G scale since 1982. The firm is held in very high regard for the running quality and reliability of its models.

The latest Roundhouse offering is rather special; a highly detailed model of a powerful 2-6-2 tank loco, the prototypes of which are still running on the Vale of Rheidol railway in Wales. This is such a superb new model, and of prototypes running on a really marvellous railway, I hope you won't mind if I devote this piece to both.

The origin of the species

It is worth spending a little time to appreciate the origins of these narrow gauge leviathans. The VoR has spectacular scenery, and it is chiefly the beauty of the Vale which has kept

the railway going since it opened in 1902. During the 1850s, mine owners were keen to have an easier way of getting their copper and lead down to Aberystwyth, but it was not until August 1897 that capital was forthcoming and the Act allowing the 1'11¹/₂" gauge railway was passed. By then, Aberystwyth was a popular seaside resort, and the line was conceived with tourist traffic, as much as ore, in mind.

The Victorian capitalists had been wise to wait, because mineral and timber traffic alone would never have sustained the railway. Indeed its short harbour branch closed completely as early as 1924. The main line was a different proposition, however, and ended up as part of British Railways, with steam haulage continuing until November 1988, a generation after it had disappeared elsewhere on the then BR. The following Easter, the line was in business as usual, under new management, and its steam locomotives are still chugging up and down the Vale of Rheidol as I write. Nowadays, the locomotives themselves are a major attrac-

tion, but that is not to underrate the spectacular scenery of the journey.

In the summer months of the years leading up to the First World War, such was the demand for passenger stock that goods wagons were pressed into service as 'observation coaches' and, believe it or not, the occupants forked out an extra 3d for the privilege! For the first 4¹/₂ miles of their 11³/₄ mile journey, there wasn't a great deal for these passengers to observe, but as the railway leaves the river bank it heads off into the hills, its trains storming up an almost unrelenting 1 in 50 gradient, (the ruling, i.e. steepest, being 1 in 48) around ferocious, spiralling horseshoe curves of just three chains (60.9m) radius, until they reach Devil's Bridge, no less than 680' (209m) above sea level. In order to achieve this Herculean feat, the railway's directors invested in two colossal Prairie tanks which, at 22 tons, were the most powerful conventional locomotives to operate on the narrow gauge railways of the Principality.

Left: a VoR train drifts across the viaduct.

Right: the Roundhouse VoR Prince of Wales.

Below right: No.9 Prince of Wales caught broadside at Aberystwyth on 8 August 2000.

Photograph: Frank Hornby.

VoR No.1 *Edward VII*, and No.2 *Prince of Wales*, had a somewhat unusual provenance. They were built in 1902 by the celebrated Romiley (Manchester) engineering company of Davies & Metcalfe, which had hitherto confined itself to producing locomotive injectors and boiler fittings. Some folk would have the company's directors holidaying in North Devon armed with tape measures, for the 2-6-2 tanks they produced bore more than a passing resemblance to the somewhat novel, for narrow gauge, Prairie tanks of the Lynton & Barnstaple. The pair were, actually, an acknowledged enlargement of the Manning Wardle 1897 design. Davies & Metcalfe's company motto might have been 'quit while you're ahead', for, having constructed these two splendid machines, it returned to its former trade, and produced no further locomotives.

The directors of the Vale of Rheidol must have been quite pleased with the success of the railway in its first few years, but their joy was short lived. While they were busy costing up a scheme to convert the railway to hydro-electric power, the Cambrian bought the railway out from under them. The Cambrian's interest must have been purely pecuniary, because aside from painting everything dark green when it acquired the company in 1913, the firm took no further interest. The austerity of 1915 saw the locos painted plain black and bearing no nameplates, but the Cambrian decided to admit to ownership after a while, and painted its name in yellow on the tank sides.

Renaissance

The VoR suffered the same economic difficulties which beset many small railways after the First World War, and it was limping along when it was absorbed into the Great Western Railway in 1922. Now you might suppose that a railway which had once regarded 4'8½" as a bit on the flimsy side would look askance at this diminutive acquisition, but not a bit of it. The chairman took an interest in the VoR and the company set about revitalising the whole operation. Track was renewed and coaches were ordered but most significantly, in 1923, the first of our two prototypes was built. The GWR, ever true to its love of standardisation, stuck to the same basic design as the originals, but with Swindon fitting, of course, and Walschaerts valve gear. The new locomotives, Nos.7 and 8, were even more powerful than the originals, weighing in at 25 tons.

In the same year, VoR locos 1, now numbered 1212, was overhauled and given standard Swindon fittings, but retaining its Stephenson motion. In 1924 VoR No.2, GWR No.1213, went to Swindon for heavy overhaul. It was thought that this included a similar treatment to 1212, but with the addition of Walschaerts valve gear. It transpired, some six



decades later, that Swindon had built three full sets of parts when Nos.7 and 8 were built, and instead of overhauling 1213, it secretly built an entirely new locomotive. So well was this concealed that GWR and BR records continued to show VoR No.9 to be of 1902 construction.

Despite the best efforts of the GWR, officially and unofficially, the railway continued to decline. Freight traffic ceased in 1931, as did winter passenger trains. Four locomotives could hardly be justified, so the non-standard 1212 was withdrawn in 1932. No buyers came forward, so she was cut up in 1938. The GWR stuck by the railway in spite of everything, and it was up and running again as soon as the Second World War had ended.

Yet more colour schemes!

British Railways decided to try to make something of the line with a publicity drive in 1956, giving the 'original' locomotive, No.9, its 'old' name *Prince of Wales*, and naming the Swindon locos No.7 *Owain Glyndwr* and No.8 *Llewelyn*. This interest was short lived, and things deteriorated still further until 1967. By then the preservation movements were showing what could be done with tourist lines, and a group tried to buy the railway. BR eventually decided it would not sell, but had another go at making it pay. Coaches and locomotives were painted BR blue, and the nameplates were brought out of storage.

In 1970 the VoR Supporters Association was formed, and the group worked hard to preserve the railway, with BR's assistance. The

work paid off, because in 1975 the railway carried more passengers than it had ever done before. In 1980 No.8 was restored to full GWR livery, and two years later No.9, the 'oldest' (!) locomotive, was restored to original yellow ochre with full lining and crest.

The Roundhouse VoR locomotive

The Roundhouse model of the Vale of Rheidol Prairie has a stunning amount of detail, right down to fire irons and shovel. It comes with a full set of brass etched number and name plates, so you can choose which of the three locomotive you own, or even all three! The loco is available in a range of colours, and you can choose to have the dome black (standard supply) or the same colour as the cab and tanks. This is a large model, as you would expect, given the prototype. Although not tall, it has the broad look of the original, at 135mm.

The technical specification is impressive. The fully sprung chassis ensures that its 5.3kg are borne on the rails with maximum adhesion by all six wheels. 17 tons of the prototype's weight were carried by the driven axles. Although the centre wheels are not flanged, so the loco will negotiate quite tight curves, the wheels are the same diameter as the other drivers, so do contribute to adhesion.

The burner runs on butane gas, and it is nice to see that the gas valve has a proper loco-style handle. The cab roof hinges back to give easy access to the gas valve, and the flying charger lead. Both loco and radio control are supplied with rechargeable batteries and charger.

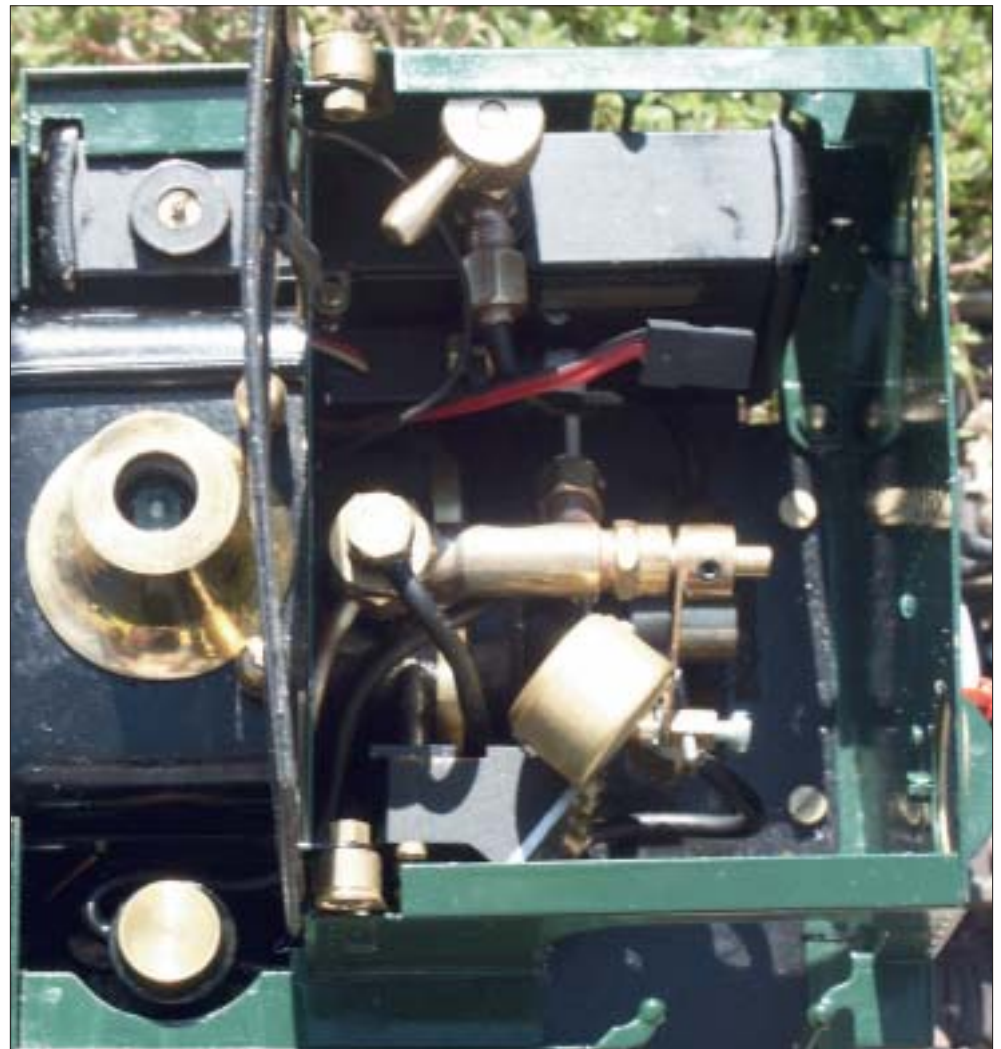




The model has all the usual controls as standard; steam regulator, safety valve, pressure gauge, displacement lubricator, gas regulator and reversing gear. The steam regulator and reversing gear are radio controlled; manual operation isn't available with this model. The radio control is four-channel, the two addition-

al channels being available for two rather nice optional extras, one being a whistle. The other has a practical as well as cosmetic purpose. It is used to operate a valve which diverts the exhaust steam through 'drain cocks' attached below the cylinders. This has the practical function of ejecting the condensate which

forms in the cylinders onto the track, and giving a nice show of steam from the drain cocks before the locomotive moves off, just like the real thing. Wheels are insulated as standard, and are adjustable for 32mm or 45mm gauge. There is enough room in the cab for a driver, which I like to see on a model loco; the



one in the heading picture has a slight resemblance to a well known model locomotive designer!

Operation

You can operate the loco as single fill, i.e. top up with distilled water and steam oil, fill with gas (you will need a long refill adaptor) and she will run until the gas runs out before the water does. Run in this mode, the loco will manage about 20 to 25 minutes, depending on the load and the gradients on your line.

If you prefer a longer duration without topping up the gas, a larger tank is available as an optional extra, which will give runs up to an hour, although you will need to keep an eye on the water level, topping up via the filler as necessary. (The water top up system, using a garden spray type bottle, is also standard.) Incidentally, I add a little vegetable dye to my distilled water, which makes it a bit easier to see the level in the sight glass. This locomotive has a new design of water gauge which is incredibly accurate, and does not suffer from trapped air bubbles.

Don't forget to check that the lubricator has enough oil on those long runs too. Drain off the water and top up the oil when you fill the gas tank.

On the road

So how does she perform? If you are familiar with Roundhouse locomotives, you will expect a good performance, and you won't be disappointed. This model uses tried and tested Roundhouse components and technology, and its heft, coupled with the springing, ensure that the loco can deliver the best performance from its plant. Once steam is raised, which is fast and efficient, the burner can be turned down to a level sufficient to maintain running pressure, and it will be almost inaudible, letting the exhaust do the talking, which is as it should be. On the demonstrator model I tested, the burner was difficult to keep alight for the first few seconds, but I soon established an optimum position for the control lever and had no further difficulty. Roundhouse assures me the production model does not have this problem.

Setting the burner is one of the real arts of live steam operation. If you set it too high the locomotive will blow off steam constantly, which will reduce the running time, and isn't very prototypical. Set it too low and the loco will run out of steam, stalling until the pressure can build up again. The trick is to set the burner to provide just enough steam to do the job,

Above left: Roundhouse VoR Nos.7 and 9.

Far left: the new water gauge.

Left: the workings and controls: top left gas filler, bottom left displacement lubricator (both hidden in operation by dummy coal loads); top right gas burner control and middle the loco charger fly lead.

This page: green and tan liveried versions of the Roundhouse VoR No.9.

Photographs by the author and Roundhouse.



which will depend on three things: the railway, the load and the speed at which you want to run. I like to run at a scale 15mph or so as a maximum, and my line has fairly gentle gradients. The curves on the main line are minimum 4' radius, which, although they do slow down the trains, don't bring them to a halt. My stock is fairly heavy, each item approximately the correct scale weight, so I don't go in for unrealistically long trains. I find that if I start a Roundhouse off at about 25psi, and turn the burner down so that the loco neither blows off nor stalls, it will trundle around my railway without exceeding my speed limit, and without me needing to operate the regulator once I have set it to tackle the hardest sections of the line.

The exhaust diverter 'drain cocks' are very good when starting off initially because the condensate simply ejects onto the trackbed. Once the water is out of the cylinders, the show of steam is wonderful. Starting the loco off after a pause, with steam shooting forward from the cylinders, looks so realistic and creates an atmospheric image very reminiscent of the real thing.

So what about that whistle? Well, I have to say I am very impressed. Roundhouse has

spent a lot of time and experimenting to get this right. The tone is mellow, and not too loud, quite in keeping with the scale. Very realistic indeed. A restricting valve is fitted to ensure the whistle does not become shrill, but if it did ever go 'off tune', the remote control lever trim screw will 'tune' the whistle back to its proper dignity!

All in all, this is a splendid piece of model engineering, one of the finest production models I have seen. It would appear a lot of people agree, because it has been one of the most successful launches of a new model that Roundhouse has ever known.

Roundhouse Engineering Co. Ltd., Unit 6-7, Churchill Business Park, Churchill Road, Wheatly, Doncaster DN1 2FT. Tel: 01302 328035. Price for the basic model is £1,659.57 plus VAT.

Further Vale of Rheidol information

The Narrow Gauge in Britain & Ireland, Cliff Thomas, Atlantic.

(The Encyclopedia of) Narrow Gauge Railways, Thomas Middlemass, Guild.

Narrow Gauge Railways of The British Isles, P.B. Whitehouse & J.B. Snell, David & Charles.



Stonebrigg

Modern period N gauge in 12' x 2'6"

Peter Johnston describes his second layout in this scale.

Stonebrigg is my second N gauge layout and the first I have exhibited. It came into being as a result of moving house in May 2000.

I had previously dabbled with 00 gauge branch line layouts but had never really been satisfied with what could be achieved in the space I had available.

The move to N gauge was further fuelled by my starting to commute regularly to work by rail and becoming aware of the variety of trains and stock to be seen as a result of the then starting privatisation process; this was in 1996.

With these factors in mind *Stonebrigg* is a simple tail chasing layout with which I have attempted to capture some of the colour and variety of the contemporary railfreight scene. This started with the purchase of a couple of Graham Farish sector liveried locos and some air braked PGA hopper wagons and over the past eight years has mushroomed until now I have some sixty locos and over forty trains for them to haul.

In order to do this certain compromises have had to be made in terms of the length of trains and the level of detail portrayed. The final result is what would be called in model boating terms a stand-off model, one in which all the components fit together and look right from the normal exhibition viewing distance but which are not necessarily up to museum display standard.

To this end the track plan has been kept deliberately simple, which also looks more realistic and helps to ensure smooth running, and individual trains are restricted to about half their true lengths so as to fit in the 11' length of the layout without filling it. The scenery has also deliberately been kept simple so as not to distract from the trains and the main lines have been curved in from the baseboard edge and then back out to it again. In my opinion this looks much better than having them run parallel to the edge and accentuates the length of the trains as they snake through the curves in prototypical fashion.



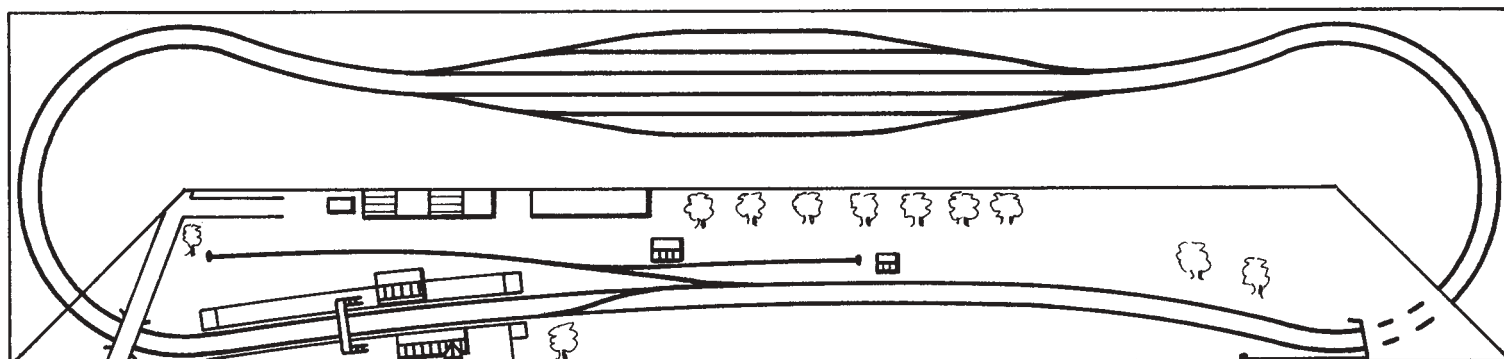
Stonebrigg, like its predecessor, is basically a double track oval viewed from one side with a set of hidden storage loops on the other. The visible side has a small country station with a single siding and trailing crossover at one end with open country at the other where the tracks disappear into a cutting and tunnel. The hidden section consists of three storage loops in each direction. The actual track plan has been kept deliberately simple to help give a modern look. The visible tracks curve in from the baseboard edges on the centre section to avoid too long a straight section. This whole arrangement has been adopted to avoid the symmetry found on many layouts and to provide interest as trains snake through the reverse curves and clickety-click over the baseboard joints.

The overall size is just under 12' long x 2'6" wide made up of three boards each 45" x 30". This allows for trains of up to twenty-four 4-wheel or twelve bogie wagons to be run. I find this length of train to be a good compromise between prototype train lengths (up to twice

these sizes) and what looks right on the layout without the train filling the whole viewing length and so being part of the scene rather than dominating it.

The construction of the layout follows conventional forms with the baseboards having chipboard tops with 2" x 1" softwood framing and supported along one wall of the spare bedroom on top of MFI bookcases, the shelves of which provide space for stock storage. For exhibition use my father has built a set of four folding trestles along with a storage cradle that allows the whole layout plus stock and two operators to be transported in a Toyota RAV4.

Trackwork is Peco finescale with large radius points on the viewing side and medium for the storage loops. The baseboard size used allows a radius of 12" for the curves on the inner circuit and three storage loops in each direction. I chose to go for a small number of long loops rather than more shorter ones to enable longer trains to be run, although it does result in more stock handling when trains have to be changed. The track has been laid



Left: station with no trains – buildings are mostly Kestrel plastic kits, although the modern industrial unit was scratchbuilt.

onto cork sheet and after wiring and painting of the rail sides it has been ballasted with fine granite chips which were spread dry and then stuck down using dilute PVA glue applied through an eye-dropper. Control is provided by two ALL Components OnTracks hand held controllers with the visible points being operated by Seep point motors via a Peco electric pencil and stud contacts on a simple control panel. Electrical joints between the baseboards are made through connectors brought at a local computer fair. The baseboards themselves are located together using wooden dowels and secured by coach bolts and metal plates along the outside edges.

Scenery is also fairly conventional being formed from polystyrene blocks covered with plaster soaked cloth and treated with brown paint and several layers of mixed shades of Woodland Scenics ground cover. All the non-railway land has been raised above the level of the track bed to avoid too flat a look and the joint between the baseboards and the backscene has been camouflaged using trees and structures.

The trees themselves are from cut down pieces of 'Forest In A Box' with foliage added by spraying them with hairspray and then sifting fine scatter material over them once the trunks had been fixed into position. Buildings are mostly from plastic and card kits that have been modified to fit the spaces available and to give them some individuality. The main exception to this is the modern industrial unit behind the station which has been scratch-built from embossed plasticard over a balsa wood shell. Bridges and platforms are simple balsa wood shells faced with appropriate pattern plastic sheets and topped with a skim of plaster to represent tarmac surfaces.

Small details are from the usual variety of sources and have been deliberately kept to a minimum as I feel that those layouts that have lots of this sort of thing tend to look very cluttered and unrealistic. One feature that draws comment is the graffiti on the retaining walls that support the road bridge that forms the scenic break at the station end of the layout. Signalling is represented by non-working two aspect colour lights that are positioned to allow passenger trains to terminate at the main station platform and then use the crossover to depart back along the other line.

My main interest is in building and running freight trains and as said earlier this has grown from the original Graham Farish items to a wide selection from all manner of sources (see table right and overleaf – Ed.). Originally it was intended to keep the period modelled to within the last three or four years but as time has progressed and older stock is withdrawn this period is becoming more elastic as it becomes harder to have the heart to retire old favourites. However at exhibitions I do still try to keep to individual trains with the correct locos and stock and to avoid running trains from different periods at the same time.

Stock List – Locomotives

Class	Livery	Number	Details
67	EWS Maroon	67 026	Latest CJM model
66	EWS Maroon	66 017	
66	EWS Maroon	66 023	
66	EWS Maroon	66 096	
66	FreightLiner Green	66 507	
66	GB Railfreight	66 704	All CJM
60	Transrail Grey	60 015	Taylor Precision Models (TPM) kit, Farish Cl.50 chassis
60	EW&S Maroon	60 024	TPM kit on LifeLike chassis
60	British Steel	60 033	TPM kit on Farish Class 50 chassis
60	EWS Maroon	60 045	CJM
60	Coal Sector	60 060	TPM kit on LifeLike chassis
60	Mainline Grey	60 086	CJM
59	Foster Yeoman	59 004	CJM
58	Mainline Blue	58 038	BH Enterprises kit on Farish Class 40 chassis
57	FreightLiner Green	57 002	Bachmann renumbered, with TPM detailing kit
56	Rail blue	56 004	Renumbered Farish
56	Loadhaul Black	56 021	CJM
56	Transrail Grey	56 044	CJM
56	Unbranded Grey	56 081	Repainted Farish
56	EW&S Maroon	56 105	Bachmann
56	EWS Maroon	56 113	Renumbered Farish
47	RfD European	47 125	Detailed/weathered Farish
47	Sector Distribution	47 276	Renumbered Farish
47	FreightLiner Grey	47 276	Detailed/repainted Farish, on Bachmann chassis
47	Railfreight Grey	47 356	Repainted Farish
47	Fragonset	47 709	Detailed/repainted Farish, on Bachmann chassis
47	Network SouthEast	47 711	Renumbered/detailed/weathered Farish
47	Parcels Red	47 717	Renumbered Farish
47	Res	47 726	Detailed/repainted/weathered Farish
47	EWS Maroon	47 744	Farish
47	DRS Blue	47 802	Detailed/repainted Farish
47	Great Western Green	47 813	Detailed/repainted Farish
47	InterCity	47 834	Farish
37	Large Logo Blue	37 025	Converted/repainted Farish
37	Mainline Blue	37 047	Converted/repainted Farish
37	Transrail Blue	37 116	Converted/detailed/repainted Farish, Bachmann chassis
37	Coal Sector	37 229	Converted/repainted Farish
37	Transrail Dutch	37 351	Repainted Farish
37	Regional Railways	37 414	Repainted Farish
37	Royal Scotsman	37 428	Detailed/weathered Bachmann
37	DRS Blue	37 612	Converted/detailed/repainted Farish
37	EWS Maroon	37 670	Detailed/repainted/weathered Farish, Bachmann chassis
37	EW&S Maroon	37 688	Repainted Farish
37	Loadhaul Black	37 710	Repainted Farish
37	Sector Metals	37 711	Renumbered/weathered Farish
37	Mainline Grey	37 800	Repainted Farish
37	Transrail Grey	37 897	Detailed/renumbered/weathered Farish on CJM chassis
33	Dutch	33 025	Detailed/weathered Farish on TPM chassis
33	EWS Maroon	33 030	Detailed Farish
33	BR Green	33 106	Farish
33	Rail Blue	33 109	Farish
31	Dutch	31 308	Detailed/renumbered/weathered Farish
31	Mainline Blue	31 407	Repainted Farish
31	Regional Railways	31 465	Detailed/renumbered/weathered Farish
31	EWS Maroon	31 466	Farish
31	Rail Blue	31 467	Renumbered/weathered Farish
08	EWS Maroon	08 957	Farish
73	Inter-City	73 139	CJM



Left: class 101 DMU (Farish) entering station under scenic break.

Centre left: EWS 37 670 (detailed and repainted Bachmann) with ballast train (N Gauge Society kits) in siding.

Bottom left: EWS 67 026 (CJM) approaches the tunnel with mail vans (Hurst etched sides on Farish coach bodies).

Photographs by the author.



This is not usually too difficult as there are many classes and liveries that could have been seen from any time over the last ten years. A similar situation applies to locations where while some classes and types of train are restricted to certain areas and routes; others can be seen all over the country and can be used gradually to move the area represented around the country. Over the time that I

have been modelling in N gauge I have amassed a large and varied collection of stock, both locomotives and trains.

Locos range from basic 'as bought' Graham Farish and Bachmann, through various degrees of detailing and rebuilding to kits running on both Farish and US outline chassis to a growing number of CJM products.

The following classes are available for use:



- 08 1 – a standard Farish loco;
- 31 5 – mostly detailed/renumbered Farish but one complete repaint into Mainline blue.
- 33 4 – again detailed/repainted Farish but with one running on a Kato based TPM chassis.
- 37 14 – these are both original Farish products and the newer Bachmann versions. Work done on them ranges from simple detailing and renumbering, full repaints, conversions to represent unrefurbished locos and flush/split headcode variations and on recent examples the fitting of replacement side and roof grills. The most complex conversion has probably been the DRS 37/6.
- 47 12 – again much like the 37s with a mixture of models new and old that have been detailed and converted to various levels. Standard detailing includes blanking the boiler exhaust port on the roof, cutting away the bufferbeam cowling, fitting multiple working cables and modifying the fuel tank/battery box units where appropriate.
- 56 6 – a mixture of original Farish (3), new Bachmann (1) and CJM (2).
- 57 1 – this is a renumbered Farish body detailed with the TPM conversion kit and fitted onto a new Bachmann chassis.
- 58 1 – a BH Enterprises etched brass kit running on a modified Farish Class 40 chassis.
- 59 1 – this is a CJM loco finished in original Foster Yeoman silver livery.
- 60 6 – these are a mixture of TPM resin kits on either Farish Class 50 (2) or LifeLike (2) chassis and CJM (2).
- 66 5 – these are all from CJM and represent locos in EWS, Freightliner and GB Railfreight liveries.
- 67 1 – the latest addition to the fleet is another CJM product which takes these superb models to an even higher level.
- 73 1 – again a CJM loco this time finished in weathered InterCity livery.

Rolling stock is from an even wider variety of sources and I have attempted to produce a far greater variety of train than is usually seen.

Where ready to run vehicles are used they have been variously repainted, loaded, detailed, modified and weathered. Most have also had their wheels replaced by blackened finer profile ones from Parkside Dundas and Kean Maygib.

In addition to these I have put together a large and varied collection of mostly bogie vehicles from a range of other sources which include:

Bogie Hoppers – both etched and resin kits and heavily modified continental outline models.

Intermodal – a Medite container train has been built using C-Rail container kits mounted on detailed Farish Freightliner flats, a rake of Fleischmann wagons repainted into EWS livery and a gypsum train featuring resin containers on scratchbuilt 40' KFA wagons.

Steel Carriers – kits for BAA, BBA, BDA and BMA types plus Roco telescopic hooded wagons.

Box Opens – kits for British Steel ore tippers, Yeoman stone wagons and Sheerness Steel scrap wagons.

Others – a set of three Cartic-4 car transporter units, a nuclear flask train from TPM kits, continental 4-wheel and bogie vans and some Minitrix tank wagons that have been used to represent the Silver Bullet china clay slurry tank wagons.

One very good source of wagon kits is the range that is produced by the N Gauge Society, access to which alone is in my view well worth the cost of membership without taking into account the excellent Journal and shop services.

I have also made extensive use of etched coach side overlays from Hurst Models and ISM to produce modern mail vans (Super-GUV, Super-BG and PCV), a set Serco Test Train vehicles and a weedkiller train.

On the passenger front local services are operated by Class 101 and 158/9 DMUs, again in a variety of liveries to represent different areas of the country. I am looking forward to the arrival of the new Bachmann Class 170 Turbostar both to add further variety and to use the chassis to improve the running of the existing 158/9 units. Longer distance passenger workings are provided for by a rake of Virgin liveried Mk2 coaches and a Midland Mainline HST set. Both of these have been improved by having interior details fitted and by reducing the space between vehicles (by removing the spring from one coupling of each coach and gluing the rear of the hook directly onto the front of the mounting) and fitting gangway connections made from draught excluder foam. One of the Class 101 DMUs has been fitted with a Japanese Green Max chassis in a partially successful attempt to improve its running qualities.

Hopefully the accompanying pictures will give an impression of the variety of stock that is available for use.

Both locos and stock have been selected to enable realistic train formations to be run based on both personal observations and reference to the various prototype magazines.

Current rolling stock projects include further upgrade for Class 37s and 47s to use the new Bachmann chassis, an Anglia Railways liveried class 47, converting a pair of Class 20s into DRS 20/3 versions using TPM parts and using a set of etched sides to produce a pair of Porterbrook EMU barrier coaches. On the layout side I am considering ways of increasing its width to enable more storage loops to be fitted and looking into providing some kind of lighting rig for use at exhibitions.

As has been hinted, *Stonebrigg* has fulfilled my ambition of having an exhibition layout, including an appearance at the N Gauge

Stock List – Coaching stock and wagons

Class/type	Livery	Quantity	Details
101	Network South East	1	Farish on GreenMax chassis
101	Regional Railways	1	Farish
158	Regional Railways	1	Farish
158	Central Trains	1	Bachmann
159	Network SouthEast	1	Farish
HST	Midland Mainline	1	Detailed/close coupled Bachmann
Mail Vans	Res	9	Etched sides for Super BGs/Super GUVs/PCVs
Mk2s	Virgin	6	Detailed/close coupled Farish
Test Train	Serco	4	Etched sides on Farish coach bodies
Weedkiller Train		2	Etched sides on Farish coach bodies
FreightLiner		8	Detailed Farish with mixed Farish and continental containers
Pocket Wagons		2	BH Enterprises kits with Arnold containers
EWS Container Flats		7	Repainted Fleischmann
Intermodal		6	Roco
Bogie Oil Tankers		11	Farish
Russell Coal Containers		10	TPM Kits
HEA Coal Hoppers		15	TPM Kits
Bogie Iron Ore Tippers		12	TPM Kits
Seacow Bogie Ballast Hoppers		7	N Gauge Society Kits
Gunnell 4-wheel Ballast Hoppers		10	Converted Farish PGAs
Shark Ballast Brake Vans		3	NGS Kits
CEA Covered Hoppers		9	Converted TPM HEAs
4-wheel Oil Tanks		9	Peco
Yeoman Box Opens		7	Ian Stoate Models (ISM) kits
Nuclear Flask Train		6	TPM Kits
4-wheel LPG Tanks		18	Detailed Peco
VGA Vans		6	ISM Kits
Railfreight Vans		5	Bachmann
Bogie Ferry Vans		9	Minitrix
Albright & Wilson PCAs		11	Farish
Loaded 4-wheel Ballast Wagons		15	ISM, N-Thusiast Resprays kits
Empty 4-wheel Ballast Wagons		13	ISM, TPM kits
EWS Pressflows		3	Repainted Farish
Railfreight Opens		5	Farish/Peco
Vac Braked Infrastructure		7	ISM Kits
Empty Steel Carriers		6	ISM kits
Hooded Steel Carriers		9	Roco
Loaded Steel Carriers		10	ISM, N Gauge Society kits
Loaded MGR Hoppers		21	Minitrix
Empty MGR Hoppers		21	Minitrix with Parkside hoods
PGA Roadstone Hoppers		22	Detailed Farish
Tilcon Bogie Hoppers		13	John Grey etched kits
Bogie Infrastructure Flats		10	Farish/Peco bodies on scratch built underframes
MEA Box Opens		22	Bachmann
Gypsum Containers		11	BH Enterprises containers, scratch built wagons
Tiphook/Railtrack Bogie Hoppers		8	Heavily modified Roco
Sheerness Steel Bogie Box Opens		4	N-Thusiast Resprays kits
PIA Polybulks		3	N Gauge Society kits
PCA Cement Hoppers		20	Detailed/weathered Farish
PAA Sand Hoppers		18	Detailed/weathered Farish
Hanson Bogie Hoppers		10	N-Thusiast Resprays kits
Cartic 4s		3	N Gauge Society kits
CDA China Clay Hoppers		16	Converted Minitrix MGR Hoppers
Silver Bullet China Clay Tanks		9	Converted Minitrix Tanks
Alcan PCA Presflows		15	Bachmann
Medite Container Flats		10	C-Rail Containers on detailed Farish wagons
Empty Container Flats		5	Detailed Farish
Bogie Wagons		7	Mixed Continental Vehicles

Society 30th Anniversary Show in 2002, and I am always on the lookout for further invitations.

Finally I feel that I should state that I have no connection with any of the companies mentioned except as a mostly satisfied customer.

Converting a Bachmann N Class

Into an N1

Graham R. Muspratt made good use of some DJH parts in his 4mm scale conversion.

The Southern Maunsell N1 Class, consisting of six engines, was a 3-cylinder version of the N Class with the most notable differences being the straight running plate in front of the cylinders, the extended vertical face above the front buffer beam and shallower smoke deflectors. The less obvious difference are the front cab windows where the N1 has a single curved window on each side of the boiler whereas the N Class has a smaller main curved window and a second small circular window above the firebox on each side. Also what I think are lubrication oil reservoirs are located on each side of the running plate just behind the smoke deflectors.

Note that the N1 Class engines were fitted with the 3500/4000 gallon straight sided tender and not the sloping sided 4000 gallon tender as per the later (3)14xx-numbered N Class. [Editor's note – for scale drawings, by the late Ian Beattie and covering the N and the N1 variants, see RM March 1996.]

Brief historical notes

No.822 (later 1822, in 1931 and then 31822 under British Railways) was introduced in March 1923 as the last in a build of 12 other N Class locomotives at Ashford.

No.822 was originally fitted with Holcroft's valve gear for the middle cylinder which was later replaced at the time of the building of the remaining five with Walschaerts gear. It was originally sent to Bricklayers Arms shed for comparison in performance with the 2-cylinder N Class. Whilst no notable improvement in performance was gained the smaller outside cylinders enabled the engine to work on the Hastings line with its restricted width tunnels.

Due to the increased route availability a further five, Nos.876-880 (1876-1880 in 1931 and 31876-31880 under British Railways) were also



built at Ashford between March and November 1930.

They rode well which made them useful for working summer Saturday relief trains to the Kent coast in the days before electrification. Following this electrification the class moved *en bloc* to Tonbridge where they worked through to Redhill and onto the Brighton line and other parts of the Central Section.

Bulleid made some minor alterations to them, removing the snifting valves and fitting U1 chimneys to the five 1930-built engines.

31822 was the first to be withdrawn in November 1962 with the final member, 31880 withdrawn in April 1963. All were right hand drive as per the Ashford standard at the time.

Chassis differences between N1 and N

The motion components and the cylinders on the N Class are not quite correct for the N1.

The N1 Class outside cylinders are slightly smaller and have much smaller valve chests and so the sides slope inwards towards the top unlike the vertical sides on the N.

The bracket to support the pivot of the radius bar, valve stem and combination lever is supported off the frames on the N1 and not the cylinder block as per the N.

Chassis modifications

Cylinder block

I removed the cylinder and, carefully with a fine razor saw, cut off the front and back mouldings of the valve chest flush with the main body of the cylinder block. These were saved and added back to the cylinders later. The cylinder block, judging by eye from photographs, was then filed to approximately the correct shape. As the block is hollow you are then left with a hole where the valve chest should be. I then filled this with Milliput and when hard filed to the finished shape.

The front mouldings for the valve chest were then re-affixed in place. The rear valve chest mouldings were re-affixed in place once the brackets to support the pivot of the radius bar and combination lever were removed. Before re-assembling the valve gear I re-drilled the piston rod hole in each cylinder to ensure that no Milliput impeded the movement of the rod.

Combination lever support bracket

New support brackets were made from $\frac{1}{32}$ " x $\frac{1}{16}$ " brass flat suitably bent and soldered and then glued with epoxy resin to the front edge of the plastic cylinder block bracket. The outside edge of this bracket should be just slightly proud of the edge of the running plate on each side. You must ensure that the brass brackets, one for each side, are insulated from the chassis by a generous coating of epoxy resin otherwise a short circuit will result.

The vertical part of the bracket was made with a U shape piece of 10 thou brass, soldered to the rest of the bracket. The rear of this was drilled to accept the pivot pin on the back of the combination lever.

Valve rod

Once the support brackets were fixed to the cylinder block assembly I fitted a representation of the valve rod using a short length of 0.7mm brass rod glued into a hole drilled in the centre of the steam chest rear moulding and cut to length to end just behind the new radius arm / combination lever bracket.



Body modifications

One of the reasons that I contemplated this conversion was the fact that I had some spare N1 etchings, which were surplus to requirements from a DJH N Class kit I built a while back. These etchings included buffer beam/running plate front and smoke deflectors.

Once the chassis was removed, I removed the two smoke deflectors carefully. They are fixed via three small lugs and should be pushed upwards from underneath the running plate. As I was modelling the locomotive in 1946 condition I also removed and discarded the AWS box and cylinder mounted on the running plate just in front of the cab.

I removed the boiler and cab assembly by removing the one screw located underneath the middle of the boiler and the one underneath the cab (the screw at the smokebox end has already been removed). The cab itself was then removed by sliding it upwards from the boiler.

Front running plate and buffer beam

I removed the sprung buffers and shanks and filed flat the buffer beam, reducing its overall thickness by approx 15 thou which is the thickness of the DJH overlays that I used. I then cut away the curved section on each side of the running plate, leaving the middle flat section in place.

The DJH (or your own from brass sheet) running plate vertical front and buffer beam overlay was soldered together and a backing piece of 30 thou brass filed to shape to match the top edge of the overlay and the top edge of the buffer beam on the running plate. This was then glued to the Bachmann running plate/buffer beam assembly.

The centre drop-down section of the running plate in front of the smokebox was raised to match the profile of the new front buffer beam assembly using two rectangles of 30 thou brass, shaped to fit, as the width narrows after the point where the original running plate remains, and soldered back to back and glued into place. The underside of the smokebox was filed flat slightly to allow the filler plate to fit underneath.

I then made the replacement running plate for the gap left following the removal of the



Photographs by the author.

curved section using 20 thou brass. This overlaps the central drop-down section slightly. This was made to be as close a fit as possible, and then soldered to the running plate and buffer beam to give an invisible joint. In fact the joint with the running plate is virtually hidden on the top by the smoke deflectors.

The outer edge was filed at 45 degrees to thin the edge representing the lip on the edge of the running plate. A piece of 30 thou brass was soldered underneath to give the full thickness of the running plate. Finally the side edge of the running plate was soldered into place using 20 thou x 30 thou brass flat and filed to size to match the Bachmann running plate.

Brass sprung buffers by Alan Gibson, cast white metal steam heat and vacuum pipes, lamp irons (cut down Bambi staples) and small grab handles (0.5mm brass wire) were fitted to the buffer beam.

Front steps

The characteristic tall front steps of the N1 Class were made up from the spare brass DJH N1 step etchings that I had in stock. However these could easily be made from brass sheet or plasticard.

Smoke deflectors

Again I had spare etched N1 smoke deflectors courtesy of DJH but in fact the Bachmann N Class deflectors could simply be cut down to the correct size although the N Class deflectors have a circular grab hole on the front edge whereas the N1 has a rectangular grab hole. This could be rectified with careful filing. Grab handles, from 0.5mm brass rod were soldered in place at the front of the deflector.

Cab

I removed the cab glazing and then carefully filed flush the front moulded window surrounds of all the cab windows. The two circular holes were then filled with Milliput and when set the front face cleaned off level with the cab front.

Thanks, yet again, to DJH I had a couple of spare etched brass N1 window surrounds which I glued into the correct position and then filed the window apertures to suit. A new window surround could be made with a bead of fine plastic from heated and drawn out plastic sprue or fine brass wire, and then the front edge lightly filed flat.

New glazing was cut from 10 thou clear plasticard and filed to shape to fit the window aperture to give a flush effect, and glued into position using a small amount of PVA glue round the glazing edge, as this dries clear.

Lubricating oil reservoirs

Located on each running plate just behind the smoke deflector on each side is what I assume to be a small lubricating oil reservoir/tank. I made these from rectangular plastic rod and glued on the top a small 16 BA cheesehead screw (with the slot filled with solder) to represent the filler cap.

Tender

The 3500/4000 gallon flat sided tender supplied by Bachmann is correct for the N1. Take care not confuse this with the 4000 gallon tender fitted to the (3)14xx series of N Class which has the inward sloping tops to the sides, as this is also modelled by Bachmann.

Removal of Bachmann transfers

I used a BR lined black version of the N Class for this conversion. As I model SR between 1946 and 1948/9 I needed to remove the cab-side number, lining and the tender motif and lining prior to repainting the entire model. Of course if you are modelling the BR period then you can leave the tender as it is.

The transfers used by Bachmann can be removed simply using a little enamel thinners on a cotton bud; I leave the thinners on the decal for a short while to soak in before lightly rubbing off with another cotton bud.

The author is a member of the High Wycombe and District Model Railway Society (see November 2003 issue for article on the Club's Hinton Parva layout) and also the Southern 'e' modellers group. See <http://www.semg.org.uk>





Bitza Sulzer

A Class 24 diesel conversion in 4mm scale

Neil Rushby combined a Bachmann chassis and a Hornby body in this loco project.

I have a need to build a small fleet of Class 24 diesels. My interest lies in the Cambrian lines of British Rail, in the decade following the end of steam. During the late 60s and early 70s the Class 24 was used on freight, parcels and loco hauled passenger, to the exclusion of all others. This is how I went about building the latest loco off the workbench.

There have been two main routes to Class 24 ownership; buy ready-to-run from Bachmann or convert the Hornby 25. Both models have their strong points but both also have their flaws. Bachmann has provided a stunning chassis for its Class 24/25: it is not only silky smooth but has a weight and momentum resonant of the full size machine. I have had the privilege of sampling the Dyna-Drive experience on the Fourmil stand at the York Show, and the Bachmann mechanism comes very close in running quality. It is unfortunately let down by the body in that the cab front roof line is curved insufficiently. To judge from exhibitions a lot of modellers seem prepared to accept this compromise in order to gain the excellent performance.

The route to a better body lies in the Hornby Class 25. Although now quite an old model, the body moulding is well proportioned and captures the character of the prototype. Compared to more recent models it may be a little short on detail, but what is there is well done in a pleasing, understated way. Because the shape and proportions are spot

on it is an excellent candidate for further work and conversion. The running quality, although not bad – especially if extra pickups are fitted – does not match that of the Bachmann mechanism. What I have done is to combine the best bits of the Bachmann and Hornby Sulzers. By avoiding those bits of each model that disappoint, the true worth of the remainder can be appreciated.

I have broken up the work into self contained areas or processes to provide a menu from which you can pick and choose, so feel free to skip past the boring bits. Some techniques are applicable to a whole range of prototypes, others while being specific to the 24/25 work for either the Hornby or Bachmann models.

Basic components

The starting point of my model was a Bachmann Class 25, bought secondhand for a good price because of slight damage to the body. Separate chassis are unfortunately not available. The body is held on by four screws accessed from the underside. With the top off you will notice a circuit board on top of the cast metal block: be careful for the components fixed to it are damaged easily. I found out the hard way and landed myself with a tricky re-soldering job. The Hornby body was sourced as an unpainted spare: ready painted examples are available from stockists such as Modelspares of Burnley.

Above: the completed model, correctly renumbered 5091, sits on the quay at Shell Island. That the body and chassis are by two different manufacturers is hopefully not apparent.

Opposite: Although not an exact comparison, in this shot you can judge for yourself on the shape of the domed roofs. The original Bachmann version is on the right with my hybrid model on the left.

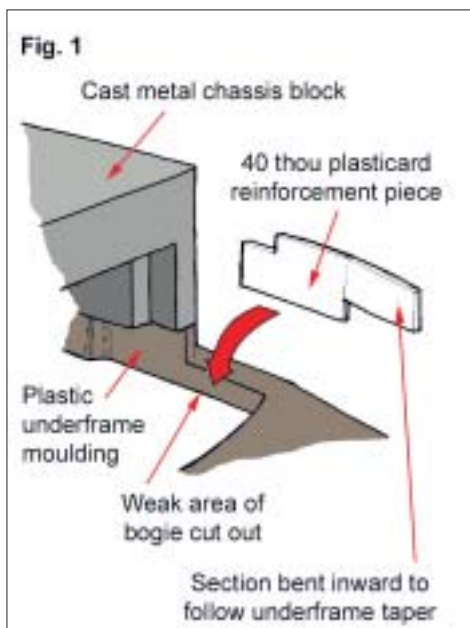
Photographs by the author and Steve Flint.

Chassis shortening

It is necessary to shorten the Bachmann chassis by a fraction over 1mm at each end to ensure both physical and cosmetic compatibility with the Hornby body. I used a 40 thou (1mm) plasticard spacer behind the buffer to guide my razor saw. This ensured that the correct amount was removed and that the cut was square and perpendicular. If you are going to re use the Bachmann buffer beam the spacer will have to be loose, but if you are going to fabricate another as I did the spacer can be glued into place making the task easier.

Buffer beam

Two new buffer beams were fabricated from 40 thou black plasticard. The positions of buffers and coupling hooks were marked out and pilot holes drilled whilst still flat. The beams were attached to the chassis with extra reinforcing gussets as they were to take buffing and coupling forces.



Chassis reinforcing

I noticed whilst tackling these stages a worrying tendency for the end of the chassis to flex around the bogie cutouts. I ascertained that there was space for 40 thou reinforcing strips to be glued to the inner side of these cut outs (see Fig.1). The extra height of these reinforcements added rigidity and noticeably reduced the flexing. I would suggest that this is a pretty vital upgrade for those wishing to use working screw couplings, though it may compromise the minimum radius able to be traversed.

Body clearance

The Hornby body nips in at each doorway to accommodate the recessed cab doors of the Class 25. These protrusions stop the body seating on the chassis, so a small amount needs to be removed at each door inside corner.

As I was going to replace the doors with flush examples for the 24, there was no great concern about breaking out through the doorway. If you want to maintain the inset doors for the Class 25 it should be possible to carve enough away yet leave the door intact, but you will need to work with care.

Underframe end fairings

As I was modelling 5092 in its later years I saved the need to fabricate the fairing along the top edge of the whole chassis, but I still needed to fashion that for the area from the cab door to bufferbeam.

20 thou plasticard was cut to shape. The underframe beneath the cabs was given a few strokes of the file to match the taper of the Hornby body. The fairing plate was then glued to the underframe. The curve at the top was blocked out with microstrip overlays, carved to shape when set with an appropriately sized section of brass tube, and finished with wet and dry (see Fig.2).

Body to chassis fixing

The basic body and chassis compatibility modifications are now complete. The body should sit square on the underframe; it will be a snug fit but there should be no distortion.



However a friction fit between body and running gear is not a good idea.

We can reproduce the fixing points used by Bachmann by building out underhung platforms from the underside of the engine compartment roof. By marking through from the chassis then drilling out undersize the original fixing screws will cut their own thread and enable a firm fixing to be made. All four fixing points can be used for Class 25s and very early Class 24s, but later examples with exposed boiler filling hatches can only accommodate fixings at the No.1 (radiator & fan) end.

Philosophy

One of the more common recurring themes when discussing models is the amount of detail that should be present, whether it be maximum effort with no detail spared or to represent only what can be seen at normal viewing distance. I have a slightly different guiding principle; I only include what I can do neatly and unobtrusively.

Given the choice of under- or overstatement

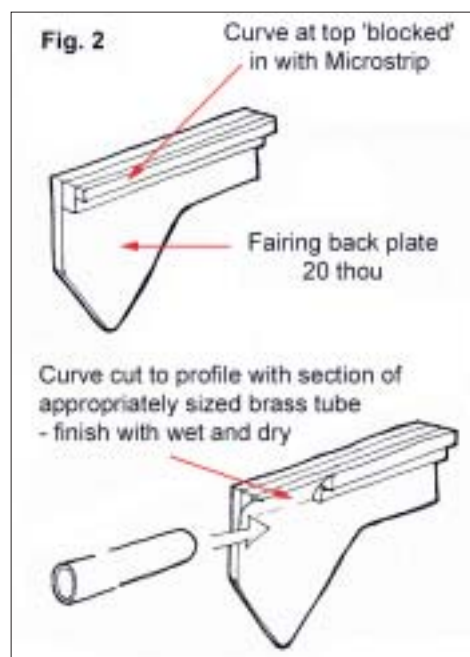
I will choose understatement every time. Nothing shouts 'model' more than clumsily than detail which looks to have been applied separately, hence my use of the blending process that I describe later on, designed to pull the model together as a whole. In this context my particular pet hates are etched grilles which even if applied neatly have a different texture to the plastic body to which they are stuck, and the floppy, bendy, soft plastic handrails with which recent diesel models seem to be blessed. I know this sounds perverse but I prefer the old style solid moulded on rails, which at least were square and straight! With this in mind let's look at the body, as the majority of the work lies there.

Roof domes

Forming these, which give the Class 24 its initial distinguishing feature, is the biggest job on the body. Our example requires the removal of the roof mounted headcode box and airhorn assembly to leave a smooth dome. I find that the best way to achieve this is to pack the rear of the headcode box with Milliput and leave to set hard before roughly filing to shape.

To obtain the correct profile it is necessary also to fill the front face of the airhorn assembly. If this is not done there is insufficient bulk to be able to capture the bulbous appearance of the roof and the leading edge of the dome will meet the cab front at too shallow an angle. I use a large 'W' file for the initial brutal shaping followed by a smaller finer cut file, and finished with ever decreasing grades of wet and dry paper.

I protect surrounding areas with ordinary masking tape during this stage, as the beading between side and roof, and the line of rivets across the rear of the cab roof are particularly vulnerable to a slip of the file. One trick to blend in the areas where the Milliput shows through is to wash over the zone quickly with solvent. This liberates a fine film of liquid plastic from the surface of the model, smoothing out any abraded areas as it passes and deposits this film over the slightly porous Milliput surface, sealing it.



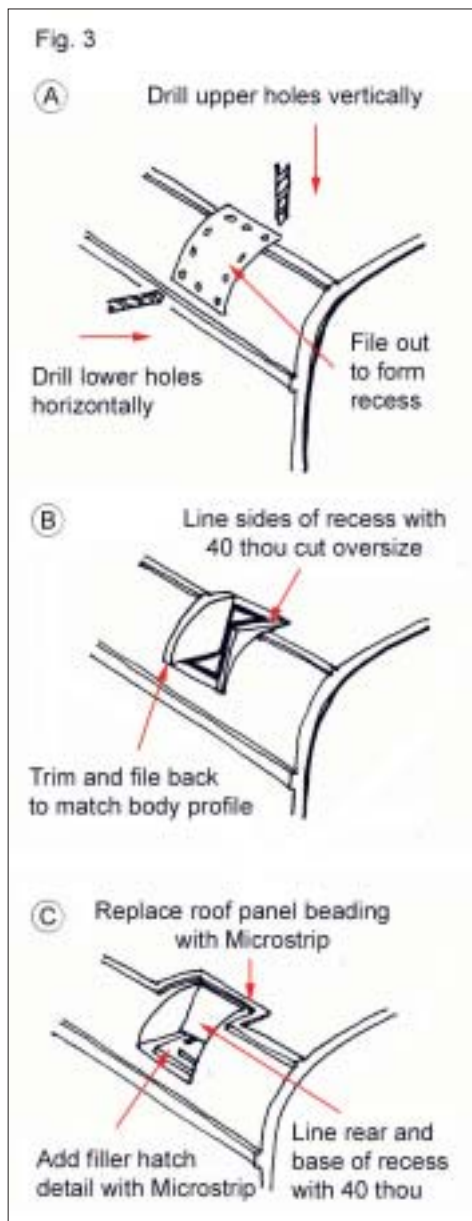


Left: a high level view reveals the mods to the roof of the Hornby body. A great deal of trouble was taken to blend in the work done to pull together the model as a whole.

Right: I am pleased with the fit of the body to the chassis, although one of the flaws, the mis-match of bogie footsteps to the door, is apparent in this view. The replacement door as made up in Fig.4 is also clearly visible here.

Water filler hatches

The recesses for these items need to be carved out of the roofline. Marking out is not easy on the sharply curved roof edge, therefore I use masking tape and concern myself more with symmetry, squareness and parallelism rather than accuracy to the nearest half millimetre.



The aperture is formed by chain drilling, then linking the holes together with a sharp craft knife and filing to size. Take care that the lower holes are drilled horizontally and the upper ones vertically or funny things will happen when the hole is lined (see Fig.3). I use 40 thou plasticard to form the recess, the side cheeks being cut oversize then filed back to suit the roof profile. The beading round the top of the recess is restored with microstrip, which when set is stroked over with wet and dry to take off the sharp edges and blend it in to the roof surface.

Exhaust

Whilst on the roof attention is turned to the engine exhaust, which for engines later on in their life require modification from that provided by Hornby. The original circular port is filled with Milliput and smoothed off as for the roof domes. The new exhaust and cover plate are formed from more plasticard and microstrip, blended into the body with a light pass over with wet and dry.

Boiler compartment roof

To represent the distinctive centre panel a strip of 40 thou plasticard is cut to the same dimensions as the panel on the Hornby body, formed to a curve by bending with the fingers then glued on firmly over the moulded centre panel. When set fully the top surface is filed flat, again finishing with wet and dry. This leaves the required short angled section at the side.

Cab ventilators

At each corner of the cab roof above the doors are what I believe to be vents. They are square in pattern, with a thin square frame. I fashion these out of 10 thou plasticard first punching the centre out with a short length of square brass bar, sliding inside a shorter length of square tubing. A sharp tap on the end with a hammer punches out a square hole which is then cut around to form the vent frame. I usually cut out double the number I require then select the best and most consistent. Fixed to the roof in the correct place with solvent they are again given a wipe over with wet and dry to blend them in.

Bodyside access steps

Filled with Milliput, then smoothed over before setting with a wet craft knife blade: the idea is to get as good a finish as possible to minimise the amount of abrasion necessary. Again a wash with solvent helps unify the surface texture.

Upper body access doors

Present on all Class 25s apart from those early examples which shared the Class 24 body style, they are located next to the filler access steps and need removing. I start by carving off as much as I dare with a chisel blade in my craft knife followed by equally careful filing finished off with wet and dry. Hornby has moulded a small rectangular plate under the boiler compartment grille, which requires removing in the same way as for the access doors.

Boiler compartment grille blanking plate

Many Class 24s ultimately had these fitted. On the model a plate cut from 10 thou plasticard does the job, fitted inside the original framing. The retaining strips are appropriately sized lengths of microstrip, all blended in as before.

Doors

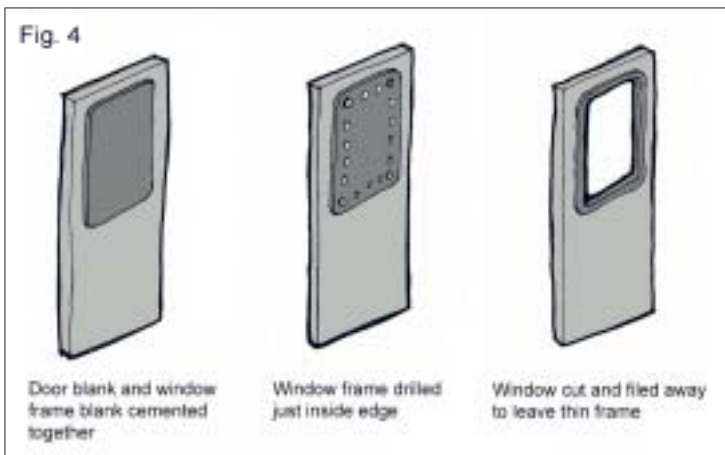
The Class 24 has flush doors whereas the Hornby 25 has the inset doors which were fitted to the last two variants of that class. Two stages are required: to remove those parts of the old doors that would get in the way and to fabricate new ones.

The Hornby moulding has the handrails removed to leave the door surface flush, and the window aperture in the upper half enlarged greatly so that it will not be visible through the new door window. New doors are a laminate of 40 thou plasticard for the door itself and 10 thou cut to the outer dimensions of the window beading. When the solvent has set fully the window aperture is drilled and filed out to leave a thin ridge of beading all around (see Fig. 4). The new door when laminated over the remains of the old should be flush with the body side.

Cabside windows

Unlike the Hornby body we need the window dividing differently though the same overall size will suffice. The Class 24 has a small triangular fixed pane at the front with an almost square droplight window to the rear, separated by a thin glazing bar.

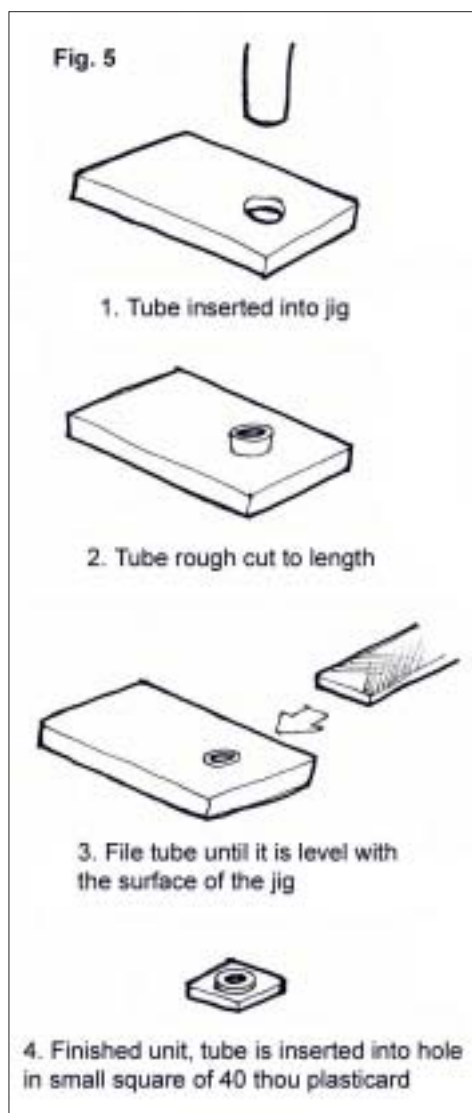
All we need to do now is to remove the dividing bar that is moulded in place on the Hornby body. Cuts towards the top and bottom of the frame with a needle file will get rid of most of the glazing bar leaving two short stubs



that can be dressed back with a small flat file. I used a fine jewellers screwdriver to cut the missing section of rebate into the top and bottom edges of the window frame.

Nose profile

The lower edge of the nose should taper down to a level section under the central connecting doors then slope back up to the bodyside. I replicate this with three short lengths of 1mm square microstrip cut to follow the three flat planes of the nose. The side sections are then filed to leave a taper from full depth at the centre section to nothing at the cab sides.



Connecting doors

Again these differ from the Class 25 in that they do not have the raised strip down the middle, presumably an attempt at draught-proofing. This has to be filed off, yet again finishing off with wet and dry. The doors on a Class 24 should have a dividing line down the centre and one around the perimeter. I content myself with a representational centre dividing line only, simply scribed in.

Cab end handrails

It is worth replacing the end handrails with wire examples. I file away those moulded on until just a faint outline was left, using this to mark the centres of the holes to be drilled. A needle or pin held in a pin vice makes an admirable centre punch for small drills in soft materials such as plastic. After drilling for fine wire handrails the remaining traces of the mouldings are smoothed away as before. The handrails will be replaced later on.

Further filling and filing

To improve the appearance of the ends further we need to get rid of the ridges that Hornby has incorporated into the body to guide the application of full or partial yellow ends. It is

also necessary to remove the marker lights as they are in the wrong position.

The lights can be filled with Milliput as before. When dry any protrusions, along with the ridges which stretch from top to bottom at the cab corners and those which lie horizontally across the nose, are filed off then smoothed in.

Marker lights

New marker lights are created from aluminium tube, cut and filed to length in a simple jig (see Fig. 5). Now I know that the word 'jig' frightens a lot of people. Well fear not: a jig is just a gadget that makes a job easier.

In this case it is a scrap piece of 80 thou plasticard with a hole in it the size of the tube. File one end of the tube flat, stick it into the jig (which is held flat to the work surface), cut off close to the top of the jig, file until level with the surface and eject; repeat. Each piece of

Below: close up of one end of 5091 illustrating the compound radii of the domed cab roof. The shape is a distinguishing feature and must be reproduced as correctly as possible if we are to capture the true character of these locos. The nose profile – the taper at the bottom of the cab front – is also evident in this shot.





tube should be the same length. Fix into a backing plate of 40 thou plasticard, drill a slightly oversize hole in the cab front and stick the light unit in from behind.

Indicator discs

These are simply punchings from 10 thou white plasticard, either scribed across the centre (open) or cut in half (closed). When fixed in the correct position the hinges on the open discs are represented by short lengths of the finest microrod, and the light lenses by small drilled dimples. The catches for both open and closed discs are small sections of microstrip.

Flush glazed windows

I'm afraid that there is no substitute for patience and hard work here. The windows are cut and filed from 40 thou Cobex. I mark a sheet of A4 paper out with a label for each separate pane. When I am satisfied with the fit of each piece I tape it onto the sheet in a pocket fabricated from plastic cut from a sandwich bag because they will have to be stored for a while until the body goes through the paint shop. I do not tape the windows directly to the paper as I worry that it may leave glue marks.



Above: 24 102 (Darlington, 1960) at Carlisle Kingmoor on 1 August 1977, 18 months after withdrawal. One of a batch converted for use on Tyne Dock-Consett ore trains, it has minor differences from Cambrian 24s but the photo shows clearly the cab and dome roof profile. Photograph: Ian Futers.

Below: headcode fitted 5143 can be compared to the subject of this article. The flush glazing on 5092 (seen before renumbering) is much neater using the self adhesive label method. 5143 will receive an upgrade when it also gains a Bachmann mechanism.

The only short cut is that the side windows can be done in one piece as the glazing bars will be applied after the paint process. I have modelled a couple of the side droplights open to give a bit more life to the model, by filing a notch into the pane.

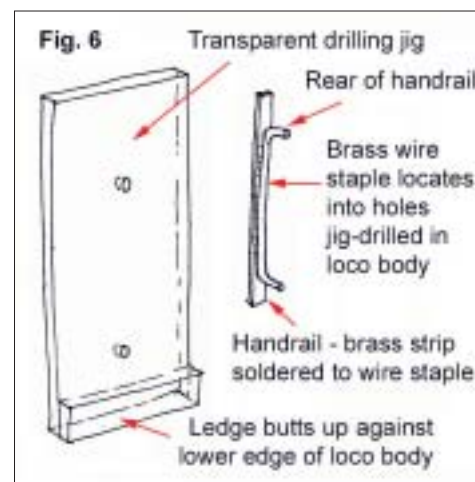
Handrails

Now is the time to fashion the end handrails, an easy job to bend out of fine brass wire; make one right angle bend, push through the hole, grab with tweezers where the next one starts and bend it. Cut to size and glue into place. I use another simple jig, a small scrap of 20 thou plasticard, to ensure equal spacing.

The handrails are fixed initially with a drop of superglue, then reinforced with epoxy. The cabside handrails are more complex, being constructed from an elongated staple of fine brass wire soldered to the back of the finest brass flat bar that I could find. Another jig of clear styrene, from an old CD case, was used to ensure that the holes were drilled at the same spacing at each door pillar. (see Fig. 6). A strip across the bottom of the jig locates it against the bottom edge of the body keeping the position of the holes regular.

Having a transparent jig meant that I could see that the holes were centralised in the door pillars. The handrails were also built in a jig, this time of wood and card to hold the components while I soldered them together. The handrail strip was tinned on both sides as I find paint takes better to solder than brass, and even if it chipped off it would give the appearance of dull steel.

As these handrails are to be a different colour to the body it is best that they are painted separately and fixed later.



Painting

I guess that if you have an interest in the style of work described so far then you will be reasonably experienced and I do not need to describe the paint process, with the exception of a couple of points that differ from the norm.

As the body has undergone a large amount of work it is sprayed initially with matt white to reveal any surface imperfections where filling and abrading had taken place, and to unify the model before further painting.

Remember the cab side windows? At the same time that the body is sprayed blue a self adhesive paper label is also painted the same shade. Thin strips are cut from this to provide the cab side window glazing bars.

Fixing glazing

My preferred method of fixing flush glazing is with a thin smear – and it must only be a smear – of 5 minute epoxy applied with the point of a pin around the inside of the frame. Great care must be taken not to get any on the paintwork. The glazing is then pushed into place from the outside. The pre-painted self adhesive glazing bars should be stuck to the side windows, and firmly pressed down, before glueing into the apertures.



Window wipers and door handrails

One of the very few bought in components, the wipers are exquisite etchings of the parallelogram type by M.J.T. Sprayed matt mid grey while still on the etch, the blades require trimming back top and bottom before being glued into pre-drilled holes above the outer end windows with 5 minute epoxy.

Whilst the glue is in use the door handrails, by this time painted a very pale grey, are also stuck into their locating holes.

Underframe

The battery boxes, fuel and water tanks differ on a Class 24 from those on the Bachmann 25 chassis. Where detail needs to be removed a combination of files, abrasive wheels in a minidrill and yet more wet and dry is used. Reconstruction takes place with plasticard and microstrip of various thickness as appropriate.

Bufferbeam detailing

Buffers are from the Craftsman range, screw couplings by Roxey, but the pipes, jumpers, sockets and steps are home made from brass wire and tube. All are fixed into place with superglue before reinforcing the joint with epoxy.

EM gauge

Although I describe this last, as it only has relevance for those of us who work to EM standards, it was one of the first operations that I carried out. The bogie frames unclip: a worrying amount of force is needed to loosen the frame sufficiently for it to slide over the tab on the inner face of the bogie frame.

Once off the wheelsets can be popped out of the inner frame. Being a cheapskate I pull the wheels out on the axles to EM standards. As doing this leaves only about half the depth of the wheel in contact with the axle I beef up

the assembly by filling the recess left at the wheel centre with epoxy resin adhesive. The pick ups are tweaked outwards, then re-assembly and testing takes place.

To sum up

The finished model is far from the ultimate: there are bits that I have left off – anyone notice the lack of door handles and lamp brackets? – and there are compromises (study the bogie footsteps and their relationship to the cab doors).

It really is more of a mongrel than a thoroughbred, but it does capture the look and character of the prototype thanks to the subtly understated Hornby body moulding. The Bachmann mechanism is simply superb. When friends come round I place the model on the track and invite them to take the controls: without exception, whether diesel fan or not a smile creeps over the driver's face until it forms a broad grin. There is an innate pleasure in using something that works so well; the bonus is that it looks as well as it runs.

Postscript

Oh dear, they say pride comes before a fall, and as the result of a stupid mistake on my part 5092 in its blue livery is no longer. When starting construction I followed advice and found a photo: it was in black and white, but as the locomotive's double arrow symbol was clear to see I thought I was on safe ground when I got out the tin of rail blue paint.

Thanks to a very timely set of pictures sent by Russell Saxton I now realise that 5092 finished its days in green, despite carrying the British Rail corporate image branding. Twenty minutes' careful work with the craft knife and transfers saw the model reincarnated as 5091, after checking through all my resource material to ensure that I was not perpetuating the same mistake twice.

Above: 5092 is a second hybrid conversion, this time utilising the Bachmann 24 chassis and correctly liveried in all over BR green with the BR double arrow symbol.

However I was so taken by the distressed state of 5092 in the photo provided by Russ that it formed the next project. The main challenge was to capture the weatherbeaten look of fading paint, primer showing through, overlaid with rust and grime.

This time, I managed to get hold of a Bachmann Class 24 chassis for this one. Apart from having the battery box/fuel and water tank area already done, it had the advantage of having deeper underframe mouldings at the bogie cutouts. The fiddly reinforcing procedure was therefore redundant, though more had to be carved away from the door area to accommodate this. The finished model is shown above, idling on the quay in the summer sunshine.

Thanks must go to Russ for providing the research showing that I had got it wrong, and the inspiration to get it right. I have also had a great deal of help from my good friend Laurie. As a techno-dunce computers are a lost world to me; Laurie has put his considerable skills as a PC pilot at my disposal. Thanks, Laurie.

Recommended reading

Sulzer Diesel Locomotives of British Rail by Brian Webb (David & Charles, ISBN 0 7153 7514 8);
British Rail Main Line Diesel Locomotives by Colin J. Marsden & Graham B. Fenn (Oxford Publishing Co., ISBN 0 86093 318 0);
BR Class 24/25 Diesels by Chris Perkins (Bradford Barton, ISBN 0 85153 432 5);
Rail Portfolios 8, The 24s and 25s by Hugh Dady (Ian Allan, ISBN 0 7710 1846 4).

And for those of you hooked up to the web try www.derbysulzers.com

Well under way in SM32

When building a garden railway you can get lost in the detail

Martin Wicks highlights some lessons learned during the development of this outdoor line.

Some of you may remember my article, written on behalf of my father, Terry Wicks: *A Start in SM32* (RM May 2003 pp.268-272) on the building of his SM32 garden railway. In that article we hinted at what enjoyment can be had from a garden railway and indeed from railway modelling in the larger scales and gauges.

Things on the railway have moved on at quite a pace, faster even than we anticipated, that's for sure. It can be seen from the previous article that the *H&B Light Railway* was and still is very much a 'work in progress', however what model railway is ever really complete? I suppose that most model railways do get to a stage whereby they are 'substantially complete' and that is what we were aiming to do within 18 months with the H&BLR. Although not always immediately apparent, we have drawn inspiration, advice and skills from areas, not always associated with the world of model railways, including some aspects of military modelling (materials and techniques) and the like.

I hope that in the previous article the fact was portrayed that, if we 'novices' can have a go, then anyone can. During the last year or so we have learned many, many new things relating to garden railways, live steam and narrow gauge modelling. We hope to pass some of that experience on here, with a few hints and tips and the odd thought or two on our approach to the subject. Some of this wisdom was only seen by us in hindsight, but this may help the reader to avoid some of the frustrations that we have faced, by this I mean whilst still maintaining the fun and the challenges without any of the grief!



My only real foray into narrow gauge modelling, until now, was when an old school friend and I built a narrow gauge 'diorama' to nearly, if I remember correctly, 16mm scale – although we were not aware that there was a scale of that size and type then. We made that diorama from scrap materials (card, wood, paper and the odd piece of copper wire) that were easy for young lads to work with. I even made the track from balsa wood, what great fun!

Dad, Jan and I wanted to follow on from that little diorama and construct something, albeit some twenty plus years later, very similar in overall feel, but in the garden, something that looked right without being too exacting.

The use of our written criteria (see RM May 2003) has helped us tremendously and we would wholeheartedly recommend this approach, compiling and then writing down, in rough, a set of criteria for one's proposed railway, then viewing and reviewing the criteria until all that is required, sensible, reasonable and achievable is down on paper before doing anything else. Maybe not all mistakes were avoided using this method, but the major ones were.

History and belonging

We have always had the 'history' of the line firmly in our minds, so that things such as architecture, stock, motive power and traffic could be created or if worst came to worst justified. We have not been so rigorous about such things that it has taken away the enjoyment, but we did want the line to belong and things only tend to 'belong' with some sort of history. We are modelling an area, a landscape, that is pure fantasy and so one can only guess as to what 'this part of the world' would look like (whilst leaning heavily upon what has already been written on the subject), so that is why the railway's 'history' is so important to us.

I have leant heavily on the works of a certain author, for the 'ancient history' of the



Left: the layout viewed from above. Compare this view with the picture on page 270 of RM May 2003.

Below left: No.1 Toby drops off some ballast at the platelayers' hut. Note the formative stages of another tunnel – Hedge Hill tunnel perhaps?

Right: Sir Lancelot coasts past. The view will be better when the viaduct is complete.

Centre right: mixed goods train leans to the superelevation at Brandiwine bridge.

Below right: close up of the visiting Garratt No.4, on shed.

Photographs by the author.

locale so to speak, with yours truly making up the more recent history, which I hope dovetails with the former.

Keeping it simple

One major lesson learned for us, to date, with the H&BLR, is that in the first instance when a problem or challenge arises, our advice would be, look for the simple solution first and the more complex solution last. In the relatively harsh environment of the garden things have to be made to last and to be able to withstand all that Mother Nature can throw at them. Perfection is not always either possible or preferable. That does not mean to say that we have not strived for perfection, and sometimes, I probably drove Dad and Jan mad trying! We have tried to maintain as high a standard as physically possible with the H&BLR whilst staying within the realms of reality.

I have come to realise (with help from Dad and Jan) that although detail can be added and indeed 'gone to town over' in this scale and gauge, one must be careful when building an entire garden railway as you can get lost in the detail.

Most models that reside in a garden railway environment are usually viewed from several feet away and not close up, as opposed to the smaller scales, in for example an exhibition environment. This aspect of garden railway modelling should be remembered if one is to stay sane!

Things are a lot less 'fiddly' in our chosen scale and gauge of SM32 and this can also be so for some of the smaller scales in the garden. We have found that, some detail does not have to be modelled and the scenery is a good case in point. The colours, rather than the scale or accuracy of the scenery, are what the average eye usually sees first. It's like a painting that is best viewed at a distance rather than close up.

One can of course use miniature conifers and other similar plants up close to the railway, creating an almost scale appearance, but the background 'scenery' does not need to be quite so concise. Viewing SM32 locos or stock close up for a competition requires that the builders have applied high levels of detail and skill, but at 10' away on a garden railway not all the detail will be seen. That does not mean that the models have to be crude, just perhaps that a little ingenuity is needed to fool the eye





Left: Green Knight has finished duties for the day and had his nameplates removed for safe storage. You can't be too careful!

Below left: an early morning out-of-season one-coach train leaves Westwick with Sir Lancelot, a Beyer Peacock 0-4-2T in charge.

with the use of colour or perhaps hinting at details rather than modelling every rivet. I liken this approach to the painting of a backdrop or maybe even stage scenery, the type that only has to 'fool' the camera for a second or so whilst it pans round.

Again by these measures we believe that one could argue that SM32 in particular is more accessible to the beginner or intermediate modeller than the smaller scales, as well, of course, as being well suited to the very skilled and experienced railway modeller.

Assimilation and operation

We have been surprised at how well the garden has taken over and even at the end of 2002 it was already looking quite lush and stayed that way right into the winter months. In the early part of 2003 we did lose quite a few plants to very heavy frosts and some of the conifers to a fungal type disease that seemed to affect the surrounding area, but the baseboards stood firm and so did the track.

With a little more planting in the spring of 2003, we soon experienced more growth and by July 2003 nearly all of the support posts

were hidden. The railway and the baseboards looked more solid, integrated and now belonged. The railway was now part of the landscape. We decided that in order to improve the view from Westwick Lodge Works through to the station, some Cotswold stone walling would help give 'weight and support' to the station complex. Dad obliged here and I think he succeeded in achieving our aims. Some cunning planting has also helped to hide some parts of the layout and thus trains disappear from view.

The layout now belongs within the landscape and no longer looks 'suspended' or 'supported' it just *is*. We have found that our operating height of 18" is very easy to work with; slightly higher would have been easier still. However, an increase in height would have meant alienating the younger generation by being detrimental to their viewing enjoyment.

The chosen height does not impact too much upon the look of the garden, and to date other operators have made many favourable comments with regard to the layout's ease of operation.



Only one visitor mentioned that his 2-6-2 would not be able to negotiate our 2'6" (minimum radius) curves, which is a shame, but we only operate 0-4-0s at present (this was part of our original criteria) and if they are driven at scale speeds we do not encounter any problems. We have managed, however, to accommodate some wonderful articulated locos such as Garratts, Shays and other various logging engines on the layout, with them negotiating all curves easily and other aspects of the layout, such as platform edging, all performing well.

Operating strategy

We had envisaged operating the railway from the central 'operating well' when designing the layout, but in practice one tends to operate the locos and the line from without, so as to avoid raising and lowering the Brandiwine bridge too often – thus causing a hazard on the line. This may only be short term, whilst some of the younger grandchildren/nieces and nephews learn some of the finer aspects of railway operations!

This *modus operandi* does tend to make the layout look slightly smaller and allows the operator to see all aspects of the layout at once (well nearly), which can highlight its tail-chasing nature. If an operator/driver were to operate the H&BLR from within the 'operating well', only one aspect of the layout at a time could be viewed thus giving one the perspective of more space with trains disappearing from view. This is very much akin to indoor layouts, giving the perspective of size and space with trains actually 'going somewhere' ie out of sight. To operate live steam locos it is much better to adopt a 'tail chaser' type layout for ease of use. Please remember that, if operating purely manual control live steam, then the ability to walk (and sometimes run!) all the way around the layout with easy access to the loco/train is definitely required.

The 'other world' (the shed) is of course where the Line heads off to into 'open country' and this is where the 'off stage' station is located, and of course there is a two-road fiddleyard/staging sidings. This also gives us and any visitor the sense of trains coming 'from' and going 'to' somewhere. We need to use the return loop junction points more effectively for this area of operations and this is something we are currently developing as we get used to operating the layout.

We have found that SM32 modelling does not require a degree in engineering or for that matter a degree in architecture, civil engineering or quantity surveying. Our baseboards were erected quickly and simply. In RM (July 2003 pp 418-419), we saw that Brian Harrap has a technique to lay SM32 or G45 track very quickly indeed. He uses block paving blocks with the track laid on top and says that this

Right: the PW train departs on the branch.

Centre right: Bear is in charge of a single-coach tourist train on the branch.

Below right: this magnificent Garratt and its train belong to Malcolm Morgan.

method also stands the test of time – ten years in his case!

Another variation of this method has been used, so we later found out, by our Withington Narrow Gauge Modellers club President, and new friend, Dave Faulkner on his lovely and extensive *Lynwold & Barn End Railway*, but instead of using block paving blocks Dave has used breeze blocks laid edge-ways on and sunk into the soil with much success. We may use one of these methods for the proposed line extension (on an existing raised garden wall).

Our (criteria) decision to operate live steam upon raised baseboards (18" above ground level) has also worked extremely well. If one were to build a ground level garden railway, we would suggest that a separate MPD/steam-up area is incorporated at a higher more workable height of eg. 18" or more, a must for ease of operation. Our friend Dave Faulkner has done exactly this. It saves blocking the main-line, aids one's back and allows the operation of several locos in steam. We have found this method of working a real boon. Another friend of ours, Malcolm Morgan, has just rebuilt his wonderful, ground level, *Leigh Valley Light Railway*, at 18" in height, again for ease of operations. There are many, many ways of building a garden railway layout and laying track, not all of them back breaking!

Fettling the trackwork

Another challenge faced was that I also had to re-lay and reset the radius, ever so slightly, on one or two curves (on the main line and branch line approaching the bridge from the two long straights and just past Cooke's Junction) as one or two of our more enthusiastic drivers have had a couple of incidents there that have had to be entered into the Accident Log. It would have been nice to have more compound curves in that area but this is narrow gauge and yes the curves are sharp but there are, as I have already mentioned, always prototype situations to be found to justify such things!

Dad thinks that some of the baseboards could have been wider (rather than our 'open frame' construction created so as to let plants/scenery grow up through) which is something I had also always envisaged, but we didn't so it's a bit too late now and anyway the plants look superb growing up between the baseboards using the open baseboard construction technique. If the baseboards had been wider then the radii on the curves may not have been so tight. A 'Sharp Curve' sign resides just outside the station and I am in the process of making 'W' (Whistle) and some 'T' or TSR (Temporary Speed Restriction) signs for these line sections. We have had, as can be expected when operating live steam, one or two derailments but our ballast and fencing





Left: Jason, an 0-4-0 tram engine, comes into the Works for fuel and water. It is another of Malcolm Morgan's superb models.

Below left: although it is a quiet day, with little or no work taking place, the plants are growing, thereby providing scenery that almost makes itself.

Below right: No.1 Toby shunts ballast on a lovely summer day.

Acknowledgements

Thanks in equal parts to the following people who have made it all possible:

Thanks to Val and David Pratt, also to Peter and Paul Martin for their helpful comments and for initiating me into the finer aspects of real world loco operations and shunting. Paul Fergusson, once again, for his role as that of official 'VT' cameraman at our 'Friends of the H&BLR Open Day'. Becky and Martyn Stear, Peter, Paul and Richard Martin (for helping with the shunting), Malcolm Morgan and his family (for running their locos and stock and giving me a rest) and to my Nikki for all of your help on the day also – thank you also to Richard Saffery (of Corris Railway charity bike ride fame) and Angela for coming all that way just to see our little railway. To all of our friends and family who attended the open day and who helped make it an enjoyable event and thank you all for your generosity when donating funds for the Wiltshire Air Ambulance. To my pen pal Jack for his comments, help, counsel and advice.

To Ken Bint for the wonderful and very delicate axlebox bushings that he made for us, thanks also to Chris Boiston and Rob Cooke, to Chris for the 'permanent loan' of his Mamod brake van and to Rob for some delicate soldering. To Matt and all of the other nieces and nephews/granddaughters and grandsons for giving us the excuse to make our garden railway dreams come true, and last but not least thanks to Jan and Dad for letting me get involved with this wonderful aspect of our hobby.

systems saved the day and avoided any serious damage, just as it was designed to do (ie by slowing and catching the train in conjunction with shutting down the regulator).

We have also installed some cant/superelevation so as to provide a little more safety when running at moderate speeds. Dad and I have placed super-elevation on nearly all of the curves and it works a treat and looks good too. We are pleased to report that the baseboards, after some initial and slight movement early on, have stood firm through all weathers ever since.

Bridges in the garden

One challenge that we encountered early on was that the wooden bridge base (over the River Brandiwine, well the footpath actually), has now had to be discarded in favour of an all aluminium affair. We were going to use a wooden base with a metal superstructure, but the wood (oak), even though it had been seasoned and extensively treated with various wood preservatives, started to warp in every direction possible during the winter months of 2002. We re-laid the track several times but decided to cut our losses and go for an open

framework all metal (aluminium) arrangement.

Originally we were going to use an off cut of our 18mm baseboard plywood but plumped for oak which has it turned out was not one of our better ideas. We should have stuck with the exterior quality plywood perhaps! Dad took my Warren truss girder bridge design and translated it into a beautifully crafted semi-scale model, built from extruded aluminium and aluminium strip super-glued and riveted together. The bridge was then painted with etch primer and Cuprinol 'all surface' terracotta spray paint, procured at a discounted price from our local DIY 'shed'. The bridge allows the railway to cross the Brandiwine River (footpath) and also has pedestrian access across the Brandiwine gorge for the local community.

The bridge was artificially weathered by me in the old fashioned way (Humbrol enamels, thinners and/or varnish), with smoke and soot detail also being added at this time after being sited on the layout (so as to get the soot marks in the right place) although I am now led to believe that we modellers make too much of soot on bridges and other infrastructure.



Plan of the month

Glasgow Queen Street

Whichever scale or era you model, Scotland is rich in inspiration

Ian Futers outlines some creative modelling ideas for a busy modern terminus.

For those not familiar with Glasgow Queen Street, it lies at the bottom of Cowllairs Bank, and in later steam days most services required a banking locomotive. The Edinburgh & Glasgow Railway opened the station on February 21 1842. That company was soon taken over by the North British Railway. Because of the operating difficulties of the station, mainly the very steep Cowllairs Incline (1 in 40 and 1 in 50 in parts), the NBR constructed a series of 0-6-2 tank locomotives for this purpose. Prior to that, the incline had used a rope to haul trains up using a stationary steam engine which was situated at the top of the bank. The banking locomotives were designated N14 or N15 in the later LNER classification codes. Nowadays Queen Street operates services to most points North of Glasgow including Stirling, Edinburgh, Perth, Aberdeen and Inverness to name but a few. There are also extensive suburban networks too.

Unlike many other fine city stations, Glasgow Queen Street is a bit of a let down. There are two entrances but in reality, it would be quite easy to miss them. There is no impressive building overlooking the platforms although the huge domed overall roof can be seen if you go looking for it. One entrance is to be found in the North-West corner of George Square which is immediately outside the station.

The other entrance is a side entrance which leads directly into the booking office area. Nowadays it is quite light and airy, but one can



Above: 170 403, in the modern multi-colour ScotRail livery, leaves the station, passing under the road overbridge.

imagine just how dark and dingy it could have been, especially in steam days.

There are seven platforms, of which six are more or less the same length whilst platform one is rather short and can only accommodate a two- or three-car Sprinter or Class 158 unit. The platforms all lead to the station throat which is actually down to two running lines by the time trains enter the tunnel leading up to Cowllairs Bank. Surrounding the station throat area are massive retaining walls of quite high proportions: in recent years this deep cutting

Below left: the station throat, showing the arrangement of the pointwork. In the distance is Cowllairs Tunnel. The cutting has since been built over.

Photographs by the author.

has been built over. The station overall roof extends to near the end of the platforms, but nowadays the interior is well lit and quite bright; bright enough to take adequate photographs of the trains standing in the platforms. Because some of the services are operated by two-car DMUs, they can look quite lost in the long platforms.

In the station concourse are to be found the usual retail outlets such as the 'Upper Crust', coffee and burger type places as well as a newspaper and book shop. Any station offices or 'bothies' would appear to be fitted alongside platform 2 and platform 7. I must say, on my recent visits to the station in 2002 and 2003, the whole of the station seemed very neat and tidy, a credit to those who work there. There are barriers at the ends of the platforms which, on first impressions, indicate that it is not possible to go 'spotting', but these only seem to be used during the rush hour periods. There are also the usual television monitors for each platform indicating what service is to depart as well as one or two monitors showing all arrivals and departures.



Right: the view from platform 5, with 158 719 centre stage. Note the roadbridge which is directly in front of the station canopy. A two-car Class 156 in Strathclyde livery is in the short platform 1.

Devotees of steam operation will be all too familiar with what motive power was utilised on the West Highland Railway. There were Glens, K1s, K2s, and K4s of the Mogul wheel classification (2-6-0) as well as Black Fives, B1s and Standard Class Fives. Of course there were many other types, especially during the early days, starting with the original 4-4-0s, the West Highland Bogies. During the 1960s, steam was more or less finished in Scotland and the diesels started taking over. Two diesel classes became synonymous with the West Highland in those early days, one very effective class, the Class 27s, and a further class which caused some operational difficulties, the Class 22s, which when re-engined became Class 29. The Class 27s were highly successful and made the West Highland line their very own. I think I am correct in that most of the West Highland services usually leave platform two or three on their way to the West Highland line proper.

During the 1980s, the Class 27s were replaced with the Class 37s, four of which were named after the famous K2 'Lochs'. One of those, *Loch Rannoch* is still operational although I do not think it is seen on the West Highland line nowadays. Other Class 37s are though, as the Sleeper service from Euston is hauled by a Class 37 from Edinburgh. Nowadays it does not reverse at Queen Street, instead passengers from Glasgow are picked up at Dalmuir. Today, the services are operated with Class 156 Sprinter units. Frequently six two-car units will leave Queen Street in a tremendous flurry up Cowlairs Bank and make their way along the North Clyde lines to Helensburgh. At Craigendoran, they part company with the electric lines and climb above the town to commence their journey onto the West Highland line proper. When they arrive at Crainlarich, time is allowed for them to split into two portions. One set will continue on to Fort William and Mallaig, whilst the other set, or sets will turn off and head westwards to Oban. Services will sometime cross at Crainlarich although not always.

The Class 156 units have operated the West Highland services since as long ago as 1989. I have mentioned in previous articles that perhaps they will be replaced by Class 158 units once Scotrail has sufficient Class 170 units to



operate the main line routes. However, I have recently heard that the Class 158s are to be used on services previously operated by the Class 150 units. As a result, the West Highland lines may see the Class 156s operating the route for a few more years. From the modeller's point of view, that creates problems. Apart from a limited run of Scotrail liveried 156s by a couple of model shops in Edinburgh and Glasgow, the Lima Class 156 is not generally available as such in the appropriate Scotrail livery. There has also been a limited run of the Class 156 in a blood and custard Strathclyde livery, but they are again difficult to locate having all been sold. In any case, I have no evidence of Strathclyde liveried units, either in orange or blood and custard, actually operating up the line. However someone out there may know differently.

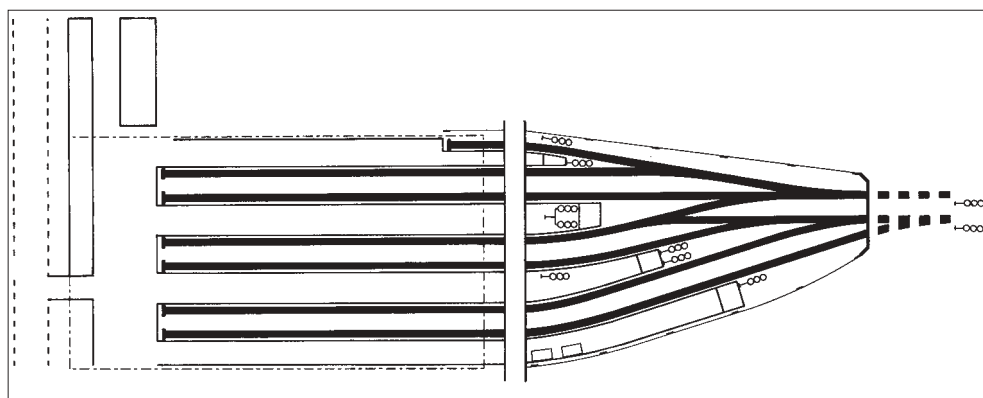
The fortunes of Lima were not too healthy at the time of writing, so a run of the Class 156s is possibly not an option at the present time. The alternative is to respray or re-paint one of the many Class 156 units you see on the second-hand market, but it is not an easy paint job to attempt. I think some transfers are available from either Fox or Modelmasters, and although it would be a difficult task, it is not out of the question. I would be tempted to spray two or three units as a job lot to try and get the necessary uniformity. The Lima class 156 is also not always a brilliant runner, using

as it does, the old pancake style of motor. A new set of wheels from Ultrascale can help, but a better option may be to use a Tenshoda power bogie or one of the Black Beetle units which can also take EM or P4 wheels for those who model in those standards.

What about the possibility of modelling Queen Street either in 4mm or perhaps 2mm scale? It is not as daunting as you might imagine, especially in the modern day scene, after all, the location is basically a deep cutting at the station throat end and then the overall roof covers much of the rest. Whether you could utilise the Hornby overall roof, I doubt it, simply because it is actually the wrong shape. A closer look at the actual roof structure shows the main girders reaching right down to the actual platforms. It would certainly make an interesting lesson in soldering using old rail or girders. The glazing would also be equally interesting.

All the points or turnouts are found at the station throat; three of them are actually located in the tunnel itself. But in reality, only seven turnouts are required, five left-hand and two right-hand. For 00, I would recommend the Peco large radius Code 75 types. The station throat turnouts could all be fitted onto one baseboard although that would make it just slightly longer than the more traditional 4'. However all the main electrical feeds can also be fitted onto that board. It would therefore make sense to have the control panel located behind the high retaining walls which would naturally be part of that board's backscene.

The platform roads are simply long straight sections of track: these roads should all be sectioned with isolation gaps, using the length of a Class 156 or 158 DMU as a guide (roughly 2'), with the isolating switches being located on the control panel. This would allow you to run more than one unit into the platform lines and either keep them as two-car trains, or join them together to form longer sets as in the prototype. You could however, decide to use a digital control system and that would solve a number of issues.





Above left: the splendid interior looking towards the buffer stops. Turbostars 170 403 and 420 pose side by side: use the length of models to gauge section break positions.

In order to assess stock provision, obtain the current timetable to see what services will be required and there will be plenty. However, I am sure the bulk of the services I witnessed recently were operated by Class 156, 158 and 170 DMU units.

There would be much more variation during the earlier 'blue' period although much kit building would be required to obtain the variety of DMUs. The use of locomotive hauled stock would also generate more interest with Class 25s and 27s along with Class 47s on the Edinburgh-Glasgow push-pull services. Pairs of Class 27s also operated that service earlier. Class 40s would be seen on some routes and I am sure there have been other sightings of further classes from time to time.

Coaching stock would be more varied too with Marks 1, 2 and 3 vehicles being utilised. There were parcels stock workings too, whilst a station pilot in the form of a Class 08 or class 20 could have been used. However, the current station layout at the throat seems to have been in use for many years so, this should not cause too many difficulties for setting the chosen period of the layout. I am fairly sure the colour light signals have been there for quite some time also. Because much of the infrastructure has not changed, you can end up with a scenario of any period being more or less quite accurate.

It is the attention to detail which is important. The station furniture needs to be appropriate for the period as does the station signage and posters. Careful observation of line-side details such as point motors, colour light signals, speed signs and equipment boxes all set the scene, and they do not need to cost a lot of money as they can easily be fabricated out of plastic sheet or tube. The track ballast in Scotland can be quite different from anything found in the rest of the country. Fortunately Lanarkshire Scale Models or Modeller's Mate of Parham, Woodbridge, Suffolk can provide supplies of this very red ballast in a variety of sizes to suit all the main gauges. Simply drop down a scale to obtain a more realistic effect.



Above right: 170 421 departs from platform 2; note the colour of the ballast, and small details such as AWS ramps and lineside cabinets, all of which would add authenticity to a model.

scaled down. Perhaps a couple of the platforms could be removed and naturally they could be shortened although in order to keep the 'main line status' of the station, the platforms should accommodate at least two sets of DMU.

A further problem with a large urban town or city station is the population. Do you simply purchase the largest box of unpainted plastic figures, colour them up and place all over the layout? With my recent urban layouts, which I have to admit were supposed to represent a run-down station with few services, I chose carefully a dozen or so figures in a variety of day-to-day poses. They were painted as carefully as I could, fitted with a pin in a leg and then placed on the layout or platform in a variety of cameos. That seemed to do the trick as the eye was taken to each cameo.

Queen Street could provide modellers with the opportunity to operate a busy town terminus in a number of periods. Steam, diesel locomotives and diesel multiple units have all played an important part in the life of Glasgow Queen Street over the years, and hopefully will continue to do so for many years to come.

Below: a semi-permanent structure on platform 7, and another Class 170.

That is to say, if you model in 7mm use 4mm ballast or if you model in 4mm, use 2mm ballast. If you model in 2mm, the answer would seem to be fine sand or similar.

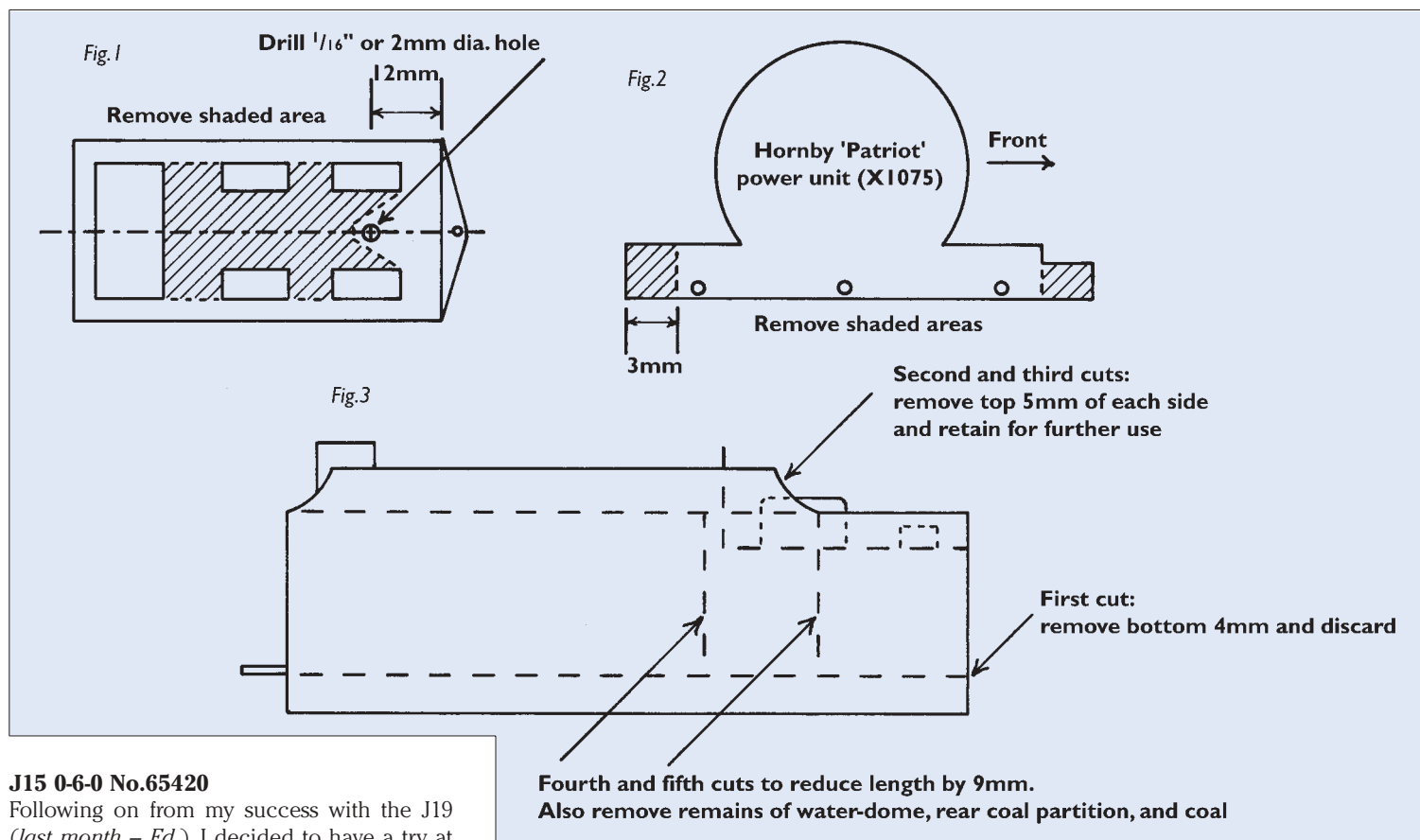
A visit to the location is a good idea because it allows you to soak up the atmosphere, but photographs will allow you to remember what you saw and items which you visually missed. Outside the actual station limits, there is a fair number of office buildings to model, should you want to include them in the scene. Most are huge brick and glass monstrosities. If there is not space to model the whole of Queen Street, it could of course be



Loco building on the cheap – part 3

Mix and match to make more models

K. Chadwick uses parts from ready-to-run locos and scratchbuilds components to produce an ex-Great Eastern J15 0-6-0 and E4 2-4-0 in 00.



J15 0-6-0 No.65420

Following on from my success with the J19 (last month – Ed.), I decided to have a try at another Great Eastern loco – the J15.

Looking around the ready-to-run market, I found the Hornby 'Dean Goods' which has a loco chassis close to the required dimensions along with a boiler (albeit with a Belpaire fire-box) of the required size. So I compiled the following formula:

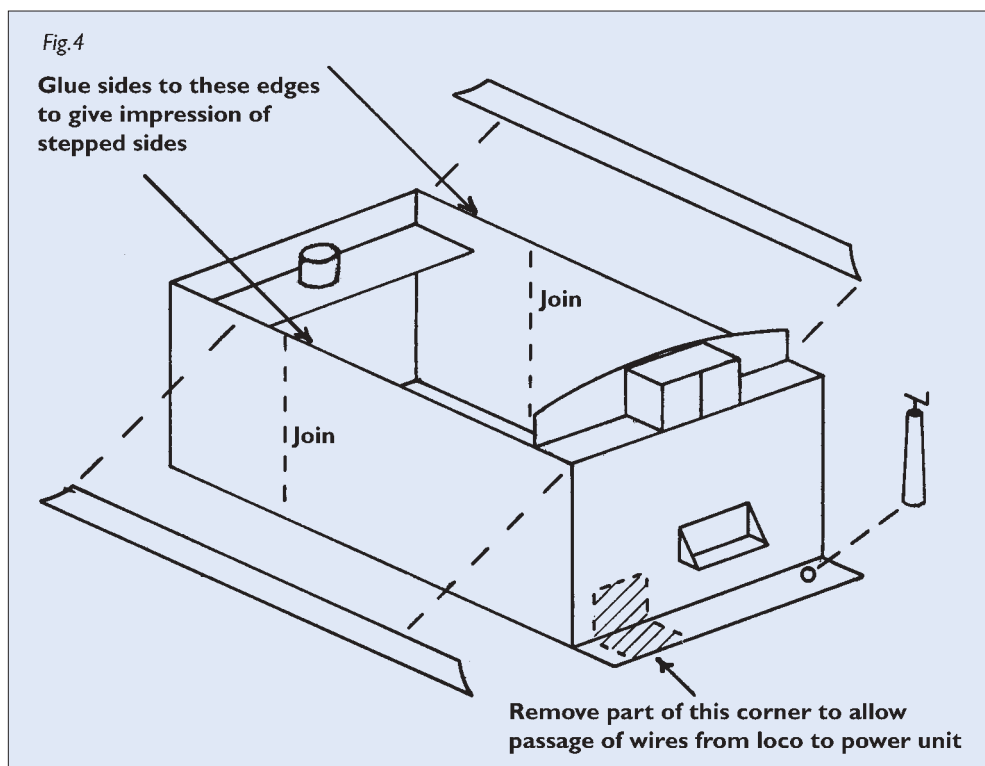
Hornby B12 tender frame + Hornby 'Patriot' power unit (X1075) + Hornby 'Dean Goods' loco body and chassis + a much modified 4F tender body = LNER J15.

Items required

Hornby B12 tender frame, Hornby 'Patriot' drive unit (X1075), Hornby 'Dean Goods' loco body and chassis, 4F tender body, various detailing parts including safety valves, whistle, GE style clack valves, Worsdell chimney and dome etc. (details in text), 2 x 8BA screws and 1 x 4BA washer.

Stage one – the tender

First of all dismantle the B12 tender completely and remove sufficient material from the tender floor/underframe to clear the motor housing and gears of power unit (Fig.1). Drill a 2mm or $\frac{1}{16}$ " diameter hole 12mm from the front of the tender frame, remove wheels from



the front (stepped end) of the 'Patriot' power unit and remove the step with a hacksaw. When this is done, refit the front wheels and remove the rear wheels. Remove 3mm from the rear of the power unit. Test fit to the tender frame; keep filing until the power unit fits inside the tender frame and make sure that the rear wheels are clear of the coupling (Fig.2). Next, with the power unit in place inside the tender frame, fit an 8BA screw into the hole that you have drilled through the tender frame; this should hold the tender frame and power unit together. Then fit the second 8BA screw, along with the 4BA washer, into the rear hole of the power unit, you will find that the washer overlaps the edge of the tender frame and holds the power unit and tender frame firmly together.

The tender chassis is now complete and we now move on to the tender body. First remove all handrails from the 4F tender body with a penknife or similar and also remove the brake handle and water scoop handle for safe keeping and future use. With a craft knife or hacksaw, remove 4mm from the bottom of the tender body and discard, then tidy up the tender bottom with a file or emery cloth (Fig.3). Remove 5mm from the top of the tender sides, exercise great care because these parts will be used again (Figs.3 and 4). Remove 9mm from the tender body (Fig.3), along with the remains of the tender dome, the rear coal partition and the coal from the tender top. Cut



away part of the tender footplate to allow the wires to pass from the loco to the power unit.

Next, reassemble the tender body with the tops of the tender sides overlapping the sides of the main part of the body, giving the impression of a tender with stepped sides (Fig.4). Camouflage the joins with filler and when it has set, clean it up with emery cloth. Fabricate a partition for the rear of the coal space from card or plasticard; use the front partition as a template for getting the curve right.

Offer the tender body to the chassis and power unit and make sure that the gears are clear of the sides and rotate freely. If satisfactory, take a piece of paper 46mm x 36mm and cut it to shape (Fig.5). Fix the paper into the top of the coal space and check that it clears the top of the power unit. If OK, glue it in position; when the glue has set cut two more pieces of paper to cover the coal space com-

pletely, glue them in place and when the glue has set, paint them black. When the paint has dried, glue imitation coal on to the paper.

Fit handrails at the corner of the tender, and replace the tender brake handle (Fig.4). Next, manufacture the transverse bar across the front of the tender from thick wire 15mm high x 26mm wide and glue it in position in front of the leading coal partition. The tender is now complete.

Stage two – the locomotive

First of all, separate the loco body from the chassis; they are held together by two screws, one at each end of the loco. Then remove the cab with a penknife, do not discard. Remove the weight from the inside of the boiler and again do not discard. Remove the top of the Belpaire firebox with a vertical cut immediately behind the fourth boiler band, and two

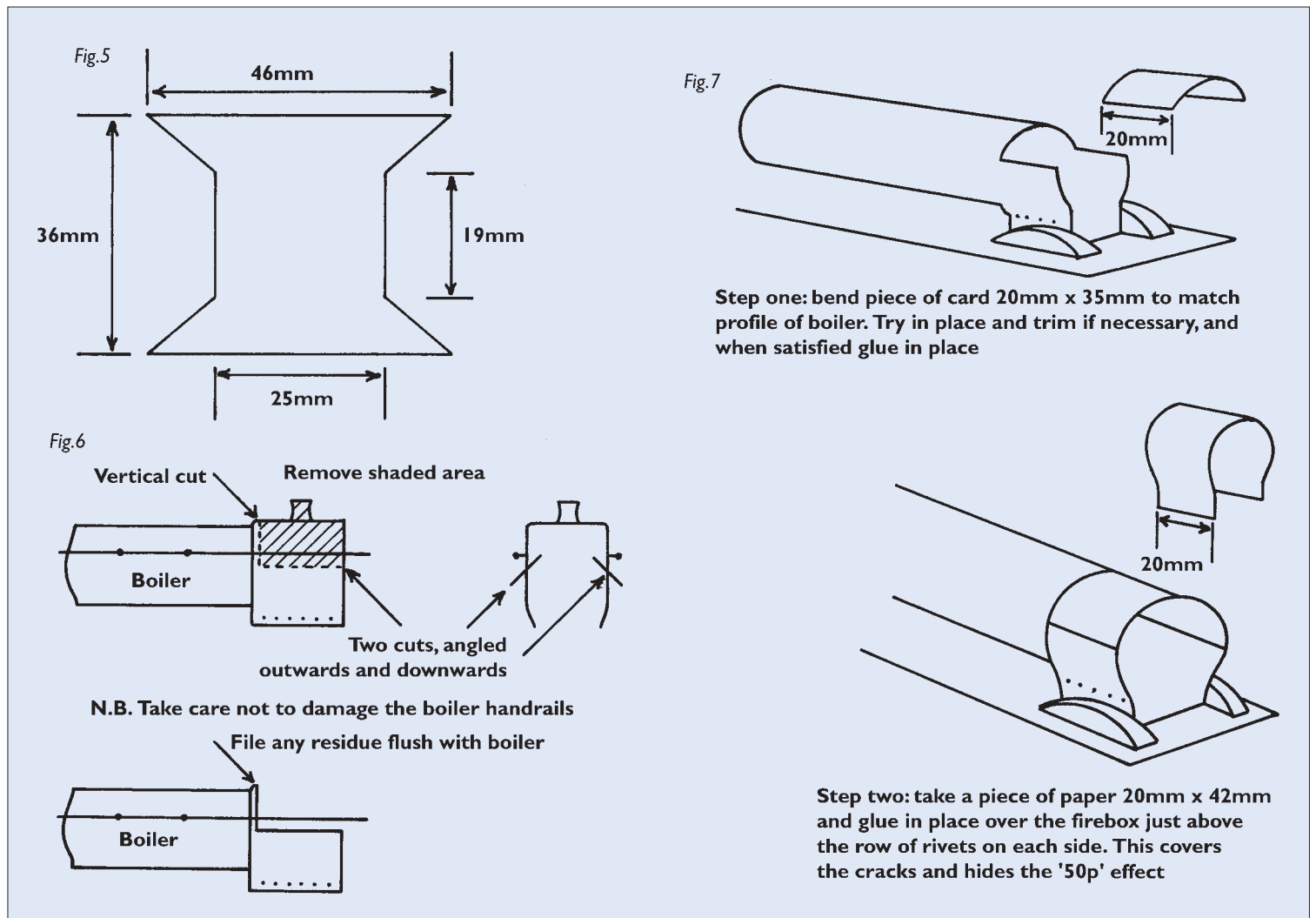
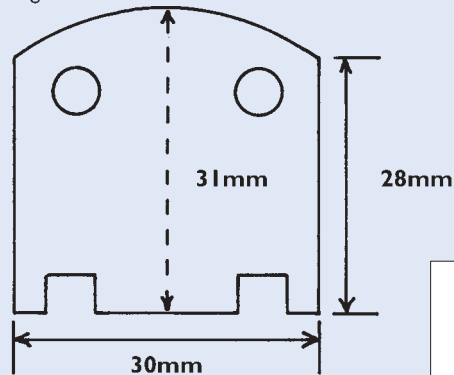
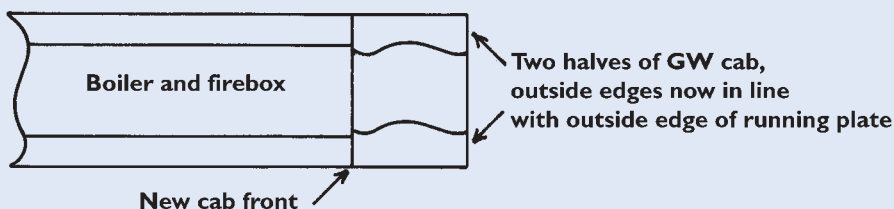


Fig.8



Spectacle holes 6mm dia. centres, 4mm from top of roof curve and 6mm in from outside edge. Slots for splashers 3mm in from outside edge and 4mm wide x 4mm high

Fig.9



cuts angled downwards and outwards, on either side of the firebox (Fig.6). Be careful to leave the boiler handrails intact. Remove the dome by filing away the plastic lugs on the inside of boiler, cut off the chimney and file away any residue flush with the smoke box. Then file away the strange pipe fitting on the right-hand side of the smokebox (I believe this is part of the lubrication system peculiar to GWR locos).

Next file away any remains of the firebox top until it is flush with the top of boiler, then fabricate a round top firebox from a piece of card 20mm x 35mm; bend to fit the profile of the boiler and try it in position. If too long, trim pieces off until satisfied with the fit and then glue it in place. When the glue has set, take a piece of paper 20mm x 42mm and glue it over the card firebox-top with each end just above the row of rivets at the bottom of the firebox. This hides the joins and 'fifty-pence coin effect' (Fig.7). Fill the recess left by removal of the dome with filler. When this has set, file flush with the surface of the boiler. Manufacture a new full width cab front from card or plasticard (Fig.8). Note that the new roof profile should be different from that of the 'Dean Goods'.

We next turn our attention to the 'Dean Goods' cab. First of all, remove the whistles from their sockets in the cab roof, remove the plastic lugs from the bottom of the cab, remove the raised portion of the cab front (which fitted inside the Belpaire firebox) and file it smooth. Enlarge the spectacle holes of

the GW cab front to match those of the new cab front that you have manufactured (6mm diameter). Remove the splashers inside the cab, remove the firing well and firehole door. Then with a hacksaw, cut the GW cab in half with a vertical cut through its centre. Insert the loco weight back inside the boiler and replace the fixing screw, then glue the new cab front to the rear of the firebox and running plate. Glue the two halves of the GW cab in place behind the new cab front (Fig.9). Ensure that the cab spectacles of the new cab front align correctly with those of the old cab. Remove the front steps and file flush (none of the ex-GE 0-6-0s had front steps).

Fill in the old splasher recesses in the cab sides and the gaps in the boiler backhead with Milliput or similar. When the filler has set, file flush with emery cloth. Then with a penknife or similar, remove the GW style vacuum pipe and front sandboxes.

Now for the boiler mountings etc. There are some very good castings on the market (Alan Gibson and Dave Alexander to name but two).

Needless to say, be careful when choosing an identity for your models because some members of the class retained stovepipe chimneys right through to withdrawal, but most J15s eventually had Worsdell chimneys (but without capuchons) and they all ended up with Ross pop safety valves mounted on the firebox top and a standard Worsdell dome. Just for the record, I used a Nu-Cast whistle, a pair of Craftsman safety valves, a Dave Alexander Worsdell dome and a Dave Alexander J21 chimney with the capuchon removed. Glue the chimney of your choice directly over the old position of the 'Dean Goods' chimney and the dome goes atop the second boiler band from the front. Next stick the safety valves and whistle in place and move on to the clack valves. Again these are available from various manufacturers (I used a pair of Nu-Cast ones) and they go directly under the dome on each side of the loco half way up the boiler.

Next manufacture cab seats and a new floor

from card or plasticard (Fig.10) and stick them in place inside the cab. Manufacture combined splashers and sandboxes for the front of the loco and glue them over the original splashers (Fig.11). Manufacture the cab roof from card 29mm x 23mm, bend to shape and stick it in place. Make rain strips for the cab roof from handrail wire and glue them in place. Fit extra handrails to the cab sides (7mm long) between the cab front and driver's cabside cutout. Next cut out two pieces of card or plasticard 9mm x 2.5mm and glue them under the rear of cab roof (one on each side of the cab) to the external cab sidesheets. Create a reversing rod from scrap brass or plasticard 40mm long and glue the leading end to the front of the old GW rod, and rear end to the cab front just below the boiler handrail.

Make the cab roof ventilator by cutting out a piece of card 8mm x 6mm and glue it to the cab roof 1mm from its leading edge. The only modification that needs to be made to the chassis is the removal of the brake rodding; these are just clip-fit items so a penknife should do it.

Stage three – the finishing touches

Solder the end of the pick-up wires to the terminals of the power unit and test run on your layout. If it short-circuits, swap the wires over and try again. Once you have got the loco working, manufacture a tender drawbar from scrap brass or wire. As I said earlier, be very careful when selecting an identity for your model and note the following points:

Not all the J15s received Worsdell chimneys, some ended their days with stovepipe chimneys, some members of the class were fitted with side window cabs, some had cab tenders, some had weatherboards fitted to their tenders, some locos had steam brake only (i.e. no vacuum pipes), some were vacuum fitted (i.e. one vacuum pipe and a regulator pipe along the right-hand side of the boiler), some locos were dual-braked (i.e. two vacuum pipes at each end of the loco, a regulator pipe on the right-hand side of the boiler just above the

Fig.10

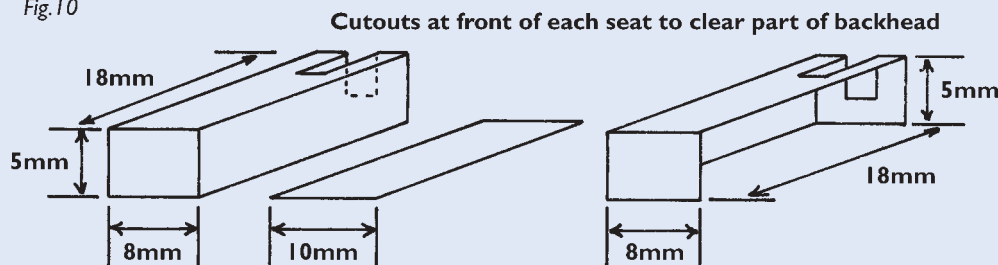


Fig.11

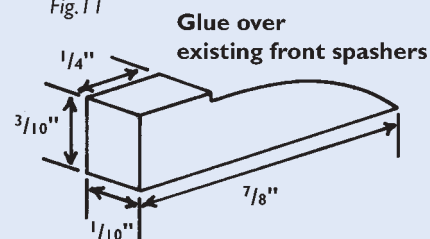


Fig.12

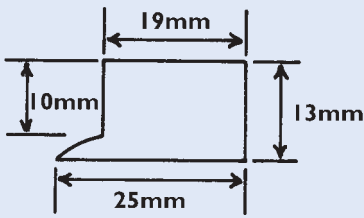
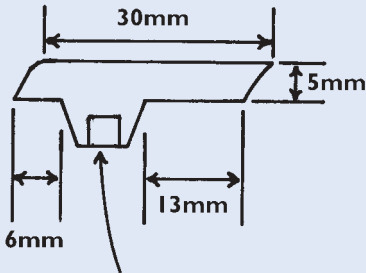


Fig.13



Stick a piece of card 4mm square here to represent an axlebox



handrail, and a Westinghouse pump on the right-hand side of the loco, fitted on the side of the firebox in line with the safety valves).

E4 2-4-0 62785 – an interesting afterthought

The E4s were virtually the same engines as the J15s but with a 2-4-0 wheel arrangement and 5'8" coupled wheels. Unfortunately the 'Dean Goods' design had 5'2" wheels, however if we put the difference in coupled wheel diameter down to 'modellers licence' it would be possible to construct an E4 from the 'Dean Goods'.

The tender would be constructed in the same way as the J15. The loco body would be rebuilt in the same way as the J15, plus the removal of the front splashers and the blank-

ing off of the resulting holes in the running plate; I used paper. The removal of the front splashers also leaves large holes in the smoke-box saddle on each side of the loco, which need to be filled with Milliput or similar. Then fit a pair of leaf springs in place of the leading splashers; I used a pair of MJT wagon springs.

Next cut out two pieces of paper to alter the shape of the cab side sheets (Fig.12), then stick them in place over the lower half of each cab side below the driver's cutout. Fill the gap between the firebox sides and the newly created cab sidesheets with pieces of paper to form a new pair of rear splashers. Then stick a Westinghouse pump on the right-hand running plate in line with the safety valves. Remove the front coupling rods from each side of the chassis and remove the leading pair of coupled wheels and axle. Drill a 1mm diameter hole through the chassis, in line with the old axle hole but 3mm lower. Solder a piece of 1mm diameter wire, 8mm long, to the leading current collectors on each side of the chassis. This will enable the current to be collected via the leading wheels.

Next fit a pair of 13mm diameter bogie wheels through the recently drilled hole, whilst at the same time ensuring that the newly added pieces of wire are in contact with the inside of the wheels. Then test for con-

tact with the rails and if the new wheels are too high, enlarge the hole until they do come into contact with the rails. From a piece of card or plasticard, cut out the front valancing (Fig.13) and stick it in place with dummy axleboxes over the leading wheels.

Yet again be very careful about the choice of identity for your model: the E4s were all dual-braked (i.e. Westinghouse pump and two vacuum pipes yet no ejector pipe on the boiler side). Some locos had side window cabs, whilst some had tender cabs, some had both and some had neither (as with my model). Some of the tender cabs had round spectacles whilst others has square windows. If in doubt consult a photograph.

Just to complicate the issue, I chose 62785 as the identity for my model because it was the last one to be withdrawn (for preservation), outliving its sisters by nine months. In preservation, it has one of the 'normal' tenders, however for its last two years of service (1957-59) it ran with a cab tender.

Photographs by the author.

Below: J15 No.65467 departing Saxmundham with the Aldeburgh branch train on 5 May 1956. A modeller's train formation if ever there was one!

Photograph: Philip J. Kelley.



...an exchange of railway modelling ideas for beginners of all ages

Samtown – change for Taidville

00 on a 6' x 4' board

Sam Rhys Jones describes the layout his grandfather built for him.



Once, my Taid had a bad back, so he put a 6' x 4' board under his mattress. When his back was better he wondered what to do with it. Then he thought 'I know, I'll make an 00 gauge layout for Sam'. So he got to work straight away using Hornby track.

That Christmas I was astonished to see the present I was given. Father Christmas brought Thomas the Tank engine. At first I started with nothing scenic but gradually it became more realistic, and as the years went by it became a proper layout, and I grew out of engines with faces!

The first feature was a tunnel made out of wire netting and *papier mâché*, then a station

and a big cliff. The buildings we made from kits, mainly Metcalfe and Superquick. The engine shed is useful for keeping the engines out of the way.

I have a very famous engine, *Mallard*. The locos are a mixture of Hornby and Bachmann, and consist of Black 5, Southern Terrier, GWR pannier, and a EWS Class 37 diesel.

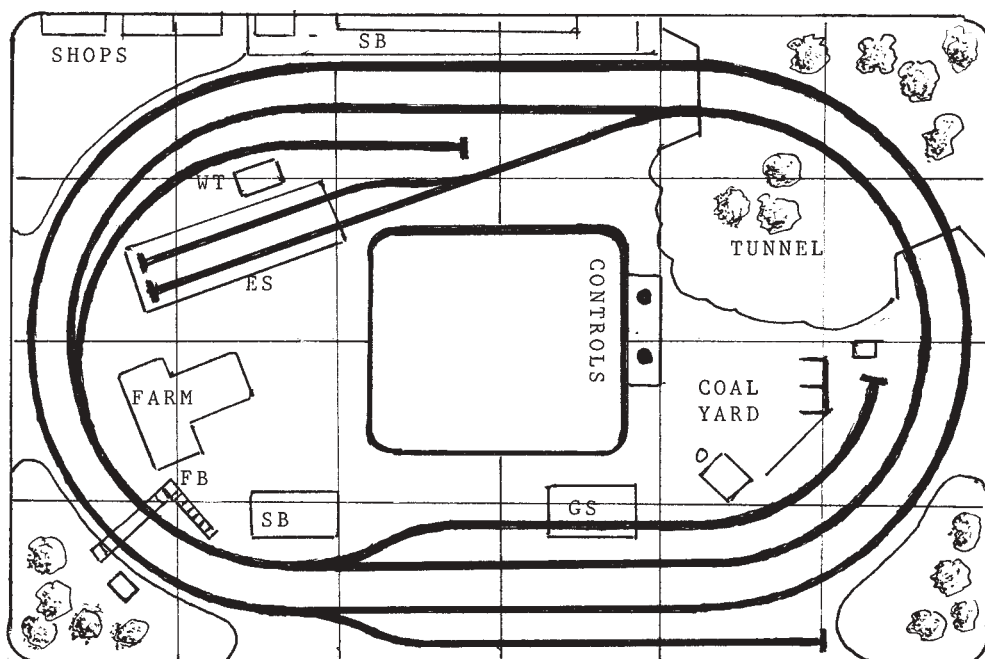
Taid often comes to have running sessions with me. He is very keen on weathering and

models in 16mm. The trains are controlled by a Gaugemaster Twin unit and I have a Trax Controls steam sound unit.

I like my layout, and I try to take good care of it. It may not be a big layout, but it's still lots of fun.

I'd like to say a big thank you to Taid, and also to Nain for letting me put the layout in one of her spare bedrooms.

Photographs by Seriol Wyn Jones (aka Taid).



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

THE LATE DAVID JENKINSON

I was saddened to read of the death of David Jenkinson. In June 1961 I was posted to RAF Seletar as a Flt. Lt. Air Traffic Controller. I noticed that Flt. Lt. David Jenkinson, the Education Officer, was listed as Officer i/c the Model Railway Club. I asked him if I could see it and together we went to the hut behind the Control Tower. It was full of baseboards with track laid on them, but as David explained, all the people building the layout had been posted back to UK and the club was moribund. On the window sill were a pile of RAILWAY MODELLER magazines. I asked David if he minded that I borrow some to read and he said 'no, please take them'. I did and I have subsequently purchased every issue of RAILWAY MODELLER since then.

I am now 69. That single act of kindness from David was the inspiration that has given me a lifetime of wonderful enjoyment building my model railway layouts. I can not thank him enough. Many thanks David. God bless.

R.P.D SANDS

Having just received my copy of RAILWAY MODELLER, I felt compelled to write to offer my condolences to the families of David Jenkinson and Stan Roberts. They have both set standards of modelling that I would like one day to aspire to. As an 'average enthusiast' I'm currently constructing my first permanent layout, based on LMS ex-Midland practice in the 1930s. With limited time and resources to research the prototype, their articles have proved invaluable in improving my understanding and knowledge of the prototype.

I particularly enjoyed Stan Roberts' series of articles on Bakewell and Rowsley. David Jenkinson's *Kendal* layout, featured in RAILWAY MODELLER, and *Little Long Drag* articles in the 70s also provided inspiration. The hobby has lost two exceptional practitioners, who I think both managed to capture the atmosphere of the prototype in a way which is hard to emulate.

Can I take the opportunity to congratulate you on the extremely high standard of RAILWAY MODELLER, having moved to Spain nearly 3 years ago I am more reliant than ever on articles to gain inspiration and ideas, as it's not as easy to view the prototype first hand.

MIKE HUNTER

STONEBRIDGE HOPPERS

Regarding Barry Pearce's letter in the June issue: I presume he means the LMS 40-ton side discharge wagons, Diag.1708.

As a boy during the 1940s and 1950s I lived at Ilkeston, Derbyshire, at the southern end of the Notting-

hamshire and Derbyshire coalfield and on the LMS main line from London to Sheffield via the Erewash valley. I used to see these hoppers regularly, being loaded under the screens at Manners, Shipley Coppice and Shipley Woodside collieries. They were brought from Toton about six miles to the south up the main line to Stanton Gate where they took the Shipley branch up the Nutbrook valley to Nutbrook Transfer Sidings. They were picked up by the collieries' 0-6-0STs and Woodside's ex-Mersey Railway 0-6-4T No.5 *Cecil Raikes*. After filling they were returned to Toton for marshalling. The locomotives on these workings were 3F and 4F 0-6-0s. No loading was done on Sundays.

The wagons were also loaded further up the coalfield at collieries around Pinxton, Clay Cross and Chesterfield and were hauled by 3F and 4F 0-6-0s, 2-6-0+0-6-2 Beyer Garratts as well as the 8Fs of Hasland, Westhouses and Toton sheds. In *Modelling aspects of the coal industry* by Rob Johnson on pages 28 and 29 are photos of several hoppers at Calverton colliery, 7 miles north east of Nottingham, dated July 1956.

After leaving Toton the wagons travelled south through Trent Junction, Leicester and Wellingborough to Stonebridge Park. They also travelled via Trent junction, Derby and Burton-Upon-Trent to Washwood Heath and Birmingham.

I cannot answer Nos.4 and 5 of Mr Pearce's questions.

I would be grateful if any readers know the whereabouts of the above mentioned *Cecil Raikes*: as a boy I had many footplate rides before it was replaced by a Clayton diesel. I know it was preserved at Steamtown at Southport some years ago but someone told me that the museum had closed and the stock had been dispersed.

J.C. HAGUE

INSPIRATION – IT WAS!

I have relied on the RAILWAY MODELLER for many years in order to keep abreast of developments in the hobby and have been inspired by the excellent work of other modellers in its pages.

Given the huge diversity of our chosen hobby, and the narrow parameters of my own specific modelling interest (i.e. the Swansea Dock lines and locomotives), I did not expect to find an article so close to my own particular field as that by Chris Klein in the June edition (pp.331-333).

Please convey my congratulations and thanks to the author.

JOHN THORNE

MATTERS GREAT WESTERN

I am a regular reader of RAILWAY MODELLER with an interest in the majority of the articles contained therein,

particularly models and layouts Great Western. In fact, I have a modest Great Western layout myself which incorporates not a few ideas gained from the pages of RM.

In the May issue, Ian Nisbet commented on my letter regarding Neil Herd's excellent article on *Helford* suggesting that I had confused the colours of the paint on the metal brake pipes on goods vehicles. I thank Ian for his well intended criticism but assure him that I am very well aware of the difference between 'fitted', and 'piped' vehicles. Had Ian been a regular reader of RM, and I assure him that it is his loss that he does not, then he would have realised that Neil's *Helford* layout is very Great Western.

I lifted my first Great Western locomotive regulator 60 years ago at Fosse Road, between Leamington Spa and Banbury, and, as I intimated in my February letter, in subsequent years I earned my living in both the S&T Department and the Operating Department.

As far as the colour of brake pipes is concerned, the Great Western Railway General Appendix to the Rule Book dated August 1st 1936, under 'Regulations For Working The Vacuum Brake', section 1.c, states 'The vacuum train pipes at the end of 'fitted' vehicles are painted black; the vacuum train pipes at the end of 'piped' vehicles are painted red.'

GEORGE COOPER

HISTORICAL ACCURACY

The Kings Green Wharf N gauge layout (RM May) built by the St Neots Model Railway Club is a wonderful example of what can be achieved in that scale in a relatively small space. In particular I admired the effectively modelled industrial buildings, which seem to have captured the scale and impact of the real thing. The smaller landscaping details, such as road vehicles, also contribute to the overall effect, redolent of the late fifties, early sixties, and mirrored by the locomotives used.

However, one aspect jarred somewhat – the goods rolling stock. The majority of wagons on view seem to have arrived by some form of time warp, dating more to the thirties than more recent times. For example, most of the vans pictured are in pristine condition, with large big-four lettering and white roofs and wheel rims. Unfortunately, in 1936 all four major companies agreed to reduce the size of the lettering to around 5" high, and all subsequent repaints would have been in this form. Whilst it has to be acknowledged that there were examples of the older large letters surviving into the late fifties, they would have had a full repaint twenty years before. They would thus have presented a

rather faded and shabby picture, and they would be outnumbered by their more modern replacements, probably in British Railways' livery of grey or bauxite.

Similarly, all the Private Owner coal wagons, some 540,000 of them, were put into a pool at the start of WW2 and thereafter very few would have been repainted. Apparently many wagons survived the war with their original colours intact, but the harsh winters over the next few years, combined with the lack of maintenance and uncertainty as to their future, led to a severe degradation. In addition, any replacement timbers supplied during and after the war were usually left unpainted, fading to a silvery grey. Hence, by the time of Nationalisation it would be hard to identify the original owner at first inspection. Of those ex-PO wagons that came into the BR fold, the ones with some life left in them were renumbered using a P prefix, and painted in BR grey. At the same time there was a massive programme of construction of the all-steel 12-ton mineral wagons, and as these came into service the older wood wagons rapidly met their fate.

The upshot of all the above factors is that, for the time period represented on the layout, the majority of open wagons would probably be steel minerals, with most of the rest being BR and big four wooden ones, in BR colours. There might be some evidence of the original liveries on ex-PO wagons, but they would probably be in a dreadful condition, after nearly twenty years of neglect. It would be highly unlikely that one would see a rake of six wagons all in such a good state that one can read the names.

I realise that model railways are meant to be fun, and that owners should have the right to run whatever they want. But I also believe there is a certain onus of responsibility, particularly on clubs, to ensure that whatever is presented to the public, and RAILWAY MODELLER is very much in the public eye, is as accurate to any original as is reasonably possible. Many of your readers obtain much of their knowledge of the real railways from your pages, and can get misled by such lapses. If however, they were to refer to some of the many excellent collections of colour photographs from the steam era now available, they would then be able to draw their own conclusions.

NICK HOLLIDAY

With reference to *Kings Green Wharf* and at the risk of incurring the wrath of those modellers of the 'It's my layout and I'll do what I want' persuasion, I have to ask why run wagons in pre-1948 private owner and pre-nationalisation liveries behind BR green Class 08/33/3 diesels and a BR Standard 4MT tank loco?

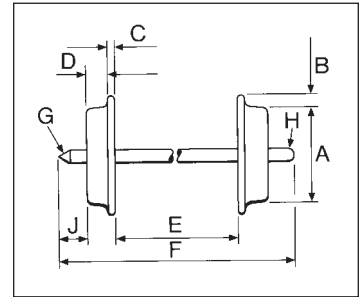
Surely the hobby (and N gauge) has advanced in realism in recent years? A quick repaint of the wagons would cure this glaring anomaly for the period modelled, especially since the builders have gone to the trouble of weathering, weighting and loading some wagons.

I am truly not a pedantic modeller normally but this just grates on me! Do other modellers feel the same, I wonder, when they see such gross liberties being taken within the hobby?

JULIAN ANDREWS

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'Western Pullman' train set in 00 from Hornby

There's never a wrong time to buy a youngster a train set, such as the new 'Western Pullman' from Hornby.

Inspired by the 1950s vintage *South Wales Pullman*, the set (ref.R1048) comprises 'Castle' No.7028 *Cadbury Castle*, four Pullman cars – the old R223/233 types, incidentally – oval of track with two points, two sidings & buffer stops, plus transformer etc and TrackMat underlay sheet. Size required is approx. 1640mm x 940mm.

*SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.*

PRICE varies, approx. £130.



Latest Class 55 'Deltics' in 00 from Bachmann



The two latest Class 55s 'Deltics' to emerge from the Bachmann factory represent a regiment and a racehorse, appropriately enough.

The first, 55 002 *The King's Own Yorkshire Light Infantry* (ref.32-525A), represents the machine chosen for the National Collection, in its two-tone green with full yellow ends. We recall that neither the livery nor the charmed locomotive which wore it was universally popular in the late 1970s, but perhaps attitudes to 'KOYLI' have

changed in the intervening decades.

No such qualms about the other model, of 55 012 *Crepello* with the restored white cab surrounds (ref.32-527), the Finsbury Park trademark during the last years of the depot's existence. *Crepello*, incidentally, won the 1957 Derby and Two Thousand Guineas, and we wonder if anyone living in the housing on the site of FP understood the significance of the clip of *Crepello* leading in Ballymoss in the coverage of past races which formed

the build-up prior to this year's Derby. Somehow we don't think so...

Performance and mechanical aspects are identical to previous versions (see the February issue for the full review), and this includes the narrower-treaded outer wheels. The full complement of detail parts and etched nameplates for the modeller to fit is included as usual.

*PRICES
£64.45ea*

For 00

*SAMPLE SUPPLIED BY
Bachmann Industries Europe Ltd,
Moat Way, Barwell, Leics. LE9 8EY.*

WHEEL DATA

*B. 0.95mm, C. 0.4-0.5mm,
D. 1.4mm outer axles,
1.8mm centre and inner axles,
E. 13.8mm outer axles,
14.6mm centre axles,
14.4mm inner axles.*

BR 13-ton open in 4mm scale

New to the Parkside Dundas range of high-quality injection moulded plastic wagon kits in 4mm scale is this BR 13-ton open.

Over 5000 examples were built in the 1950s to two designs, with sheet rail (Dia. 1/039) and without (1/044); the kit caters for both. The type was based on an LMS open, and complemented the LNER-based vehicles (for which Parkside makes a kit, ref.PC01A).

The kit was, as always, a joy to build. Parts fit accurately and without fuss, and flash to clean is minimal. The sheet rail is plastic, and can be made

to move on its mountings. 3-hole metal wheels rotate smoothly in metal 'top hat' bearings. The purchaser will need to fix couplings and apply paint and transfers to this excellent model.

*MANUFACTURED BY
Parkside Dundas, Millie Street,
Kirkaldy, Fife KY1 2NL.*

PRICE ref.PC02A, £6.25

WHEEL DATA

*A. 12mm, B. 0.7mm, C. 0.5mm,
D. 2mm, E. 14.5mm.*



Western Region quintet in 00 from Hornby



There's no sign of abatement in the interest in Great Western/BR Western Region (same thing, really) locomotives, if this selection of recent Hornby output is anything by which to proceed. A 'Large Prairie', two 'Counties', a 'Castle' and a 'Britannia' have all hit the shops.

The 2-6-2T represents No.6132, one of the sizeable fleet of outer suburban 'Large Prairies' shedded at Old Oak Common. It is attired smartly in lined green with late crest, and the slightly dull, 'dirty' copper cap to the chimney is very effective: not too bright or toy-like.

Two Hawksworth 4-6-0s next: No.1010 *County of Carnarvon* is in as-delivered finish with single chimney and G-crest-W on the tender and original spelling of the county, later altered to *Caernarvon*. Sister No.1026 *County of Salop* wears late-BR livery and has a double chimney. Both feature sprung buffers, and a detail pack of brake rigging and suchlike within the packag-



ing for the modeller to add.

Last of the ex-GW design motive power is No.5074 *Hampden*, formerly *Denbigh Castle* but one of the wartime renamers (January 1941). Legibly with a Cardiff Canton shedplate, the model represents the loco in post-September 1961 condition, the month it acquired the double chimney.

Finally, one of the Western's allocation of 'Britannia' Pacifics, No.70018 *Flying Dutchman*. Broad gauge-resonant nameplates did not do much to alter the Western's low opinion of these

Standards, only Cardiff having anything much to do with them. Curiously, '18 carries the wrong colour (and it's the wrong shade of blue to boot) route restriction dot below its number - 'Britannias' were red route machines - unless Hornby has uncovered a dastardly Swindon plot to allow one to be sent off to the Cambrian, never to be seen again...

All the models bar the 'Brit' have motors which drive the coupled wheels (70018 is tender drive, to the outer axles only, and on one tread of each

are traction tyres). Performance is good all round, if a little noisy at first, as one would expect. No provision is made for digital command control, but the resourceful should be able to fit a decoder somewhere inside these bodysells. Glazing, where fitted, is flush or nearly so, and a lot of detail stands proud of the superstructures.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX

PRICES

61xx 6132 (ref.R2357A) - £54.00
County 1010 (ref.2391) - £85.00
County 1026 (ref.R2392) - £85.00
Castle 5074 (ref.R2424) - £85.00
Britannia 70018 (ref.2387) - £95.00

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Colour light signals in N from CDA Electronics

CDA Electronics has recently expanded its range of N scale working colour light signals with four examples based on General Railway Signal Company type D designs: several will be suitable for UK applications. All have a 12' high mast and a 3' target; there are both two and three aspect types, each with either overall hood or individual hoods.

The two aspect signals have green over red, while the three aspect display is green at the top, yellow in the centre, and red at the bottom.

The models have been very neatly assembled and painted, with minimal wiring evident behind the cast head and the small LEDs used giving practically a scale size appearance. A brass tube is used for the mast, and the cast brass foot has a hole at the back for secure fixing with a screw or pin.

The 1.3mm diameter tube protrudes some 11mm below the foot to mount the signal in the baseboard and carry the connections through.

Each LED is naturally supplied by a separate fine copper wire, with enamelled insulation, and the end ready tinned for connection. The wires are



approximately 100-130mm long: logically, the shortest wire connects to the top (green) LED, the longest to the lowest (red) one.

The signals come fitted with a 1k ohm resistor in the common return wire, making them suitable for use on 12-17 volts DC; the instructions helpfully list other values for 6v, 9v, and 12v DC supplies.

For N

MANUFACTURED BY
CDA Electronics,
P.O.Box 702, Beaudesert,
Queensland 4285, Australia.
jj.cda@hypermax.net.au

Trade enquiries welcome.
Visa and Mastercard accepted.

PRICES

ref.60-005 2-aspect individual hood \$23.45
ref.60-020 2-aspect overall hood \$23.45
ref.60-007 3-aspect individual hood \$24.95
ref.60-022 3-aspect overall hood \$24.95
Postage & packing extra, at cost.

A4 in weathered condition in 00 from Bachmann

Hornby tried it with the 'Duchess' Pacifics, and now Bachmann has tried it with an A4 – weathering!

It won't be to everyone's taste, especially given the choice of identity, but the result is evocative of pre-preservation grime (even for top link power at times) or the modern 'mucky locos day' pastiche. Otherwise, No.7 is identical to the A4 seen last month.



*SAMPLE SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.*

*PRICE
ref.31-954A, £91.30*

*WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.*

Substantial main line station kit in 4mm from Metcalfe Models



This imposing structure is the latest card kit from Metcalfe Models. It builds into a sizeable station building with, it seems to us, a 'baronial' style of architecture – the Caledonian edifice at Lanark is a near miss to what has inevitably to be a generic building. (Having said that, the red-printed doors and attractive glazed brickwork in the entrance passageway set the

model firmly in LMS/BR London Midland territory.)

The building itself has a footprint measuring 285mm x 140mm x 140mm high, and is flanked by two platforms, each 260mm long, thereby accommodating a 3-coach train. It has been printed in subtly weathered shades of dark stone, and we feel that you'd be hard pushed to match this in paint.

Metcalfe recommends thorough study of the instructions before assembly commences: this is very sound advice, so heed it! Some sequences are by their nature fiddly – the decorative stonework on the road side elevation for example – but work steadily and carefully and you won't go wrong. Chimney pots are the usual 'roll your own' kind, but we omitted them, hiding

shamefully behind the view of Lanark sans pots that we found in *LMS Architecture...*

We understand that further elements of the station are in preparation, to enable modellers to build an even more substantial building. If they exhibit the same high quality and are as pleasant to build as this kit – and we expect that they will – then the happy process of box-building looks set to continue for some time.

Metcalfe Models kits are distributed to the trade via the Pritchard Patent Product Co., Underleys, Beer, Seaton, Devon EX12 3NA.

For 4mm scale

*MANUFACTURED BY
Metcalfe Models & Toys, Bell Busk,
Skipton, N. Yorks. BD23 4DU.*

*PRICE
Ref.PO230, £12.50.*

Latest Class 33s and 47s in N from Graham Farish



The diesel roster in the China-produced Graham Farish range continues to grow, with examples of classes 33 and 47 to hand.

The 33s are 33 035 *Spitfire* in later-type Network SouthEast blue (ref.371-127), complete with crisply printed Eastleigh depot plaque showing the famed fighter – and Fragonset red sister 33 021 *Eastleigh* (ref.371 126). If the too-short bogies offend, a Kato-derived alternative with the correct wheelbase is available from Taylor Precision Models, as outlined in our January edition.

The 47s feature another weathered locomotive – early build 'generator' D1505 (ref.371-231) – and, bang up to date, 47 635 *The Lass O' Ballochmyle* (ref.371-230) in 1980s-style livery. The former reminds us of the last days of Southern steam, where sometimes filthy Brush 4s deputised on the *Bournemouth Belle* to universal disapproval, whilst the latter model's prototype was outshopped thus last year with the name carried previously by at least one Class 37.

Our comments last month on the Class 25s apply here for both classes,

where microstrip for the quarterlights would complete the job nicely. To be accurate for the 1960s, the green 47 should have its high-intensity headlights removed.

Performance, as is usual with these Far East-made mechanisms, is good, providing smooth starts with eight on and good trackholding at speed. No provision is made for digital command control, and we reckon that it would be a bit of a squeeze to get a decoder inside the body.

Be it the 1960s or today, there's something here for all.

For N

*SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.*

*PRICES
33s (both types) – £62.95ea
47 635 – £73.95
D1505 – £77.95*

*WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.*



Interlink Garden Rail System for outdoor railways

When design consultant Ron Jones decided, in his spare time, to construct a garden railway in 2002, he found that the ground preparation and track laying methods usually recommended were daunting and lacking in flexibility if extensions or alterations were required. The result of much development work to find an alternative is this patented Interlink Garden Rail System.

The heart of the system is the Fleximount, moulded from uv-stable ABS. It is 150mm long and 40mm wide, and 21mm from base to the top-surface, on which the track rests (see right-hand photo: the track has not been screwed to the mount here). The base piece can be buried in the ground, fixed to a batten. It allows for expansion and contraction of the track thanks to the slots, 22mm wide, cut into the baseplate. 32mm and 45mm gauges can be accommodated, to both standard and narrow gauge sleeper profiles.

Ballast housings, measuring 113mm long and 36mm wide, and 19mm from base to top are designed to work in conjunction with the Fleximounts, one or more positioned between each



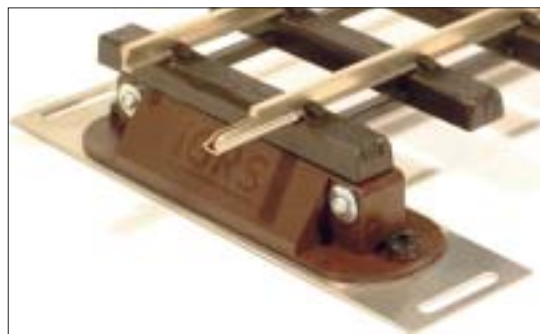
mount. If necessary, the ballast housings can be anchored deeper into the ground with angle sections (not supplied) of the purchaser's preference. The photo above shows a Fleximount (upper) and ballast housing (lower) for comparison.

The system is designed to allow a newcomer or the non-practical to instal, modify or even uproot an outdoor layout without too much disturbance of the surrounding garden. Because the track need not be held in place by the ballast alone surrounding the mounts, better results will be had,

especially with low-profile sleepered track such as Peco Streamline. The knock-on benefit of this increased track stability is fewer (or very few, if any) derailments.

Although our samples show the mountings attached to stainless steel bases, it is anticipated that the next batch will have these sections produced in ABS.

This is an ingenious solution to the groundwork problem that some associate with the construction of a garden railway. It may seem a pricey one to some, too, but not when weighed



against the work involved in 'traditional' garden railway construction. Full details – www.gardenrailsystem.com

For 32mm and 45mm gauges

MANUFACTURED BY
Interlink, 66 Warepoint Drive, Gallions Reach, Thamesmead, Greenwich, London SE28 0HN.

PRICES
Fleximount – £4.50
Ballast housing – £1.25
Prices exclude postage & packing.

Zephyr digital command control start set from Digitrax

Digitrax is encouraging newcomers to Digital Command Control with the Zephyr start set, which includes the DCS50 throttle command station and booster, with 2.5amps capacity, a suitable power supply transformer (not illustrated), the LT1 LocoNet cable and decoder tester, and full instruction manuals for the Zephyr set itself and the range of Digitrax decoders.

Digitrax has decided not to include any one decoder as standard with the start set, as the firm believes it is better for the decoder to be matched to the loco, and is thus best selected with advice from the dealer at purchase.

The principal element is the DCS50, which measures 180mm wide by 125mm deep (140mm over projecting screw terminals) by 45mm high (70mm over the control knobs). Although intended to be used on a console or desk top, it is not so large and heavy that it could not be handheld, though the trail of wires might be restricting.

Those new to DCC should be immediately reassured by the familiar look and smooth feel of the rotary speed control knob and the three-position direction/brake switch.

A large clear LED display relays status information, and there is a full numeric keypad for loco selection, function operation, and programming. The buttons are rather small and closely grouped, as on Digitrax handheld units, and the labelling is not immediately obvious until you become accustomed to the system, though lights, couplers, bell, and whistle functions (when relevant to the loco being controlled) are helpfully marked by obvious graphic symbols.

Most connections are for plain wires via a group of small screw terminals on the rear; the 15v AC power input is a standard concentric connector; and two LocoNet multipin sockets for tele-



phone type connectors are incorporated.

The DCS50 will support both two and four digit addressing for locos, consists, functions, and accessories such as points and signals, through appropriate decoders. There is direct control over nine functions (F0-F8). It can hold up to ten active loco addresses and run up to ten auxiliary throttles at one time.

One very interesting feature is the 'Jump' facility – this enables one or two conventional smooth 12v DC controllers to be used as auxiliary throttles: the DCS50 keypad handles loco allocation and all digital functions while its throttle remains independent.

The DCS50 itself can be linked via the LocoNet connections to other DCC controllers, either as a command station, a slave throttle, or a power booster, optionally with auto-reversing capa-

bility in some configurations, making it an extremely versatile device: it may be the basis of the starter set but is likely to remain useful if and when the system is expanded.

The unit comes with a 60-page A5 size instruction manual, with a full contents list and index to help both beginners and experienced users to find their way round. Many of the procedures are easier said than written out, and easier demonstrated than said! One of the difficulties in assessing such a comprehensive and versatile device is that it is practically impossible to explore all its possibilities, and indeed most users will only employ a part of its capabilities, according to their preferences and requirements.

Naturally the device is fully compatible with the relevant NMRA DCC standards.

Included in the package is the LT1 decoder and LocoNet cable tester, which can be used as a diagnostic test light, to test decoders prior to installation, test track power, and test LocoNet cables; it comes with a full instruction sheet.

The starter set also includes the comprehensive 80-page decoder manual, to assist with selection, installation, programming, and all aspects of use.

For all scales

IMPORTED BY
Sunningwell Command Control Ltd.,
P.O.Box 381, Abingdon,
Oxfordshire, OX13 6YB.

PRICE
£155.00 with transformer,
£130.00 without transformer.

Latest special run private owners in 4mm scale



The West Wales Wagon Works has launched three new wagons in association with Blackham Transfers of Blaenau Ffestiniog. Manufactured by Dapol, they have individual running numbers applied by transfers.

The first 7-plank wagon bears the logo of 'Thomas Thomas' of Newcastle Emlyn. It has had a variety of loads made for it by Bryn Phillips of Lampeter. This can be any load from a range of planks of wood, boxes of tools, gravel, pipes or coils of rope. Thomas was a builder's merchant and the original wagon was built by the Gloucester C&W Co.

The 'Cardigan Mercantile' 7-plank is the second in the issue. Both wagons are constructed to the familiar Dapol manufacturing standards.

The third, a peak-roof salt-type wagon is based upon a photo of one at the Llywernog silver and lead mine, ten

miles east of Aberystwyth. Each wagon is priced at £8.00 including postage.

West Wales Wagon Works, Valentine House, Brynderi Close, Adpar, Newcastle Emlyn SA38 9NP.

B&H Models of Lincoln has commissioned 500 sets of three Bachmann 7-plank wagons, each with a certificate, in the livery of local merchant William Clarke & Son Ltd. The firm was started in 1842 by Mr. W. Clarke and Mr. Henry Theaker in partnership as coal and corn merchants at Brayford Wharf East, Lincoln. The majority of the business concentrated on coal and a fleet of wagons was built up over the years. A free booklet detailing the company's history – a reprint of its centenary commemorative volume, published in 1942 – can be obtained by including an A5-size SSAE with your order.

Note the differences in livery on this three-pack, priced £25.00 plus £2.00 for postage & packing.

B&H Models, 13 Corporation Street, Lincoln LN2 1HL.

The Tutbury Jinny has commissioned 100 only of two Dapol 7-plank side & end door wagons, lettered for Holly Bank Colliery, on the LNWR Cannock branch, and Glascote Colliery near Tamworth. They are priced £14.99 the pair; if ordering by post please add £1.00 for P&P.

The Tutbury Jinny, Tutbury Mill Mews, Tutbury, Nr. Burton-Upon-Trent, DE13 9LS.

The Red Rose Steam Society has commissioned its third wagon, a 7-plank open celebrating Bridgewater Collieries, at Worsley, Manchester. The model represents the early 20th



Century period, when the mine was under the care of trustees. The Manchester Colliery took over in 1929. These are available from the Museum for £6.25 plus £1.50 p+p by cheque or Postal Order made payable to Red Rose Steam Society.

Red Rose Steam Society, Astley Green Colliery Museum, Higher Green Lane, Astley, Tyldesley, Manchester M29 7JB.

1E Promotionals has released new Dapol wagons for East Anglia and the South Midlands. A five-plank wagon for Norfolk in the livery of H. Fulcher and a seven-plank wagon in the livery of J.H. & E. Essen, coal merchants can be obtained from the joint distributors KRS of Leighton Buzzard and G.E.Models of Sheringham at a price of £7.50 plus £1.00 post and packing.

These limited edition wagons, which are restricted to 250 examples, are accompanied by a professionally printed, individually numbered certificate. It is planned to extend the ranges of private owner wagons to cover Bedfordshire, Cambridgeshire, Hertfordshire, Northamptonshire, Oxfordshire and Suffolk.

KRS Model Railways, 14 Brickhill Road, Heath & Reach, Leighton Buzzard, Beds LU7 0BA.

G.E.Models, Platform 2, North Norfolk Railway, Sheringham Station, Sheringham, Norfolk NR26 8RA.



Hornby 'Arrow'

At the other end of the style spectrum from the private owners seen on this page is the *Golden Arrow* c.1949, as modelled by Hornby for its latest 'Great British Trains' pack of locomotive and three coaches in 00.

The 'Arrow' was reintroduced in 1946 following the privations of war, once again transporting its premium-fare passengers to Folkestone Harbour for onward shipment to the continent.

As befits such a famous train, Hornby has used its new matchboard side Pullman cars for this set (ref.R2369, £130.00), namely Kitchen Firsts *Cecilia* and *Chloria*, accompanied by Parlour First *Niobe*. The wonderfully evocative *GOLDEN ARROW*



FLECHE D'OR train boards are carried throughout. To complement these cars, a three-pack of similar Pullmans is also available (ref.R4196, £80.00), comprising Kitchen Firsts *Adrian* and *Zenobia*, along with Parlour First *Onyx*.

As for power, there is Bulleid Light Pacific No.34074, un-named, in interim SR livery with BRITISH RAILWAYS spelt out

in 'Sunshine' style and with the arrow side- and headboards. (The Union and French flags are absent, but if you wish to have them see the Precision Labels variety, RM May 2003).

This set may need a bit of saving up for – especially the full six-car rake – but what a treat it is, especially for the BRSR (Eastern Section) modeller.

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate, Kent CT9 4JX

PRICES in text

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm, E. 14.5mm.

Book Reviews

An Album of Hull & Barnsley Engines and Rolling Stock 1885

Martin Barker
North Eastern Railway
Association, 31 Moreton
Avenue, Stretford, Manchester
M32 8BP.
295mm x 208 56pp
Softback £10.95 incl P&P
ISBN 1 873513 41 0

The Hull, Barnsley and West Riding Junction Railway and Dock Company was officially known as the Hull & Barnsley Railway after 1905. This attractive album presents a photographic record of the Company's original rolling stock, together with 4mm scale line drawings of the vehicles portrayed. Locomotives, carriage stock and goods vehicles are covered.

The H&B locomotives bore a striking resemblance to those of the London Chatham & Dover Railway, the common factor being that William Kirtley, Loco Superintendent of the latter concern was engaged, in 1883, as Consulting Engineer by the former.

There are well researched historical notes for each item, and details of livery, alterations to appearance, re-numbering etc.

This album would be an excellent first purchase for a modeller wishing to tackle this compact and little known pre-Group main line railway.

Diesels in Wessex

Tony Molyneux
and Kevin Robertson
Ian Allan Publishing, Riverdene
Business Park, Hersham,
Surrey KT12 4RG.
189mm x 235mm 80pp
Hardback £14.99
ISBN 9 780711 030 107

Here is a gallery of eighty colour photographs taken by Tony Molyneux during the transition from steam to diesel traction in the south of England in the early 1960s. The informative captions are by Kevin Robertson and the ground covered includes both SR and WR locations (one location, however, just north of Eastleigh, has been mis-identified as Worting Junction). This period, of course, allows enthusiasts for the WR diesel-hydraulic 'Warships' to be seen on both the Western main line and, later, also on the Waterloo-Exeter route alongside the indigenous SR diesel electrics. Naturally the Class 33s get a good share of the book and the two- and three-car SR DEMUs are not forgotten. Although actual MU-ing of these latter seems never to have been a common sight, Tony Molyneux caught a six-car configuration at Chandler's Ford. Electro-diesels naturally also feature, as do the versatile and so-Southern 4-TC trailer units.

The Class 50s, wonderful but latterly dismally failure-prone, rate only one

Right: first generation DMUs in all their window-rattling splendour, chiefly featuring GW-liveried Class 117 set T305 on a special at Stourbridge Junction on 23 April 1988.

Photograph: Frank Hornby.

Below: a diesel in Wessex. D1015 Western Champion rounds the curve at Salisbury Tunnel Junction heading for Bournemouth on 27 July 2003.

Photograph: John Chalcraft.

picture here (*Thunderer* at Salisbury) but Class 47s are well represented on both the Western and Southern Regions.

Other motive power appearing in these pages includes Classes 08, 25, 31, Hymeks, Westerns, Blue Pullman and assorted BR DMUs.

As with all collections of this sort, the then-everyday backgrounds of unvarnished stations, trimmed embankments, semaphore signals, tasteful liveries and working goods yards serve to evoke another age which seems like only yesterday.

First Generation DMUs

Kevin Robertson
Ian Allan Publishing, Riverdene
Business Park, Hersham,
Surrey KT12 4RG.
280mm x 210mm 80pp
Softback £12.99
ISBN 0 7110 2970 9

This is the second in the Publisher's British Railway Pictorial series. In it the author pays tribute to the early diesel multiple units of many different kinds which we all knew and (often) loved. Most of these types have now been withdrawn, so this collection of images is timely.

Mr Robertson looks at the origins of DMUs, the great variety of types constructed (modellers' nightmare) and the range of services operated.

Subjects covered include Number Series Coupling Codes, Southern Region DEMUs, Railbuses. Moderniza-



tion Plan DMUs and Standard Blue Square Coupling Code DMUs.

The photographs are an excellent selection and include a number of 'official' interiors with posed passengers wearing the fashions of the time. Likewise, the whole railway infrastructure of semaphore signals and unrationalized track layouts and stations is equally of value to the historical modeller as the trains themselves.

Perusal of this album confirms that, as far as modelling is concerned, first generation DMUs are historical. Who remembers and has modelled the Gloucester 3-car units with a through-wired Hawksworth strengthener?

The Redlake Tramway & China Clay Works

E. A Wade
Twelveheads Press, PO Box 59,
Chacewater, Truro, Cornwall
TR4 8ZJ.
195mm x 200mm 84pp
Softback £9.50 post free
ISBN 0 906 294 56 8

This book was first published by Twelveheads Press in 1983 and has been out of print and scarce for some time. Sadly Ted Wade died in 2002 and this new edition is dedicated to his memory. The original text has been retained but additional previously unpublished photographs have been included.

The 3' gauge mile-long Redlake tramway lasted as long as the local China Clay industry it was built to serve, only twenty years from 1911 to 1931. The line boasted a variety of interesting locomotives and a passenger service, initially with bogie coaches.

The author was an excellent draughtsman, and his maps, plans and scale drawings of locomotives – one of which was the Atkinson-Walker tractor *Lady Mallaby Deeley*, as discussed by Neil Burgess elsewhere in this issue – and rolling stock from the previous edition have been used again.

The book also touches upon the Zeal Tor tramway which served the same area and industry but twenty years earlier.

Technicalities apart, the account also describes daily life on the line and

at the works and its hostel in that bleak and beautiful setting.

The author based much of his research on contributions from Redlake workers themselves and in his Introduction to the first edition he noted that: 'Although many original documents have come to light, much of what is known has been passed on by word of mouth, never the most accurate form of information. This being so, the author does not present the work ... as a definitive history, but merely as a long overdue requiem.'

This new edition will certainly be welcomed by students of Dartmoor railways.

Jack The Station Cat & the Great Little Trains Robbery

Alan Cliff
Gwasg Helygain Ltd, 68-70
Kinmel Street, Rhyll,
Denbighshire LL18 1AW
210mm x 145mm 24pp
Paperback £2.95
ISBN 0-9522755-7-0

This latest JTSC story maintains the author's readable and read-to-able style, designed for 5-8 year olds and much older.

As usual, the English is simple and elegant but never stuffy or boring. The reader will get as much from the story as the recipient, and you too will rejoice in the eventual downfall of Gricer, Anorak and Number Cruncher, the three gangsters who plan to kidnap the locomotives *Holy War* and *Joan* before their appearance at the Tail's End 100th birthday party. We would rather have liked the story to have included the parallel texts of the Mayor of Tail's End's speech of welcome in Welsh and English, but the author surely knows best in these matters!

The book ends with puzzles and their answers, and the text is illustrated with delightful drawings by Nigel Cliff and others.

Half of the author's royalties from the sale of the book are being donated to The National Children's Home.

This and the previous JTSC books are available post free from Jack The Station Cat Ltd, 38 Clifton Park Road, Rhyll LL18 4AW.



Doncaster and its Railways

The second selection

by Peter Tuffrey
Tempus Publishing Ltd., The Mill, Brimscombe Port, Stroud, Glos GL5 2QG

235x165mm
softback 128pp
£12.99

ISBN 0 7524 2876 4

The photograph and caption format is certainly alive and well. Peter Tuffrey's brief introduction sets the scene for a diverse, entertaining and informative gallery of historic railway photographs from the late nineteenth century to the present day.

Opposite the title page, the frontispiece begins to show how times have changed. Two women war workers are varnishing a carriage in 1916 – all that teak!

The book is in six sections of very different lengths and subject matter. Section one 'The Plant' takes the reader inside the foundries and assembly shops where public access is normally denied. Shots of staff on works outings give a silent social comment about the times, whilst posed pictures of the magnificent, freshly painted locos show why the effort was worth it. The working conditions depicted show how necessary unions were at those times; very little protection was afforded to staff who were welding metal or working on heavy machinery. On page nineteen, a lady welder does have some very fetching overalls, goggles and gloves, but unprotected behind her are industrial gas bottles! In these pages, there is a strong sense of pride in the work as the industry adapted to changing demands and practices.

Section two 'In and around Doncaster Station' is exactly that. Plenty of shots and enlightening captions of locomotives in their local area.

'Views from the lineside' is the title of section three; it would be difficult to find a more diverse range of locos and rolling stock in such a compact collection of pictures. The section also gives an insight into railway operation with an informative text on the use of tablets for single-line working.

We are 'On shed' for section four and a very atmospheric collection of shots fills just seven pages.

Railway stations and industrial locomotives round off the book in the final two sections. Maybe the constraints of picture availability necessitated the

reduced space given to these aspects, but their content is as valuable as the previous pages.

The book stops here, except for a page showing other titles that are obtainable from Tempus Publishing. This is a good quality softback that would fascinate a broad readership, even if railways were not the reader's main interest.

Steaming On

Stories of Locomotives in the National Railway Collection

Ian R. Smith
FNRM Enterprises, National Railway Museum, Leeman Road, York YO26 4XJ

170mm x 230mm 24pp
softback £2.95

ISBN 0 9546685 1 0

Logically, it could be argued that none of the locomotives depicted in this book needs to exist. But such is the strength of affection, nostalgia and pride of the staff and associates of the National Railway Museum, that the efforts to preserve our rail transport heritage continue to grow.

The sale of ten thousand copies of Ian R. Smith's previous book *Steam Alive* encouraged FNRM Enterprises to commission this title. It shows us some of the major stars and 'best supporting acts' of the steam era. Usefully, it begins with a concise two-page spread outlining the Rainhill trials, and although some might be familiar with the events of the time, it serves as an establishing scene for the story that follows.

Examples of significant locomotives, saved from the scrapyard cutting torch, represent the many roles played by the steam engine; the diversity of illustration and description make revealing and illuminating reading.

The gallery includes *City of Truro*, LNWR No.790 *Hardwicke*, a Beattie well-tank, a Super 'D', 'King Arthur' No.777 *Sir Lamiel* plus the ones that are impossible to leave out: *Mallard* and *Flying Scotsman*, recently made safe from export by the NRM and its supporters.

The easy-flowing text supports the many full-colour and monochrome photographs of engines in their original, replicated or restored condition. The reasons for creating the many classes and designs are put into context to create a sensible summary of

Left: a celebration of steam, a national treasure and a rolling advertisement for Doncaster's workforce all rolled into one – 4472 Flying Scotsman, captured in the unfamiliar setting of Victoria (eastern side) with a VSOE charter on 18 February 2000.

Photograph: Frank Hornby.

why things were as they were. The couple of dozen locomotives featured provide an informative reminder for enthusiasts and a tantalising shop window for those who may not remember steam when in daily service, but who may wish to further their involvement with steam.

Despite the slightly unconventional typography layout, the book is a rewarding read that proceeds chronologically until the end of steam is reached.

There is no doubt that the efforts of the Museum are made even more attractive as we read about the restorations and the subsequent use to which the locomotives are put, making us pleased that these locos are still around.

Gallery of Steam

Haynes Publishing, Sparkford, Yeovil, Somerset BA22 7JJ.
260mm x 250mm 171pp
Hardback £16.99
ISBN 1 84425 160 8

This is a selection of photographs from *Steam Railway* magazine, taken of steam railway preservation subjects at home and abroad. Most were shot in quite recent times, so the collection naturally lacks the excitement and 'peripheral infrastructure' interest for modellers and historians which is always present in the historical collections. The photography, however, is often spectacular (sunsets, snow, steam effects, night shots etc) although many railway enthusiasts will undoubtedly find it somewhat 'arty' and lacking in the technical detail they seek. The selection of subjects and locations seems undisciplined, with a slight bias in favour of lines such as the Great Central Railway. Steam-operated overseas locations include Jordan, Pakistan, China, Russia, and USA, but the diverse European railway preservation scene, eg Holland, Belgium, Germany, France etc is not represented.

This is a pleasant book to peruse and, if it has a message, it indicates the enormous amount that has been achieved by the UK railway preservation movement in the first half century since the Tallyllyn pioneers.

N Gauge Society Journal CD-ROM

The *N Gauge Society Journal 2003* is now produced on CD-ROM. The one disc can be viewed on PC or Mac. All six issues for that year are on the disc, which is only available to Society members, for a cost of £5.00.

The review copy was used on a modest PC with Adobe Reader software installed. The three instructions printed on the disc could not be simpler: 1 Insert disc, 2 Select CD drive, 3

Open README file. It loaded quickly and no problems were encountered. It is a very convenient way of storing the journals and, if you do not mind reading from a screen, the visual quality of the text is fine. The Index is a great help and clearly shows which issue and page to find a particular article. Browsing takes its usual time, but the use of a mouse with a scrollwheel accelerates the process.

The disadvantage of reading on-screen is that it is not possible to see a whole page at once and extra scrolling is required. Reference to other pages is also slower than having the real paper journal in front of you.

The illustrations are good quality and the colours are crisp. Whether you choose to read the journal on-screen or on traditional paper is a matter of choice and availability of a computer.

The Society is a non profit-making organisation and exists solely for the benefit of its members and to promote modelling in N Gauge.

If you are interested in joining, an introductory pack in obtainable by sending a cheque for £1.50 made payable to 'N Gauge Society' to Ian Coe, 17 Toll Bar Road, Christleton, Chester CH3 5QU. Members will receive six journals each year and have access to exclusive wagon kits.

Video Reviews

The Shakespeare Route – The SMJ

Hillside Publishing,
2 Moultrie Road, Rugby,
Warwickshire CV21 3BD. £15.95
60mins VHS

This film tells the story, from both a railway historian's and a modeller's viewpoint, of the Stratford-upon-Avon & Midland Junction Railway which incorporated the former East & West Junction Railway and other small lines, just three miles of which survive.

Due to its Midlands field of operation, the E&WJ inevitably maintained close relations with both the GWR (dodgy) and Midland (better) and the commentary includes much interesting data on this subject. Indeed the generous offering of archive footage (1927-1960s) is rich in LMS ex-Midland engines and of course some of the Western Region. Unfortunately the amazing 10'6" wide 0-6-6-0 Fairlie, built for Russia and used by the SMJ, escaped ciné photography, but it is illustrated here.

We know that the publishers are long-time railway modellers (their 0 gauge *Greenlane & Hillside Railway* recently turned 75) and fellow model makers will appreciate the attention paid in both film and commentary to such matters as bridges, station buildings, signal boxes and signalling generally, permanent way and all manner of civil engineering. Freeze-framing is a useful facility while viewing this tape, as the programme includes scale plans, signal box registers etc which deserve to be studied at some length.

This well produced film is essential viewing for all who are interested in the history of railways in the English Midlands.

Hornby Gresley A4s in OO getting close



Not one but two CDs arrived in the office after we closed the July issue, on which were shots of the new Hornby Class A4 Pacifics.

In Garter Blue was No.4468 *Mallard* (naturally enough: valances are present, record plaque absent); sombre in

unlined black was No.4901 *Sir Charles Newton* (no valances) and No.60031 *Golden Plover* in lined BR green, as above. The first two tote non-corridor tenders; '31 has a corridor tender.

Like many readers we suspect, we cannot wait to see them!

Railfest commemorative wagons



Three new OO wagons have been produced by Dapol for The Model Centre, York.

The first is the bicentenary wagon in association with the NRM/Railfest celebrating two hundred years of railways. It is a seven-plank side and end door wagon. A coal load is fitted and the white and blue printing is good quality.

The second is another limited edition bicentenary salt wagon, again in maroon with a grey pitched-roof. This too has well-printed white and blue text to create the NRM/TMC livery.

Third is a maroon mineral wagon

with NRM/TMC livery. This 'steel' wagon is, of course, similar in dimensions but different in appearance from the seven-plank wagon. A coal load is included.

All three are limited to a production run of two hundred units each. The tried and tested Dapol chassis is used with eight-spoke wheels and tension lock couplings.

For each NRM/TMC wagon sold, TMC will donate £1.00 to the NRM.

The Model Centre, Marston Business Park, Tockwith, York YO26 7QF. Tel: 08707 055 011 for mail order.

Saltley Depot commemorative van

Classic Train & Motor Bus of Leamington Spa has commissioned Dapol to manufacture a limited edition of 180 breakdown tool wagons. Each wagon is accompanied by a numbered certificate.

The wagon commemorates 150 years of Saltley Depot, Birmingham. It is based on an ex-LMS ventilated goods van fitted with racks, shelves and hooks inside a 1950s black breakdown crane tool van.

The chassis, which is fitted with eight-spoke wheels, carries a black body with a grey roof. The cream printing on the sides is very clear, as usual with Dapol wagons, and displays the seagull symbol and a commemorative oval plaque. It also bears the message 'Not to be loose shunted', plus identification data.

For each wagon sold, 75p will be



donated to the Saltley Welfare Fund which helps people, past and present, associated with the depot. The wagon is £7.75 to shop callers, but add £1.25 if ordered by mail; cheques only, payable to Mr. M. Tripé.

Mark Tripé, Classic Train & Motor Bus, 21B George Street, Royal Leamington Spa, Warks. CV31 1HA. Tel: 01926 887499.

First train on the Oxford lines at Pendon



Friday June 11 was a red-letter day in the history of Pendon Museum, as the next stage of the Vale scene was inaugurated. Guest of Honour Pete Waterman cut through a commemorative ribbon placed across the track and started trains moving.

The first train, seen here, was hauled by 0-6-2T No.5624 and 0-6-0PT No.5724, both of which were built by Guy Williams in 1950 and 1952 respectively. Sadly Guy was unable to attend

the ceremony, but founder members Paul King and Stewart Hine were present. The mixed goods was made up of many of the museum's earliest freight vehicles.

The day concluded with a reception for local residents, many of whose homes have been recreated in 4mm scale for Pendon.

Pendon Indoor Model Village & Railways, Long Wittenham, Oxfordshire OX14 4QD. Tel: 01865 407365.

Ready-to-run 0 gauge news from Tower

Tower Models took over most of the former Bachmann 0 gauge range two years ago. There has been a steady re-introduction of some items plus some new additional items. They are supplied fully assembled and ready-to-run, but require painting, lettering, glazing and interiors to complete.

Sulzer Type 2s of classes 25/3 and 24 come complete with Canon seven-pole motors, sprung buffers and screwlink couplings. Only fifty of each have been made. Price £450.00.

The latest Mk 1 coaches are FK

Corridor First, BSK Corridor Brake Second, BG Full Brake, SO Open Second, SK Corridor Second and Suburban second or composite. These require painting, glazing and interiors to complete. Price £195.00 each.

The low-cab GWR/BR 57xx will be available at around the end of the year, fully assembled in unpainted brass with a Canon motor. Limited edition of 150 pieces. Price £399.99.

Tower Models & Co., 44 Cookson Street, Blackpool, Lancs. FY1 3ED. Tel: 01253 623797.

Classic Commercials road vehicles in 0



Classic Commercials has issued two new 7mm/1:43 scale kits; a McCormick-Deering T20 crawler tractor and an Aveling-Barford G-series road roller.

The McCormick-Deering T20 crawler tractor is a compact agricultural tractor based on the Farmall F20 wheeled machine and built between 1932 and 1940. Several hundred were sold, the last of which remained in service until the 1970s. This static kit captures the lines and detail of the prototype.

The Aveling-Barford G-series road roller kit enables several detail variants of the large-size Aveling-Barford



rollers: models GB, GC and GD. These were built from the early 1950s and must have been the most common rollers in the world, with many still at work today. Built around a four-cylinder diesel engine working at 1500 rpm, they came with either a sheet cab or a canopy; these variants are provided with the kit. Classic Commercials also still produce the smaller GA pavement roller kit.

The T20 tractor is £39.95 and the Aveling-Barford is £42.80 plus £1.50 postage for either or both kits.

Classic Commercials, PO Box 800, West Wrating, Cambridge CB1 5NB.

Transport art from Jonathan Clay



Readers who have cast envious eyes over the free pull-out postcards that were published in our sister magazine *CONTINENTAL MODELLER* last month may well be interested to know that the artist, Jonathan Clay, also covers the UK rail scene. If you have not yet encountered Jonathan and his work at exhibitions - indeed, he is likely to be actually working as well as displaying his wares - then you are in for a treat.

Although he specialises in narrow gauge and miniature railway locos, his output is by no means restricted to such topics: in addition to standard gauge steam and diesel locos he also offers trams and buses.

The catalogue currently lists around a hundred narrow gauge locos, fifty miniature railway engines, fifty standard gauge machines, and some twenty-five trams and buses. However, Jonathan is so prolific that those figures will surely be out of date by now!

We illustrate a typical example of his work. Jonathan's customary approach is to isolate the subject on a plain background. Working in watercolours, he seems have the rare talent of combining technical accuracy with an ability to capture the feel or the spirit of the

machine under scrutiny. One distinctive technique seems to be the way light reflected from the shiny metal surfaces so characteristic of locomotives is recorded by *not* painting.

The artworks are usually available as greetings cards 208mm x 148mm, blank inside (£1.50 each), unframed prints on high quality cartridge paper 297mm x 210mm (£12.00 each), and framed prints (£20.00 each). Frames can be black or pine. Postage and packing is 50p per card, £1.50 per unframed print (which come mounted and bagged and are ready to fit any suitable frame), and £6.50 for framed prints, despatched by Royal Mail Special Delivery, packed with clear acrylic sheet for safety. Payment may be made by various credit and debit cards.

Some pictures are only offered as cards. Occasionally the original paintings may be available, and Jonathan is also happy to discuss private commissions.

Jonathan Clay is an Associate Member of the Guild of Railway Artists. **Jonathan Clay, 545 Livesey Branch Road, Blackburn, BB2 5DF. Tel/fax: 01254 202947.**

Glos. Warks. diesel driving experiences

The Gloucestershire Warwickshire Railway has announced a programme of diesel locomotive driving experience courses during 2004.

These courses are regarded as among the best of their type in the UK. The preserved line, used for the courses, is 9½ miles long and runs through the Cotswolds between Toddington and Cheltenham Racecourse stations.

There are two courses of different lengths and seven locos to choose from within the classic diesel heritage fleet. The shorter course is between Toddington and Winchcombe at

£110.00 per day or the longer Toddington to Cheltenham section courses are at £185.00. The longer-distance course includes driving through the 693-yard Greet Tunnel which is an experience in itself.

The loco will haul five or six coaches or a 1960s style freight train, depending on the number of preferences expressed on the booking forms.

Contact Richard Drewitt at **The Gloucestershire Warwickshire Railway, The Railway Station, Toddington, Glos. GL54 5DT** or email: richard@southwales.supanet.com



SHOP NEWS

OPEN

The Lookout, Totnes

If you have been to the Isles of Scilly, you might have met Ian Tabraham who now runs The Lookout at Totnes. Ian and his wife used to have a craft shop, but moved to the mainland where their model railway shop is thriving.

The Lookout opened in April in a charming shop that used to be a gallery. Model shops are relatively thin on the ground in this area, but Ian has developed his lifetime hobby and now specialises in N and OO models from the major manufacturers such as Bachmann, Graham Farish and now Peco.

Totnes is a delightful town so if



you go there, call in at The Lookout.

The Lookout, 75 High Street, Totnes, Devon TQ9 5PB. Tel: 01803 840111.

Trains, Models and Hobbies, Bognor

This successful shop in Bognor Regis has changed hands. The new owner is Rupert Harper who has a great knowledge and love of fine models of all kinds.

Rupert will maintain the core business of model railways, plastic and wooden kits, radio-controlled planes and boats, war games and modelling materials. He will also develop the business to accommodate DCC and more

advanced radio control.

The previous owner, Alan Wickham, owned the shop for over thirty years and is now retiring, but he is confident of a secure future for Trains, Models and Hobbies in the hands of long-standing friend Rupert.

Trains, Models and Hobbies, Shop 1, Harfield Court, Bognor Regis, Sussex PO21 1EH. Tel: 01243 864727.

Austins of Newton Abbot

The 4000sq.ft. toy department of Austins of Newton Abbot has now incorporated a new model and collectables section.

The stocks of Hornby, Bachmann, Gaugemaster, Peco and others are enhanced by a substantial scenic range to help the modeller complete the picture.

The old established family firm has been trading in Newton Abbot since 1924. Friendly and knowledgeable staff are always on hand if you need assistance.

Austins of Newton Abbot, Courtenay Street, Newton Abbot, Devon TQ12 2DU. Tel: 01626 333444.

DEMU 10th anniversary

One of today's fastest growing special interest modelling groups, the Diesel and Electric Modellers United Society recently clocked up its 10th Anniversary. The passing of this milestone was celebrated at its recent 2004 Showcase Exhibition and AGM in Burton-Upon-Trent on 5 June.

Founded with the aim of promoting the modelling of 'Post 1955 Modernisation Plan' UK railways, the group now has a membership base of over 600 world wide and proving the growing popularity of diesel and electric modelling, the one day 'Showcase' exhibition, which has been held in Burton Town Hall for several years now, was packed to capacity.

Layouts in 2, 4 and 7mm scales provided examples of modelling in the

various historical periods, starting with the transition years of the 1950s and 1960s, through the British Rail era and into Privatisation scene of today. Large club layouts like *Mostyn* from the Wirral Finescale Railway Modellers, recreated main line operations, whilst numerous exquisite minimum space essays, such as *Grangetown* by Trevor Hale and *Dyserth Road* by Nick Gurney demonstrated that diesel and electric age modelling need not be space hungry.

As well as its annual showcase exhibition, the group appears with an information stand and modelling demonstration at numerous other major shows and publishes a fully illustrated quarterly journal *Update*.

Interested modellers can contact the Society through **David Anderson, 5 Selbourne Close, Beacon Hill Green, Cramlington, NE23 8HL** (or David@ddanderson.freeserve.co.uk). And don't forget next year's Showcase event at Burton, on Saturday 4 June.

Left: Mostyn, in P4 from the Wirral FRM operated outside its 1977 timeframe for a while, allowing sights such as these modern steel wagons to be seen.

Photograph: Steve Flint, Peco Studio.

New Seaton Tramway car enters service

The first of three new tramcars was launched into passenger service in Devon at the Seaton Tramway terminus on Saturday 29 May.

The new trams are based on elements of original designs from Blackburn and Plymouth, but they have been adapted to run on Seaton's narrow gauge of 2'9"; some of the older trams will be put into semi-retirement.

Considerably larger than the other cars in the current fleet, the new trams have 56 seats in two fully enclosed saloons and an open top deck. The middle of the lower deck allows access for cycles and wheelchairs.

These are the first brand new open-top trams to be built anywhere in the United Kingdom since 1968 when the company built its last one. The bodies were built by Bolton Trams of Lancashire, after which they were delivered to Seaton Tramway to finish, including constructing and fitting the trucks, seats, electrical and control equipment, trolley pole and wheelchair ramps. The attractive three-tone blue

livery is based on an experimental livery from Glasgow Corporation.

The Tramway Company was founded in 1949 and from 1954 until 1969 it operated at Eastbourne in East Sussex. Many of the current trams were built in the 1950s and 1960s, but when the company moved to Seaton in 1970 it started to thrive. It runs through the beautiful Axe Valley to Colyford and Colyton on the route of the former Seaton branch.

The new trams are the latest in a number of major investments in the tramway during the last decade, including new facilities at Seaton and Colyton, an extension to the company's depot, the restoration of former Exeter car No.19 and a new restaurant at Colyton. These have all contributed to the tramway which won an Excellence in England award in 2002/3.

Right: all aboard – brand new Seaton Tramway No.9 at the town terminus on its first day in service, 29 May.

Photograph: Robert Iles.



Railfest charity success

Visitors to the Virgin stand at Railfest, York raised a total of £4434.34 for the Yorkshire Air Ambulance charity. Draw tickets to win Hornby-commissioned Railfest 200 wagons, a special celebration model Pendolino and former promotional items were sold to raise the money.

Don Heath of Virgin Trains present-

ed the cheque. He is a resident of York and was himself rescued from the Great Heck accident, where support was given by Air Ambulances.

Andrew Scott, Head of The National Railway Museum drew the winning ticket for the specially commissioned Pendolino model which was won by Daniel Edgerton of Huntingdon.

Railway Children journey

Railway author and photographer Colin Boocock and his wife Mary are setting off on an epic around-the-world journey by train on September 3. Their objective is to raise funds for the British charity Railway Children and to get around the world in less than eighty days using train travel wherever they operate in their line of route.

The tour will take them through Russia, China, Australia and New Zealand, South America and Ireland.

All the money raised will go to the

charity which supports worldwide organisations that rescue children who have been living in large railway stations. Railway Children was started by David Maidment, a retired railway manager, who saw young boys and girls living in squalid conditions on major Indian stations.

If you would like to know more or make a donation, contact:

Railway Children, Unit G8, Scope House, Weston Road, Crewe, Cheshire CW1 6DD.

Model Town, Discovery Channel

There will be a new fifteen-part series on the Discovery Channel where a team of talented model makers will construct a 400sq. ft. 00 gauge layout at Sheffield Park, Bluebell Railway.

The series is called *Model Town*, set in a fictitious south west coastal resort in the mid 1960s.

The railway will take its place in the whole model which will also have a road and tram system and a working canal.

The presenter Simon Farmer and professional model maker Brian Taylor will demonstrate a wide range of skills and techniques, passing on tips and advice every step of the way. Throughout the series, they will visit some of the finest model makers in the country. Peco will feature in one of the programmes and details will be announced in RAILWAY MODELLER when the broadcast schedule is finalised.

In addition, there will be some dra-

matic content to the series as a story unfolds about the miniature characters in the town. It begins with a murder!

Corrections

We would like to point out that in the June edition of RAILWAY MODELLER, the photograph of the woodyard at the top of page 347 should have been credit-

ed to David L. Taylor who took the picture. We apologise for this omission.

Also, in last month's 'Shop News' mention for A.P. Models of Newport, the shop's phone number is 07890 349576 and not as printed.

Dave Stone

It is with great sadness that we must report the death of Dave Stone, Chief Draughtsman at Hornby. He passed away on June 7 after a short illness.

Dave began as an apprentice at Hornby in 1961 and made an immediate impression with his Teddy boy clothes and slicked back hair. In later years, this appearance was modified to include the occasional Disney tie.

After qualifying in 1966, he became Leading Draughtsman in 1973 and shortly afterwards Chief Draughtsman.

Dave's ingenuity and skill helped Hornby to become what it is today. He leaves behind a huge legacy of models that he designed, from humble wagons to the latest A4 which was almost finished when he learned of his illness. His knowledge and skills are irreplaceable, but his designs and models will remain as a fitting and lasting epitaph to him.

He leaves behind his wife Carol and their daughters Michelle and Lisa to whom we extend our sympathy.

Frank Hudson

It is with regret that we have to inform readers of the death of Frank Hudson on April 18 2004.

Frank was a railway modeller, specialising in 00 gauge, and much influenced by the likes of Edward Beal. He was a former employee of Meccano in the company's heyday. He joined as a junior salesman and rose to Sales Manager and worked for a succession

of company owners until he left in 1979 at the end of Meccano's existence. He subsequently worked for Airfix and Standard Fireworks.

Born in 1924, he was an affable man who enjoyed caravanning with his wife Joan and daughter Sarah. He also liked boating and gardening.

We extend our sincere condolences to Sarah.

Coming next month

Out on Thursday 19 July



ST DENYS

On the London & Southampton, modelled in N by Andrew & Simon Tucker.

EXTENDING ETTON – 4

Pete Goss continues the saga of this enlarged 00 layout with finely detailed buildings.

KINGDOM CROSSING

The latest 4mm scale GWR/SR layout from the North Devon MRC.

COMMON LANE WHARF

Steve Best concludes his article on this small 4mm scale test piece.

RAILWAY MODELLER

SEPTEMBER 2004

£2.80

For every **BRITISH RAILWAY** enthusiast



ST. DENYS – Network SouthEast in N Gauge

TAN-Y-BRYN – 16mm Narrow Gauge in the Garden

SUPER DELTIC – 00 Bachmann Model Detailed and Weathered

2 x 20 – A pair of Type 1 English Electrics in N Gauge



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Network SouthEast in the Southampton area modelled in N by Andrew and Simon Tucker.

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Leaway (Andover) MRC members constructed a busy late-period BR exhibition layout in N.



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An 0 gauge branch terminus in a small space designed and built by Roger Sisley.

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A SIMPLE SOUND SYSTEM

Christopher Payne adds an extra dimension to layout operation.

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Brian Ives made the most of his once neglected garden by adding 16mm scale narrow gauge.



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Peter Goss looks at the construction of his 4mm scale village.



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Right away

COMMON LANE WHARF PART 3

From test track to working wharf in 00, described by Steve Best.

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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

September 2004 · Volume 55 · Number 647

Shows you how – every month

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COVER: Meredith and train on the Tan-y-Bryn Railway, by Brian Ives. See pp.520-4. Photo: Steve Flint, Peco.
BELOW: a Class 442 overtakes a 4-CIG on the approaches to Southampton. Photo: Len Weal, Peco.

RAILWAY MODELLER

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Back numbers information – see Classified advertisement under 'Trade Sales Books'.

CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.

What a picture...

These days, more and more contributors are using digital cameras to photograph their layout or modelling project for our consideration. We're not objecting, of course, but it is appropriate to set out here some simple guidelines.

In all cases, when submitting views of your model for consideration, *please include the original electronic files*, either on CD-ROM, floppy or other mountable disk(s). We should be able to access all these types of media, and most file types. Accompanying reference printouts are welcome, either on plain paper or the 'photo' variety, but these are for the most part unsuitable for reproduction as they stand.

File sizes are important, and for us the threshold of 'useability' is 500k when JPEG formats are concerned. Much below that produces a photo which, when converted to the 300 dots-per-inch resolution that we and our printers use, is too small to be of any value. If in doubt, crank up your camera to the highest (usually 'raw') setting at which it can operate: you'll get fewer shots on the card, but they'll be of greater use to us in the long run.

Lighting is important, too: many 'entry-level' digitals work better out of doors than in a roof space or garage with insufficient – for the camera – lighting. If possible, take the model outside: a clear but overcast day often produces best results in terms of even lighting. If nothing else, the best benefit of digital is if it doesn't work first, second, third or fourth time, wipe the card and start again!

Remember too that digital cameras are subject to the same optical restraints as 'traditional' cameras – pixels are not panaceas – so don't try to push its 'performance envelope' too far.

Back to three-rail!

Now RM is not advocating the demise of two-rail current collection for model railways, although we concede that there may just still be a few out there for whom the technology is still on probation, but we're talking about 'proper' three-rail, the Southern Electric.

Here in the RM office we have to appreciate all types of railway: standard, narrow, broad; steam, diesel or electric-operated; and do the same for readers' enjoyment at modelling them, even if we can't manage to find space for their efforts in these pages. Yet the two 'juice' fans in this office always seem to work better when we are charged to prepare a Southern Electric article for your enjoyment. (We're from different generations, but seeing as the 'juice' has been around on the SR *in this form* since the LSWR switched on in 1915 that's no timespan.)

So it is with part one of Andrew and Simon Tucker's piece on their model of St. Denys, which starts overleaf. For reasons that we cannot fathom, but like the workings of, the article passed through the page layout stage with nary a quirk – a line running on, or needing some 'pruning' to allow the article to say the same thing but in fewer words – but doubtless there's one in there that we have missed. Part two next month deals with the stock and operational aspects (and there's much of both) but for now enjoy this look at that period of time when 'plastic pigs' were the most stylish things on Network SouthEast, at least on the former SR. DC Rules, OK?





Railway of the month

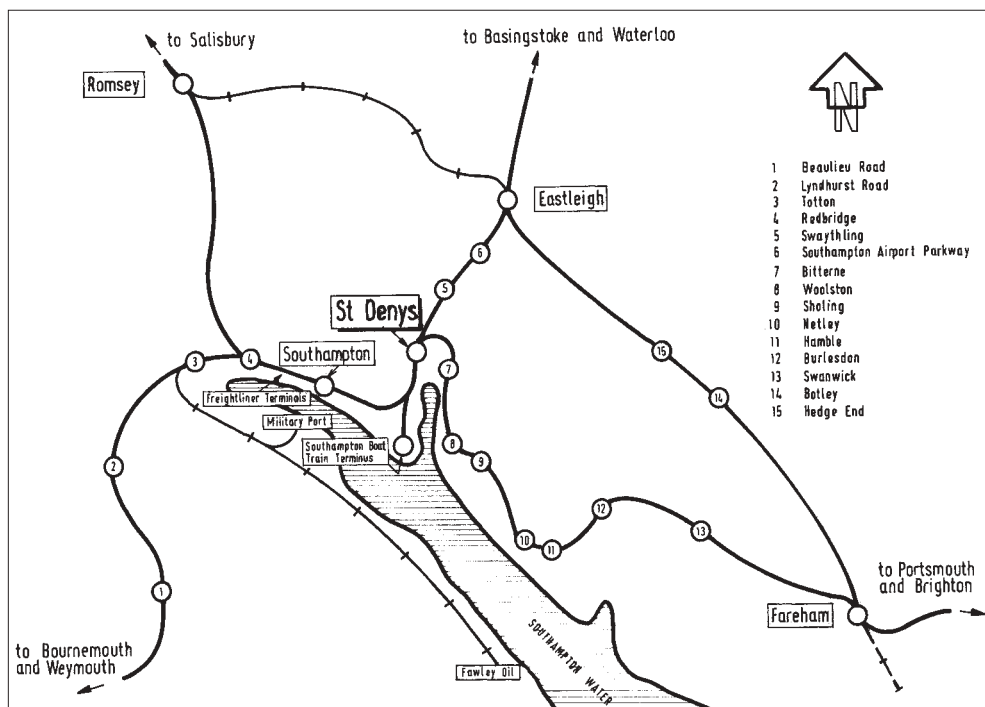
St Denys

Network SouthEast in the Southampton area, modelled in N

Andrew and Simon Tucker recreated the Fareham line junction for this exhibition layout.

Welcome to St Denys. This welcoming message on the Network SouthEast running-in board greeted us when we arrived for our first look at the area in 1994. We were seeking a suitable location to model as a successor to our *Castle Cary* layout (featured in the August 1993 issue of RM).

We had been considering locations up and down the line from Castle Cary. To the west the main line joins the Bristol to Exeter route at Cogload Junction. With the flyover it is an interesting location but there is no station and most trains pass through at speed. Scenically there is the nearby canal but little else and a lot of space would be required. Looking east, Clink Road junction on the Frome avoiding line seemed a little more promising. No station but some movements could be held for the junction and there would be the slow moving stone trains from the Whatley quarry of ARC and Foster Yeoman at Merehead. However, space would again be a problem if actual bridges were to be used for the scenic breaks and much longer traversers would be needed for the Class 59 hauled stone traffic.



Simon then suggested a location from farther afield – St Denys. Not the one in Cornwall (or France, although there are French connections) but the station on the outskirts of Southampton. He had come across it on his trainspotting outings to Eastleigh and it seemed to be worth a visit. We travelled down from Westbury on a Cardiff to Brighton service. These pass through St Denys but do not stop there so we had to change from the Class 158 dmu to an elderly third rail electric unit at Southampton Central. Heading out of Southampton towards Eastleigh, St Denys is the first station and it is also a junction for the Fareham line. It was a fine summer's day and there was hardly a moment when there was not at least one train in sight. The decision was made!

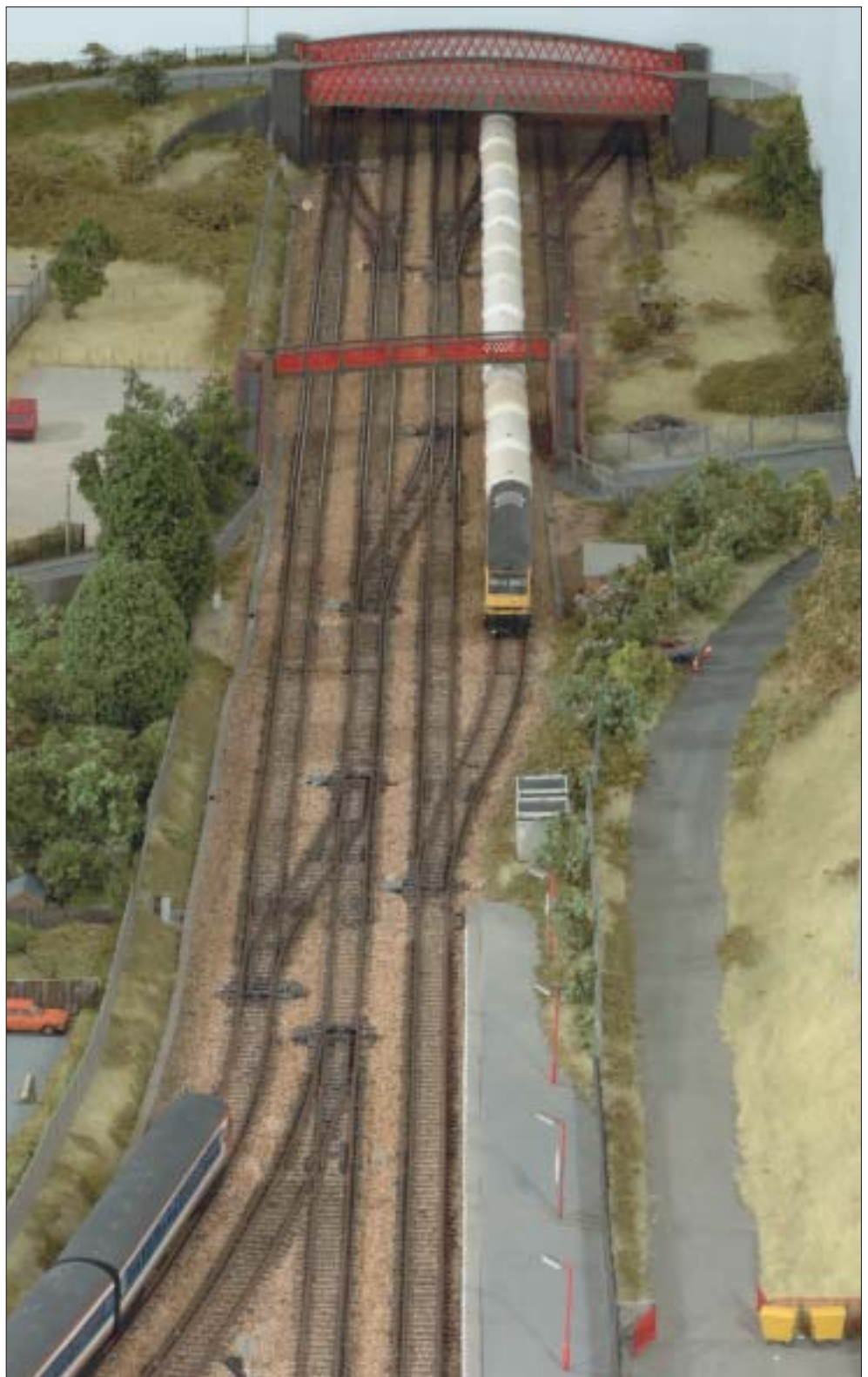
It is now ten years since that visit and amazingly over five years since we wrote about the third rail electric multiple units and Class 73 locomotives for *St Denys* (*Going 3-Rail in N*, January 1999 RM). Since then the layout has been exhibited once or twice a year with a flurry of activity to get a little more done for each show. We are finally at the stage where there are no blank areas awaiting buildings or scenery and all the necessary stock is available.

The station then and now

The London & Southampton Railway started running trains between Southampton and Winchester in 1839. Twenty years later the LSWR (as it had become) opened a station at St Denys, just outside Southampton. At that time it was known as Portswood, and in 1866 the station became a junction with the opening of the branch to Netley. This eventually reached Fareham, forming the route for the present day services to Portsmouth and Brighton. The main line was electrified on the SR third rail system by British Rail in 1967 and the section from St Denys to Fareham followed suit in 1990.

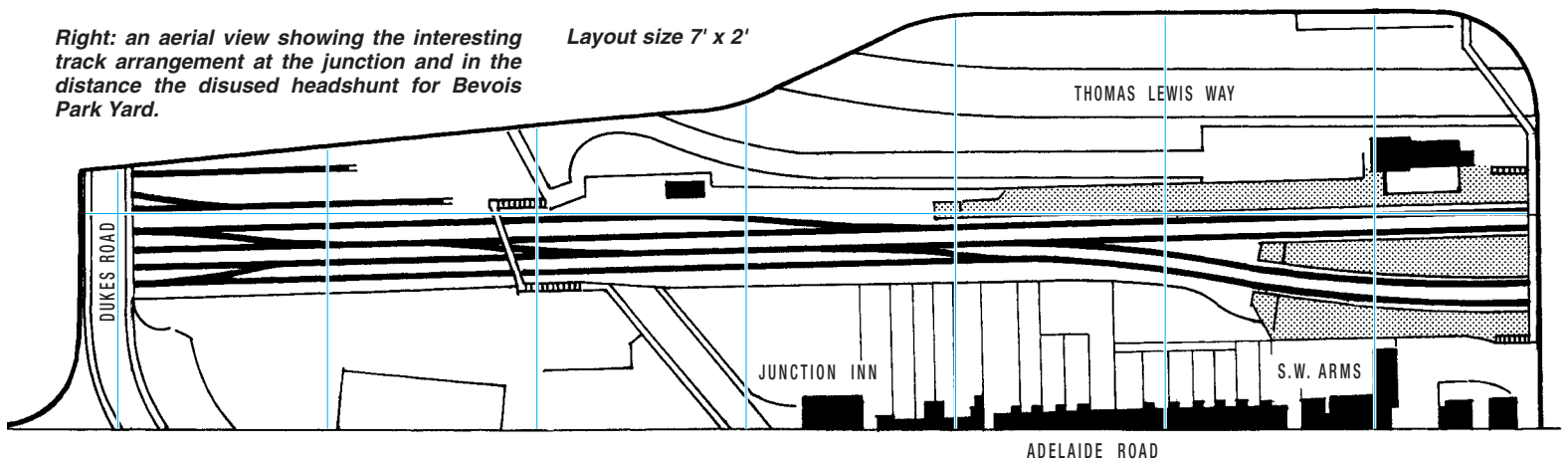
Looking at the station from the modeller's point of view the natural scenic breaks appeared to be the road bridge at the west end and the footbridge part-way along the platforms at the east end. There is also an intermediate footbridge at the location of a former

Heading: a 4-VEP EMU from Eastleigh pulls away from platform 2 as a Class 158 dmu observes the 20 mph speed limit as it comes off the Fareham line.



Right: an aerial view showing the interesting track arrangement at the junction and in the distance the disused headshunt for Bevois Park Yard.

Layout size 7' x 2'



level crossing. The wide road and modern kerbing suggest that perhaps this crossing was closed recently but in fact it was abolished in 1902 when the Dukes Road bridge, or horse-shoe bridge as it is known locally, was built to accommodate a proposed extension to the Southampton tram system (which never actually happened). The station footbridge is also a public footpath; this means that there are three readily accessible bridges to observe this area together with some vantage points on the higher ground to the north.

All travellers using the station at St Denys have to cross the footbridge at the east end with access either from the north or south. The small car park is on the north side beyond Thomas Lewis Way, a new road cut through the area in the late 1980s. Our initial thoughts were for the public to view the layout from that side. However, this was reversed at an early stage so that the higher ground forms a backdrop to the layout with the houses on Adelaide Road along the front.

At the Southampton end there are four tracks under the Dukes Road bridge together with the disused headshunt from Bevois Park yard. The four running lines pass under the intermediate footbridge with the up slow joining the up fast before the end of platform 1. The Eastleigh lines run through platforms 1 and 2 with the route to Fareham branching off and passing through platforms 3 and 4. Crossovers at the west end allow trains to come off either the up slow or up fast and make their way across the down line on to the Fareham route. In the opposite direction the line from Fareham becomes the down slow. There is pointwork for trains to cross to the down fast and another crossover near the Dukes Road bridge for traffic mainly for Northam yard or the docks to cross from the down fast to the down slow.

Planning and trackwork

Having decided to model the station as we first saw it in the late Network SouthEast period our next move was to get a copy of the 1/1250 scale Ordnance Survey sheet covering

Right: a ten-car Wessex Electric formation heading west. The two Class 442 units will divide at Bournemouth with one going on to terminate at Weymouth.

Below: a 4-CIG unit on the up line for Eastleigh passes a steel train as it crosses from the down fast to the down slow line on its way into Northam yard.

Below far right: an HST set passes under the bridges at the west end of the layout.

the area. Overlaying a grid to represent 1' squares to 1:148 scale confirmed that the scenic section would only be just over 7' long and could be accommodated comfortably on 2' wide baseboards.

As the traversers that we made for *Castle Cary* work so well (and to reduce the amount of new construction required) we decided to use them for *St Denys*. Only some minor modifications were needed to suit the additional tracks on the scenic section. However, although these traversers were designed to take a full length HST, we have found that they are not really long enough for some of trains we run through *St Denys*. Because of the amount of stock it has also been necessary to provide additional hidden sidings behind the backscene on the scenic boards.

Peco code 55 track has been used for the scenic section of the layout with code 80 behind the scenes. One interesting point to note is that the curves on the Fareham line at the end of platforms 3 and 4 are over 3' radius or the equivalent of 6' or more in 4mm scale. However they have check rails and are subject to a 20mph speed limit!

The third rail is a very important feature and there seemed to be little precedent for modelling this in N gauge. Our solution was to use 2mm Association flat bottom rail soldered to Peco brass nails inserted in the ends of every fifth sleeper. The rail is sold in 450mm lengths but to reduce any problems of thermal movement (from storage in a cold garage to perhaps a very warm hall) it has been cut into pieces not more than 225mm long with the ends simply butted.



Studying the arrangement of the conductor rail in order to model it accurately was fascinating. There are no doubt very well defined rules but for the uninitiated they are difficult to decipher! The presence of gaps in the third rail is well known but there are also places where it appears to be duplicated, sometimes with ridiculously short lengths. One additional detail we have modelled is the ramp or lead-in required for the pickup shoe where the conductor rail continues alongside a turnout.

The real ballast has a gingery brown tint. This was created by spreading grey ballast on a tray and aerosol spraying it with rust colour. After mixing it looks surprisingly like the prototype. Before ballasting the track was sprayed with Phoenix 'weathered sleeper' track colour and the rails picked out in light rust.

Bridges and buildings

The bridges are major features in the scene that we are modelling. With a few basic dimensions and lots of photos, drawings were produced of each one.

All the bridges were made in much the same way using polystyrene sheet and strip. We call the process the 'windows' method because the basis is a piece of 5 thou polystyrene sheet with an aperture cut to the internal frame size. This is laid over a copy of the drawing and all the microstrip diagonals for

one side of the latticework applied. Later this can be turned over and using a mirrored image of the drawing the second set of diagonals is put on. This not only makes it very much easier to control but the very thin sheet means that there is no problem gluing the diagonals together where they cross.

After all this has had a few days to firm up the sheet is cut carefully to the outer frame size and the flanges and other details can then be added. This process is probably best explained by the accompanying photograph

showing the four stages of making one of the footbridge sides. We started with the Dukes Road bridge because the much larger framing looked easier. The complications of the double latticework (two layers on both sides of the main framing) and the increasing width of the diagonals near the end bearings dawned on us only slowly. However, the completed bridge looked the part and we went on to produce the others.

At the station footbridge the change in the latticework between the two spans is interesting and we assume that the original bridge was extended over the Fareham line subsequently. The stairflights and their accompanying latticework was a further challenge but by far the trickiest feature is the curved corrugated iron roof. This was done using a corrugated





profile Plastikard cut to width and held in place on a piece of dowel with rubber bands. This was then immersed in very hot water. When cool the rubber bands were taken off; it relaxed slightly but did then keep its shape. Gussets were fitted inside at each stanchion position and gradually it all came together.

The station building is the only other significant structure within the railway fence. Constructed to the design of Sir William Tite it is now a grade II listed building. Although no longer in railway use, at least its canopy provides useful protection for the travelling public. During the early stages of this project someone at an exhibition mentioned that the building, now called Drummond House, is used as offices by a firm of structural engineers. A certain amount of internal alteration had taken place so surely some drawings must have been prepared. We wrote to the tenants and in quite a short time received a drawing back in the post. This seemed to be a good response until we sat down to study the details. It was not St Denys! The main difference is that the drawing showed the principal elevations to be

symmetrical whereas St Denys has the slightly projecting wing only at the west end. There are a number of similar station buildings in the area and elsewhere on the LSWR. There is no



title on the drawing but it seems to show the building at Netley on the Fareham line. Clearly a lesson in checking one's sources of information. There was nothing for it but to settle down to counting bricks and producing our own drawing.

A similar approach has been taken with the buildings along the front of the layout. These are generally the backs of houses on Adelaide Road and two pubs. The 'South Western Arms' adjoins the station and 'The Junction Inn' is close to the former Dukes Road crossing. As it is the rear of these properties that we needed to model most of the information had to be gleaned from photographs taken from the various vantage points. The pub gardens were more accessible but details of the private houses were remarkably elusive.

The modern terrace of houses and flats is an exercise in repetition with only minor alterations being made so far by the householders. All the buildings have been made using polystyrene sheet and strip with embossed Plastikard for the brickwork.



Opposite page, top: with a stopping service in platform 4 a Wessex Electric glides through platform 2.

Left: 158 860 forming a Cardiff-Brighton train crosses from the up fast to make its way across to the Fareham line.

Below left: substituting for the normal Class 158, a Class 150 DMU rattles under the horse-shoe bridge on a Regional Railways Bristol-Portsmouth working.

Above: viewed from the operators' side of the layout, 4-CIG unit No.1887 negotiates the sharp curves through platform 4 as it comes off the Fareham line and proceeds along the down slow to Southampton.

Below: the 'South Western Arms' is almost all scratchbuilt except for the fire escape – an adapted Scale Link item – and the Faller garden chairs!

Below right: various details can be seen in the back gardens to Nos.10 to 34 Adelaide Road, including the 'wheelie bins' (see text).

Photographs by Len Weal, Peco Studio.

Details

Although we knew we would have to make the structures and build or alter a lot of the rolling stock it has been a surprise to find how many of the other details have to be scratch-built or adapted because they are not available in N. These range from the typical 'modern image' perforated metal seats, NSE clock and junction signals to sheds, fencing and basketball nets! All the various lamp posts on the layout have had to be made to match the prototype. We are particularly pleased with our 'wheelie bins' but despite enquiries we still don't know for sure that they were introduced before the demise of Network SouthEast.

Proprietary items that we have used are station names and other signs from DC Kits, Peco platform edges, Ratio SR concrete fencing and Scale Link etched brass spear point fencing. This brass etching was also pressed into service for the balustrade infill to the modern steel footbridge across Thomas Lewis Way. Some Preiser figures have been selected carefully with static poses. These are few in num-

ber because there have never been many people about on our visits to the station.

A lot of work has also been done on the road vehicles. These are examples of Fleischmann, Wiking and Graham Avis products. All have been repainted and 'anglicised' with items such as wing mirrors added. Reference has been made to Auto Trader magazine to check details and in particular make sure that colours are correct. It is amazing what a difference all this makes. A particular favourite is the Citroen 2CV which now has its canvas roof rolled back.

We also have some excellent resin cast vehicles from P.G. Models. These military vehicles were produced as accessories for aircraft modellers but Paul Gandy stopped production some years ago. The Land Rovers and Sherpa vans were particularly useful. Fortunately the range is now being reintroduced, cast in pewter.

Continued next month.

St Denys is booked to appear at the Andover and Weymouth exhibitions this month: details in 'Societies & Clubs'.



Deltic makeover

Modelling 55 011 in 4mm scale

Paul Marshall-Potter took a Bachmann Deltic, made alterations and applied subtle weathering.

This article covers a quick makeover of the Bachmann 00 Deltic locomotive, which was introduced in late 2003. I used to see these locos every day when I started work back in the early 1980s, commuting daily to Kings Cross to work in the late, lamented MRM model shop on York Way. I can recall the murky last Saturday when the final special ran (my train southbound passed the northbound special near Hadley Wood), and the hordes of Deltic fans who were buying anything related to Class 55s. In the locos' last few weeks of service the Kings Cross nameplates were selling like hot cakes!

I received my Deltic as a gift and on opening the box was slightly disappointed, due to one or two elements of the Bachmann model. I had chosen the blue version as it brought back many pleasant memories of seeing the locos in real life. The model had double arrows of a size (in particular the thickness of the logo's lines), of which I cannot recall ever seeing either in real life, or in any of my photo references. Also several panels and the makers plates were represented by transfers, which in this day and age I do not feel is appropriate: the panels in question are on all the prototype locos so I fail to see why Bachmann didn't mould them instead. The bogies also looked slightly low and the overall shape around the nose and bonnet didn't quite seem right either.

As mentioned above the loco was a gift from my father in law, who's a Northumbrian, so as a sort of dedication to him I chose to model 55 011 *The Royal Northumberland Fusiliers*, which co-incidentally spent most of its life allocated to Gateshead depot. I obtained from Fox Transfers a set of etched nameplates and from HMRS a set of Pressfix Modern Image numbers and logos. Nowadays that sheet is historical rather than modern! The only other items were a set of Alan Gibson screw couplings and Railmatch BR Blue paint, and Revell No.8 matt black and Humbrol matt white.



As the article title says this is a makeover and I was pleasantly surprised by the transformation of the model, which largely overcame the shortcomings outlined above. Firstly I took the bogie frames off and painted the wheels using Revell enamel No.9 charcoal, and then overcoated them with a Tamiya acrylic paint, No.XF52 flat earth (please note that's a colour, not a society...).

Whilst the bogie frames were off I cut away the coupling mounting points (I use screw link couplings), added the steps from the accessory pack, and painted the frames in charcoal as well. The reason I use this particular colour is it gives a light black finish, if that makes sense, and not the real dense colour of pure matt black.

If I were to do another loco I would scribe the transfer panels, however the weathering does disguise this significantly. The painting of the wheels and bogies minimises the appearance of the gap between bogie frame and body immediately, which was a pleasant surprise.

The next task was to get rid of the incorrect 'railfreight' style double arrow logos. These had to be scraped off the model using a brand

new Swann-Morton No.10 blade, as they did not react to using enamel thinners as some Bachmann transfers have done in the past. The last two numbers on each side were treated in the same manner to change the loco's identity. The reference picture from which I had chosen to work was taken in 1976, when the loco still had full cabside windows and marker lights. The loco had both these features removed by 1978, and the picture gave me the location and size of the double arrows and loco numbers.

There were a number of variations amongst the class so getting a picture of your preferred loco does help in getting it right. There are plenty of reference books on the class in their own right, as well as the more general photo albums: because the class was so popular finding references should not be a problem. The Deltics as a rule were kept relatively clean, however towards the end of their life they did get a bit grubby. This was the appearance I wanted to capture so I spent a while trawling through my books to find the finish I wanted to emulate. I found a few colour pictures from the late 1970s era, which I liked and fitted in with the body condition of the model.





Prior to commencing the main element of the painting I dismantled the body from the chassis – this is a simple job of undoing screws – and took the buffers out. The buffer shanks are plastic and can be straightened out easily and the buffer and spring pulled straight out. I then filed the buffer heads thinner, before replacing them in the reverse manner to that in which they were taken out. My first painting task was as mentioned above to paint the bogies and wheels. Once the bogie frames had dried the springs and axleboxes were given a very highly diluted wash of No.8 matt black, which helps to accentuate the details in the model. I next made up a similar highly diluted wash of No.9 charcoal, and this went into all the roof panels, grilles and vents. This gives the appearance of highlighting the panel details and texture. Several coats were put on which builds up a variation in the depth of colours. This wash was also carried over on to the fuel tanks on the underframe, and also to the internal areas of the chassis which can be viewed through the side windows.

I next pushed the front cab windows out and painted the chrome surrounds with Rail Blue. Whilst this was drying I removed some of it to give a simulation of worn paint. Having refitted the cab windows at this point I replaced the body on the chassis. Next I used the white to give the very characteristic vertical streaks of the carriage washers which were particularly prevalent on dirty Deltics, around the cab windows and bonnet. I imagine it was a mix of hard southern water (so hard you need a knife and fork to drink it!) at Bounds Green, and maybe the chemicals used in the washers. I have seen similar effects on Class 31s, which were used on similar duties, but comparatively rarely on other types. The white was again used as a wash, gradually building up the density: it does look quite harsh against the blue, but you have to recall that the weathering will again tone down this effect.

The airbrush I use is a Badger 200 with an air compressor. This is a fairly basic airbrush but importantly the compressor assists in giving consistent pressure. It is therefore easier to control the paint spray pattern, without worrying about losing pressure at a vital part of the job. One benefit of using acrylics is their fast drying time. When weathering this is important, as you can gauge the final effect of each

coat that much quicker. It also very importantly helps you not to 'overdo' the effect, as once you go too far, there's no going back apart from a complete respray.

I again use a very dilute colour, working on the principle of several light coats building up, rather than maybe going too far with the first pass of the airbrush. Tamiya flat earth is a good colour for brake and track dust and I use it as my basic weathering colour. I use several passes as mentioned above, with the heavier covering on the lower part of the body: during this I will be looking at colour photos as well to gauge the effect, i.e. if it is true to life. Once happy with the initial weathering coat I then turn my attention to the roof, and using the same technique with the charcoal colour build up several coats again using pictorial references to achieve a realistic finish. Care is taken not to spray directly onto the windcreens as these were at least cleaned sometimes, or would leave traces of the movement of the windscreen wiper blade.

To ensure the windows are not covered the airbrush is angled at 45 degrees, pointing from the centre of the loco, towards the bonnet ends. This covers the bonnet tops, but leaves a minimum of paint to lie on the window transparencies. I now use the matt black which again is watered down to quite a thin wash, and used to highlight panels and details. The roof grilles have this treatment too which accentuates the roof panel details, whilst

retaining the same uniform covering of grime. It is also used to build up vertical streaks of oils and dirt. This effect can be seen on the bogie springs, and with one particular build up shown against the left hand end of one of the nameplates.

The key is to be subtle with it: very rarely would you see a very thick fresh spillage left unattended. The final touches were to add the pipes from the detailing set provided, build the Alan Gibson screw couplings and fit them. The couplings do need a little bit of work as they are lost-wax castings, but look the part when finally complete. The total time taken was in the order of three hours, spread over a couple of days.

The final result was very pleasing, and seemed to bring the model to life, whereas before it seemed a bit drab and toylike. My reservations about the shape of the bonnet have now gone: why I'm not sure, but the weathering probably helps. Now when I look at it, it really does remind me of the prototypes filling Kings Cross with their distinctive noise and exhaust, and those last few weeks of service with Deltic fans seemingly coming out of the woodwork, everywhere you looked!

Below: D9011 thrums its way north through a pre-electrification Brookmans Park with a lengthy express in July 1972. Photograph: Phil Caley. Model photographs by the author.





Plan of the month

Kingdom's Crossing

4mm scale GWR/SR mix, by the North Devon MRC

*The story of the wartime-set exhibition layout is told by **Colin Monk** and **Geoff Drew**.*

As we build a new layout every three-and-a-half years, the time had arrived for getting the lump between the ears mobile and thinking of a new one. As we are a very small club of only five members, with only three and a bit really active, and that includes exhibiting, we decided to come down in size slightly (the layout we mean). So here we go – and because one of us used to float on the water, it meant more water again, still very much green and not polluted, our seventh layout with the stuff.

This time the plan was to include a high-level bridge above – what else? – water. After looking at various reference books on bridges, and recalling our previous travels, we decided to model the one at Chepstow, over the River Wye, with some modifications.

We planned the length at 24', with fiddle yards either end, two controllers, with the two

operators walking from end to end – feeling like 45 miles every exhibition – and as usual 2' wide. Because a double-track bridge as at Chepstow would be out of proportion to this width, it was to be a single track one.

Another reason for choosing the Chepstow bridge was the fact that there were very few supports to obscure the view of the train from the exhibition visitors. Also, so that it was a reasonable length, it became 4' long: it also had to straddle a board joint thus it was made removable and is transported in a box. We say it's got Brunel's bones in it, as he was a short man.

Trying as always to design a layout that is a little different from the norm, a low level track carried across the river, just above high tide mark, on stone pillars under the high bridge was planned – thus Great Western on top (as always!) and the Southern below – and the

final decision was a Second World War theme, late summer 1940; no Americans yet.

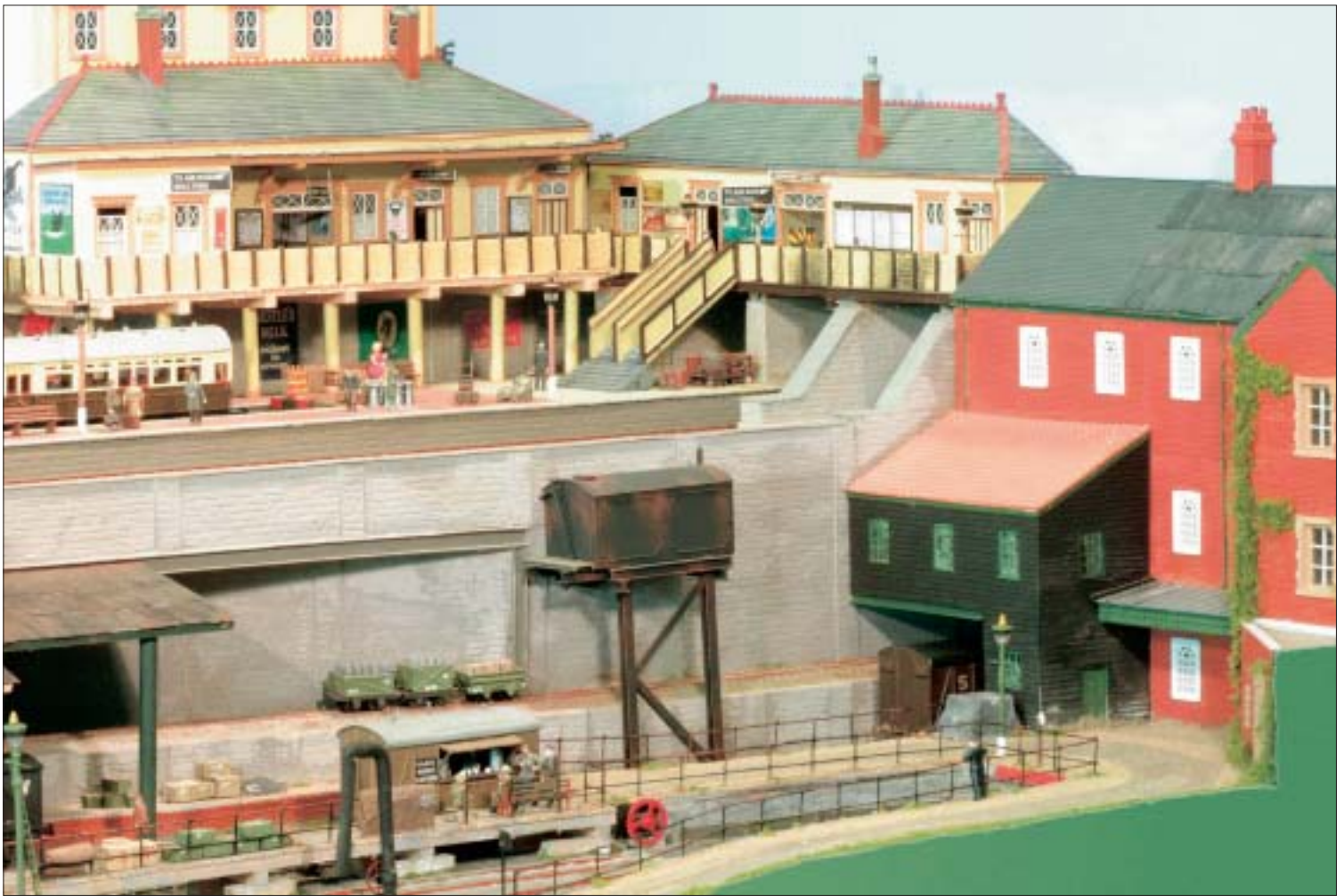
Top and bottom tracks are not connected in any way. If one does pack up for some reason, the other should still work. What a silly statement.

Above: a goods about to depart the WD depot whilst wartime commuter auto trains unload their passengers. The condemned scrapyard ex-LSWR brake van has been repaired, and pressed into service.

Opposite top: the Great Western station is on the upper level, and the War Department depot is on the lower level.

Right: SR E1 departs the depot. Note the wartime posters.

Photographs by Len Weal, Peco Studio.



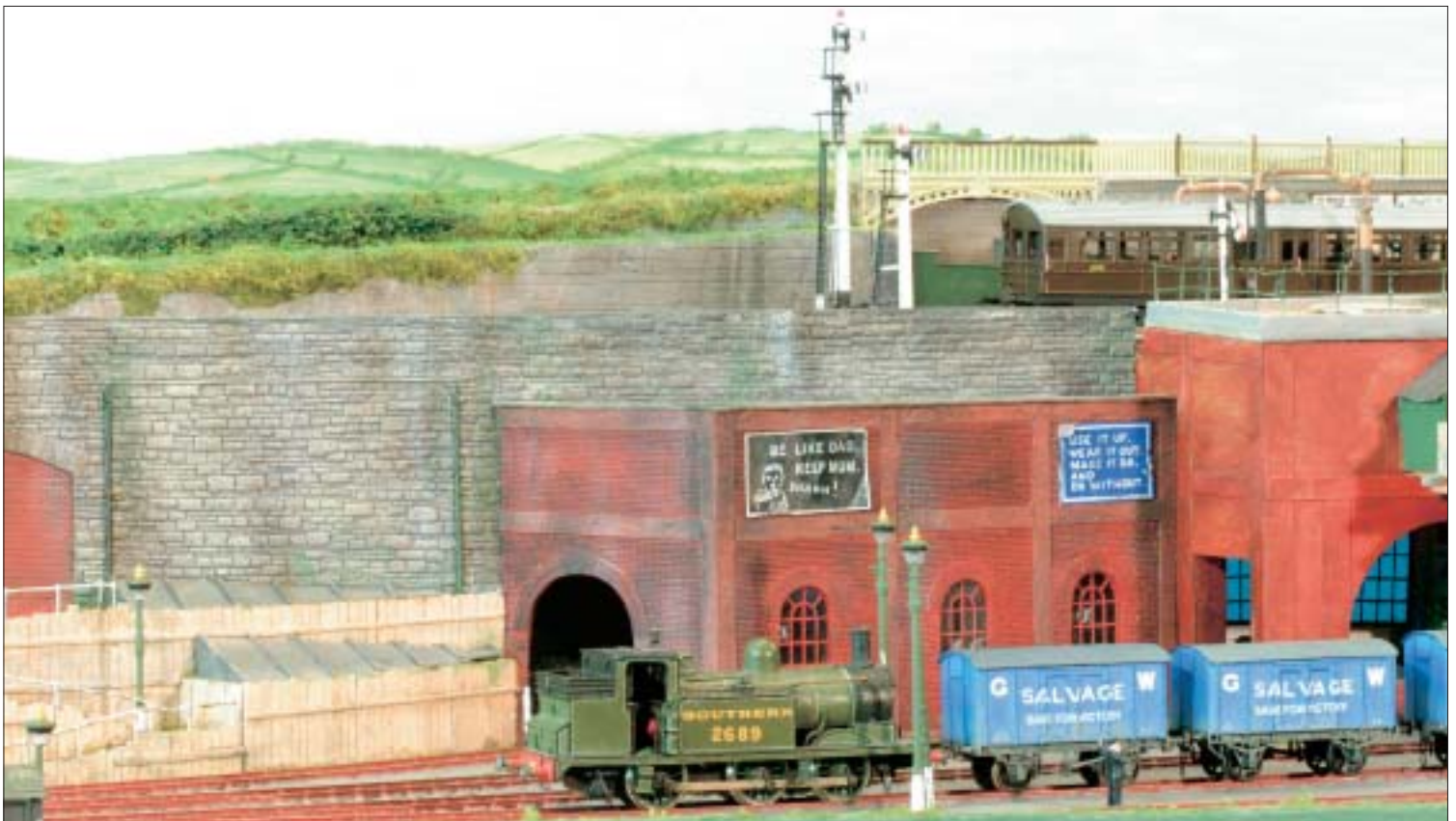
Construction, track and electrics

This is Colin's department – so his description. All the baseboards were made of various thicknesses of MDF board. Each of the six sec-

tions are 4' x 2', all standing on 20mm conduit legs. 2" coach bolts are used to bolt the boards together.

I know that MDF can soak up moisture like

a sponge, but as the layout is parked in my spare room this is not a problem. The weight is a bit much, especially for those of us of advancing years – in fact all of us! We can no



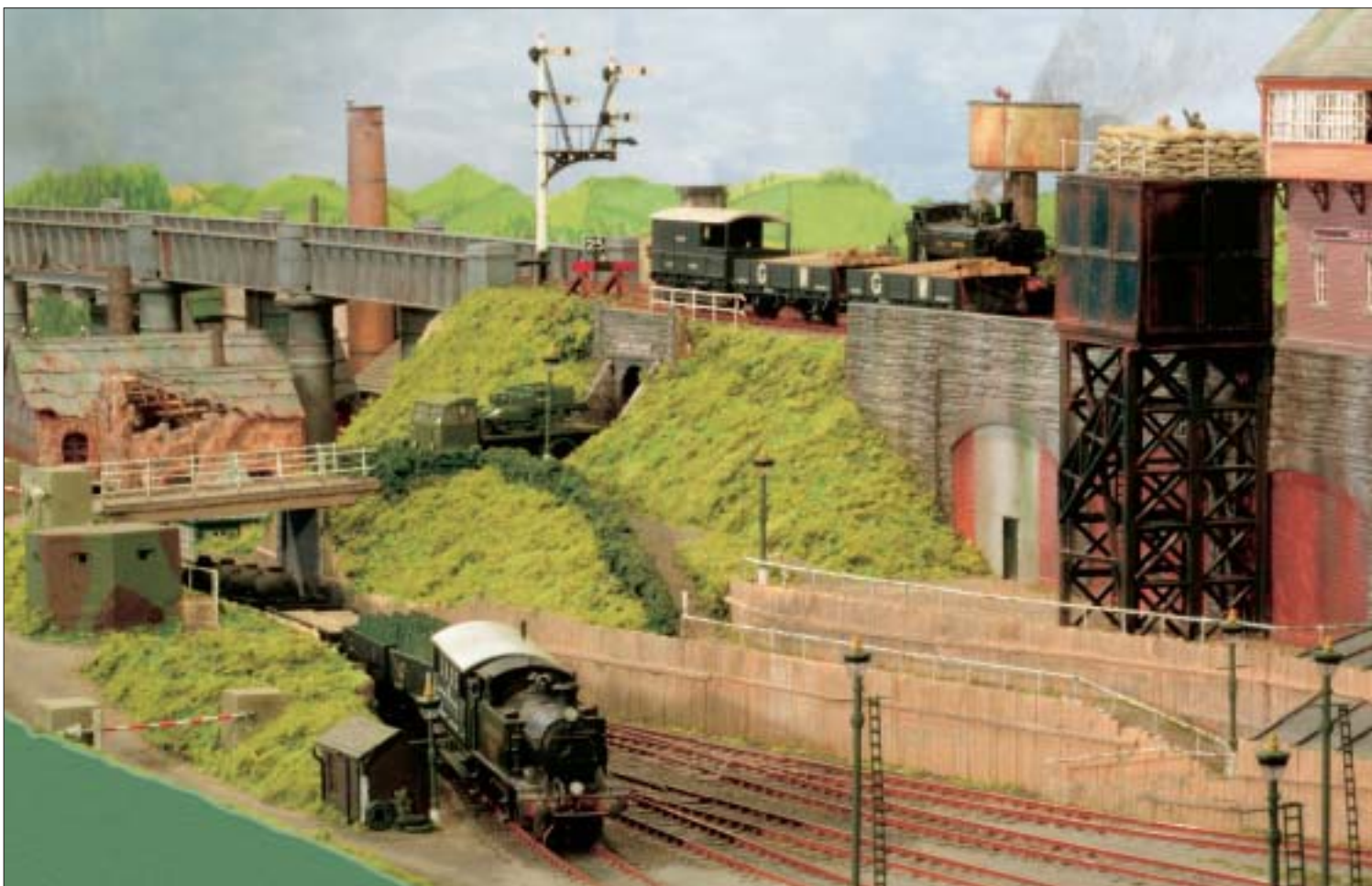


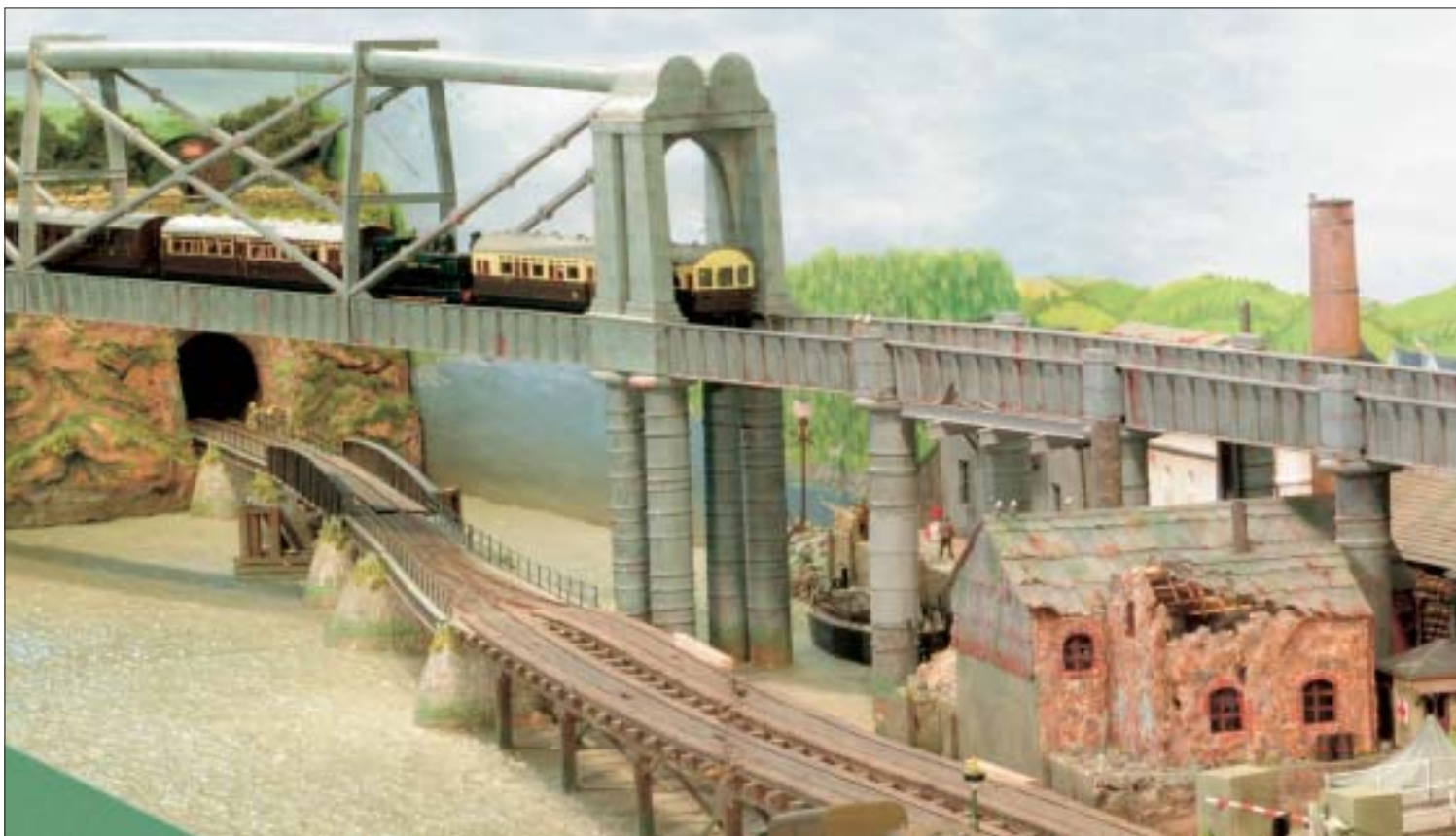
longer mount one board on top of the other as we did with our other layouts, and carry the two together. Each board has to be carried individually and carefully. So lesson learnt, go for quality next time – back to plywood.

Peco track was used in the fiddle yards, and SMP elsewhere, on 1/32" cork sheet. The points were hand-built by Colin from SMP rail on copper clad paxolin strips. We decided to use double slips, one at each level's throat, and

three-way points to save space lengthwise; otherwise using single turnouts would have extended the layout by 4'; that or put up with very short siding and platforms.

Double slips are not ideal for many reasons,





Above left: 4-4-0 and wartime liveried 4-wheelers ready for departure.

Below left: SR E2 on duty with a partial load of mines and shells. The soldiers on top of the water tank, manning the machine gun, have spotted enemy aircraft.

Above: local commuters in the auto coaches sandwiching an outside-framed pannier tank brave an air raid.

Below: a train crosses the model of the bridge at Chepstow, from the nickname of which the layout gained its title.

the main one being that we can rarely work out which way they are facing; the other is that if any stock has slight misalignment of axles/wheels it will normally derail when being pushed. Point operation is by tube and wire with home-made point switches consisting of miniature slide switches which also operate indicator lights as well as the feeds to

the track. The only electric point is on the lower bridge with a 4" operating rod from below the baseboard. The small hand-operated engine traverser in the lower goods yard saves a lot of space, and consists of a pivoted track with a rod and lever to pull it back and forth – very basic, but it works OK.

The electrics, again are very basic. The two levels are in effect two layouts with no connection, trackwise or electrically. One operator with one handheld controller works each level, employing long leads so that the operators can wander up and down the layout as required, tripping over each other's leads in the process.

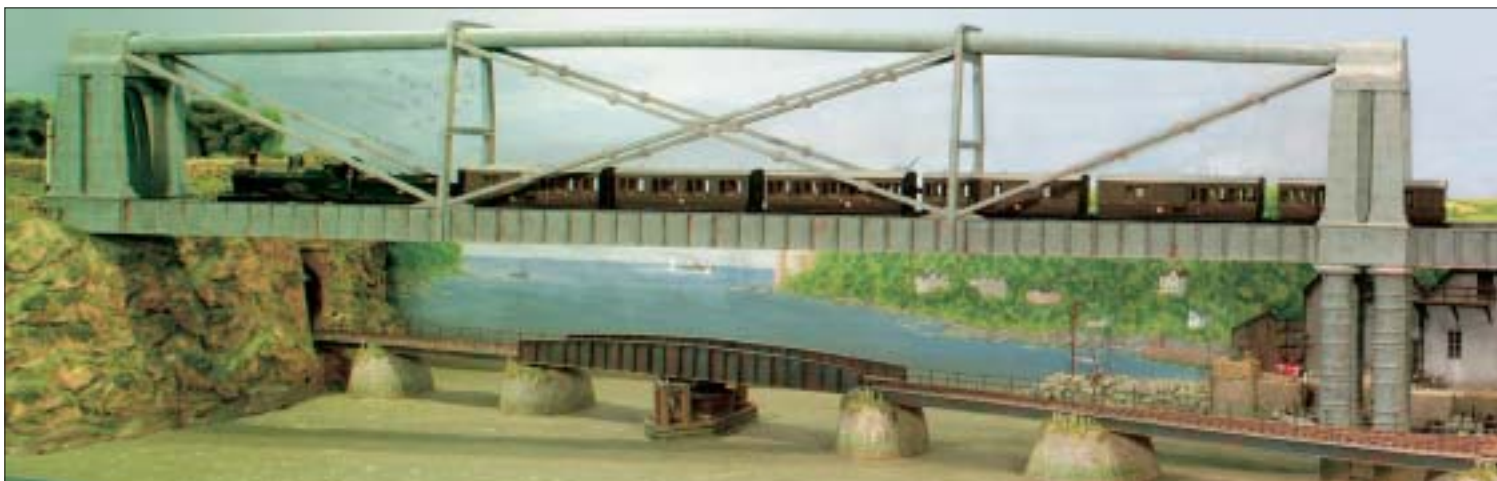
The fiddle yard at the station end has a seven-road plywood plate that lines up with three incoming tracks via a centre pivot.

The bridge end yards have two plywood plates, a three-road for the higher track and a five-road for the lower, again with centre pivots.

Bridges, buildings and scenery

Geoff describes. The high-level bridge, as mentioned previously, has single track. The rails are laid on long timber baulks with wooden baulk spacers between them, very much like Brunel's broad gauge track.

Chepstow Bridge has a large tubular riveted span over each track, so we made two spans over the single track, but they are of considerably smaller diameter scalewise. Made from 1/2" copper pipe, they have a slight curve in them. They were made to move lengthwise to allow for any expansion at hot summer exhibitions by not fixing at each end. As the bridge is near the front of the layout, I had somehow to show the curved iron plates on the tube spans, so I wrapped masking tape, overlapping at scale length round each tube; then, being the madman that I am, made a pencil marked rivet on each iron plate – showing hopefully the shade of each rivet. There are about 3,000 of these on the two spans, so of course I had





Above: closeup of the Brunellian structure. Note the returning patrol of three fighters on the backscene.

Opposite: a short goods crosses the timber trestle on the low-level SR lines.



then to do rivet marks over the whole structure.

The light grey colour was apparently a WD instruction to paint all important rail bridges as early as 1938, as a war was expected. The dirtying and rusting was accomplished, not forgetting the occasional seagull droppings, and all sealed with three coats of artists' matt varnish.

Trying to remain with the wartime theme, with the Battle of Britain in full swing, bombed buildings had to be made from foamboard with a covering of Tetron, scribed in stone,



brick, whatever, and roughed up, piled up, fallen walls and roofs etc. The bridge has not had a direct hit yet, but some supports and ironwork has been damaged and repaired with new plates and girders.

The Army has made the grain store into a War Department depot, including burrowing under the station to store ammunition etc. Whoever thought of that dangerous idea?

The bridge had to be protected, so an Ack-Ack site was made – thanks to the Airfix Bofors kits, and the best designed soldiers of WW2 ever manufactured, plus 1,023 sandbags around the guns and predictor – phew! I got fed up making them out of DAS clay, rolled into worm-like lengths, and cut approx. 8mm long, 4mm wide and just pinched at each end. Altogether for other gun emplacements nearly 2,000 were made.

A barrage balloon is also protecting the bridge. This was modelled on a WW1 observation balloon, got out of storage because of shortages in 1940. Made from a block of polystyrene (for lightness) and lightly pasted with Tetron, the fins were added separately and the

balloon was hung on one of the layout's light supports with invisible thread (the lady in the haberdashery shop told me it was invisible!). As the layout is on conduit legs it does rock at times, especially when we are changing points. The balloon sways all over the place – and the children blow it!

Colin built most of the buildings and platforms in an around the station and depot. John – one of our operators – built the two signal boxes. The Great Western one has no specific prototype, the Southern one is based on Daggons Road – a real gem. They are both made from Wills plastic sheet and various bits and pieces and both use Ratio Midland signal box windows, which are quite versatile when the angled corners are filed out and cut and spliced to suit.

Rod built the water tank, loco coaling plat-

form, and started off the ambulance train. The small guns in the sandbag emplacements, ie Bren, Maxim, Lewis and rifles were all made from wire, plasticard and veneer – and what a fiddly job. Barbed wire was made from thin, pliable wire: the barbs, as they are so very small, from tiny blobs of Araldite. Can anyone think of a better method please?

The backscene is hand painted in acrylics, the river mouth based on that at Dartmouth.

The Stukas have missed hitting the ship in the bay, and have foolishly turned shorewards, right towards the waiting Bofors guns – if only the second Bofors crew would get to action stations quickly.

The river water is our usual Artex, pulled up with a 1" paintbrush to make the waves etc. (Force 3 on this layout).

Stock and wagon loads

All locomotives were kit built, mostly by Colin, and some are thirty years old. Motors are generally Anchorage with some Portescap – most have brass or nickel silver chassis. Again the coaches, vans and wagons are kit-built, with

our own automatic coupling fitted at both ends of rakes for shunting vehicles, with three-link or hook-and-bar in between.

The loads on the wagons, shells and mines are made from wood. Airfix Spitfires and guns (some scratch-built) are or will be all roped/chained down. We have kept away from tanks, just for a change.

A fine NAAFI-WVS staffed ex-SR box van made by John, serving tea and cakes, rests in the WD depot. The ambulance train is composed of Hornby clerestories with the clerestory removed, some doors resited, painted in khaki and suitably red cross adorned – with wounded soldiers or airmen on the platform waiting the train. The stretchers were made from wire and card with plastic people suitably bandaged in different places!

The salvage train, although appearing in a bright colour, is apparently as stated in a wartime book and was painted this colour to draw attention to the need for salvage and saving for victory.

Wartime posters are either drawn and hand painted or adapted from, copied, coloured

and sized from various books. The old U-boats from previous layouts are still with us.

We wonder at times if this write-up is going in RM or an historic MOD annual. Finally we have had to obliterate the name of the town/station because careless talk costs lives. We called the layout after the nickname local people gave the bridge, Kingdom's Crossing, when it was built. It was almost named *Bridge on the River Wye* – but then...

To date, at the time of this write-up, the layout has been exhibited three times, and of course as none of us are 77-years-old and did not experience WW2 we have laid ourselves open to some of the veterans' advice, and there has been some!

Again we have to thank Colin's wife for letting us use her attic for a clubroom cum workshop – still very cosy. Thanks to Andrew and Len of Peco for their help and photos and all the Exhibition Managers who invite us.

Kingdoms Crossing (to date) will be at Shipley (18-19 September), Redruth (19-20 March, 2005) and West Wickham and Beckenham (October 22-23, 2005).



Scale drawings

A pair of Class 20s

English Electric classics modelled in N gauge

Richard Bardsley overcame having two motorized chassis.



One of the things that I remember from my train-watching days in the early 1990s was that Class 20s only ever went out in pairs. Perhaps they were afraid to go out on their own and it was a case of safety in numbers! Of course the real reason was the relatively low power rating and the fact that they only have cabs at one end and driving one nose-first must be quite a challenge. Those sightings in the 1990s were very much the swansong for the class although a small number are still going strong under the ownership of Direct Rail Services (DRS) – and they still go out in pairs!

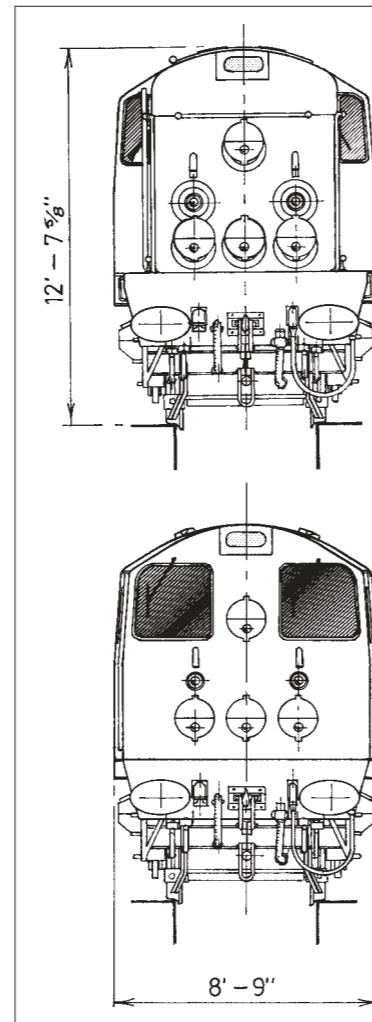
While the Class 20s always operated in pairs during the period I model, they are effectively double heading a train. It does not matter what the locomotive is, be it Class 37s, Class 33s, a mix of any or a diesel drag (an electric loco hauled over a non-electrified route by a diesel) the same problem exists on traditional two rail layouts – two locos means two motors on the same track. They run in parallel so it needs more power to make them go the same speed as one. Also, try putting the locos on the track 6" apart and then applying the power – often one will start to move before the other, and there's a good chance they will run at different speeds. Either the distance between the locos will increase or one of the pair will catch the other. Couple them together and they will go round together, but there's no getting away from the fact that the wheels are still going at different speeds so either one will drag the other, or one will push the other – in reality a bit of both, but it does not do the locos or the track any good.

Above left: 20 154 leads 20 186 past Warrington Arpley Sidings with loaded MGRs for Fiddlers Ferry Power Station on 3 June 1991.

Above right: having run round in Latchford Sidings, 20 186 now leads 20 154 for the run under Warrington Bank Quay Station. Warrington was a hotspot for the final years of Class 20 operation. The elevated position from the bridge gives a good view of the weathering on the roof, particularly the sooty deposits round the exhaust ports in the middle.

I thought that a pair of Class 20s would not suffer this problem as in theory they are exactly the same mechanism. However, they were purchased a few years apart (which helpfully means they have different running numbers) and in addition, the variable quality of the pre-Bachmann Graham Farish mechanisms is well known. Therefore, I found that the two locos would run at different speeds. I was only ever going to run them as a pair, so what to do?

The first and most obvious answer is to take the motor out of one of the chassis. This is a perfectly workable solution but it seemed a shame to dismantle a perfectly good working chassis, even for spares. Of course if you picked up a dud chassis for a few pounds then it would be all right. I just could not pull one chassis apart, so the locos received limited running until Ian Stoate introduced his range of dummy chassis for most of the Graham Farish range of diesel locomotives. By substituting the dummy chassis for a motorised one, I cured the problem of different speeds and have a spare chassis should the other one wear out.



Constructing the dummy chassis

The first thing to do is get the loco body off the chassis – this stumped me for a few minutes! Unlike the other Graham Farish diesels, the body does not simply pull off. Removing the insert that makes up the nose (the non-cab end) reveals a small screw that holds the body to the chassis. The nose clips onto the body – it was never a good fit, and the retaining clip broke off when I removed it. I cut off the retaining lugs at the bottom and with the chassis out I just glued it on with Araldite – it now fits better, and there should be no need to remove it again.

The dummy chassis only consists of a few parts – two for each bogie and a central block to fit under the body. Holes need drilling in the block to accept a bolt to hold the bogies on – the place to drill is marked. The instructions

Above left: 20 121 leads 20 117 and their rake of HAA hoppers past Crewe on the freight only avoiding lines on 12 October 1991. This rare chance to photograph the normally inaccessible avoiding lines was afforded by the Crewe Diesel Depot Open Day.

Above right: 20 081 waits in the scrap line at Warrington Arpley Down Sidings on 19 September 1992.

Below: the drawing, by the late Ian Beattie, first appeared in RM June 1993, and is reproduced here to 4mm scale.

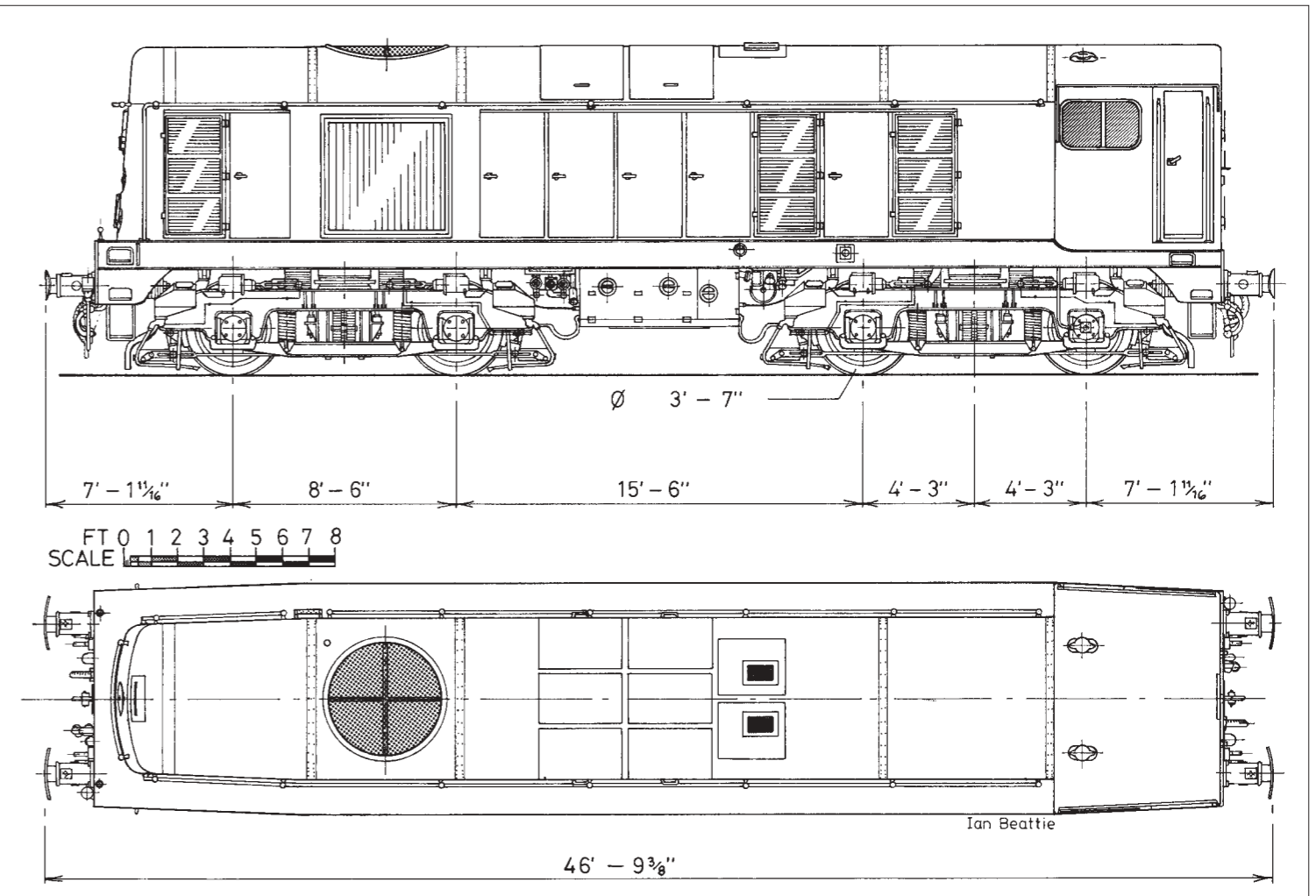
Photographs by the author.

do not specify the drill size, but I used a 1.5mm bit, slightly smaller than necessary but by carefully screwing the bolt in, it tapped the hole so there is no need to use the supplied nut.

The bogies consist of a central block to hold

the wheel sets and an outer frame. There are two lugs at the front and one at the back to hold it all together but I thought that this was a very tight fit, and as warned in the instructions, might snap the bogie frame. Therefore, I removed both lugs and the clip but it was still a tight fit, so I filed the back of the block with wet 'n' dry paper until I got a good push fit. The bogies also require drilling for the bolt, but this time I used a 1.7mm drill to allow a bit of movement in the bogie to allow for inclines.

A word of warning about drilling, filing and sanding resin castings – some resins will generate very fine dust and swarf which can be a health hazard if inhaled. A small amount of exposure is unlikely to do any harm, but if you use a lot of resin be aware. If in doubt, take the usual precautions of a face mask and adequate ventilation.





The instructions warn that if wheels are supplied which have pinpoint axles, the ends will need removing to clear the inside of the bogie side frames. Mine did and I used a slitting disk in a mini-drill to get the necessary clearance. I gripped the centre of the axle in the biggest pair of pliers that would fit between the wheels, as this holds the wheel set firm and acts as a heat sink; too much friction from the abrasive slitting disk can melt the plastic centres of wheels. In order to be safe, I did one side on all four wheelsets and then after ten minutes of cooling time did the other side.

The first trial fit of the bogies, the chassis block and the body was not quite right – the body sat too far down on the bogies, and was lower than the motorised Class 20. The bogies were fouling the body on corners. This seems to be because the chassis block is not straight, and the ends bend upwards from the centre.

Above left, unlucky: on 19 September 1992, 20 016 awaited its fate at Warrington.

Above right, lucky: Class 20s live on in preservation, but perhaps more amazingly, they still earn a living on the main line with Direct Rail Services, and still in pairs! 20 303 and 20 301 had been recently overhauled and updated when seen at Crewe International Electric Depot on 2 May 1997.

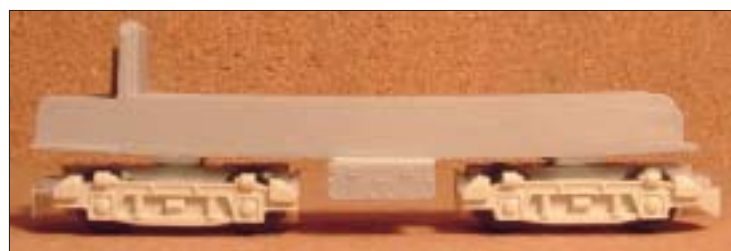
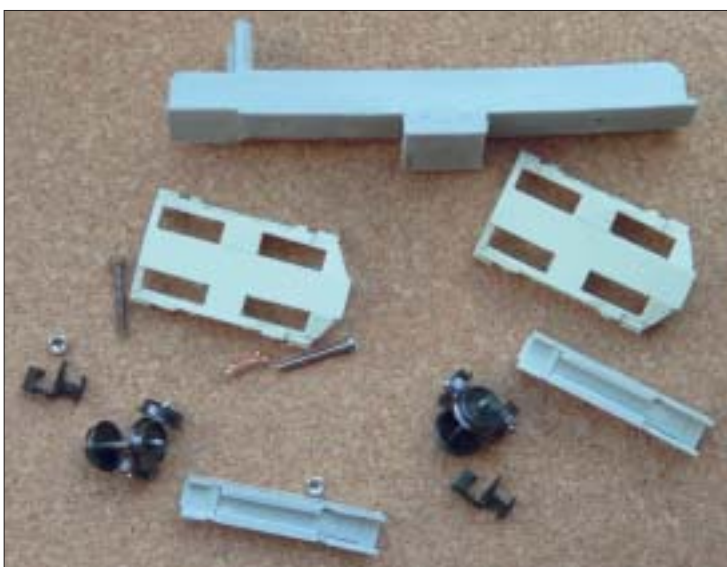
As this is cast resin, it will not bend back into shape. I simply made a washer for each bogie out of 40thou plasticard with a 1.7mm hole and this raised the body to the same height as the other Class 20.

It's a shame, because you can see more daylight under the chassis, but it's only the same as the motorised chassis so there's not much I can do about it.

I also had to put a piece of 10thou plasti-

card on top of one of the fuel tanks on the chassis block to cure a pronounced lopsidedness in the cab. Care has to be taken when attaching the bolts not to over tighten them or there will be no play in them for inclines. Equally, if the bolts are left too loose, they hang down and can foul the frogs on points. The bolts are dome-headed but countersunk heads would have been better, and if you have some to hand then I would recommend using those instead.

The cast body shell is fairly heavy and I thought this would be enough for the dummy chassis, but I found that it seemed a bit hesitant through pointwork, especially at speed. Therefore, I added some more weight to the top of the chassis block – there's plenty of room in side the body. It is almost as heavy as its motorised counterpart, but now much more surefooted.



Above left: the parts in the dummy chassis kit.

Above right: the dummy chassis following assembly. The upper photo shows how the main chassis has 'sagged' when it was cooling out of the mould. Also visible between the chassis and the bogies are the plasticard washers to give the correct height. The strip of white atop the fuel tank corrects a list in the body.

The lower picture shows the body fitted to the dummy chassis. Note also the 'factory finish' of the body before detailing and weathering.





Weathering

The dummy chassis is easily disassembled for painting. After washing in soapy water, rinsing and leaving to dry for 48 hours, the various parts were sprayed with a car aerosol primer. Then it was simply matt black all over! The dummy chassis was reassembled, not forgetting to include the sprung couplers, and then glued to the body. The body would just rest on the dummy chassis, but it makes life easier for placing on and off the track if the whole thing is one unit. If you want an ex-works finish, then there's nothing else to do, but as I remember Class 20s at the end of their life, they were quite run down, so weathering is essential.

The factory finished Graham Farish Class 20s were just blue all over but the grilles on the side and the roof vent for the radiator fan never stay blue for long, so I used a 000 brush and a tin of matt black paint to improve their

look. The platform that runs from the cab all the way round the nose and back again received a healthy dose of light brown weathering powder, held in place with a wash of dirty varnish (matt varnish mixed with some black weathering powder on a piece of card).

The rest of the body received several washes of the same dirty varnish – better several light coats to build up the weathering rather than being heavy handed. The roof received more heavy weathering, particularly over the cabs which seem to have got quite dirty.

The exhaust ports also seemed to get filthy, and the sooty streaks were added by dry brushing with matt black. Interestingly, these streaks always seem to lead towards the nose, so presumably exhaust only blows down on the leading engine, while on the trailing engine, being that bit further back in the train, it is blown up. Finally, the bogies and fuel tanks

were dry brushed with a light brown 'frame dirt' paint.

Class 20s 20 139 and 20 142 were finished the day before the N Gauge Society's 2004 Annual Model Making Competition at the AGM, though the paint was dry by the time I got there. They picked up a Highly Commended award for my efforts. Back home, they do what I will always remember them doing best – hauling long rakes of MGR hoppers from pit to power station.

Far left: a view of the roof showing the weathering around the exhaust ports.

Above: 20 139 and 20 142 doing what they do best – hauling a rake of loaded MGR hoppers.

Below: 20 142 and 20 139 paired for the camera after paint detailing of the grilles and weathering. 20 139 is the 'powered' one.





Stapleforth Main Line

Late-BR period in N

Leaway (Andover) MRC members constructed this busy exhibition layout.

Stapleforth, like so many towns up and down the country, used to have more than one main line station, suffixed High Level and Low Level. 1960s rationalisation saw traffic concentrated on the former, with the latter closed to

become the site of a diesel depot. The former High Level has seen further change: with the advent of 'Sprinters' and the loss of local wagonload freight traffic, the goods yard area has become a DMU depot.

The model

Track and pointwork are Peco Streamline; plain track on the upper section is mostly the concrete sleeper pattern. Points are operated by SEEP motors via CDUs.



Left: a variety of diesels on shed, including one-off Class 50/1 No.50 149 Defiance and special-livery Class 47 No.47 145 Merddin Emrys in the company of 60s, 37s and a 40. The sheds themselves are Peco kits.

Below left: the breakdown crane is stabled in its bespoke siding at the depot throat. The former main line on which the facility was constructed disappeared into the tunnel, lower right: this is now the depot headshunt. Behind and above the crane is ScotRail Class 47 No.47 617 and an array of DMUs, in service and on shed.

Right: high level view of the whole layout, showing the gentle curve of the station approaches. The complex control panel, situated above the storage roads, is also visible.

Below: 37 414 Cathays C&W Depot emerges from the tunnel with a rake of Network SouthEast Mk 1s. Judging by their bodysides, the parcels stock – GUVs and BGs – has not seen the washer for some time!

Photographs by Len Weal, Peco Studio.

No fewer than 50-60 locomotives can be accommodated in both viewing section and storage yard. Most are professional repaints by CJM. The off-stage roads, over which is situated the control panel, can hold 13 complete rakes of stock.

Operation is to a fairly intensive schedule, and can tax the operators at times! For example, fuel for the diesel depot has to be worked in between the through passenger and freight services to gain access to the refuelling facility. As and when required, additional stores and supplies are delivered to the depot in air-braked vans.

No layout is ever finished, and this is no exception, but it is hoped that *Stapleforth Main Line* has captured the atmosphere of the real railways.

The layout is booked to appear at the N Gauge Show at Leamington Spa this month, details of which will be found in 'Societies & Clubs'.



Crisbar

An 0 gauge branch terminus in a small space

Roger Sisley moved up from 00 to produce this Hemyock branch-inspired layout.

Crisbar is a 7mm fine scale representation of a light railway station in Devon, the period being the late thirties, trying to miss the period when the ravages of war had dimmed the glory of the GWR and trying to get some of the splendour of earlier days. The station plan is that of Culmstock on the Hemyock branch with the factory added in the station area to give the operator more operating potential allowing different wagons to that seen on this type of branch.

The idea of a light railway based on the Arthur Pain principles appealed to me as with-in reason you can run anything small of GWR ilk and get away with it. The name *Crisbar* is my son Christopher and my wife Barbara combined, earning brownie points. I was reluctant to call the layout an actual name as someone will say 'it wasn't like this when I remember the station'. As it is, people say to me about the set pieces 'I remember when I used to see that' which is very gratifying and makes modelling even more worthwhile.

For me the modelling is not the only enjoyable part but the research is just as important, talking to the older generation asking how things were. Most people are more than willing to impart their knowledge if you are interested in listening. Also when on holiday I visit places not always railway-biased: showing old practices and the way things used to be done, they are a mine of information and help build up a picture of the community at that time. Visits to Muwells Port, museums around Telford and bygone experiences all built up a picture. Books on the people in different areas and their trades can also give you an overall picture as not everyone experienced the good old days, and they were very tough for a lot of people. The rural community was a lot differ-



ent from its town equivalent, and it is important to get an atmosphere without the hurry of the industrial towns in portraying a sleepy branch.

Why 0 gauge? Well I spent many years modelling different scales and gauges; been there got the T-shirt sort of thing. I saw some local 0 gauge layouts that run like a dream. I talked to the operators who were very helpful and a feeling started to develop that I should change over. What most put me off was the thought that you have to build everything from scratch, but a visit to the 0 Gauge Convention at Woking finally convinced me. Next Saturday it was off to the local railway shop and swap the whole lot in and come away with a few loco kits and some wagons: my wife thought I had been cheated, as you end up with so few items in 0 compared to 00. I had to put her right on

the relative costs of the different gauges. I succeeded there and she has been fully supportive in my 0 gauge ventures, letting me buy unplanned loco kits occasionally, and she also buys some for me as well.

Where to put the new railway? I had a space in the main bedroom 11'6" x 2' along one wall where I had the old 00 gauge layout and this would have to do.

I wanted to be able to move the boards to work on them, so opted for 4' x 2' chipboard on a 2" x 1" frame with middle supports and a fixed backscene panel. I always think a backscene gives a layout depth, and later used this to bolt a top cover on to keep the layout safe when transporting to exhibitions. I can say categorically that I would never build a baseboard this way again as chipboard weighs a ton and getting the sections downstairs is a nightmare.

In order to work on the baseboards away from the bedroom, my wife let me put a thick blanket on the dining room table. Then I put a board 2'6" long by 1'8" deep on the table, on which do my modelling and building. If I am working on a main board this is also allowed to sit on the blanket on the table. While I get something done this can happen for a period of up to three weeks. The logic is if I am in the room and something comes on the telly or she wants to talk to me I am there to talk to, not shut away in some room and having no contact with the family. I can report this works very well. As I have said to many people she is a very understanding wife.

Now the planning. I measured the point lengths and transferred to a rough scale drawing on graph paper. A lot of time was spent at this but in a book of station plans I saw



Left: the branch passenger train stands at the platform.

Below left: the entrance to the fiddleyard.

Right: shunting proceeds on Crisbar with the station building in the background.

Photographs by the author.

Culmstock, turned it round and made it into a terminus and it does very nicely.

Peco points and track were purchased and I started laying them out. It was not a case of scaling up the plan, but putting the points on the board to try and replicate it. It worked out well and no board joints passed under the middle of any points. As stated earlier the factory siding was added for more goods wagons interest. The hole in the backscene where the railway goes to the rest of the world was cut next.

A trip to the local DIY super store saw two packs of cork tiles and adhesive bought. These were cut to suit the track plan and stuck down. I then painted the track base grey so any spaces in the ballast do not stick out like a sore thumb. I then laid out the track, pinning it down in strategic places making sure that the joints in the track were secured firmly, and that there was a slight gap in the rails there, so when you take the layout to a hot location there is room for expansion. It is surprising how much the track seems to grow. I learned from my past experience: take your time, lay the track carefully and level and the layout will run well in the future.

The next job was the wiring. I use SEEP point solenoids with the spare contacts switching the live frog. The wiring is laid out neatly, held in place with P clips and all the wires are colour coded for their uses, making it easy to find problems.

I eventually wired solenoids to do the uncoupling. This was with normal switches with the extra contacts used to light an LED and sound a beeper on the panel to show that the solenoid is live. I find it difficult to control a train with a hand-held controller and push a button in at the same time while lining up my stock over the solenoid. This is my compromise to remind me to switch off the uncoupler when it is not required any longer. The control panel is a plan type with colour coded switch toggles to do the different operations set in their right place. There are two panels now, one for home use and one for exhibitions. The layout was tested rigorously to check everything worked all right before proceeding.

Then came the ballasting, achieved the usual way with dilute white wood glue and washing up liquid, applied with an old eye dropper between each sleeper on previously arranged light grey 00 gauge ballast (not the stone type that turns green). Then the mess was left to set. Cleaning up was done the following night as the glue is still a bit soft. Leave it too long and it's like chiselling away cement.

The ground contours were formed by shaping plywood edging at the front, and continuing this shape of the land into the layout using thick card stuck firmly in place. Thin card was stuck to the shaped edging and bent at 90



degrees so that the hillside was stuck securely to the front edging and you don't get nasty cracks appearing. Strips of card were stuck to the contours of the land and then pieces of newspaper were pasted on top, up to eight layers. This was allowed to set dry, after which household filler, mixed with some burnt umber poster paint, was plastered over the whole hillside. If this gets chipped you see brown, not a great expanse of white.

The grass was made with dyed car sound-proofing; the old carpet underlay. This was pulled apart, bleached and then dyed with a green cold water dye, pulling some bits out earlier to give different shades. When dry you pull it apart in clumps, then stick these down to the hill end-first with white wood glue. I cut across a clump to get a nice level end to stick down and this way you get two clumps. This is very time consuming but the results are worthwhile. When dry trim and comb to suit with a stiff brush. I sometimes paint the grass with a watery acrylic paint to give different shades. Around the edges and in the bald areas I produce some patches of 'puff' grass, the static type that stands on end when puffed into some glue. The flowers are brown and green stiff fine bristles, stuck in groups with white glue to the grass or other corners, with fine coloured sawdust or foam stuck to the top of stems. I also use sisal to give the effect of plants drying out or dead.

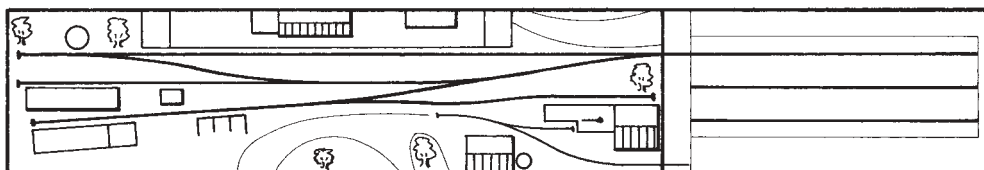
The buildings are mostly kits modified to suit my needs. You can get a good selection of kits without having to scratch build. The main factory building is a low relief kit with the loading platform in front. I chopped a bit off the stairs to the upper floor door so as to fit the platform loading bay kit under the stairs. Then I found the platform was the wrong way round so turned the platform side moulding over,

and it now looked right. But the paved surface was now the wrong way round, so I just smoothed the underside of platform flagstones, then scribed out the flagstone pattern on the now smoothed reverse side and stuck down to the platform sides. Not much work but it gave a very satisfactory result.

The other part of the factory is a weigh-bridge office, with a matching brick pattern. With the whole lot connected up with mock pipes and some lattice supports, it looks like a factory complex. The boiler is a Duncan kit with the door drilled out and a hole drilled up from the base to meet the door hole. The boiler was then painted matt black, the door stuck on half open with a man shovelling in coal and the surround to the door modelled with Milliput putty. Then to finish off I used one of the electronic fire glow effects you can buy. With an orange bulb in the hole drilled up from the base this looks very realistic. As a bonus this electronic device can operate more than one bulb so a model brazier was bought and holes drilled in the sides. These holes were filed in order to have some more realistic flat sides. The other bulb was then put inside this brazier so that it looks as if it glows red between the coals. A hut was found to make a watchman's shelter.

The narrow gauge was put in to give a bit of interest. A train shuttles back and forward occasionally, diving under the pipes to the rest of the factory complex.

The platforms are edged with resin or commercial plaster mouldings. There are many supports under the platforms holding up the surface of 1/8" card. These are to stop the surface drooping with age so the platform remains level. The surface was painted grey and then, when dry, white wood glue was brushed on, sprinkled with Peco grey surface





Left: today the branch train is a GWR steam railcar.

Below: the goods platform and cattle dock.

powder, and the surplus vacuumed when dry. The bricks or stone detail was carried out in the same way as for the buildings, painted with quite a few coats of thinned enamel paint, then separate bricks or stones were picked out with about five varying shades of the base colour. I also picked out certain bricks with a very dark or light colour. Then I mixed up a quite thick coat of grey poster colour paint, washed over the entire surface and left to dry a while. Next I washed over the whole surface with clean water and dabbed off with tissue leaving the bricks clean or slightly dulled. All the courses are full with mortar and quite often I mix up a darker shade of mortar colour and dab this on in odd places or where the mortar could get darker, then clean off as before.

The station building is a bought kit, missing off the shelter as per stations on this branch. The cattle dock is also a kit with the T section rails, made to look right with the addition of some Peco fencing, and some dirty hoof marks up the ramp.

The roads were painted a stone colour from the Sandtex colour try-out pots. Next some white glue was painted on the surface and the

whole lot sprinkled with grit or 2mm granite chips and allowed to dry. Then yet more white glue was painted on top and bonfire ash was pushed through a sieve on top of this. Vacuum this up and you get the varying colours of a clinker road of the 1930s. Also you get all the different layers showing through with this process. I am a great believer in the use of bonfire ash: pushing it through the sieve you get little black bits in the surface, burnt bits of paper and wood. Shaking it through the sieve you get a fine grey powder surface; fine for yards. Sometimes you can use it without the sieve, passing it through your fingers and vacuuming up the excess when dry.

Fencing, what size? Here I cheated. I had some Ratio 00 scale seven-wire fence posts, the dimensions of which I scaled up to 7mm and made two posts out of 3.2 x 3.2 strip styrene with saw cuts in them where the wires should go. These were put at either end of my modelling board and 39 gauge enamel-covered wire was stretched across the two posts for all seven wires. Other posts (without saw cuts) were put in at the correct spacing and glued to the wires. When dry the fence section was laid over the layout and holes for the posts

were drilled in the landscape in the correct positions. Then the fence was carefully pushed in the holes and glued in place. Greenery from the Woodland Scenics range was glued to the fence to represent scrubs and plants growing along the fence.

Things to remember: if the fence is going up or down hill, you make the fence at this angle or else the posts will not be upright when stuck in position. Also make sure the holes for posts are in the right places. The fences break easily and the wire should look tight most of the time.

Some of the fencing was made from micro strip glued to posts of 3.2 x 3.2 strip styrene. The bushes were made out of plastic horsehair pulled apart, then covered in glue and sprinkled with green flock foam or the sawdust type shaken off when dry. Bushes were glued in place first and then the fence bits (posts and cross rails made from micro strip) were inserted in the gaps to give the tumbledown appearance.

A final word about the Lynx uncoupling system. You never know where you will need a solenoid: it was only after operating the layout a few times that I found the right positions. Different people also have other ideas as to where you can uncouple stock, hence one position is in the middle of a point near the private siding for changing stock in that location. This saves you going all the way back to a siding, and works really well.

The stock is the usual mixture of Peco, Slaters, Mega Kits, Underhill, Agenoria, ABS, Parkside Dundas, Powsides, and Dragon, all kit built and a mixture of plastic and brass. Some stock I got in a built condition, from Mr C Bolton. These are reasonably priced with the right amount of detail and he builds oddities by request. You see him at GOG shows. Before I plucked up courage to build my own locomotives I had three built by Vic Parker and I am very pleased with the results.

Now I build my own mainly or I have been very lucky in picking up a few bargains second hand. If you spend time working on the locomotive, will you get a really good runner. Some just need the pickups or the positioning of the motor set up right, or re-spraying, and hey presto, a good runner that looks great.

In conclusion the layout has been a very satisfying experience for me. There is always something new or a modification to do. When I get an invitation to a show I consider this an honour and privilege. It is very rewarding as the information and advice you get from fellow modellers and traders is priceless.

A word of thanks to my wife Barbara, son Christopher and my mum and dad-in-law, Grace and Ted and colleague Paul. They have supported me continuously at our GOG meetings, putting themselves out for my all consuming hobby.

Crisbar is booked to appear at the Gauge 0 Guild Convention at Telford this month: see 'Societies & Clubs' for details.



A simple sound system

Adding an extra dimension to layout operation

Christopher Payne has an interest in presenting his layouts at exhibitions in a theatrical manner, so was tempted to try adding the extra dimension of sound, which was achieved at modest expense.

Background

Some years ago at ExpoNG my attention was caught by the steam locomotive sound that accompanied the operation of Brian Love's 009 *Fallgate* layout, which is based on the Ashover Light Railway. Enquiry revealed that the sound was being produced by one of the units supplied by Trax Controls of Norwich (regular advertisers in this magazine) through a fixed speaker underneath the baseboard. In due course I studied their advertisements and concluded that given the modest cost of the unit its performance was creditable and worthy of further consideration.

There the matter rested until during summer 2000 when I was in the early stages of building what was to become *Sutton Wharf* in 1:25 scale (see RM July and August 2003). It struck me then that the incorporation of sound into a small size but large scale layout might be very effective.

The following year I decided to take the plunge and duly obtained from Trax Controls three of their modules, being respectively items CM-2 Chuffer, SWM-2 Whistle, and RPM-1 Regulated Power. This last provided the smoothed 12v DC needed by the two sound units and would be fed by a spare 16v AC supply from the power unit I regularly used at exhibitions.

Initial experimentation

As supplied the chuffer unit has mounted on its printed circuit board three presets for the control of volume, hiss, and chuff rate (referred to as 'sync' in the instruction leaflet). For those who do not know, and I would claim only very limited knowledge, a preset is a miniature variable resistor (or potentiometer – 'pot' for short) that is adjusted by the use of a small screwdriver. This did not seem a satisfactory state of affairs if maximum control over the unit was to be achieved and therefore I thought of replacing these with much more substantial 'normal' sized pots that could be built into a control panel and fitted with suitable sized knobs. To achieve this I opted for the obvious procedure of endeavouring to remove the presets from the printed circuit board, and after some difficulty this was achieved.

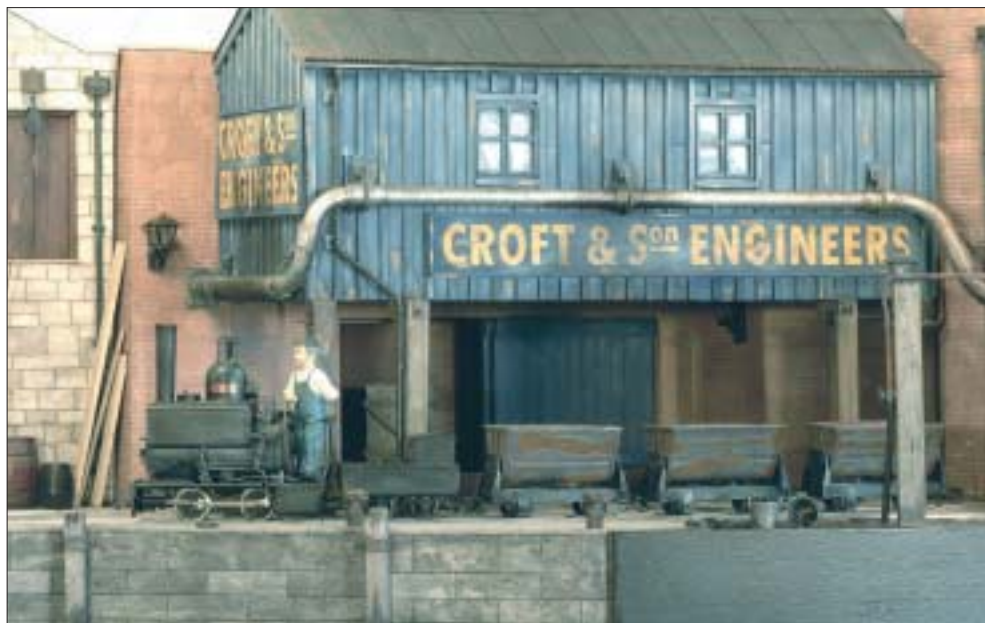
The whistle unit also came with presets on the board, in this case for volume and pitch, and these too were removed. All five of these presets were then replaced by standard pots connected to the circuit boards by appropriate length leads. For those unfamiliar with electronic components the pots and the presets each have three connection tags, and the



procedure was simply to connect the centre one of each pot to the same position where the preset had been. The other tags are then connected one each to the remaining positions and if found to work in reverse these last two connections need to be switched over. In some cases the results of substituting these pots were not totally satisfactory because of confusion as to whether they should be linear (lin) or logarithmic (log), but advice from Trax Controls sorted things out and the eventual outcome started to look promising.

At the time of this experimental phase *Sutton Wharf* was not in an advanced enough state to provide an effective test situation, and therefore I chose to try out the equipment on my 1:34 scale layout *Portpyn*.

Once connected to the regulated power module, the whistle unit simply needs an output to a loudspeaker and a push button switch to trigger the sound, whilst the 'chuffer' needs a parallel connection to the traction circuit (maximum 12v DC controlled) so the exhaust sound appears to match a loco in motion.



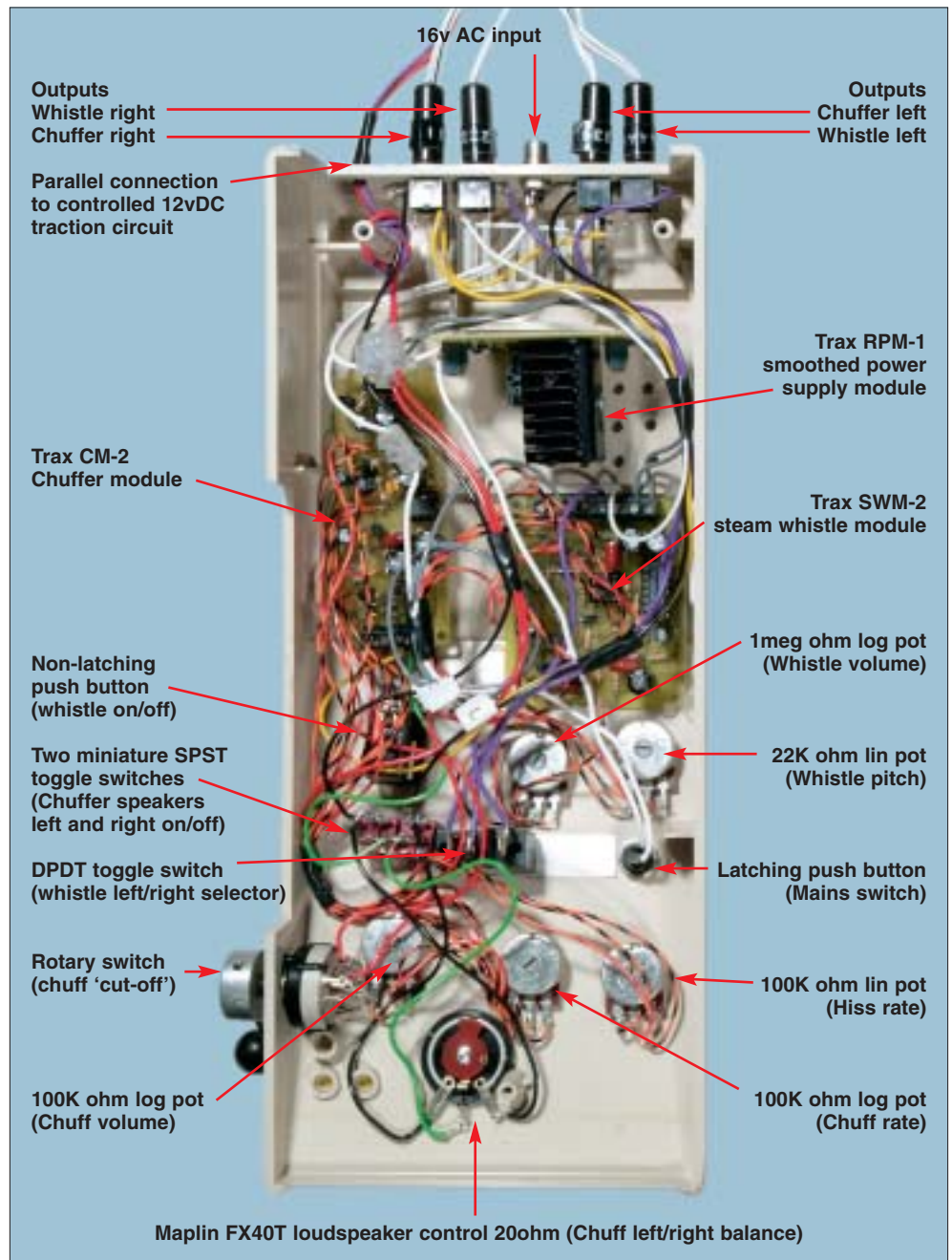
The whistle and 'chuffer' units each came with a single 5" elliptical speaker but I opted to use an additional two so that they were positioned at each end of the layout providing whistle left or right, and 'chuffer' both left and right, or balanced from one to the other. On this basis the system was hooked up to *Portpyn* with some success and at this point I invited a couple of my regular assistant operators at exhibitions to a demonstration session in the belief that it would be helpful to have the opinions of those hearing the units for the first time rather than my own growing over-familiarity.

The result was an agreed view that the added dimension was indeed achieved but with one specific area of concern – that when a locomotive was brought to a halt the chuffing stopped in mid-beat and sounded unrealistic. The solution to this was found by accident when I inadvertently pulled out the plug from the socket I had installed to make the parallel connection to the traction circuit – the result was a long drawn out hiss that was to prove a reasonable semblance of a locomotive cruising to a halt after the regulator had been cut. It simply required the installation of an on/off switch in the relevant cable.

Building the system

For experimental purposes the Trax units had been surface mounted on a scrap of chipboard with the various pots hanging loose on their leads, but for exhibition use this would be neither visually acceptable or ergonomically convenient. I therefore began to think in terms of containing the boards in a suitable box that would have a control panel on the top and with sockets at the rear to which connections could be made for the speakers and 16v AC input. A slope-topped box suggested itself as the ideal and when I came across a defunct computer hard drive unit the potential of the casing was immediately evident.

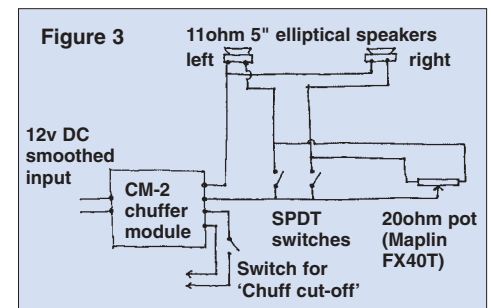
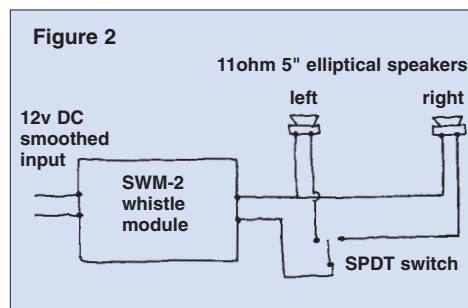
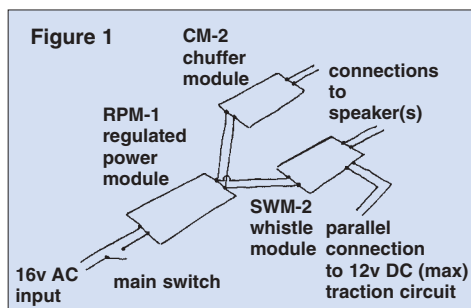
The contents were removed but the metal base plate briefly retained as a template for a new 6mm plywood base. This was fixed to the case using the original fixing screws and mounting points. The decision was then made about the position of the three Trax units within the case and ventilation holes drilled where the smoothed power supply would be mounted. Holes were also drilled for the connection sockets, and for the various switches and pots. These last were very carefully calculated giving particular consideration to how the various controls would be used in practice – how they would fall to hand – in other words to ergonomics.

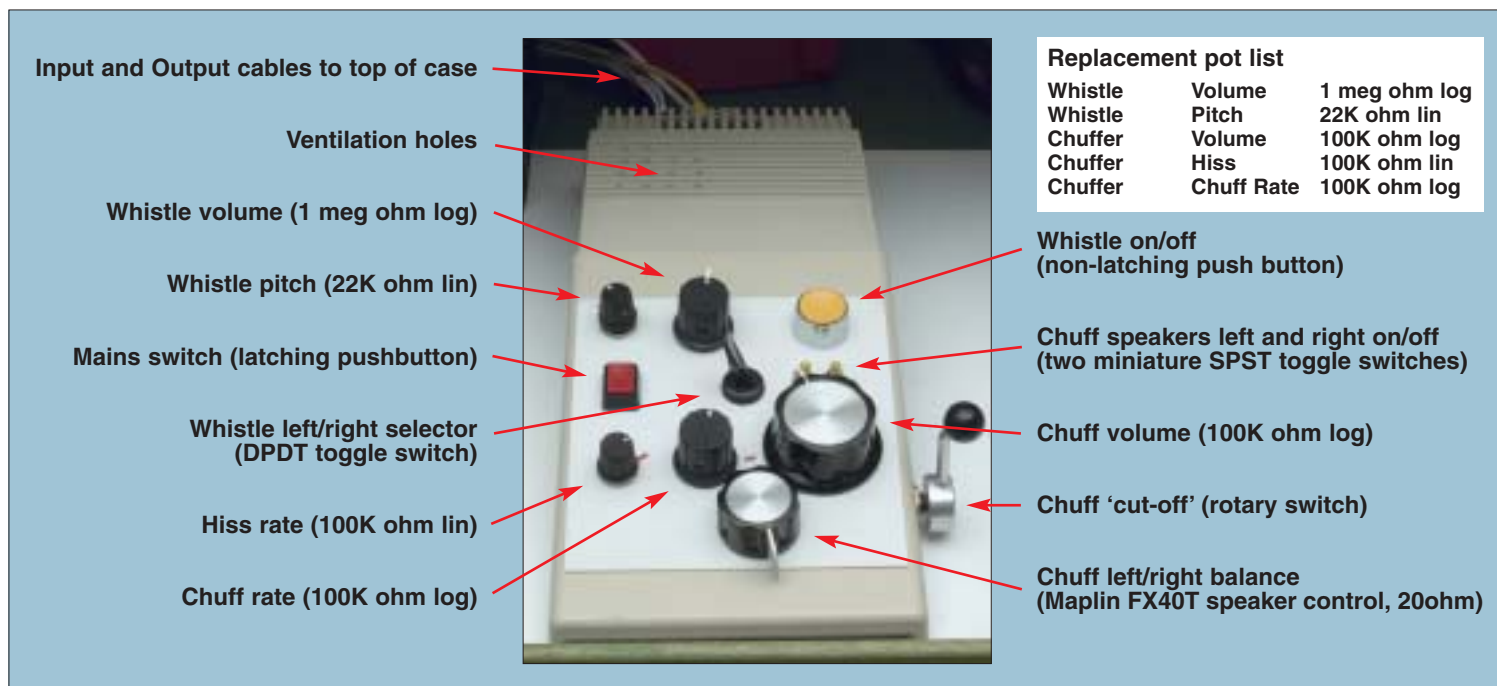


Within the case the three units were fixed using a glue gun, in the belief that the melting temperature would not be sufficient to damage the electronics, and of course the glue was electrically non-conductive. A couple of attempts were made before the final position of all the switches and pots was settled and for this reason the sloping top of the box was afforded an overlay panel of 1.5mm thick white styrene.

The basic arrangement is shown in Figure 1 (below left) and simply follows the recom-

mendations given in the Trax Controls instructions. Photo 1 (above) shows what the ensemble looks like inside the control box (with the back removed), and whilst this may seem frightening in its complexity it is not really thus. Essentially it is simply a matter of linking the Trax modules together, with the addition of switching to allow for four speakers, two each – left and right – for the whistle (Figure 2, below centre) and the 'chuffer' (Figure 3, below), and the provision of a main (Figure 1) and 'chuff cut-off' (Figure 3) switches.





An ergonomic control panel

Photo 2 (above) shows the completed unit with the various controls marked. At first sight it may appear a little haphazard as to layout and the sizes of the various knobs and switches, but I am a firm believer that good design puts function ahead of appearance and therefore the location of the various controls was determined by how they would fall under the right hand when in use, and the size of the knobs by the frequency with which they were to be used.

The main switch is centre left with the whistle controls above and those for the 'chuffer' below. Very small knobs are used for the whistle pitch and the 'chuffer' hiss rate, because once set the former does not need adjusting and the latter seems to have little effect. The 'chuffer' volume has the biggest control knob for this is constantly used so that when a train departs to the fiddle yard the sound can be reduced, and shunting there achieved in silence.

Since the photograph was taken I have decided to replace the knob on the chuff rate control with a pointer type, this being a convenient way to 'tune' the unit for different types of locomotive motor.

The left/right balance control at the bottom has been very effectively used with *Portpyn* (in which case the two miniature toggle switches are left in the off position), but when operating *Sutton Wharf* was found to be unnecessary (in which case the balance control is left in the centre position).

A word of explanation should be offered about the use of a rotary switch for the 'chuff cut off': a simple toggle would have done the job, but I instinctively felt that something with a degree of travel and the 'feel' of a large lever was appropriate. The lever in question came from an old controller and the switch was wired so that when moved through three positions the 'cut off' only occurs at the third (the near-horizontal when pulling towards the operator).

The system in use

When used with *Portpyn* the speakers were temporarily hooked under the ends of the baseboard, and since have been permanently fitted under *Sutton Wharf* with fixed cabling.

It must be said that with a small layout where the scenic section is not of great length (6' in the case of *Portpyn*, and 5' for *Sutton Wharf*) speakers under the baseboard can be very effective, for the human brain seems to accept gladly the subterfuge and believe that the sound is coming from the moving loco.

Public reaction has been favourable and fellow exhibitors, especially those at adjoining locations, have not (to my knowledge) found the system oppressive or annoying. There are available complex and elaborate sound systems that are very expensive, and whilst the old adage that "you get what you pay for" no doubt holds true, the attraction of the Trax modules used in this way is that for a very modest price you get a simple but effective system. The purchase of the modules, a couple of extra 5" elliptical speakers, plus the necessary pots, switches, knobs, sockets, and wiring

could all be done for less than £100 leaving only the provision of a suitable box to be accounted for.

Photo 3 (below) shows the system in use with *Sutton Wharf*. Although right-handed, I always use the (traction) controller in my left hand whilst operating section and point switches (the two control panels at the top of the picture) with my right. The addition of the sound system means that having set the road for the train, the sound is then 'driven' with the right hand. In practice this requires some concentration and I find that it can become tiring after a certain time and for this reason it is my normal preference under exhibition conditions to limit operating turns to 30 minutes. That said, I was very gratified when one of my regular operators took to the use of the system with great ease despite having made the initial remark "What - all that to control a bit of sound?!"

Line drawings by the author.

Photographs by Len Weal, Peco Studio.



The Tan-y-Bryn Railway

16mm scale garden narrow gauge

Brian Ives made the most of his once neglected garden.

The time: the local Memorial Hall, one Saturday, July 1996. The scene: an exhibition by the Yorkshire Group of the 16mm Association using the Mount Dowd table top layout *Steam in The Memorial Hall*. The characters: Mr. Jones, a demonstrator and garden railway enthusiast from Lancashire, and Mrs. Ives, the writer's wife.

Mrs. Ives: Do you ever allow people to visit your railway in the garden?

Mr. Jones: Certainly, in fact we're having an open day soon, why don't you come?

This is how it came about that one day, that September, we travelled across the M62 from our safe Yorkshire town to a certain town in the wilds of Lancashire to visit a steam railway in a garden, became hooked and decided to build our own railway!

We are fortunate to have a fairly large garden, but at that time, pressures of work meant that it was sadly neglected and overgrown. 'We'll do something about it when we retire', we kept saying. Then we went to the 16mm group exhibition and suddenly the N gauge layout in the spare room became less attrac-

tive and we were presented with a way to conquer the wilderness of the garden. Some clearance work started that August; we visited a railway exhibition where the Huddersfield group showed their 16mm layout, we made contact with another 16mm Association enthusiast, Mr. Hicks, in our hometown and we travelled to Mr. Jones' garden.

Members of the 16mm Association proved to be universally friendly and helpful. Advice was given freely and great enthusiasm was shown to help us make a start with our project. I was able to borrow all the back issues of *16mm Today*, the magazine of the 16mm Association, and spent many happy hours reading through them. It rapidly became apparent that there were many ways of constructing lines, with each advocate swearing that their way was the best. There was also the issue of the track plan; should it be a 'round-and-round' line, or a 'there-and-back' one? Should there be any gradients, or should it absolutely level? I read, I thought, I talked to people, I looked at the site, I sketched plans (many during rather boring meetings at work!)

and meanwhile I made a start on clearing out the weeds and the old conifers which were growing on the edge of our lawn.

The garden front lawn is on the upper level of a ha-ha. Below this, about one metre down, is another area of rougher grass that extends to the far end of the garden, sloping gently upwards. This gave the ideal situation for providing a place to stand whilst preparing an engine and assembling a train. It also made life easier for me in deciding upon levels as the ha-ha runs across the garden horizontally thus giving me a reference line.

I decided that the layout should be mainly an end-to-end one, but recognising from my reading of the magazines that other people preferred to have a circuit, I included a cut off line which would form one. By judicious use of different levels, a bridge and a tunnel, this loop crosses itself, making the run more interesting. After visiting various builders' merchants and examining what was available I decided to lay the track on 4" concrete blocks, edge-ways up. This would give me sufficient width on which to lay the track for most of the





run. In station areas and at places where there is double track, the blocks were laid on their side. I made contact with a small local firm, loaded the boot of the car with a few blocks, some bags of sand and some cement and arranged for a larger load to be delivered. The laying of the track bed was about to start!

As this building work progressed track was ordered and soon delivered. I decided to use Tenmille rail with the plastic sleepers though for some small sections, across bridges and where I needed to have check-rails for example, I used wooden sleepers. By Christmas (two months later) the circuit was complete and we were able, on a cold, crisp Boxing Day, to go out and run trains round and round the loop. The next few months saw work on the garden. We wanted the railway to blend in and to become part of the landscape. We wanted a miniature landscape. This prompted an interest in rock gardening, alpine plants and miniature conifers and other trees. I also laid the track bed and track for the station which was to be the terminus of the line, at least for the next few months.

At the same time as this work was proceeding on the track and the garden scenery, engines and stock were being purchased. We were fortunate to be able to buy two

Opposite: Martha crosses the girder bridge above Tom.

Top: Martha in full steam on the spectacular viaduct (photo: Brian Ives).

Above right: Martha and Meredith in the unnamed station area.

Right: Martha crosses the viaduct.





Roundhouse locomotives fairly quickly; one second-hand and one new. *Meredith*, named after our granddaughter, was being sold by a member of the 16mm Association and we were fortunate to get her. She was in excellent condition and was well run-in so that she gave, and still gives, very smooth running and is good for shunting. *Martha*, named after the other granddaughter, is a 'Lady Anne' Class engine and was purchased new from Roundhouse. Both are radio-controlled and gas-fired. We also have two grandsons. Thus two further engines were needed! One was ordered and was delivered about three years later, the other was a 'Billy' Class engine built from a Roundhouse kit. This kit is superbly presented, and by carefully following the instruc-

Above: Tom crosses the timber viaduct, named after a rumoured resident...

Opposite: Meredith emerges from the tunnel, and later is seen on a passenger working.

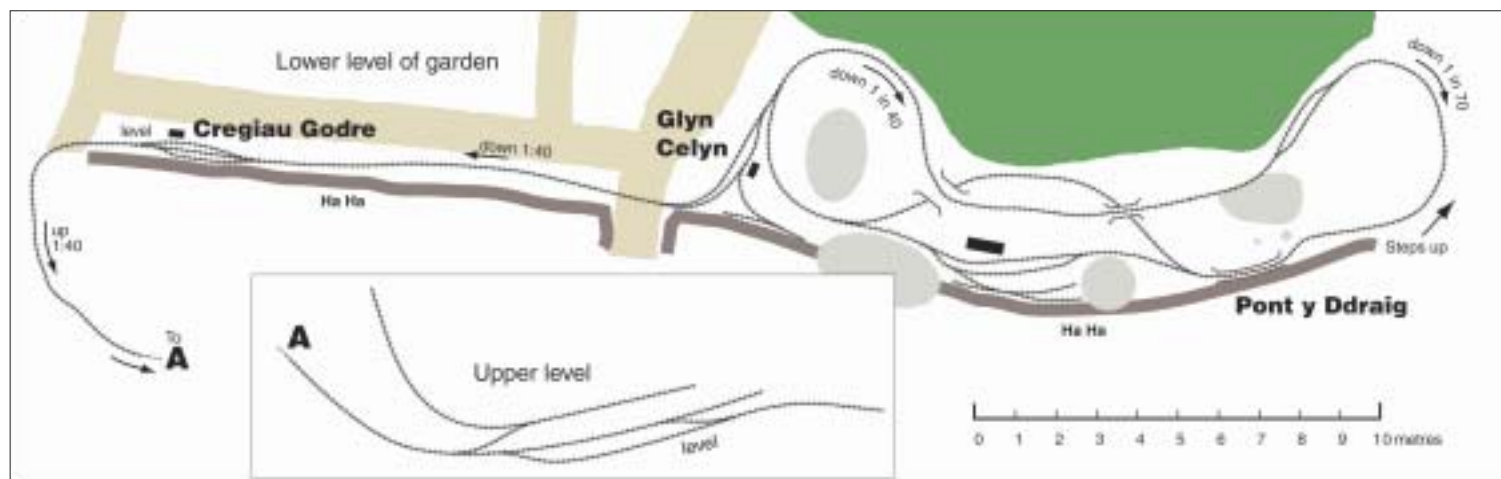
Photographs by Steve Flint, Peco Studio.

tions, proved to be straightforward to build even for me, not an engineer! The joy when the first test steaming produced rotating wheels was incredible! *Tom*, as the engine is called, runs well.

Rolling stock kits were purchased and built. We decided that the line was to be loosely based upon Welsh narrow gauge, though not a particular line. We just wanted to portray the feel of such a line. The carriages were four-

wheel models of the Taly-Llyn coaches. I built two of those and a guard's van. We were also able to borrow some coaches from Mr. Hicks. Thus it was that we had trains to run fairly soon after starting the project. Later I built some goods wagons from kits so that I could indulge myself by shunting.

Further carriage kits were built (still mainly four-wheelers) but I then decided that I wished to design and build a set of carriages particularly for this line. These were to be distinctive in colouring and design to give the line its own identity. The most striking feature is the Gothic arched windows. These match the windows on our 19th century house and are certainly unique. The colour scheme chosen was orange and cream and the design depart-



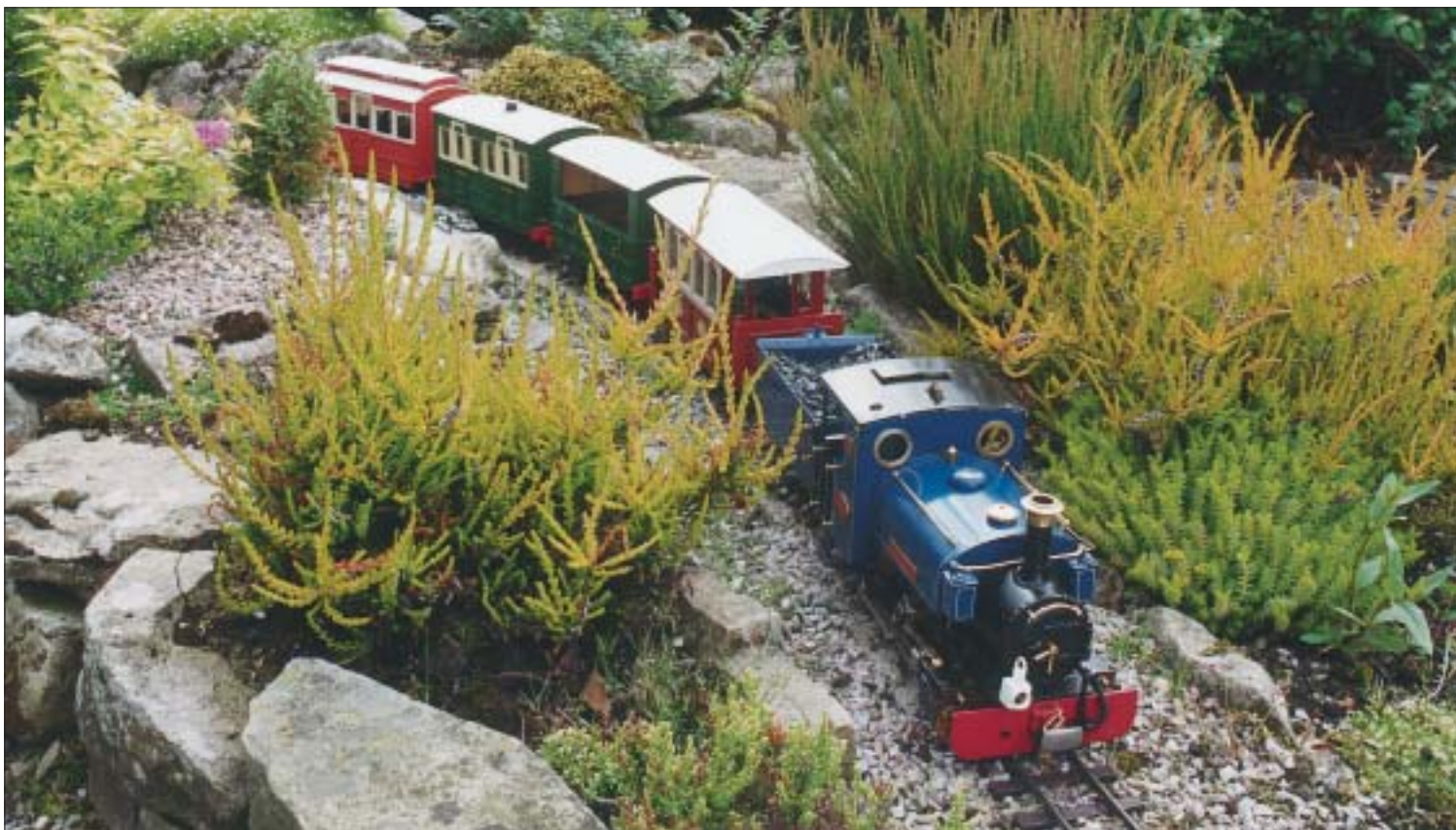


ment came up with a company logo drawn on our home computer.

An area for great discussion and thought has been the name of the railway and of the

stations and other features on the line. We decided that we wished to emphasise the Welsh feel by using the Welsh language. After borrowing a Welsh/English dictionary from

the library we eventually came up with the name Tan-y-Bryn, which means 'Under the Hill' as our house is in the valley bottom of one of the Yorkshire dales.





Another aspect of the building of a garden railway I have found to be enjoyable is that of the buildings. We purchased some at the various shows, but I have also built one station using wood and others using Jig-stone moulds.

These are not easily available any more, which is a shame, but I have been able to borrow from a fellow 16mm Association member. Essentially, you cast building blocks of various types in quick-drying cement and then assemble them (Lego fashion, but using glue) to make up a building. When finished and painted, they look like a stone building!

Once the basic structure and the buildings are in place, the scene can be populated with figures from various sources, and fitted with other paraphernalia of a railway nature: fire-buckets, weighing machines, telephone boxes, station trolleys and so on. We are very fortunate that there are several companies selling a good range of such items in this country, either ready-made and painted or in kit form. Visits to shows and exhibitions nowadays means saving up pocket money for some time to spend on things like this!

After about eighteen months, the line was extended. First down a 1 in 40 bank to a station called Cregiau Godre (Rocks Bottom). By this time I realised that gradients are not a problem. In the first section I built, I tried to keep them to no more than 1 in 70. All our trains, and those of visitors, even manually controlled ones, climb this bank with no problems. About a year later, in the summer of 1999, just at the time the photos were taken for this article, the line was extended into the distant reaches of the garden, up gradients of 1 in 60 or so, to the terminus station (un-named). The landscaping of this section has proceeded slowly! One section has become a quarry, with the main line of the railway disappearing through a tunnel after crossing a fifteen-arch stone viaduct. But the terminus station and the landscape surrounding it have still to be worked at.

The search for names goes on; one station is to be Glyn Celyn (Holly Glen), the trestle bridge is Pont y Ddraig because there is rumoured to be a dragon living in a cave on the hillside. The viaduct is called Pont Meiswn, in honour of David Mason who has constructed various bridges and tunnel mouths on his line and gave valuable advice on the construction techniques.

The length of line, from end to end, is just about one scale mile and there is a real sense of going on a journey when driving a train along it. One of my pleasures is simply to stand and look at the tracks winding through the countryside, but possibly the greatest pleasure is when other members of the Yorkshire group of the 16mm Association come along on an open day and the line becomes full of trains running in all directions.

Above left: Meredith in the sunshine – the attraction of a garden line is apparent.

Left: Martha on Pont y Ddraig, or Dragon Bridge. The leading coach is one of the line's distinctive gothic windowed vehicles.



Extending Etton Part 4

Previous articles: August & October 2003, February 2004

Peter Goss now looks at the construction of the models.

Following on from the previous articles in this series, which covered prototype research and the preparation of working drawings, it is now time to start building the models.

Step 1. Essential materials required

For the construction methods I employ, some basic modelling materials and tools are required. Typical materials will include the following: mounting board (1.5mm thick white mounting board obtained from an art shop or a good quality stationery shop), embossed plastic brick and tile sheets (such as by Slater's), 2 or 3 gauges of plain white plastic sheet (say 10, 20 and 30 thou.), clear plastic sheet for windows and assorted plastic rodding and half round section.

Tools include pencil, ruler, cutting knife with a new blade, steel safety ruler, cutting board or mat, glue (an impact adhesive or similar). Also a means of transferring measurements from the plans on to the mounting board and plasticard using square edges (ideally a little A3 size drawing board would be useful), drafting tape, plus a fine black disposable drawing pen (indelible) for marking plastic sheet. You will also need some suitable paints, either enamel or acrylic to suit your preferences, plus the photographs you took on the site visits which will be required for wall and roof colouring. Finally some pre-made chimney pots (such as white metal castings) are useful for finishing off.

Instead of using embossed plastic sheet and painting it to suit, you could substitute this with pre-coloured brick and tile paper if preferred. Also, pre-printed window glazing could be used if available in the required size.

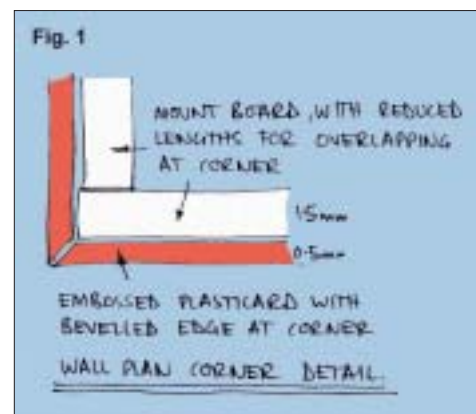
Step 2. Making the walls

The description following is suitable for constructing small and medium size buildings. All buildings on *Etton* fall into this category and are made from the 1.5mm thick mounting board faced with 0.5mm brick or slate embossed Plastikard from Slater's. Mounting board suitably strengthened is quite strong, but for large buildings I would recommend that plywood is used as a base material.

Transfer dimensions from the working drawings, marking out all the elevations onto the brick plasticard (face up) using the fine black drawing pen. Mark all chimney stacks, window and door openings (including lintel areas over the openings which may need to be cut out for later replacement with a brick heads or stone lintel). Now start by cutting out the smaller openings and lintel areas carefully before cutting out the whole wall piece. I always use a new blade in the modelling knife and a steel safety rule. I recommend the one with a dip in the middle into which to press your fingers. Use either a cutting mat or old card and ply to cut on. Plasticard will snap on a cut line, so there is no need to cut all the way, although I usually do for door and window

and other small openings, as it is difficult to snap these out.

Next, transfer the same key elevation dimensions on to mounting board by either measuring from the original drawings, or tracing with a sharp pencil using the cut out plasticard elevation as a template. Then reduce the length of mounting board elevations by 0.5mm at each end to allow for plasticard overlaps on corners and by a further 1.5mm for each mounting board corner overlap (see Fig. 1). At this stage any chimneys on wall lines need to be included. Cut out the mounting board window and door openings with your sharp knife – but not the lintel areas. Then cut out the whole walls of mounting board to arrive at several pieces of wall with openings cut out cleanly.





The external corners of the brick plasticard need to be bevelled on the reverse so they meet at a crisp point at the corner. Gently scrape a model knife blade at 45 degrees along the reverse edge of the plasticard and a bevelled edge will appear. Do not cut towards your fingers but scrape away from your hand holding the plastic on the edge of a piece of ply or steel ruler for support (see Fig. 2.). Scrape away from you, don't cut.

When happy with the bevels, glue the plasticard onto the mounting board and check that the corners of two adjacent walls meet neatly.



No room for error here, as any defects will show up on the finished result from this point on. I use a strong impact glue such as Evo-stik. In order to avoid melting the plasticard, apply the glue very thinly with a spreader made from a piece of thin card (please read glue instructions carefully and use in a well ventilated area). When dry, add brick or stone lintel details (plain plasticard scored for brick lintels or use plain plastic for stone) and add any protruding stone window cills etc. to each elevation (see step 3).

You now end up with a collection of component walls as shown in photo 1.

Step 3. Cills, lintels and plinths

Stone window cills are made from plain plasticard cut into strips and marked off into lengths. At 4mm to the foot scale a 150mm (6") deep cill will only be 2mm deep.

If you have cut out the lintel area on the brick plasticard but not on the mounting board, then you can now add the lintel detail

back into the wall face. If it is a stone lintel, simply mark out and cut a piece of plain plastic. If brick soldier or brick arched head then you need to mark out the shape onto a plain plastic sheet and score the brick courses in with a small steel blunt instrument. Little model screwdrivers are useful for this. Use the steel safety rule as before.

Mark the arched brick mortar joints using the centre of a circle as a reference point to maintain continuity. I had the advantage of a small A3 size drawing board to work from, but as long as you can measure and mark off right angles and use a compass then that is all you really need. Brick arch heads usually have their centre of circle point somewhere well below lintel level. By working out how high the arch rises at its centre over the opening

Photo 1: wall components made up from laminating plastic brick sheet and mounting board. Chimney breasts and stacks are created from extra layers of mounting board.

Photo 2: the component parts of windows are shown here. Frames are cut from plastic sheet with glazing bars painted on to clear plastic sheet. Note that the frames are not fitted until the wall colouring is complete; the single frame shown in the wall side has only been positioned temporarily for this photograph.



you can estimate how far down the centre of circle is. Geometry learnt at school does come in useful after all!

Stone caps and bottom plinths would include tops of walls, parapet walls, bases on bridges and viaducts, platform edges etc. Use layers of plain plasticard to build up the stone corbelling or plinths (it is the later painting in stone colour that really counts). Brick 'corbelling' means brick detail that protrudes from the main wall face in a series of layers. Examples include tops of platform walls supporting stone edging, chimney stacks, verge detail on signal cabins, etc. Simply add layers of brick plasticard cut to shape and layered to give the corbelling effect.

Step 4. Chimneys

If the previously constructed walls included at least one external side of the chimney, then the other three sides can be added with layers of mounting board strips (again see photo 1). Then the visible parts have more brickwork added and corbelled, etc., to suit the photograph or drawing. Plain plasticard sits on top, slightly bevelled to represent cement capping. Proprietary cast metal chimney pots complete the scene. Don't forget that each face of the brick plastic sheet will require its reverse face meeting edge to be bevelled to meet its neighbour and that the brickwork piece will be slightly longer than the mounting board size to allow for sufficient corner meeting (see Fig. 3.). The chimney stacks need fitting and finishing in this way prior to tiling.

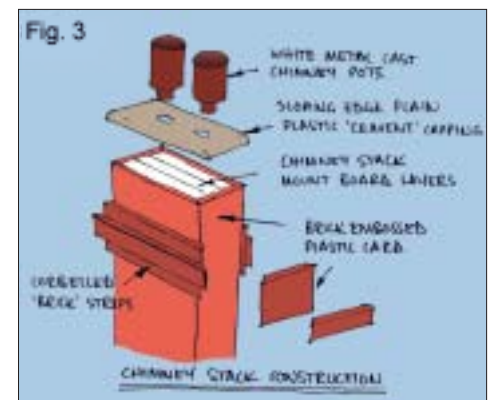


Photo 3: a close-up view of the window frame assemblies. Note that the glazing bars shown are for a different building and do not fit into the sash frames shown alongside.

Photographs by Steve Flint, Peco Studio.

Step 5. Window and door construction

All windows and doors are individually constructed in two or three layers and then glued as finished assemblies to the inside face of the walls. There is a separate layer for the frame and another layer for the glass or door itself.

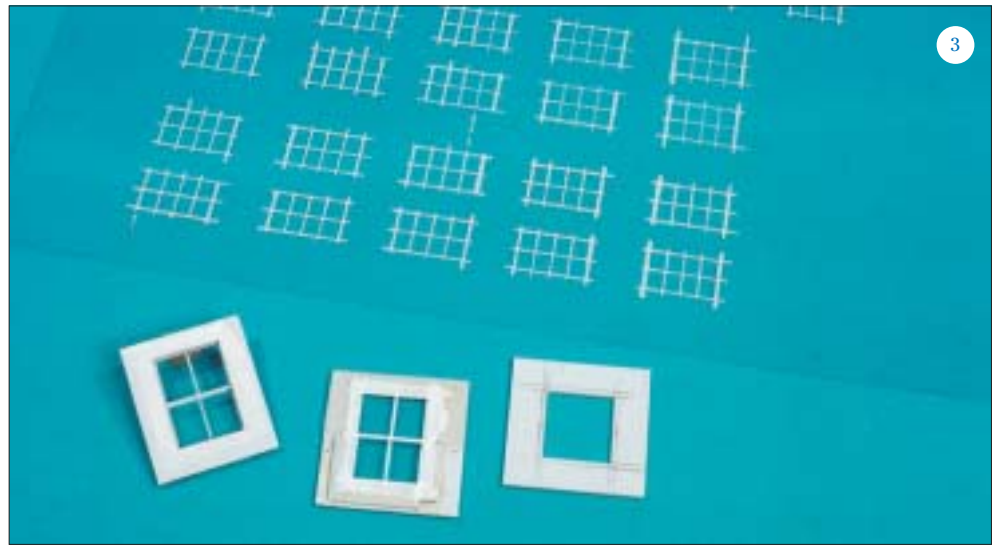
Using a piece of plain plasticard all frames are drawn out giving loads of space between each frame for later cutting out. The frame internal cut out area will be a millimetre or so smaller than the brick opening so that the frame will show in the finished wall, as it is meant to. Now, cut out the internal opening and paint it the required frame colour.

When dry cut out each frame with a large perimeter area all around the aperture (see Fig. 4 and photo 2). The large perimeter is required for gluing the frame to the inside of the main walls and can be trimmed to suit each application.

Glazing bars

Draw out on a piece of paper all the different window sash types for the model. This means if a window has say two sashes, each sash needs to be drawn separately to enable two sashes to be made. One will overlap the other on the model window and will require packing (see Fig. 5). Show lines for frame thickness and all glazing bars and detail. Now, tape a sheet of clear 10 thou plastic (I used Slater's Plastiglaze) over the paper and rub it lightly over with a soft, clean pencil eraser to degrease the surface. Using a ruler and ruling pen or fine paint brush, trace over all the pencil lines with acrylic or enamel paint with a steady hand. Use the same colour as you used for the window frames, in my case this is mostly white. This does take practice and you will need to be in the right mood for it.

You end up with a sheet of clear plastic painted as shown in photos 2 and 3, representing the glazing bars and sash frames. Please note that the painted sheet illustrated



here is actually from a different building with much smaller window panes than those of the walls and other frames shown alongside. The painted side of the clear plastic will be on the inside of the finished window and safe from damage. When the paint is thoroughly dry, cut out the glazing parts to a size a little larger than actually required to allow gluing area to the frame. Glue, with painted face inside, onto the back face of the frames. You will now have lots of window frame assemblies similar to those shown in photo 3. If required net curtains can be made from tissue paper with soft pencil vertical lines drawn on. Draw curtains are colour magazine pieces folded, cut and glued in place.

Doors

Older doors tend to have a lot of panel work and if you have the patience it is well worth the trouble to create an additional layer on the door itself to give the panel effect before fixing the door to the back of the frame.

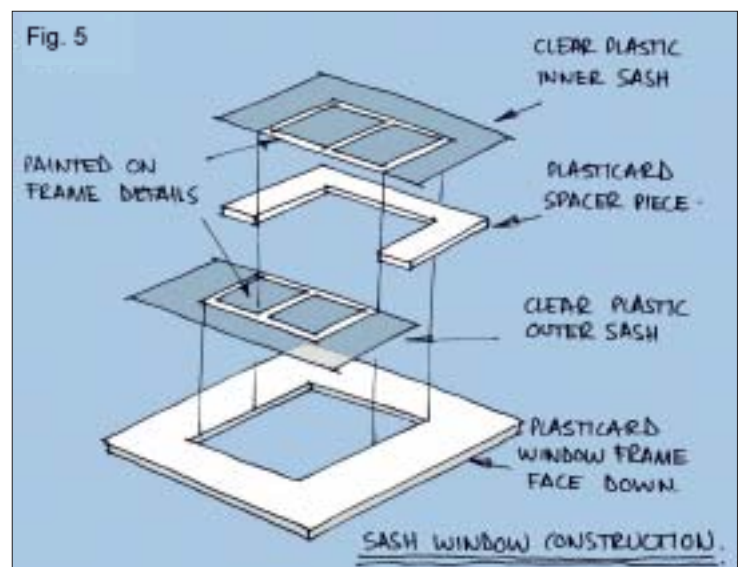
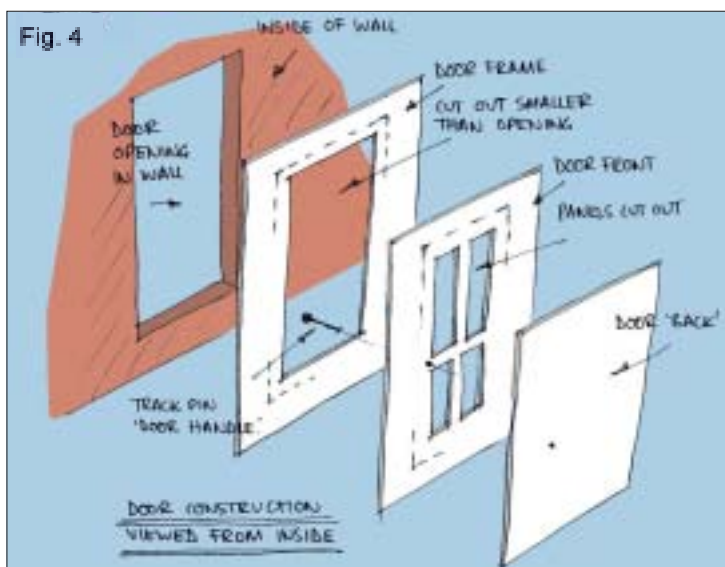
Using a piece of plain plasticard mark out each door allowing reduction in size due to frame size etc. Cut out any panels before cutting the door out. Cut out the doors to a larger than required size and stick further plasticard on the reverse to represent panels. Paint the door using matt paint before gluing to the

back of the frames (see photo 6). Drill a small hole and glue in a track pin for the door handle and crop off at the rear with wire cutters, adding further impact adhesive to the rear to hold the pin.

Step 6. Constructing the shell

The walls should now be dry fitted to check for a neat fit before proceeding further. Use masking tape (on the plastic faces only) to hold the parts together temporarily. Prepare little card triangles to reinforce corners internally but not to obstruct window openings. On a medium size or long structure it would be useful to include a first floor or a ceiling piece out of the mounting board to strengthen the model before starting on the main roof. Also provide internal cross walls at regular intervals to prevent any warping of the laminated wall pieces. My cross walls roughly equate to room sizes which is convenient for the odd room being lit up internally later on.

With all the walls prepared, inner parts cut out and the whole checked for a good fit, the assembly can begin. Essentially what you are doing now is assembling a kit, the parts of which you have made yourself. Using the impact adhesive, fix the parts together and hold in place with more masking tape until the glue cures.





You now end up with building shells like those illustrated in photo 4. Note that with my method, floors are not fitted at this stage so as to allow the fixing of the window and door frames later. Obviously, if you have a three or more storey building with intermediate floors, window frames will have to be glued in place on the middle storeys before assembly.

Step 7. Painting the walls

Before fitting the completed window and door assemblies, I would recommend that all walls are painted first. The colouring of the model is just as important as making the thing in the first place. If you aim, as I do, to achieve authentic results, then colour photograph reference is critical to avoid guessing anything if at all possible. However 'Scale Colour' comes into play here. If you are working in 4mm scale then consider the following.

Modelling at 4mm to the foot scale means that 4mm of model dimension equals 1' (305mm) of real life. This equates to a scale ratio of 4mm to 305mm or, as we are already familiar with, 1 to 76. Therefore taking a photograph of a building from about 76' away is, for this purpose, the same as viewing its model from 1' away. So, it is reasonable to suggest that the colouring of the model should match the colour tones and tints in the photograph.

The basis for this is that colour intensity diminishes with distance due to the effect of light scattering (reflections off surfaces, etc) and atmospheric haze. So painting our models in a less intense colour or shade will help replicate this. Incidentally, the photograph reference need not be of the building being modelled so long as it shows the colour of typical brickwork or tiling being used.

With that in mind, it is now time to start the colouring process. Before anything else, paint the inside edges of all openings a dark shadow colour, say matt dark tank grey. This also provides a depth contrast between outer face of wall and window frame. The brick walls are then painted overall in a creamy mortar colour with the excess wiped vertically down and off the face of the wall straight away; the cream colour paint should not be too runny. The model should then be left to dry completely. Next, mix up some brick colour using orange, brick red and flesh to the desired tint

and dry brush gently over the brickwork, downwards with vertical strokes using a medium size flat soft brush.

Dry brushing means wiping nearly all the paint off the brush before brushing it over the model. Paint residue will deposit itself on the raised relief of the brickwork and not in all the crevices where lies the mortar colour. There is no need to be absolutely consistent with this. Leaving some of the cream is OK and adding slight vertical flashes of a dark grey afterwards particularly where rainwater runs down the wall will give texture to the colouring. Keep looking at the photographs. The cream wash and brick dry brush routine may have to be repeated once or twice until it looks right. Waiting for the colours to dry properly before repeat attempts is vital at this stage. Your building shell will now look something like that shown in photo 5. A closer view of the effect is seen in photo 6, where the stone lintels, cills and areas of corbelling still have to be painted over with the appropriate colour.

Once you are happy and the work is dry you can pick out individual bricks with a very small brush to add variety and blend to the brickwork. You could use the previously mixed colours of orange, brick red and flesh individually with great effect to pick out a random selection of individual bricks.

Stonework requires a different treatment. On cills, parapets, lintels etc., stone attracts a lot of dirt and moisture which makes the original very light stone colour go dark, green and musty. So I mark out the mortar joints and paint each stone individually with varying

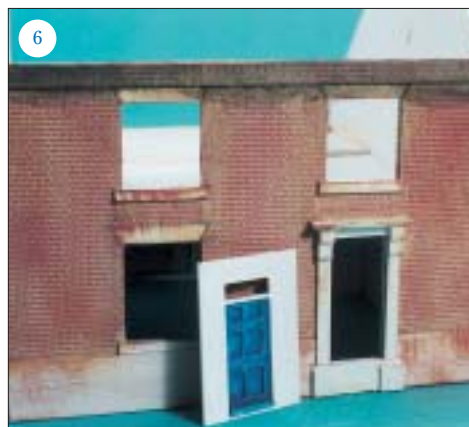


Photo 4: some of the buildings assembled as shells, showing internal partitioning and false ceilings for added strength.

Photo 5: the colouring stage showing a building after dry-brushing the brick colour has been completed. This shot also shows the chimney stack detailing well.

Photo 6: a close up of the completed dry-brushing on the brickwork. Lintels and cills etc., still have to be painted. This shot also shows door construction detail.

Photo 7: the Old School House at the roofing stage. The stonework has been painted and the window frames added bringing the building to life.

Photo 8: one of the completed models, the farm house, ready for siting on the layout.

shades of stone/green/grey. When dry I highlight all exposed edges in stone colour and unbleached linen and paint all the edge joints in a creamy colour using a fine brush. Photographs are essential.

Step 8. Fixing doors and windows

With all the building colouring completed, it is now time to fit all the pre-prepared window and door units. These simply need gluing in place with a little more impact adhesive. This is the stage where the building will spring into life as it begins to look something like the old school house illustrated in photo 7.

Step 9. Roof construction

The building now has all the walls in place, painted with window and door assemblies fitted, but no roof. Each roof slope needs a mounting board base to ensure gutters and barge boards stand a chance of being fixed to something solid. Also, if you just fix plasticard on its own the sloping roof will have no thickness to it and will just sag.

Measure the area to be roofed and mark out some mounting board allowing for suitable overhang at the eaves and end verge overhang. Refer to your prototype photos again and estimate the overhangs, note that gutters and fascia boards are added later. Glue all the cut out mounting board pieces into place as a sub roof assembly before starting the tiling. Any gaps in the sub roof can then be covered

with the tiling as you go. Photo 7 shows the sub roof fitting neatly between the capped end walls of the school house, being supported by the inner card walls. Next, fit a folded paper ridge piece to tie the top of the roof pieces together, and likewise into any roof valleys to act as valley flashing prior to tile fitting.

Next mark on the plastic tile sheets the sizes of the roof tile areas. Allow a little extra at the eaves so the tiles will dress into the gutters, and a little at the verge ends so the tiles will dress over the barge board. Cut out the roof shapes and check for fit before sticking onto the mounting board. Note at this stage that slate plastic sheet can either be laid as a flat sheet, giving very little relief, or the sheet can be cut into horizontal strips and laid in overlapping layers up the roof. This gives a deeper slate or tile profile, though your photos should be examined again to get this accurate. Pantiles or plain flat tiles can be used as an alternative to slate, and indeed many roofs in *Etton* are made from these. The appropriate pre-formed plasticard tile sheets such as those from the Wills range are ideal.

Step 10. Roof details

Ridge and hip tiles cover the gaps between adjacent roof faces. I used thin card strips cut to width and folded down the length to represent a whole run of ridge tiles. The same applies to hip tiles which will also require trimmed angled ends to meet with the ridge. It doesn't matter too much about the material used as it will be painted. If deep pantiles have been used on the roof, you may like to fill in the gap between ridge tile and pantile with some filler, smoothed over, prior to painting to represent cement pointing to the ridge tiles.

After the roof has been modelled extra details such as flashing around the chimney stack base (folded narrow paper strips) can be added. Chimney flashing is an important detail, as most models are viewed from above roof level and it is generally the roof that receives initial inspection.

For fascia boards and barge boards plain plastic sheeting marked into strips and cut to length is used. If the fascia board at gutter level is very slim it would be acceptable to glue the gutter straight onto the mounting board edge, but if the fascia has depth to it (9", 12", etc) then a plasticard fascia is required. Barge boards run up gable walls at roof edges and are of similar depth. They will require trimmed angled ends to meet at the ridge and meet with the fascia at eaves.

Rainwater goods and waste pipes. Plastic rodding of various thickness is used for downpipes and waste pipes. Downpipes are between 3" and 6" diameter which equates to 1mm to 2mm dia. rodding. Waste pipes are 2" to 3" diameter, soil and vent pipes are generally 4" diameter. All the model pipes have very small wraps of paper glued around them representing fixing brackets at intervals. When dry the little paper wraps are trimmed and folded back so they can be glued to the wall and still leave the pipes clear of the wall. This is very fiddly work for which you need to be in the mood, but well worth the effort. Plastic rod-



ding can be bent carefully for swan necks at the top of rainwater pipes, particularly if slightly warmed in the fingers before bending.

Gutters are from semi-circular section plastic rodding cut to length and glued straight onto the exposed eaves mounting board or on to the previously fixed fascia under the tile sheet slight overlap.

Step 11. Painting the roof and details

Roof tiles are painted the base colour, then when dry washed over in a darker mix. When completely dry a much lighter hue is dry brushed vertically down and then up the tiles. This method will highlight all the raised detail and give depth. Dry brushing in vertical movements will create natural weathering effect due to gravity. A much lighter shade, almost unbleached linen, cream etc., could be used on very exposed edges of the roof to bring the thing to life. Rainwater goods and gutters are painted base colours, washed dark and highlighted as the roof. When all is dry, you could dust with talcum powder lightly using a soft clean brush to add just that little bit of sparkle. The building is now complete, ready for siting

on the layout. Photo 8 shows the completed farm house that will form a focal point at one end of the village scene.

Step 12. Siting the finished building

In order to avoid possible unsightly gaps between the building base and ground level, it is necessary to bury the building slightly into the ground. This can be done by raising the ground next to the building by sticking strips of mounting board around the perimeter of the base and filling outside the resultant step with filler and ground covering. You then have a location slot into which the building will fit snugly.

Add weeds here and there as per the photographs, and when placed *in situ* on the layout perhaps dry brush with a small brush (absolutely no water or thinners here) with black powder paint upwards, in crevices, behind down pipes and where the building meets the ground to tone down any stark differences in colour that may have occurred.

In the final part of this series due in a forthcoming issue, I will take you on a guided tour of the finished village scene.



...an exchange of railway modelling ideas for beginners of all ages

Common Lane Wharf Part 3

From test track to working wharf, in 00

Steve Best describes how a decoupler idea developed into 4' x 2' layout.



The third and final instalment looks at electrics and scenics.

As some readers will already know, *Common Lane Wharf* was a project started by myself and the late Mike Pearson, both members of the Hull Miniature Railway Society. The layout was first featured in *RAILWAY MODELLER* in November 2000 (pages 541-2). The original idea was to make a small test track to try out a new auto-uncoupler that we had designed for the Hornby-style coupling. The hope was, that it would eventually be fitted to *Market Lindum*, another Hull MRS 00 gauge layout (see *RM* Nov. 1994). Instead of just using a small length of test track, we thought that it would be best to test the uncouplers in an area for which they were designed, i.e. a goods yard. In addition, we wanted to try and see if we could build a working wagon turntable and replicate rope shunting, a method often used on the prototype, but rarely, if ever seen on layouts. Enter *Common Lane Wharf*.

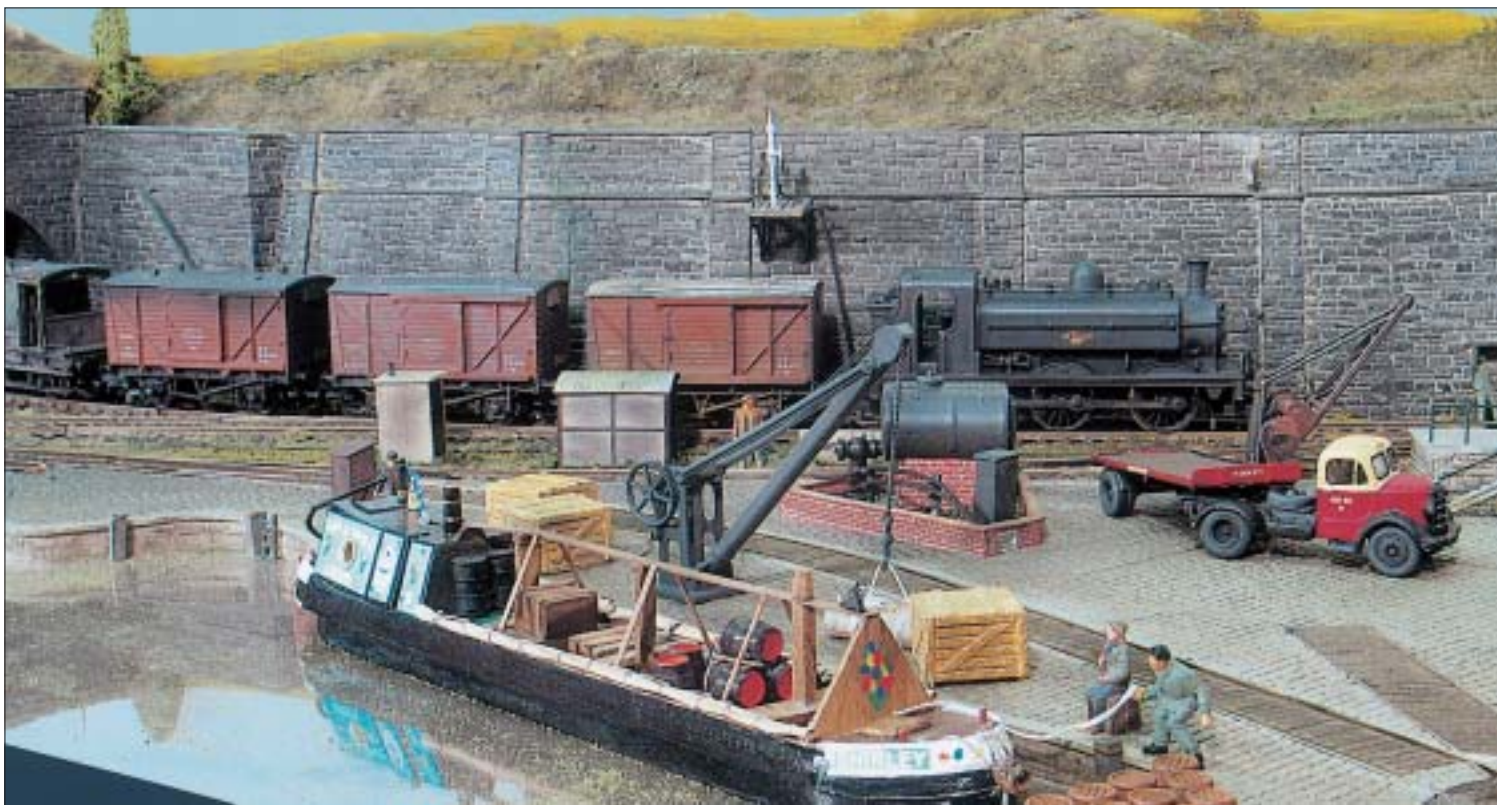
As you can see from above, this is the third and final part of our saga. In part one, I described the manufacture and operation of the wagon turntable and the wagon-hauling device. Both of these devices are hand-operated to reduce the number of things that could go wrong, and I do not think they have been tried before, at least not recently. In part two (*RM* Oct. 2002, pages 530-2), I described the automatic uncoupling device and the swivel hinged baseboard construction. Again both these devices are unique to *Common Lane*, although I dare say that somebody, somewhere may have used a similar hinged baseboard at some time. To bring our story to its conclusion, I shall now describe how we achieved the scenic work and electrical installation.

Scenics

Common Lane has now been exhibited twice at the Hull MRS annual exhibition and both times we have had people asking if the water

is real. Actually, it is not! The effect is achieved by painting the baseboard a dark brown colour and then streaking some very dark green across it, keeping the strokes in one direction only. On top of this we placed a sheet of thin Perspex, cut to the right size. That 'scummy' look associated with industrial waterways was found accidentally when we spilt some of the green flock material over it. When we blew it off gently, the result gave the impression of scum on the water. The only shortcoming with this is that during a show, with so many faces breathing down close to the water, the scum ends up all together in on place. Maybe that is more realistic!

Sheila, the barge, was built by Bill Tock and draws some appreciative comments. It is based on a narrowboat from the *Common Lane* area, but has been built shorter to fit into the wharf. It actually sits on the Perspex and is not embedded into it, contrary to appearances.



All the buildings were scratchbuilt from various plastic and card pieces. Bill built the lock-keeper's cottage and I attempted my first scratchbuilt building, the warehouse. In order to make things difficult for myself I also constructed the building so that it aimed away from the baseboard at an angle, making the roof more difficult. The way that I found to overcome that was to make a roof from a single piece of paper and trim it until it fitted perfectly, then use that as a template for the real roof. The warehouse also has a sliding door although I can not claim to have had this idea. I saw an article about the operation of a wooden door in *RAILWAY MODELLER* some time ago, although it was fitted to a goods shed.

We had quite some discussion within the club about the direction in which the granite setts should be laid. I bowed to superior

This spread: views of the small yard area with a work-weary J52 going about its business. The narrowboat Sheila is being loaded, thereby displaying the supports for the sheets.

Photographs by Steve Flint, Peco Studio.

knowledge and laid them all in the same direction. However, whilst on a field trip to Haworth station for our next project *Cullingden*, there, on the station car park we noticed that the setts had been laid in different directions. This was what I wanted to do but was told that it was very unprototypical! Apart from that, it was still the most frustrating thing that I did to the layout and I feel sorry for anybody who has to do more than a square foot of it. That apart, it does look well when washed over with a watery mix of black/green paint.

The hill where the track from the main line comes out of the tunnel was made from polystyrene blocks glued together to give a rough shape and then carved with a bread knife to the desired shape (see photo on page 532 RM Oct 2002). This was then covered in old type carpet underlay, which was then trimmed to length and painted. The retaining walls are of embossed plasticard glued onto a card framework. These were then weathered in the same way as the granite setts.

The fuel storage container was made from the tank section of a road tanker kit that was lying about in the scrapbox. The unloading bay is a piece of MDF with brick paper facing and a scribed plasticard deck. The ballasting is 2mm scale black ash and there are a few areas where we used various greenish flocks to suggest some sort of vegetation.





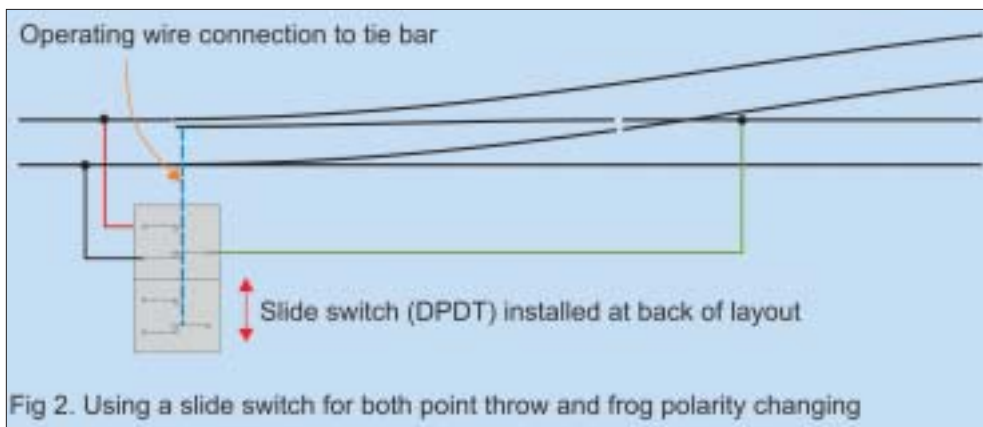
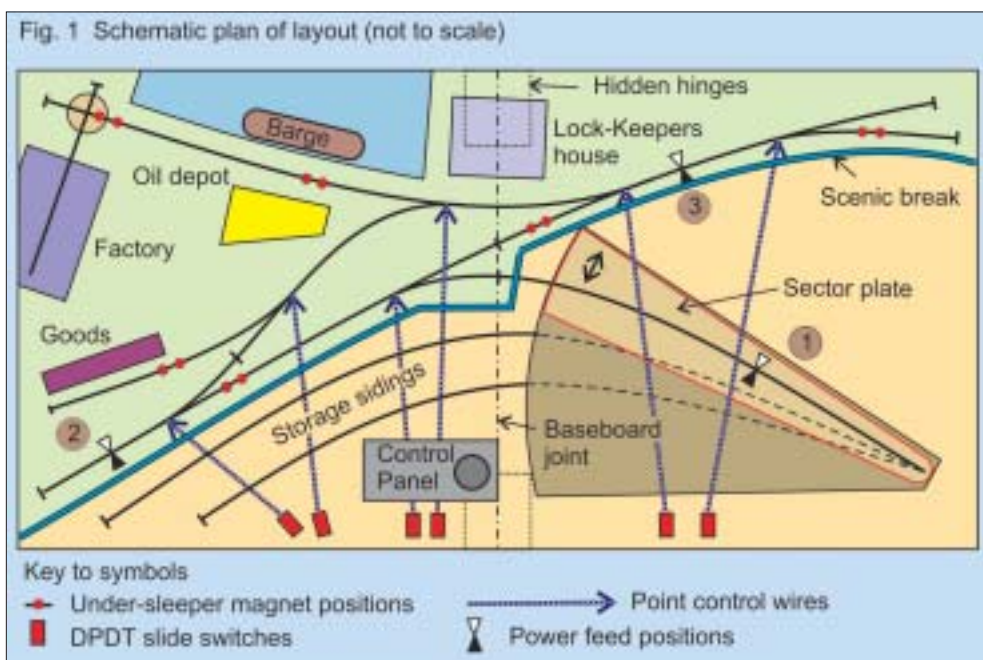
The trackwork uses Peco points and flexible track, which we just about managed to squeeze onto the 4' x 2' baseboard. All the points are operated by hand using a wire with an omega spring bent into it and connected to a DPDT slide switch. The wire is stapled loosely to the underside of the baseboard to stop any sideways flexing when operating the point switch.

Electrical installation

Yet again this was something that I had never done before. Mike was very keen that *Common Lane Wharf* should have maximum learning potential for myself, and so he left it to me!

Although *Common Lane Wharf* is a very small layout, and there was no real need to have the layout sectioned, I thought that it would help me learn more if it were. Because it needed three track-feed positions, it made sense to split the layout into three sections. Section 1 feeds power to the sector plate, both fiddle yard tracks and the track out of the tunnel up to the baseboard joint. Section 2 feeds the area alongside the high retaining wall up the point just past the tunnel mouth and section 3 feeds the rest. In this way it was possible to have one loco in the wharf area, perhaps shunting towards the wagon turntable, and then have another loco shunt in extra wagons to the retaining wall area. In practice, to do this manoeuvre, all we have to do is have the loco alongside the wharf and switch the point feeding the wharf thereby isolating that loco. Never mind, it was all a learning curve for me. All this can be gleaned from the track and wiring diagram.

The control panel, as well as controlling the locos on the layout, also holds all of the wiring connections. They are fed from this panel to the other half of the layout via a computer-style plug/socket on the side of the control panel. The section switches are also fitted onto the top of the control panel, along with a



miniature track diagram showing which part of the track each switch controls.

Electrical connection from the sector plate is achieved by the use of a piece of brass rod

sliding through a pair of homemade brackets, similar in operation to a sliding gate bolt. Only the feed (+ve) circuit needs to be fed like this, the return (-ve) side is wired permanently.



Above left: the time spent on the setts proved worth it in the long run.

Above: right away for the tunnel and the main line marshalling yard.

Below: the backscene, painted by Bill Tock, provides an effective conclusion to the layout.

Each of the point frogs is also wired via its respective DPDT switch. This ensures that the frog part of the point is electrified correctly for the path set by the point itself.

SPDT switches could perform this function, but on our DPDT switches, the unused pair of contacts could be used to control signals or

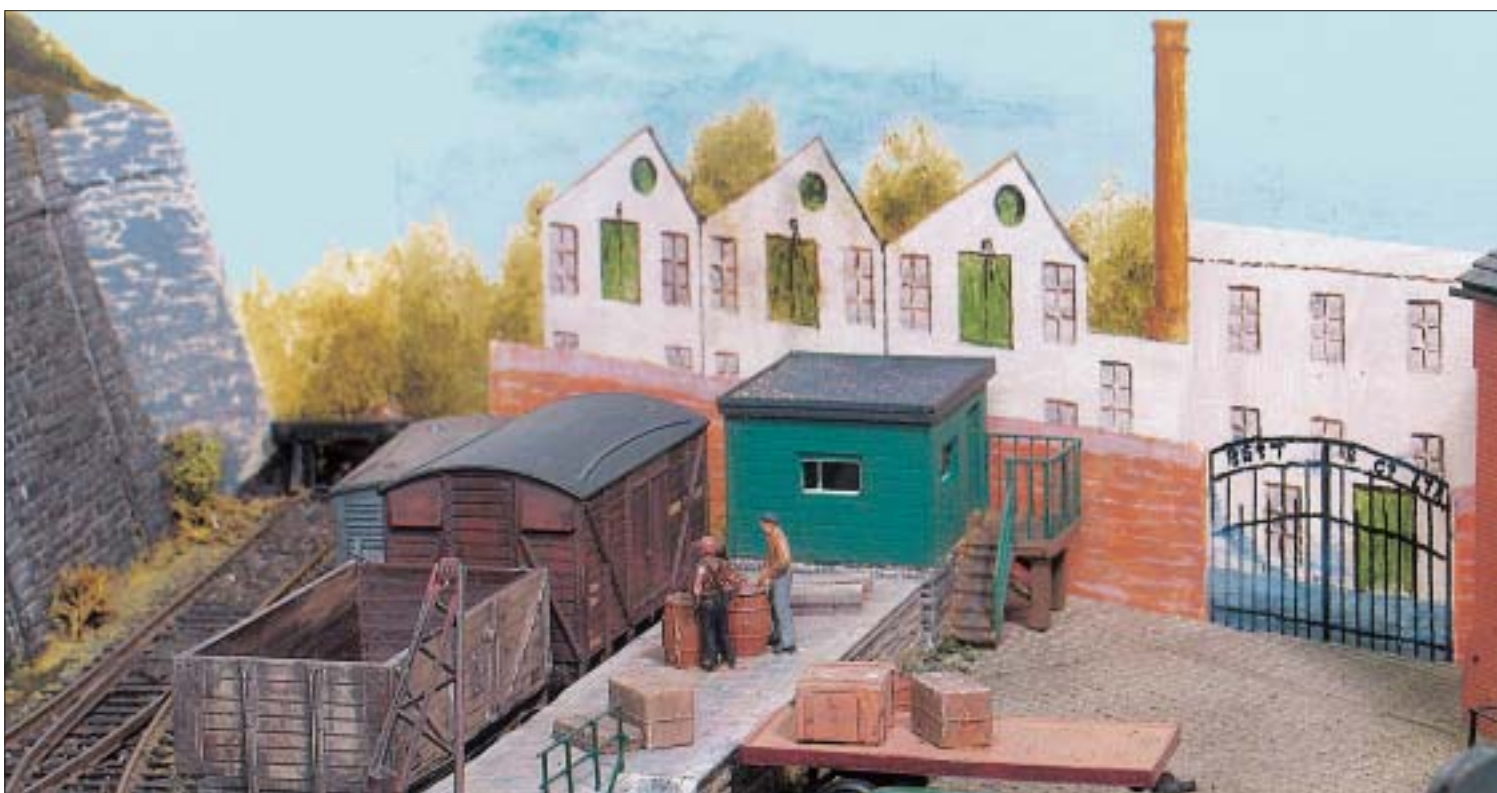
other associated circuits if desired at a later stage.

Although *Common Lane* is a very small layout, and could still be improved scenically, it has taught me most of the basics of model railway design and engineering, as well as giving me some unique problems to overcome. At the exhibitions it has behaved better than some, with only one problem, a broken wagon hauling 'hook'; soon mended though.

What's next?

Once we had finished *Common Lane Wharf*, it was apparent to Mike that it could be extended to give more scope in its operation. The

intention was to use the same basic baseboard construction techniques and build another piece to fasten to the headshunt end of the original. One of the two tracks in that area would then be extended onto the new baseboards to provide, possibly, another workshop/warehouse/factory unit and a wood yard. We have prepared a rough track plan and, despite the passing of Mike, it is still our intention to build this section, though when it will get built, we are not sure. We have had several offers of help, but time spent on the construction of *Cullingden* and other projects in hand mean it may not be started for some time, but completed it will be.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

DAVID JENKINSON

I was saddened to learn of the passing of David Jenkinson, but glad that you devoted a whole article in the July RAILWAY MODELLER to appreciate his very considerable contribution to the model railway hobby over the years. Unlike some of your correspondents, I knew David quite well, as we were neighbours in Yorkshire when he lived in Knaresborough. He was also Chairman of the Harrogate MRS for a time.

It would be superfluous to add to other people's comments on his modelling and his many articles and books. I admired him best for his erudition, his articulate use of language and excellent communicative skills, all so important in a teacher. As an adjunct professor at an American college myself, I realize more and more just how good he was in this respect.

I remember well the *Big Shed* and the first EM *Little Long Drag*, but it seemed he quickly changed to 7mm scale. By then, we had moved to the USA, but on one trip back in 1980, I managed to visit him on the day the GOG were also visiting and had the marvellous experience of being invited to drive Stanley Norris's SECR D Class No.735 on a complete SECR Boat Train around the new 7mm layout. At that time the scenery was still incomplete, and for this one afternoon the new layout was being used as a test track, but the scope and sweep of it was still impressive.

'Jenks' and I engaged in much good humoured banter over my devotion to the GWR, but his articles on coach building still included GWR dining cars! He was always eager to learn and was interested in my own researches on colour and paint technology. This led us to a notable observation. The lighting of a layout has a big effect on the apparent hue of crimson lake (a phenomenon called metamerism). Fluorescent lights (rich in blue light) can give very different perceptions from (yellow) tungsten incandescent lighting. We found two model LMS vehicles which matched under one light, but did not match at all well under the other lighting! David was kind enough to mention my studies in one of his articles.

He accomplished an enormous amount in his life and enriched the lives of those who came in contact with him. The hobby is sadly much poorer for his passing.

TONY EAST

KINGS GREEN WHARF

May's 'Railway of the Month' feature *Kings Green Wharf*, written by Steve Page, describes a wonderful layout meticulously detailed in every way except, given the 1950s setting onward, one finds the presence of pris-

time freight wagons still prominently lettered LMS, NE, SR etc. something of an anachronism, and whilst accepting the freedom of any group to run whatever models they like, when it comes to publicising the excellent efforts of all who contributed, surely discretion would have removed these pre-nationalisation liveried wagons from the scene, especially when hauled by late 1950s liveried diesels.

Such practices, all too often repeated on other public layouts, give all the wrong signals to newcomers to the hobby, even considering change did not happen overnight.

One suspects that if any pre-nationalised, and private owner wagons still displayed company lettering by the mid-1950s, they would have been found on wagons sadly in need of repainting, and more than likely limited to 'Internal User Only' within private industrial complexes, but the freight traffic seen and described here does not appear to be wholly within this category.

STEPHEN DEREK

ATKINSON-WALKER UPDATE

Subsequent to my article on Atkinson-Walker locomotives appearing in print (*last month - Ed.*), I have discovered Dr. E.M. Patterson's book *The Clogher Valley Railway* (Colourpoint Books of Newtonards, Co. Down; second edition, 2004: ISBN. 1-904242-15-4), which includes a section on the Atkinson Walker locomotive sent to the line (works No.114 of 1928).

This is particularly helpful for modellers in that it includes sections of the locomotives from the manufacturer's catalogue, which will assist in filling out some conjectural details in my drawing. The Clogher Valley engine was apparently unsuccessful, so was subsequently rebuilt with a diesel engine and transferred to the County Donegal Railways Joint Committee, which named it *Phoenix*. It has been preserved in the Ulster Folk and Transport Museum at Cultra; becoming the only surviving example of the type, as far as I am aware.

NEIL BURGESS

MIDLAND 508 BRAKE COMPOSITE

I was interested to see in the June issue Mr Tillett's description of his creation of a Midland Diagram 508 brake composite from Ratio parts, as I have also carried out a similar conversion. I used the diagram and photograph in *Midland Carriages* by Jenkinson and Essery (published by OPC). I assume the photo referred to by Mr. Tillett is the same as the one which appears on page 104 of the above book.

My conversion differs from that described. As I model the pre-grouping era, I was able to benefit from using the existing bogies (complete

with footsteps) and to retain the footsteps on the solebars. However, any time gained was more than lost by the need to remove the door vents to revert to the pre-1923 toplights. As Mr. Tillett hints, when he expresses relief that he did not have to do this, it is not a job to be undertaken lightly, especially as I chose to construct this carriage as part of a rake of four, the Diagram 508 and one each of the Ratio kits as supplied. Removing around fifty of these tiny mouldings almost made me change to LMS era. That being said, I am pleased with the end result, and as soon as I get my new layout into working order, they will take pride of place as the *Midland Express*.

Incidentally, the unused remains from this conversion provide enough of the correct mouldings to produce the sides for the all third six-wheeler shown on page 124 of *Midland Carriages*, although it would be necessary to source ends, roof and underframe. I have not done this, as I already have the 1980s Slater's kit of this vehicle. A more interesting jigsaw puzzle would be to reproduce the twelve-wheeler coaches which share the same square panelling as the Ratio kits.

Finally, on lining, I am no expert. I have tried two methods, the first read in a modelling text book many years

ago, the second a variation of a method spotted in the *Model Railway Journal*. I began by using the HMRS lining for LMS flush panelled carriages. Applying that to the raised mouldings produces a reasonable result, especially in the case of square panelling. However, for these carriages I used a bow pen for the underlying 'gold' edging, and an extra fine marker pen (sold for writing on overhead projector transparencies) to provide the central 'black' line. The 'permanent' markers can be removed by methylated spirit. This is useful for correcting errors, but do remember to apply Methfix lettering before the final lining.

Dr. C. PATTINSON

A PROTOTYPE FOR EVERYTHING

I thought that readers might like to see these snaps (below) of a pink loco and some heavy smoking TTA wagons. They were spotted on the Cattewater branch at the Esso bitumen plant during shunting and unloading on June 19 2004.

The seven TTAs had just arrived behind 09 013 at 05:30, after having come from Fawley overnight, along with diesel fuel for the mpd at Laira.

The tank wagons had been placed next to the unloading point by the 09. The pink loco, which I believe to be a GEC diesel hydraulic, was then coupled to the wagons to prevent them rolling towards the buffers at the west end of the plant. Another shot I have shows a large wooden wedge under the wheel of the end wagon to serve the same purpose. The reason for the smoke was that the Calor gas burners at the bottom of the tanks were being lit to warm the contents before discharge to the main depot tanks.

There is another equally pink 0-4-0 Sentinel at the end of the empties siding, but it is out of use at the time of



writing. It is of the same type as offered by Knightwing as a 4mm model. This may be a cue for a layout perhaps.

ERIC LOBB

MERCHANT CONVERSIONS AND Q1s

Having been a regular reader of your magazine for the past fourteen years, it always pleases me to see articles relating to BR Southern, especially relating to the locos and other running stock including EMUs in early 1958. My 30" x 9" layout depicts SE London including Cannon Street station, Hither Green coal filler and by extending SE1 and 6 to include Stewart's Lane and Battledown Flyover!

The Bulleid locos and EMUs are abundant including the good old double-decker EMU, a prototype from MTK, but purchased from No Nonsense Kits. It weighs in at 3½ lbs! Solid brass, but as with all my EMUs, I use an ex-Triang dock shunter motor, stripped of all spare metal and fitted with correct size wheels and side bogie members. These motors would pull a house down.

Recently I purchased the Hornby Q1 and after very little use, the pivot on which the mechanical lubricator arm fits sheared off. I must admit that despite the obvious brain power at Hornby, the firm was unable to see that an oscillating piece of metal on a plastic pivot would cause trouble. I know of others that have failed. Hornby was very willing to replace it with an updated replacement, but I decided on my own method.

Using a Markits/Romford threaded pin normally inserted in their wheels for fitting coupling rods I replaced the unit as follows:

- 1 Cut off threaded portion of pin filing it flat to give the appearance of a brass flat head rivet. Also reduce the diameter of the head.
- 2 Drill out the plastic pivot bar using a drill the same size as the shank of the 'rivet'. This shank fits perfectly through the eye of the oil lever.
- 3 Using a Romford spacer washer at the back of the lever between it and the plastic moulding, insert the 'rivet' through the lubricator lever, washer and using a pin, Superglue into the plastic moulding. It works better and will not fall apart.

In the June 04 issue, it was very pleasing to see the conversion of a Hornby 'Merchant Navy' to a 'West Country' or 'Battle of Britain'. Although I am not a rivet counter, I believe a couple of things would enhance the change further.

It appears that only the rear handrail securing pins have been altered showing seven still in place. The Battle of Britain and West Country had six securing brackets on each rail.

Also the trailing truck used was a Merchant Navy. This is incorrect in style and also has larger wheels. By using a Battle of Britain rear truck, removing the metal portraying the ashpan, and replacing the Merchant Navy with the Battle of Britain truck, a little more authenticity may be created. I have been fortunate in having several tenders from Hornby *Weymouths* which have now got different names and high rave bodies (ex-92 *Squadron*). The *Weymouth* tenders fit-

ted perfectly to my 34014 (74B) without removing the plate shown in Fig. 2 of the June issue. I hope this bit of info might help any future Battle of Britain conversion or Q1 oil lever droppers.

RON ROBINSON

I refer to Mr K. Chadwick's article on converting a 'Merchant Navy' to a Light Pacific in the June issue of RAILWAY MODELLER. May I say how pleased I am that model conversions are back on the scene. It takes a particular kind of adventurous (or lunatic) modeller to take a new and expensive model from its box, and saw it in half! I have been known to attack a few myself.

Unfortunately, the article does contain one technical inaccuracy, mentioned twice in the text and twice on the cabside drawing. This concerns the misidentification of the inspection and washout plugs as firebox stays. It appears there is a tendency among some modellers to consider the smokebox, boiler, firebox and cab as separate items. It may be a valid breakdown for modelling, but in real life it should be smokebox, boiler and firebox, and cab. The firebox, in practice, is mounted on a foundation ring and is held in position within the boiler by a great many stays. They are fixed at one end to the firebox and at the other to the boiler plating, not the cosmetic cladding. The visible skin serves as somewhere to mount handrails, piping and nameplates where appropriate.

A quick count of stays on an A3 engineering cutaway drawing shows that some 1000+ stays are fitted, not 10 as indicated. The space around the firebox allows water to circulate, necessary if the firebox is not to melt!

A locomotive boiler, like a domestic kettle, reacts in different ways dependent upon the quality of the local water. It is necessary then to inspect the firebox crown and general condition at intervals to identify and remove with hot water any build-up of scale. Intervals could be as short as ten days, and the larger steam depots often had specialist boiler washing plant.

R.D.A. JOHNSTON

THE FICTIONAL WMB – HELP WANTED

I recently returned to railway modelling in April 2003, after having been effectively away from this hobby since 1985. Although I have taken some interest in railway modelling over the intervening period, this has been more of an academic interest, with no real intention of actually planning or building a model railway layout.

With my return to the hobby of railway modelling, for various reasons I decided to centre my railway modelling in 00 gauge and 4mm scale and to concentrate on steam era locos and stock.

As to the layout itself, initially I had almost no idea of where I was going to set the prospective layout and no idea of which country it was going to be in. Some early decisions which I did take were to include some narrow gauge trackwork, together with the major part of standard gauge trackwork. This was to include a portion of 009 which could serve a quarry or mining operation and in addition, a 4mm scale narrow gauge line on 6.5mm track (Z gauge) which would represent 18" gauge track in the

real world. This latter 18" narrow gauge line was intended to operate as a mining railway, possibly running horizontally into a mine.

After toying with alternative possible locations, I finally decided to set it somewhere in the Midlands, near to the Welsh border. This would (sort of) allow for coal mines and slate quarries as industries to support the narrow gauge lines. I had already developed a keen interest in slate quarries and slate mines after my holiday in North Wales in 1998. There was also an intention to run a private standard gauge logging railway.

The location finally decided on was between Abergavenny and Hereford, with a branch line running to Hay-on-Wye. I thought (wrongly) that if it linked through to Birmingham from Hereford, then I could put both my preferred LMS and GWR stock onto the line. Unfortunately I discovered that all this railway would lie firmly in GWR territory; the GWR ran the line all the way to Birmingham. My solution was to 'invent' a new fictional railway company which would own and operate the lines between Abergavenny and Hereford, Hereford to Birmingham and from Hereford to Shrewsbury. This was originally given a number of alternative names. But by late last year, it was firmly fixed as the West Midlands Border Railway (WMB). I had already started writing a lengthy 'history' and description of this line in September/October last year, which I developed further during the earlier part of this year.

To satisfy my desire to run LMS and GWR locos and stock on this railway, there were to be joint and reciprocal running rights between the WMB, the GWR and the LMS. This would allow locos and stock from all three companies to run trains over a fairly large stretch of the country, adding interest in traffic working.

The WMB was to be mainly owned by the Midland (then later the LMS), with some ownership by the GWR. This divided ownership and the reciprocal working arrangements were intended to preserve this railway company through the grouping of 1923. The result would be that the WMB would be a semi-independent subsidiary of the LMS after the grouping, but with its own identity.

In my fictional history, this railway company, which was allied to the Midland Railway and the LMS Railway, thus carved a 'private empire' out of the territories which in the real history were to be dominated by the Great Western Railway, in the West Midlands and adjacent Welsh Border regions.

The layout, when it is built, will be based on the West Herefordshire portion, the area that lies between Pandy (on the line to Abergavenny) and a point east of Pontrilas (west of Hereford) extending south towards Monmouth, and north towards Hay-On-Wye. This area is centred around the fictional growing town of Sheavington (south of Pontrilas) and the developed town of Pontrilas (redeveloped as Bridgetown) and thus around the valleys of the Monnow River and its tributaries, the River Dore and Escley Brook.

It will also include the fictional slate mines and coal mines, and the fictional sawmills and depot of the

timber/logging lines, located in an area just northwest of Michaelchurch Escley, fictionally called Nordelph/Ald-nordelph, and Escley Timberhaven. It will also include the fictional Golden Valley Dam.

In order to revise and thus partly rewrite the history of the WMB, I will have to undertake some research into the railways which existed in the real world, in the areas concerned. These comprise the areas lying between Abergavenny and Hereford, Hereford and Shrewsbury, and between Hereford and Birmingham.

I have already discovered that the Worcester & Hereford Railway owned the railway line from Hereford through the Malverns in the direction of Birmingham and this was taken over by the West Midland Railway in July 1860. This was absorbed by the GWR in August 1863 so that in this part of the world, my history must depart from reality between 1860 and 1863. In 'my history', the West Midlands Border Railway (WMB) would have been bought-up or merged into the WMB between 1860 and 1883.

Further north, the WMB had lines running to Shrewsbury and so its relationship with the Shropshire Union Railway will have to be determined. I will need to investigate the history of the Shropshire Union Railway, in order to decide and determine this part of the history of the WMB. The indications are that the GWR also absorbed this railway as well, because the GWR area grew to include all of Shropshire. To the west, the WMB had lines running from Abergavenny to Hereford, so I will need to determine who built the railway line from Abergavenny to Hereford. This line was also absorbed by the GWR in time as it came to own all of the railway lines running east out of Wales. Some further research will be needed here also.

As can be seen, I am rather ignorant of the real histories of the railway companies and railway lines in the area which is of interest to me.

I would be grateful for any help or information from anyone out there who knows something of the history of the railway companies and railway lines in this part of England (and Wales). If any readers are interested in the fictional history which I am writing or in the WMB and any other matters which relate to this whole subject, I would be glad to correspond with them. The history is written, but it now obviously contains significant historical errors, and some of the dates will have to be changed.

As a separate issue, there will be a model railway layout based on this, which has occupied some of my time in its planning and for which I have purchased a certain amount of stock; any information on the layout can also be provided in correspondence.

CHRIS MARTINS,
31 Manor Park Close, West Wickham,
Kent BR4 0LF.

THANKS

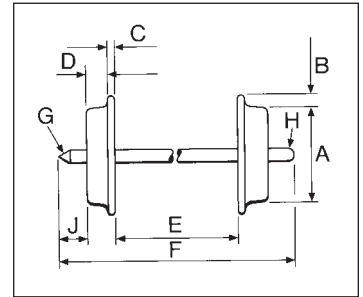
A million thanks for printing my SOS letter ref. Low Ackworth. Had information sent to me; the model is now in progress.

Is there any information on Eckington/Killermarsh Junction for future model?

S. GARDINER

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4575 Class 'Small Prairie' in 00 from Bachmann



This attractive replica represents the 1927-built development of the Churchward light branch engine of 1906. (The Bachmann model of these 4500 Class 2-6-2Ts was reviewed in the January issue.) Increased capacity of the side tanks – to 1300 gallons – resulted in their characteristic sloping tops and increased the weight of the locomotive by some four tons. Coupled wheels remained at 4'7 1/2" and the other dimensions were generally unchanged. Several of the class were fitted for working auto trains in 1953.

The model is in the manufacturer's Blue Riband series and therefore shows a very high level of detail and finish. The blackened buffer heads are sprung, handrails are blackened wire

and the 'edge-on' WR-style lamp irons are superbly modelled, even the awkward one in the 'tabernacle' at the top of the bunker rear. Below the footplate there are springs, well modelled brake gear, bar-framed pony trucks, sandboxes, injectors and everything you expect to find. It is only on models as superdetailed as this that one would dare mention that the vacuum brake pump does not 'work' and that the numberplates are not modelled in relief but simply printed on.

Above the footplate the top-feed water pipes emerge from their holes in the tank tops in a remarkably realistic way, the water filler lids display their screw-down handles and the two (differently pitched) whistles stand forward of the cab front plate which is

correctly different from that of the 4500 class by *not* displaying the small additional circular spectacle plates which are characteristic of Churchward engines but were deleted for 4575s.

Cab interior detail includes handbrake, lever reverse and much else, if you could but see it in the darkness.

Liveries offered are two types of Great Western: as here (ref.32-135) and with GREAT WESTERN on the tank sides (ref.32-136, not illustrated) and BR black (ref.32-137).

The chassis block is diecast with a plastic keeper plate, and the footplate is also a metal casting. A flat can motor drives the centre axle by way of worm and double-reduction gears. Electrical pickup is by the six coupled wheels. Pony trucks are sprung and tension

lock couplers are fitted front and rear. There is no facility for fitting a DCC decoder.

Performance was smooth and controllable, and 5500 easily took nine bogies through Setrack curves.

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell
Leicestershire LE9 8EY

PRICE
£53.50 all liveries

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Special-run 4575 in 00 for KMRC



The Kernow Model Rail Centre in Camborne has been quick off the mark with a special-run version of the new Bachmann 4575 'Small Prairie'.

A limited certified run of 504 models has been produced, depicting now-preserved No.5552 in BR lined green with late crest. The locomotive, new to Tyseley in 1928, was liveried thus in 1958 when allocated to Truro: the model boasts a correct 83F shedcode.

Consigned to Barry, the 2-6-2T was restored on the Bodmin & Wenford Railway, and steamed again in 2003.

AVAILABLE FROM
Kernow Model Rail Centre,
98 Trelowarren Street, Camborne,
Cornwall TR14 8AN.

PRICE £58.95. Please add £4.00 to cover postage and packing.

Two snappy 'Terriers' in 00

Sometimes we're accused of having a Southern bias, but how could we *not* have one when the SR had locomotives as appealing as these 'Terriers'?

The latest two represent firstly No.32635 (*née* LBSC No.35 *Morden* of June 1878) with BRIGHTON WORKS on the tank sides. This dates the engine to January 1959, when the loco returned to service stock from departmental listings but with works name intact. Ultimately it was scrapped at Eastleigh in 1963. From the Isle of Wight stock is W13 *Carisbrooke* (originally No.77 *Wonersh* of July 1880), in 'sunshine' livery, so representing the loco in late 1930s-nationalisation days.



Both models are finished excellently, and are every bit as charming as previous versions.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES
32635 (ref.R2406) – £45.00
W13 (ref.R2407) – £45.00.

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Royal Train train pack, new in 00 from Hornby

'Impressive' is the first word that comes to mind on seeing the Hornby Royal Train in its sturdy polystyrene packing. Care is needed to extract the engine, tender and coaches from their very snug recesses, but it shows the degree of protection that these models warrant.

The set was inspired by the notable event during June 2002, when steam was used to haul the Royal Train for the first time in the preservation era, from Holyhead to Crewe.

The LMS 4-6-2 Princess Coronation Class *Duchess of Sutherland* and tender are beautifully modelled with all the detail we now expect and get from Hornby. The livery is accurate and the finer points of pipework, motion and cab are a delight. The tender is close-coupled for added realism and, like the loco, has sprung buffers. The tender collects current, which is transferred to the engine via a discreet connection across the drawbar.

Even those with perfect eyesight would enjoy a few minutes with a magnifier to savour the fine printing and linework that are applied so carefully.

The coaches are in the subtle maroon of the Royal Train prototype with mid-grey underframe and bogies. The grey tension-lock couplings seem a little conspicuous at first sight, but blend in well against the underframe.

The set is supplied with the Queen's



personal saloon, HRH The Duke of Edinburgh's personal saloon and a Royal Household couchette. There is also available a 'Royal Train coach pack' which adds two Royal Household Mk 3 coaches and an extra Mk 2 couchette. A curtain-effect insert behind the windows of all the coaches is very convincing and boosts the air of

privacy that would be expected. With the extra coach pack, the resulting six-carriage train will impress even more.

The coaches (in particular the Mk 3s) are the 'standard' Hornby bodysells, and do not reflect the changes made to the Royal Train stock (in particular the double entrance doors on HM The Queen's saloon).

However, full prototype details and a two conversion articles were published in RAILWAY MODELLER July and August 1981 respectively.

In action, the five-pole motor in the loco is quiet and efficient. A smooth pull-away, assured acceleration and a realistic top speed combine to give a totally satisfactory performance. Mechanically, No.6233 is fully up to the standard of previous 'Duchesses' in the Hornby range.

Lurking in the packing were two small polythene bags, one containing brake rods, vacuum pipe and a coupling for the modeller to attach, the other containing a Royal Crest to attach to the smokebox door.

This set is special in every sense and in appropriate settings makes a fine addition to any collection and a worthy conversation piece.

For 00

SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES
Train pack (ref.R2370) – £115.00
Coach pack (ref.R4197) – £50.00.

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

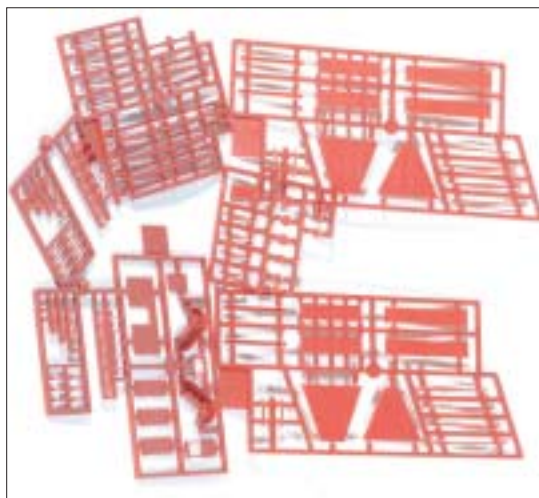
Ratio coaling tower now available in N

New to the range of lineside kits in N from Ratio is this coaling tower: it's a small version of the already-available 4mm scale example.

The kit builds into an attractive depot structure, measuring 65mm wide overall across the ladder side, 50mm wide from frame to coal hoist, and 95mm tall. The moulded plastic parts exhibit excellent rivet detail on the girderwork, and the one-piece electric motor moulding is very fine. No flash was evident at all on our sample – another feather in the cap.

The only slightly tricky procedure for many will be forming the railings using the thin-gauge copper wire supplied. Templates for each are printed on the instruction sheet: builders might find it convenient to paste these on to a flat surface into which pins can be inserted at the required bending positions, thereby creating a sturdier jig. Given that multiples of the railings are required, this could very well result in a neater job.

The parts are moulded in a suitably red oxide coloured shade, and many will be content to use this as the final



colour. Advice is given on painting and weathering, along with hints on construction principles.

Narrow gauge enthusiasts will doubtless have spotted the potential of this attractive kit for their sphere of interest: substitute 4mm scale ladders

and railings etc and you have a small skip-loading chute.

In short, a smashing kit.

Ratio products are distributed to the model trade by the Pritchard Patent Product Co., Underleys, Beer, Seaton, Devon EX12 3NA.



MANUFACTURED BY
Ratio Plastic Models, Ratio House,
3-4 Mardle Way, Buckfastleigh, Devon
TQ11 0NR.

PRICE
ref.247, £14.50

Latest Hornby Black 5

The acclaimed Hornby Black 5 (reviews pages *passim*) now features weathering and a riveted 4000-gallon tender. The wonderfully fine lining (look at it under a glass if you have a chance) is present; finish and running are both excellent.

For 00

SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICE ref.R2382, £86.00



New BR Mk 1 coaches in N from Graham Farish

Samples of the new Chinese-produced Mk 1 coaches in N from Graham Farish have been received, and very smart they look too.

They echo the UK-produced items of yore in that the same body designs are perpetuated – SK corridor second, BCK corridor brake composite and BG full brake in this instance – but the uprated wheelsets are fitted, and the models are finished very well.

Specifically the models are:

type	livery	ref.
SK	crimson/cream	374-050B
	chocolate/cream	374-052B
	green	374-051A
	maroon	374-053B
BCK	chocolate/cream	374-077A
	green	374-076A
BG	crimson/cream	374-026A
	maroon	374-027A

Regionally speaking, the green ones are Southern and chocolate/cream ones Western, of course: London Midland is represented by the crimson/cream BG and maroon SK, and the Eastern has the crimson/cream and blue/grey SKs, and the maroon BG.

As mentioned, finish is very good. printing is crisp and legible – EMERGENCY LIGHTING POINT and so on – and yes, the steam heat and bogie overhaul dates are all different! All ride on the old-style 'not quite B1' bogie we remember from the Holton Heath days, but if this offends (especially on the blue/grey SK) substitute the B4 type found elsewhere in the GF range, under the Mk 2 a/c stock.

Other points worthy of note are the



For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

all types except BG – £12.95ea
BGs – £12.50ea

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.

no smoking symbols (the later, round type in the blue/grey coach) and corridor handrail printed across the insides of the relevant windows.

Regular N gauge couplers are fitted to the bogies as standard, and the gap

between vehicles when joined is a bit unrealistic. Many will turn a blind eye, though.

To come are FK corridor firsts and BSK corridor brake seconds – plus the Pullman cars of course!



Recent releases in 4mm scale by Dapol



In addition to its many commissions, Dapol produces its own fleet of BR and private owner wagons. Recent releases are Presflos 'Cerebos' and 'blue

Circle' (both £7.50ea); 21T hoppers in BR and 'British Gas' finishes (both £6.99ea); tanks wagons 'Anglo Persian' and 'Yorks/Lincs Tar' (both



£6.99ea); a BR fruit van (£6.60) and 7-plank PO 'Gedling' (£6.60).

All run smoothly on metal wheelsets, and should be available from all Dapol

stockists. If ordering direct from the factory please add £2.99 P&P (£4.99 express); a minimum order value of £15.00 applies.

SAMPLES SUPPLIED BY
Dapol Ltd., Gledrid Industrial Park,
Chirk, Wrexham LL14 5DG.

PRICES in text

WHEEL DATA

B. 1mm, C. 0.8mm, D. 2mm,
E. 14.2mm.



SWT-livery modern DMUs in 00 from Bachmann



Bachmann has released in the last couple of months examples of both types of modern DMU in service with 'our' train operator, South West Trains.

The two-car set is Adtranz/Bombardier Turbostar 170 302, modelled on one of SWT's nine sets, eight of which

were built at Derby in 2000, the last – 170 392 – in 2003.

The 159 is modelled on 159 019, also turned out from Derby in 1992-1993, back in the days of BREL. Both types of unit can – and do – work together in tandem, but this is not pos-

sible in model form as things stand due to the non-functioning models of the BSI couplers on the 170, and buck-eyes on the 159.

We reviewed earlier models of these units in our October 2003 (170) and September 1998 (159) editions.

Mechanically the models are identical to their predecessors, so details need not be repeated here. The painting and finishing are first class, with the inscriptions and suchlike printed neatly.

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leics. LE9 8EY.

PRICES
159 (ref.31-514), £92.05
170 (ref.32-452A), £76.95

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Latest private owner wagon commissions from Dapol in 00

Recent special commissions of limited-run private owners from Dapol are as follows.

Oliver Leatham has stocks of wagons representing 'Road Supplies & Construction Co. Ltd.', based at West Bromwich, but the wagons bear different branding on each side to show the company's various addresses. The models are based on a wagon built in 1928 to transport stone and related materials quarried from their site in North Wales.

The five-plank wagons are made to Dapol's usual standard with eight-spoked wheels and tension-lock couplings. A special feature is the quality and choice of the loads. There is Dapol plastic coal, real Welsh green granite, non-slip road chippings and 'wet-look' fresh tarmacadam; they look excellent so state which load you require when you order.

Only fifty wagons have been produced; each has a unique running number and is accompanied by a numbered certificate. They are £7.90 each: please add £1.00 post and packing for one wagon, and £1.50 for two or more. Make cheques payable to 'O. Leatham'.

Oliver Leatham, 6 St. Catherine's Avenue, Balby, Doncaster, South Yorkshire DN4 8AJ.



Ballards' latest coal wagon is now available depicting 'Peacock Bros. and Harris'. The company is recorded as being in existence from 1844 onwards, working out of the Tunbridge Wells goods station. It also traded in corn and farm animal food and participated in the House Coal Distribution Scheme during the war.



It is a standard Dapol seven-plank side and end door wagon, fitted with a coal load, spoked wheels and tension-lock couplings. The lettering is well printed.

The wagons are priced £7.50 plus £1.00 post and packing.

Ballards, 54 Grosvenor Road, Tunbridge Wells, Kent TN1 2AS.

The Red Rose Steam Society has commissioned two more five-plank coal wagons from Dapol. This time, they are special editions for Atherton and Bickershaw collieries. These were situated in the Wigan area, and continue the society's theme of local colliery wagon commissions.

The price is £6.25 plus £1.50 post and packing for up to three wagons; £2.00 post and packing for four to six wagons. Please make your cheque payable to 'Red Rose Steam Society'. Red Rose Steam Society, Green Mining Museum, Higher Green Lane, Astley M29 7JB.

Buffers of Axminster has three new coal wagons for Dunkerton Colliery, Writhlington Colliery and Yeovil Gas Works.

They are all seven-plank side and end door wagons. The Dapol chassis, with its eight-spoked wheels and tension-lock couplings, makes for smooth, reliable running. In all cases, some weathering would add greater realism to Dapol's already fine products. The modeller might also choose to replace the couplings with a more prototypical item, but the wagons represent excellent value anyway.

The wagons are £6.99 plus 50p post and packing.

Buffers Model Railways Ltd., Colston Cross, Axminster, Devon EX13 7NF.



Latest Class 42 'Warships' in 00 from Bachmann



The two latest versions of the popular Blue Riband series 'Warship' are illustrated here. D801 *Vanguard* (ref.32-060) in BR maroon with yellow warning panels, is presented in a very dusty condition. This weathering takes the form of a light dusting covering virtually all the body panels and the running gear. Perhaps the loco has been working in china clay country. A darker, oily colour appears on the bogies and around the exhaust outlets on the roof. As with most things, opinions on the subject of weathering vary widely, and you can make your own judgement

from the photograph. D801 carries a number of period features such as overhead wires warning flashes, red route availability spots, BR round 'coach' crests and train reporting headcodes, 1Z08.

For those who prefer their locos to look smart and efficient, D818 (ref.32-059) will come as quite a relief. *Glory* was the subject of a diesel preservation attempt but was scrapped in October 1985. The green livery of the model looks the right 'diesel' shade and the light green stripe gives a slight 'two-tone' impression to the scheme,

as did that of the prototype. Unlike D801, this loco carries the loco style BR crest. Headcode is 1A52.

Both locos have the twin-flywheel motor and four-axle drive, sprung buffers, optional bufferbeam detailing accessories, glazed cab windows with bright frames, simulated windscreen wipers, and driver and second man at one end. Both carry the small oval builders' plate *Built 1960 Swindon*.

When we first reviewed the Bachmann 'Warships' – in April 1989 – they were 'state of the art', but as if to illustrate how things have progressed,

there is no facility for fitting a DCC decoder, nor yet NEM sockets to facilitate coupling change if desired.

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way, Barwell, Leicestershire LE9 8EY.

PRICES
D818 – £51.95
D801 – £55.95

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Historic commercials in 4mm scale from John Day

We have received from John Day the three assembled and painted road motors illustrated. These are the first of eighteen models of railway-owned commercial vehicles covering the 'Big Four' and British Railways which will be issued over the next two years.

All these white metal kits come complete with correct transfers and retail at £14.50 each. Assembled and painted examples are available to order at an extra cost of £7.00 each, delivery about one month from date of ordering.

The models illustrated are as follows:

LNER Commer N1 25cwt, as dis-



played at the NRM. First introduced in 1935 and remained in production until 1939. ref.RRV 01.

LMS Dennis Type 96 2-ton Parcels Van. The LMS had a fleet of over 100 of these delivered from from 1934. They

remained in use until well into British Railways days and a BR version will be issued later. Ref.RRV02.

GWR Karrier 20ton Parcels Van. These were widely used by the Great Western in both rural and urban areas.

Ref.RRV03.

Readers who know Mr Day's kits will recognize the sharp, clean castings, authentic outlines and proportions, and the excellent finish of the built-up models. An SR van will follow soon.

For 4mm scale

SAMPLES SUPPLIED BY
John Day, 104 St Peter's Close, Moreton-on-Lugg, Herefordshire HR4 8DW.

PRICES
In text.

Signs of The Times signage in 4mm scale

Signs of The Times has an extensive range of signs and other details suitable for the contemporary scene in 4mm scale. For the most part, the items take the form of crisply printed replica signs, to be cut out carefully

and mounted on plasticard or plastic rod and planted on the layout in a suitable location.

Illustrated are typical examples of the breed: timetable boards, vending machines, yard warnings and instruc-

tions to drivers, and so on. Also in the range are a pack of yellow lines for platforms past which high speed trains run (ref.L15, £4.99); window destination stickers for coaches (ref.4-54, £1.50); and two packs of hazchem rectangles (refs.4-57 and 4-58, £1.50 ea).

SoTT also has stocks of graffiti waterslide decals produced by Blairline in the USA – a regrettable but necessary addition to the modern urban scene – and stocks also of the

Roger Smith range of steam-era signs and wagon tarpaulins.

For 4mm scale

SAMPLES SUPPLIED BY
Signs of The Times, 63 Alexandra Road, Grantham, Lincolnshire NG31 7AW

SAMPLE PRICES
In text.



Selection of 'Skaledale' buildings in 4mm scale from Hornby

Amongst a large selection of Skaledale products from Hornby were the illustrated five 'railway structures: a station hotel, small waiting room, coal merchant, engine shed and 'Strawsons' warehouse. All the products are made in China from a very durable, dense resin.

The station hotel, based on a 1905 prototype, has four very different elevations. The solid feel to the model is satisfying and the included details go a long way to make a functional and convincing scenic item. The sash windows are glazed and have frames that, proportionally, are not too heavy. The brickwork is consistent with buildings of the time as is the slate roof and gutters. It has a sign showing 'Skaledale Station Hotel' on one wall, but this could easily be changed to be applicable to the circumstances of the layout. By the front door is a tariff board with some amusingly outdated rates, but it has its charm. Dimensions L:142mm, W:120mm, H:125mm.

The small waiting room is delightfully proportioned with a flat-roofed extension to the main building. A canopy is well represented and fire buckets on a rack of hooks demon-



strate the thorough approach to refining the model. A noticeboard with a clock indicates departure times and the whole is topped-off with a tall chimney typical of the Edwardian era. Dimensions L:105mm, W:73mm (including canopy), H:65mm.

The coal merchant office from 1906 is plain and utilitarian, just like the real thing. It is a square building with a small collection of packed coal sacks around the corner from the front door. It has a sign showing 'Parsons coal merchants' and sash windows on two walls. Dimensions L:85mm (including sacks), W:70mm, H:70mm.

The engine shed is a single-road building from 1903. It has double doors at each end which are set at a height sufficient to clear the track. Four windows are spaced evenly along

each side and a representation of a roof ventilator sits astride the tiled roof for most of its length. Some smoke staining is thoughtfully put above the doors which are hung in a less sophisticated way than some modellers might hope, but the inclusion of a personnel door, within one main door at each end, is an observant touch. Dimensions: L:185mm (doors shut), W:90mm, H:115mm.

'Strawsons' warehouse is a rectangular building from 1851 with a small outhouse on one end. It carries some interesting detail in the form of a working 'wooden' sliding door, a bricked-up window at one end and a 'metal' boiler chimney on the office roof. Dimensions: L:150mm, W:90mm, H:90mm. These dimensions are approximate for all buildings.

All these buildings will do an admirable job and provide an effective and quick way to add substantial features to a layout. The structures are well built with good attention to the details that would be found on the prototype. The painting style, however, tends towards that of imparting an effect more than depicting very fine detail. Some time with a paintbrush or a modelling knife to refine some of the edges would bring dividends.

The Skaledale range of ready-made buildings represents fine value and could save the modeller a great deal of time if making kits of buildings is not a preferred interest.

For 00

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES

station hotel (ref.R8528)	£19.00
waiting room (ref.R8530)	£15.00
coal merchant's (ref.R8537)	£8.00
engine shed (ref.R8536)	£17.00
Strawson's warehouse (ref.R8521)	£14.00

GNR(I) diagram K8 open third 'scratch aid' body kit in 4mm scale

Worsley Works has recently added to its range of 'scratch aid' etched brass body kits in 4mm scale an open third diagram K8 as used by the Great Northern Railway of Ireland.

As usual, the kit consists of sides, ends, and floor unit, plus body mounting brackets.

Reinforcing ribs fold up from the floor, while the solebars and buffer beams have to be added; coupling hooks are also provided.

The sides are quite complex: the upper and lower sections are separate: the lower part overlaps a half-etched strip at the base of the upper section, thereby creating three levels of detail.

The relief effect is further enhanced with ventilator covers added over each of the droplights, and the droplight frames are separate parts which are fitted inside. The tumblehome must be formed to match the lower profile of the ends.

The planked ends include the outline of the corridor connections.

A battery box and hangers for the vacuum brake cylinders are provided,

but no there is no indication of where they should be attached to the underframe, though the bogie centres are marked with a small hole.

All components have been very nicely etched – panelling and beading is well defined and the half-etched areas are very even.

The kit does not include glazing or any interior detail, and there are no 'solid' details as castings – buffers and vacuum brake cylinders will be required. The builder must also supply the running gear, and wire for handrails and door handles, though the fixing holes are present in the lower part of the sides. The upper handrail holes will need to be drilled through the inner layer once the two halves of the sides are joined.

No material is included for the roof. The design envisages the roof fixed to the sides and ends, and the floor (with interior detail if required) removable. Attaching the roof permanently would reinforce the sides usefully, which would otherwise be liable to bowing when handled as the vehicle is quite long.



There is no form of location to align the sides and ends, but they can be soldered together accurately if care is taken, standing them on a true flat surface. It is worth reinforcing the corners with a fillet of solder, though take care not to impede the fitting of the windows.

It is assumed that the builder will understand the techniques required, and follow drawings and photos to add appropriate details: this does not seem unreasonable for something sold as an aid to scratchbuilding rather than a complete kit.

Worsley Works now has a wide range of 'scratch aid' kits in scales from

2mm to 16mm. 50p (in stamps) plus an A5 stamped self-addressed envelope will bring you a copy of the latest list: please indicate your area of interest.

For 4mm scale broad gauge

MANUFACTURED BY
Allen Doherty, Worsley Works,
19 Douglas Road, Worsley, M28 2SR.

PRICE
£23.00

Please add £1.00 per order for postage & packing.
(Please make cheques payable to 'A.Doherty'.)

New small flat can motor joins Branchlines range



A recent addition to the extensive range of motors, gears, gearboxes and motor bogies produced or supplied by Branchlines of Exeter is this new 12 volt DC motor (ref.K.8/12.75).

It is a remarkably small flat can, with a length over the body of just 12.75mm, width over flats of 8mm, and a round dimension of 10mm. The length over the bearings is 14mm. The shafts are 1mm in diameter and each 8mm long. Fixing screws are M1.4 at

6.5mm centres.

The motor has a maximum estimated power of 0.75Watts at 15,000 rpm; the suggested maximum current rating is 200mA.

Free running speed (with no load) is 30,000 rpm with a current draw of 30mA. The motor will run on as little as 0.6 volts before stalling.

For the full details of all the motors, gearboxes, flywheels, worm gears, spur gears, 0 gauge-specific items,

power gears – including the popular 'Black Beetle' – and much more, the Branchlines latest four-page A4-size list is priced 50p.

For all scales

AVAILABLE FROM
Branchlines, P.O.Box 31, Exeter,
Devon, EX4 6NY.

PRICE £12.50. P&P £1.50 per order.

Book Reviews

Irish Broad Gauge Carriages

A Pictorial Introduction

Desmond Coakham
Midland Publishing, 4 Watling Drive, Hinckley LE10 3EY
283mm x 204mm 96pp
Softback £14.99
ISBN 1 85780 175 X

One aspect of Irish railway history which has been neglected recently is that of the carriages that ran on the country's 5'3" tracks. Desmond Coakham has devoted great attention to what the locomotives were hauling and he has produced, possibly, the first book dedicated to this fascinating subject.

The document starts from the 1840s, illustrating and describing a huge range of vehicles from virtually every Irish railway company, to finish at the present day. There are some shots that include locomotives, but all the concentration is on carriages and associated stock.

The black and white illustrations are largely from Desmond's own collection. They are well-reproduced and fit into the format of narrative text, interspersed with photo and caption sections. These narratives are researched to a very high degree, and the information imparted is easily digestible, helped by the 'no-frills' writing style. The photo captions do their job with similar efficiency, giving pertinent factual information supported by knowledgeable comment.

From both the modeller's and historian's point of view, the book is an excellent reference source. Branch line six-wheelers, horse boxes, carriages of all classes and even State coaches are presented in conditions varying from pristine to near scrap. In many cases, the important factors in the life of the carriages are outlined to highlight milestones in the history of a railway company.

It is fascinating to see how the railway carriage has developed over the years. The privations endured by Third Class passengers would, perhaps, not be allowed for animals by the RSPCA today; the fact that there were three classes is indicative of the radical social and economic changes that have occurred over relatively few decades.

There is a huge amount of information in the seven chapters, five of which are each assigned to individual company matters. The Introduction is substantial and provides an invaluable backdrop for the subsequent chapters. The Epilogue gives us some thoughts that may linger about what we have lost and the future of travel.

Right: GM Bo-Bo No.185, on station pilot duty at Dublin Heuston station in September 1992, is obviously the centre of attention, but 'genuine' Irish (left) and BR loading gauge coaches (right) are also just visible.

Opposite page: a brace of Class 20s burbles through Princes Street Gardens, Edinburgh, in 1982. Photographs: Tim Rayner.

Western Steam Farewell

Darren Page
Ian Allan Publishing Ltd,
Hersham, Surrey KT12 4RG.
190mm x 240mm 80pp
Hardback £14.99
ISBN 0 7110 2998 9

This is a pleasing selection of colour photographs of Western Region steam traction taken during the early 1960s by the author's father John Walter Page.

This period was, of course, the swansong of steam on WR and the whole of British Railways. The images therefore conjure strong bitter-sweet sentiments with locomotives often in worn and neglected condition. Most of the pictures each receive full page measure and the author has provided informative captions. As always with albums of this kind, the unrationalized railway infrastructure which forms the background to the trains also provides important and inspiring references for modellers of this era and earlier. The locations are mainly around the West Midlands and Birmingham, with Dawlish and Plymouth representing points further west.

Open this book and it won't seem forty years ago.

Many and Great Inconveniences

The Level Crossings and Gatekeepers' Cottages of the Southampton & Dorchester Railway

Philip A. Brown
South Western Circle
Publications, Colin Chivers, 2
Eaton Wood, Peatmoor,
Swindon SN5 5AT.
210mm x 148mm 64pp
Softback £5.00 incl P&P
ISBN 0-9503741-7-2

When P.A. Brown's drawings of S&DR Lodge No.7 (to 4mm scale) were published in our February 1978 issue, they whetted many readers' appetites for more information on the quite numerous and attractive keepers' cottages along the route of this early and much loved railway. This useful little book (South Western Circle Monograph No.2) is the result of much further research into the subject. There are still a number of unanswered questions and this is by way of being a progress report rather than the definitive account of the subject.



The drawing of Cottage No.7 referred to previously is reproduced, but to about 3mm scale and there is also a 'new' drawing of a bay-fronted Lodge similar to No.29 at Wareham and three other S&D structures.

A useful map of the whole railway from Millbrook to Dorchester identifies the approximate locations of all forty-three of these little buildings and the photographs give an idea of the variations that existed on the theme and the modifications to the original designs which arose during their usually long working lives.

In his chapter entitled *The Gatekeepers*, the author's researches have entered the sphere of social history, and we cannot but wonder at the living conditions of those large Victorian families confined in two- and three-roomed accommodation, and how our perceived standards of contemporary morality were maintained.

This booklet combines scholarship with a pleasing style of writing and presentation and is a credit to author and publisher.

Industrial narrow gauge stock and trackwork

Sydney A. Leleux
Plateway Press,
Taverner House, Harling Road,
East Harling, Norwich, Norfolk
NR16 2QR.
235mm x 174mm 76pp
Softback £8.95
ISBN 1 871980 53 4

Publications on narrow gauge railways in general and in particular their uses in industry, frequently focussed on a specific site or application, have become – we are pleased to note – more common in recent years, but once the obligatory historical and geographical aspects have been considered, attention is usually concentrated on locomotives, with the rolling stock and trackwork treated rather more briefly – not least because less by way of information and illustrations is available.

This book takes a different approach, as it is concerned primarily with the stock and trackwork plus other elements of the infrastructure. That is not to say locos do not appear, but they rarely take centre stage.

It is essentially a collection of 116 fascinating photographs drawn almost exclusively from the author's own observations, experience, and photographs, taken over a long period.

The collection is arranged principal-

ly by wagon type or purpose; from the contents list, the separate category of trackwork looks like an afterthought, but in fact track etc. represents about one sixth of the total, and it is of course evident in many of the 'stock' illustrations, with relevant points commented upon in the captions.

The photos cover a wide time period, from the late 1950s (with the exception of a 1948 view by the author's father) almost to the present day; most subjects are genuine working scenes, with a just a handful in museums or preservation.

The pictures are presented mostly two to a page, and are therefore reasonably large so detail can be appreciated; one or two are full page, and conversely there are a few close-ups of small features.

Most of the photos are black & white, but a number of colour images have been included, seemingly at random; the covers are also in colour. The quality of the originals and the reproduction is very good throughout, and the book has been printed on glossy paper for optimum results.

As well as the photos, there are a few facsimiles of period promotional material, catalogues, and advertisements.

Each image is supported with a very full and informative caption, conveying a wealth of background information; every one is specifically dated (day/month/year). Many dimensions are given, which should be a boon to potential model makers. This represents a remarkably thorough recording of the data related to the subject of each photo, which should be an example to all.

The variety of operations depicted is amazing, and the number of designs of the humble V-skip may surprise, even if the almost unlimited uses to which their chassis have been put does not; and there are several prototypes worth modelling which demonstrate that fact is stranger than fiction: how about the underground vacuum cleaner wagon?

The modelling of industrial narrow gauge railways, often in 7mm scale and larger, seems to be becoming increasingly popular and this interesting book should provide much inspiration and information. Thanks are definitely due to the author for having the foresight to record so much and so well, and to the publisher for enabling the material to reach a wider audience.

The price quoted above includes UK postage and packing.

Diesels in the Midlands

Derek Huntriss
Ian Allan Publishing,
Riverdene Business Park,
Hersham, Surrey KT12 4RG.
189mm x 235mm 80pp
Hardback £14.99
ISBN 9 780711 030 176

Derek Huntriss has assembled an impressive album of some eighty-five colour pictures taken by some of the notable railway photographers who were recording on film the rapidly changing scene in the Midlands during the late 1950s and 1960s. Of these,

Michael Mensing is particularly associated with the area and many of his photographs appear here, together with those of Hugh Ballantyne, Ken Fairey, Gavin Morrison, Neville Simms, Peter Fitton, Raymond Reed, John Whiteley, T.J. Edgington and Bryan Hicks. Their subjects range from an ex-GW diesel railcar, through Classes 20, 31, 33, 37, 40, 47, 50, 24, 25, 45, and various DMUs to the prestigious and elegant Metropolitan-Cammell 'Blue Pullman'. Most of these classes are naturally depicted with their pre-TOPS liveries and numbers.

This is a well presented trip down memory lane for those spotters in the Midlands who will mostly be at least in their fifties now, so deserve a break.

The New Romney Branch Line

Peter A. Harding
Published by the author at
'Mossgiel', Bagshot Road,
Knaphill, Woking, Surrey GU21
2SG.

210mm x 146mm 32pp
Softback £3.50 plus 50p P&P
ISBN 0 9523458 8 9

First published in 1983, this little book has been completely revised and updated and now includes over fifty photographs, many previously unpublished.

Readers who know and appreciate the style of Peter Hardings series of booklets, will not be disappointed in the quality of the paper and photo reproduction and the provision of track plans for the stations.

Locomotives featuring in the many well reproduced photographs naturally include Classes H, L, B1, F1, R, C, O1 E4, 73, 33 and not forgetting 2365, the little Brighton D3 which 'shot down' a German fighter north of Lydd in 1942.

Rather remarkably for any branch, the line was effectively moved nearer to the sea in 1937 by the Southern Railway, with new stations provided at Lydd-on Sea and Greatstone-on-Sea. That this new alignment cost the SR c.£1800 is testimony to the uncomplicated civil engineering needed.

The story is brought up to date by a description of the traffic from the power station at Dungeness, and there is a page of photographs of the branch taken as recently as November 2003.

This is an excellent addition to the author/publisher's growing list of titles on minor railways.

LMS Journal No.7

Compiled by Bob Essery
Wild Swan Publications Ltd.,
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP

273mm x 215mm 80pp
Softback £9.95

ISBN 1 874 103 91 7

No.7 in the series continues the theme of the previous six in the same diligent and fascinating manner. Incidentally, Bob Essery notes in his Editorial that *LMSJ* No.8 will include an appreciation of the late David Jenkinson.

The layout of the pages, the historic photographs and the references to

past railway managerial characters give the book a Victorian feel and yet the information and descriptive text is incisive and relevant to today's views.

Some of the reference material relates to memos and correspondence between executives of the time and provides an illuminating glimpse into how decisions were made and their consequences managed. But this is a very diverse journal with articles about such subjects as operating costs, the Midland line to Bath, steward service, signals and an insight into the 'River' class and the mysterious affair of the... well start reading from page 53.

Suffice it to say that the strength of the series continues; LMS enthusiasts and model makers can look forward to a steady supply of authoritative information, illustrations and comment.

The Story of the Southern USA Tanks

H. & C. Sprenger, K.Robertson
KRB Publications, PO Box 269,
Hedge End, Southampton
SO30 4XR

275mm x 210mm 72pp
Softback £13.95
ISBN 0954485939

This is a detailed history of the fourteen US Army Transportation Corps 0-6-0 shunting tanks which entered Southern Railway service in 1946. They served well past their intended working life of just five years, particularly in Southampton Docks, up to the end of the steam era. Some have survived further into preservation.

All but one of the SR engines had been built by the Vulcan Iron Works of Wilkes-Barre, Pennsylvania; the exception (SR 61) came from H.K. Porter & Co of Pittsburgh.

The book is well illustrated and shows various examples of the type at different stages of their working lives. A good drawing is reproduced (to a little less than 7mm scale) from *Model Railway News* of June 1943. Although most of the photographs are naturally in monochrome, there is a pleasant four-page colour section, in addition to colour pictures on the outside covers.

Appendices to the main story cover Leading Dimensions and Specification, Special Workings, Departmental Stock Renumbering and Disposal Details, and Works Visits.

This is an excellent history of a seldom-seen (for most of us) Southern loco.

Scotland East & North

Roger Siviter
Great Bear Publishing, 34
Shannon Way, Evesham,
Worcs. WR11 3FF.

190mm x 240mm 80pp
Hardback £14.99
ISBN 0-9541 150-2-3

The theme of this photographic collection is diesel locomotive haulage in Scotland from mid-1970s to early-1990s. The pictures take us on a journey from Berwick-on-Tweed to Wick



and Thurso by way of both the Highland main line from Perth to Inverness and also the coastal route over the Forth and Tay bridges to Dundee and Aberdeen and then inland to Inverness and thence to Wick and Thurso via the Kyle of Lochalsh. It goes without saying that much of the scenery is truly spectacular, and the railway and engineering structures individually Scottish, for example Inverness Rose Street signal box! The chosen timespan ensures that there is a good variety of locomotive and stock liveries and that items like the wonderful semaphore gantry at Aberdeen are just included.

The author has provided interesting captions to the pictures which were mostly taken taken by him or his wife Christina.

This album is a must for all who are interested in the era of diesel hauled trains north of the Border.

The book is available post free from the author at the address above: please make cheques payable to Roger Siviter.

Next Steps in Railway Modelling

Chris Ellis
Midland Publishing, 4 Watling
Drive, Hinckley LE10 3EY.

280mm x 215mm 96pp
Softback £14.99
ISBN 1 85780 171 7

Many readers will know Chris Ellis through his editorship of the eminently practical and wide ranging magazine *Model Trains International*. This attractive book, the sequel to the publisher's *First Steps in Railway Modelling*, maintains the principal *MTI* characteristics of small layouts, temporally, spatially and fiscally achievable, an unbiased approach to epoch and origin of prototype, and a constant eye on how things are done. Most of the popular scales are mentioned, including Z, although the predominant size discussed here is naturally 00/H0.

Subjects covered in depth include planning, couplings, baseboard design and construction, track and ballast, weathering, scenery, structures and research.

Advice on wiring, control and of course DCC appear encouragingly under the chapter heading *Keeping it Simple*. Photography and graphics are generally very good with some inspired sketches by Paul Lunn, and *MTI* readers will enjoy the unaccustomed colour reproduction.

This is a readable and useful railway modelling primer by a successful practitioner of the craft.

Video Reviews

Branch line to Burnham

Mike Arlett
Transport Video Publishing, 19
High Street, Wheathampstead,
Herts AL4 8BB.
Approx 67 mins. £18.95

Although the Somerset & Dorset main line over the Mendips to Bath is well documented in film and word, the branch from Evercreech Junction to Burnham-on-Sea via Glastonbury and Highbridge is not so well covered which makes this new production, written and presented by Mike Arlett, especially welcome. The film, on sale from 28 August 2004, celebrates the 150th anniversary of the opening of the 12 mile section of line between Glastonbury and Highbridge.

The programme combines colour ciné footage from the early 1960s, drawn from many separate private collections, which has been copied, edited and reassembled scene by scene into journey order. Naturally this is not a film for those who enjoy a large variety of motive power, as Ivatt 2-6-2T, 4F 0-6-0 and Collett 2251 0-6-0s are the locomotives mainly seen, scooting across the levels with the usual immaculate WR coach and SR bogie Utility van in tow. What more compact and modellable train could you desire?

We are treated to a round trip from Evercreech Junction to Burnham-on-Sea with the return journey commencing at Highbridge. At the latter place there is an opportunity to see the well known flat crossing of the branch over the WR Bristol & Exeter main line and glimpse the S&DJR Workshops before they were demolished. Between Evercreech and Highbridge every intermediate station and halt is featured, together with most of the remote level crossings, each with its own keeper's cottage, which are such a feature of this branch. The film shows crossing gates being worked, by hand and wheel, and we see some signal box interiors and many splendidly maintained semaphore signals.

We witness passenger, freight and milk traffic being worked in mostly unposed day-to-day operation, all set against the flat Somerset peat fields and its rhines and drains, with Glastonbury Tor as an often glimpsed 'backscene' feature.

The programme concludes with a series of 'then and now' sequences which compare the present scene with that of forty years ago when this charming rural railway was still operational.

Bachmann 2004 open days: forthcoming products on display in 00 and N



The annual Bachmann open days, held at its Leicestershire HQ, duly took place during July: RM was able to attend and view some of the forthcoming new items.

In 00, the Class 37/0 was substantially complete less paintwork, and looked very fine indeed, with a wealth of small details present. The eagerly awaited Class 40 1Co-Co1s were on display, in all three body variations – disc headcode, split headcode and centre headcode. The models will be shipped with an etched frost screen to fit across the side grilles, as per the prototypes.

The Mk 1 Pullmans were on show, as were TTA tankers, box-body opens of two distinct types, and SR vans in planked, uneven planked and ply varieties.



In N, new additions to the Graham Farish range were Class 40s, and a development prototype of the Class 60 was displayed. Class 20s (see Richard Bardsley's article in this issue) were also on view, including a DRS blue example. The V2 project has progressed to the more or less complete stage: it will have tender pickups,



which we believe is a first for GF steam.

Freightliner flats will now come lettered, and the display has several containers with the original fleet names.



TEA tanks were also on show. The HAA hopper was seen with its Bachmann chassis in place of the demonstration one displayed previously.

On the coach front, new Mk 1 interiors and roof mouldings were displayed, representing corridor first FK, corridor brake first BFK, and open first FO: this is very welcome evidence of the planned expansion of this part of the range.

Our 'mobile micro studio' photos show some of these exciting prospects, and we shall await review samples with great interest.

Warley Show advance tickets

Advance ticket applications for the Warley show 2004, to be held in Hall 1 of the National Exhibition Centre over the weekend of Saturday 4 and Sunday 5 December, are now being accepted. Regular visitors will appreciate that these have the advantage of a separate queue for admission and early entry to the exhibition, over those buying on the day: this year that advantage is greater, as the doors will open at 09.30 on both days, fifteen minutes earlier than previously.

Advance ticket prices are as follows. Adults £7.00 each for one day, £13.00 each for two days; children/senior citizens £5.00 each for one day,

£9.00 each for two days; family tickets (2+3) £20.00 each for one day.

Advance ticket application forms are available from **Advanced Ticket Sales, 52 Calverley Road, Birmingham B38 8PW**. Please include a large SSAE. Credit card bookings may be made by telephoning the NEC Box Office on **0121 767 4099**. Additionally, Squires Model & Craft Tools has agreed to act as agent for the exhibition for the sale of advance tickets: telephone **01243 842424**.

Applications for advance tickets must be received by **14 November**.

Full details of the show will be given in our December edition.

DJH kits for Tower Models

DJH Engineering manufactures a range of kits exclusively for Tower Models. A Class 42/43 'Warship' diesel should be available in September and will be supplied with Mashima motors, Slater's wheels, Romford gears, sprung buffers and screw couplings; requires paint, solder and glue. Price £399.99.

Kits for both the Ivatt 4-6-2s *Sir William Stanier* and *City of Salford*, and 'Duchess' Class Nos.46249-46252 will be available in November. The 46249-46252 batch will have a cylindrical smokebox, continuous front footplating and a streamlined tender. Both kits feature a three-piece cast boiler/firebox

assembly and a brass chassis. They require wheels, gears and motor to complete and will be available at a special opening offer price of £425.00.

Kits for BR/SR light Pacifics should be available mid-2005.

DJH Engineering has appointed Tower Models as its sole UK distributor. The full range of DJH 00 and 0 gauge kits are normally available from stock. In 0 gauge, the new DJH Class 31 diesel should be available now with four versions of the BR Standard Class 5 4-6-0 anticipated around Christmas. **Tower Models & Co., 44 Cookson Street, Blackpool, Lancs. FY1 3ED. Tel: 01253 623797.**

Cromford Designs large scale service

Dave and Jackie Walker, well known on the model railway exhibition circuit with their award winning 0 Gauge *Cromford Wharf* layout, are both now full time professional model makers trading as 'Cromford Designs'.

Prior to *Cromford Wharf* being built, Dave had been working in a semi professional capacity for 20 years, building locomotives in larger scales to order. Demand has meant a necessary switch to full time model making.

They are able to offer a bespoke model building service, encompassing

the larger scales from 0 up to 5" gauge, ready to run, whatever the prototype, locomotives and/or rolling stock. In addition to this, they are also currently re-designing etched brass locomotive kits for several makers.

All models are designed and built with vagaries of track level in mind and to provide reliable running, irrespective of conditions.

The photo shows an example of their work; a Gloucester C&W 5 plank open wagon, ICI Lime Limited, built in 5" gauge, hand sign-written, featuring working side doors and fully operational brakes. You can even pin them down!

Models are available from ex-works condition through to 'prototypically degenerated'.

For further information contact Dave or Jackie at Cromford Designs on: 01924 220859.



'Lyddle End' buildings in N from Hornby

Hornby has announced a new selection of N scale buildings inspired by the 00 equivalent 'Skaledale' range.

The first items comprise station buildings and platforms, engine shed, water tower and signal box, plus farm structures, parish church and several other buildings in popular styles which together can create a developing community. Each model is produced in high-density hand-finished poly resin.

'Lyddle End' buildings can also be used to provide a forced perspective on a 00 layout and help to create an impressive three-dimensional backdrop, enhancing and complementing a 'Skaledale' scene in 4mm.

They will be in the shops soon and there are big future plans for 'Lyddle End' buildings!

Hornby Hobbies Ltd., Westwood, Margate, Kent CT9 4JX.

SHOP NEWS

OPEN

C&M Models, Carlisle

Clair and Mike Parsons took over an existing business just a year ago and have already made it their own.

With a huge catchment area and the building currently undergoing refurbishment, Clair and Mike are taking the opportunity to expand the business to double its present size. By September, all the painting, decorating and refitting

should be complete allowing them to increase their stock and service.

All the big, well-established brand names in OO and N gauges have their places on the shelves, alongside the ranges of die-cast and scenery goods.

C&M Models, 1 Crosby Street, Carlisle, Cumbria CA1 1DQ. Tel: 01228 514689.

The Model Shop, Bishops Stortford

It is remarkable how many model shop owners have left established careers to pursue their lifelong hobby professionally. Stewart Clifford, who was a plant engineer, did just this and his recently-opened shop is doing well.

Amongst the models of aeroplanes, cars and radio-controlled items, the railway department is growing rapidly. Stewart's stock is currently all OO engines, rolling stock and scenery materials, but expansion into N and Z gauges is on the horizon.

He also deals with special requests and is happy to order-in

specific items. Stewart now provides an expert service designing and building layouts to the customer's specification and budget; well worth investigating if hobby time is at a premium and you need fast, professional results. Stewart will also deal with your repairs.

Clearly, The Model Shop is actively involved with modelling and is not just a retail outlet. There will be friendly and authoritative advice available to all who call.

The Model Shop, 5 South Street Commercial Centre, Bishops Stortford, Hertfordshire CM23 3YA. Tel: 01279 461616.

Forth Model Railways, Cowdenbeath

Raymond and Elizabeth Daly who have run Forth Model Railways are to retire at the end of September.

They have travelled the length and breadth of the country attending exhibitions and fairs for the past twenty-three years, during which time they have run four

shops in England and Scotland.

They would like to thank their many loyal customers for their support and custom throughout the years.

Forth Model Railways, 168 High Street, Cowdenbeath, Fife, Scotland KY4 9NH.

Atkinson-Walker photographs

In the article by Neil Burgess on Atkinson-Walker locomotives in the August 2004 RAILWAY MODELLER it was stated on page 445 that railway photographs could be obtained from Jim Peden of Liverpool. We were unaware

at the time that Mr. Peden had passed away in 2002 and that with his passing, the business ceased.

May we extend our sincere apologies to Mrs. Peden for any distress the article might have caused.

DMNS open days 2004

Don's Miniature New Street (DMNS) will be holding its annual open days on Saturday and Sunday 4 & 5 September at 32 Douglas Road, Sutton Coldfield. The opening times are 10:00 until 18:00 on both days.

As its centrepiece, the railway has a scale model of Birmingham New Street station, plus extensive garden running (see RAILWAY MODELLER August 1984).

The DMNS has 1200 metres of track, 160 points and 65 trains making it one of the largest in the country. It is

capable of running the full 24-hour New Street timetable using nine operators. The layout has taken thirty-five years to construct.

Non-railway displays will include a Red Top air-to-air missile, a 14' floating model of the aircraft carrier USS *Enterprise* and the Mk 1 Gnat simulator plus other exciting items.

Entry is £2.50 (£1.75 for children) with proceeds donated to local charities. For further information, contact Don Jones on 0121 354 3744.

News from DMR Products

Due to recent events involving credit card fraud and other internal issues, it has been decided that DMR Products will not continue trading after the end of its current tax year, April 2005. The York Show will therefore be its last event.

DMR's presence at the Gauge 0 Guild Convention at Telford this September will also be its last. There are no plans to sell the business on.

The Easy-Build range of Mk 1 coach kits will however be continuing in the hands of Shawn Kay.

Swanage branch prints by Gerald Savine

The attractive prints shown here are the first in a series of British pictures from noted artist Gerald Savine, already well-known for his paintings of Swiss railway subjects.

B1 depicts BR Standard class 4MT 2-6-4T No.80078 with a train of green-liveried Mark 1 coaches *Entering Corfe station*, while B2 shows BR Standard class 4MT 2-6-4T No.80104 hauling a similar train in open countryside *Off to Swanage*. Corfe Castle makes an unmistakable landmark in the background of both pictures.

The small reproductions here can only give an impression of the quality of the actual prints.

Also available (but not illustrated) is B3, *Lymington Ferry Shuttle*, which shows a refurbished 4-CEP electric multiple unit in Network South East livery on Lymington pier, with boats moored in the foreground: from the competence with which this maritime subject is accomplished, it comes as no surprise to learn that the artist has also painted many yachting scenes.

B3 differs in form as well as subject matter: while B1 and B2 are delivered rolled in a stout cardboard tube, B3 is only available mounted ready for framing.

The originals were painted in gouache on board, and the prints are

being produced as limited editions of 250 each, individually numbered and signed by the artist, and printed with light resistant inks on 200gsm matt art paper ready for mounting and framing. The paper size is 297mm x 420mm, with the image approximately 218mm x 300mm.

The price is £20.00 each for B1 and B2, and £25.00 for B3.

Postage and packing per order within the UK is £2.50, £2.85 to European addresses, and £4.25 elsewhere overseas.

Payment may be made by Visa or Mastercard; please give both start and expiry dates.

The prints can be obtained direct from the artist at 11 Welland Garden, Welland, Malvern, Worcestershire, WR13 6LB. Telephone: 01684 310652 (evenings).

e-mail: gerald.savine@tesco.net

An illustrated leaflet and order form is available in return for a stamped self-addressed envelope. For more information about this and previous Swiss images, and new British paintings, you can also consult Gerald's website: www.geraldsavine.ukf.net

Visitors are also welcome to call into his studio at Bridge House, Waterside, Upton-on-Severn, Worcestershire, WR8 0HG. Telephone: 01684 591122.



RM prize live steamer presented

In the May issue we ran a competition to win a Cheddar Models 'Samson', a radio controlled live steam loco worth over £1000. The lucky winner was Roy Fitzsimmons from Felixstowe, Suffolk. He was presented with his magnificent prize by George Buckland who worked for Peco until he retired to the town six years ago. He agreed to come out of retirement for a day to do the honours.

They are seen in front of a Freightliner Class 66 at the Port of Felixstowe, the largest container port in the UK and which has rail connections to many parts of Britain. The help and co-operation from The Port Publicity and Corporate Affairs was much appreciated and contributed to a memorable occasion. Congratulations Roy and thank you George.

Photo: Rachael Jackson, Port of Felixstowe.



LMS brake van in 0 from Connoisseur



Connoisseur Models has introduced an 0 gauge kit of a Stanier-designed LMS Standard 20-ton Brake Van.

522 of the prototypes were built by the LMS in 1940-41, and in 1949-50 British Railways built a batch of almost identical vans.

The kit is of etched brass with slots and tabs to assist location. Axle guards, buffers etc. are cast in whitmetal with the buffers and cou-

plings designed to be sprung. The brass roof is pre-rolled and straight brass wire is included for handrails.

Comprehensive instructions are supplied with scale drawings and photographs. The kit requires wheels to complete and details of these are included. The kit is priced £40.00.

Connoisseur Models, 33 Grampian Road, Penfields, Stourbridge DY8 4UE. Tel: 01384 371418.

Stolen from the Tutbury Jinny

Sadly we must report the theft of several models from the Tutbury Jinny over the night of 25/26 July. Among the haul were 2/3-rail Dublo repaints *King George VI* in photographic grey; two wartime black 'Duchesses'; boxed

'Duchesses' in blue, maroon, gloss green and matt green; Trix E3001 (wrong No. on box) and Wrenn *City of Liverpool*. A reward is being offered: if you can help phone Burton Police on **01283 565011**, crime ref.19701.

Modelling courses at Havant & Oxford

Peter Bailey will again be running his 'Model Railway Masterclass' at **Havant College, Hants**. This will be the tenth successive year of the course.

The ten course sessions will span topics which are relevant to newcomers to the hobby and seasoned modellers, from layout design and baseboard construction through to operation.

To illustrate the course, Peter will use *Otterbridge*, the EM layout he built especially to accompany the course.

The first meeting at Havant College will be at 19:00 on Wednesday September 22. The fee is £45 for the ten sessions and details of the course can be obtained from the College on 02392 483856 or Peter on 02392 471288.

The modelling courses at **Kidlington, near Oxford** have proved so popular that additional sessions have been organised.

Tutor Dr. Michael Watts teaches for about twenty hours on the new courses which are *Track & Control*, and *Baseboards & Scenics*. A taster of

these courses was provided on DVD with the December 2003 issues of RM and CM, back copies of which are available from Peco.

Full details of the courses are obtainable from: Dr. Michael Watts, StarDancer Ltd., 4 Chaundy Road, Tackley, Kidlington OX5 3BJ.

Telephone 01869 331181 or e-mail michael@stardancer.org.uk.

The demand for Dr. Michael Watts' model railway training courses at **Peco, Beer, Devon** has meant that we are accepting bookings for 2005 already. The 2004 courses are fully booked!

Three courses are planned for next year: *Track and Control* will be over the weekend of Friday June 3 to Sunday June 5; *Scratchbuilt Buildings & their setting* from Friday August 26 until Sunday August 28 and a repeat of *Track and Control* on Friday October 21 until Sunday October 23.

It seems a long way off, but if you would like to attend one of these superb courses, please book soon; telephone 01297 21542.

Jonathan Clay has moved

Jonathan Clay, the well-known railway and motoring artist, has moved to 3A Cartmell Road, Blackburn BB2 2TA, telephone/fax: 01254 668330, e-mail: artinmotion@zen.co.uk or website: www.artinmotion.zen.co.uk

We featured a sample of Jonathan's work last month.

Jonathan's July 2004 A5 format catalogue is now available listing railway locomotive and road vehicle prints and greetings cards.

George Arthur Pryer, 1944-2004

Friends and colleagues of George Pryer will be saddened to learn of his death on 29th June. George will be remembered for his series of books on signal box diagrams covering the Great Western and Southern Railways.

Previous to this he had been the author of *A Pictorial Record of Southern Signals* (OPC), *Signal Boxes of the London & South Western Railway* (Oakwood Press) and co-author of *A Historical Survey of Selected Southern Stations and Salisbury to Exeter* (both OPC). He had also supplied many diagrams and plans for numerous other railway books and written signalling articles for both *RAILWAY MODELLER* and *Steam Days*, and was also a founder member of the Signalling Record Society.

His formative years were spent at Weymouth where, upon leaving school in 1959, he joined the motive power

department as a cleaner progressing to a fireman. He then transferred to the traffic department, stationed first at Weymouth then Dorchester, before becoming a signalman. He served at Broadclyst, Cullompton, Ascott, Andover Junction, Millbrook and Eastleigh panel boxes. He had also worked as a guard at Salisbury, Weymouth and Eastleigh. His final position before taking early retirement was as Signal Manager based at Bournemouth.

A man who could be described as a 'railwayman of the old school', his extensive knowledge and drawing skills were widely sought after by both professionals and enthusiasts alike and his passing will be a great loss to all who had the privilege to know him. We extend our sympathy to his wife and family.

We thank Brian Jackson for the foregoing obituary - Ed.

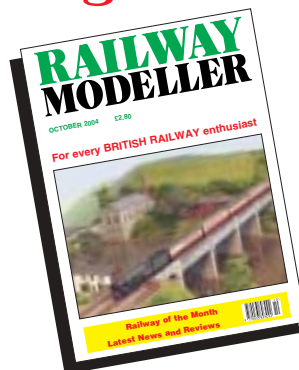
Abbey's baby boy

Abbey Becow, who joined us about a year ago to take over from Maureen Jenkins who was due to retire, is now well known to our readers for compiling amongst other things our 'Societies and Clubs' section. A few weeks ago, Abbey began maternity leave and has now given birth to Oliver Samuel weighing in at 7lbs 8oz.

Abbey and Samuel are well and we will bring you more news as time passes. Congratulations to Abbey and Paul.

In the meantime Maureen has been kind enough to return temporarily to help out; our grateful thanks to Maureen.

Coming next month



Out Thursday 16 September

BISHOP WEARBURN

John Spence set his extensive N gauge exhibition layout in County Durham.

ST DENYS - 2

Andrew & Simon Tucker describe operations, stock and future plans.

FILBRIDGE

A return visit to the Chelmsford club's now-extended 0 gauge layout.

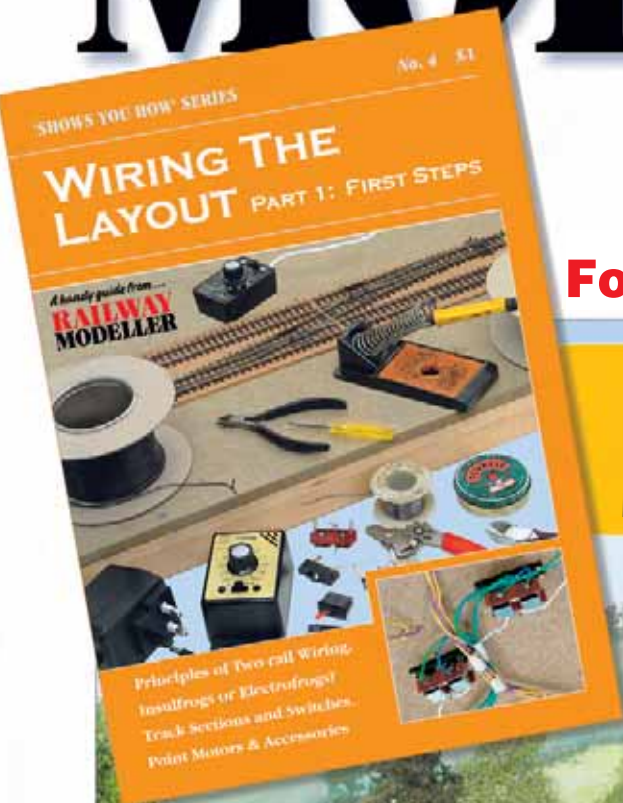
ASCOTT-UNDER-WYCHWOOD

British Rail era cross country in 4mm by Ken Gibbons.

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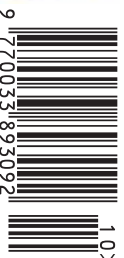
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BISHOP WEARBURN – Extensive N Gauge Layout set in County Durham
FILBRIDGE – A return ticket to this extended O Gauge Layout
ST. DENYS PART 2 – Operations, Stock & Future Plans



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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

October 2004 · Volume 55 · Number 648

Shows you how – every month

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COVER: Class 166 DMU – bright, colourful but no run-round in prospect for the modeller. See pp.562-6.

BELOW: threads galore – ECS, loco haulage and more on Benfordby (RM Aug 00). Photos: Steve Flint, Peco.

RAILWAY MODELLER

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Where are the threads?

This magazine, in its May 1964 edition, coined the term 'modern image' to describe the upheavals, replacements and rebuilding then being undertaken on BR. In the industry's bi-centennial year, we feel that it is time finally to replace it. Before redefining the goal-posts, however, we need to remind ourselves of the pitch.

True, there were many changes during the 1960s, but this was not the only time railways needed 'modernising'. Consider the competition from electric tramways which caused suburban railways to need to electrify to counter the threat, for example.

For the most part, though, railways evolve slowly: basic elements have changed very little in simple terms. Slow local passenger trains are shorter than long-distance ones: ditto for freight, and all overseen by regulated safeworking practices, either at lineside or from larger centralised installations. To take a mode of transport and partition it on arbitrary, temporal lines is absurd.

Many aspects of the thing called 'a railway' that we like to model so much are as long-lasting as the architecture and civil engineering of the 19th century. Aspects such as parcels and perishables traffic, station pilot workings and postals are much the same throughout history irrespective of stock. These underlying threads of work, regardless of the equipment used to perform them, are what we like to reproduce. The fewer the threads, the less absorbing a layout might be to build and operate.

The curious thought that strikes is this: today the railway scene is full of colour, but underneath it we believe it is less attractive because fewer of these threads have survived. Clearly the steam/diesel 'split' from 1968 is a red herring, since many attractive threads survived for many years after. We believe the cause is the now universal use of the reversible 'unit' passenger train, a trend which accelerated with the advent of 'Sprinters' in the late 1980s. We have nothing against 'Sprinters', nor the reasons for their arrival. After all, why should secondary services forever be the 'Cinderella'? It was just the natural evolution of the railway that saw Provincial cast off the cast-offs and order new build, but there's no run-round any more. Coincidentally secondary line units went hand-in-hand with main line 'units' (Class 91s and DVTs on the East Coast, 87s and same on the West), and also the 'top-&-tail locomotives' revolution: partly for safety, mostly because loops and crossings have been removed, run-rounds are unwise or impossible. Thread gone, for the modeller.

Because railways do not exist in a vacuum, outside decisions affect the threads that we like to model. The 1980s saw most major newspaper publishers transfer their titles to road haulage, for example, and took away another part of the tapestry, such as the Manchester Red Bank empties.

Remember that we said *less* attractive. The railway scene of today is, as we have said, a colourful and interesting time, full of 'modeller-sized' trains and stylish rolling stock, but look closer and count the threads. Then go back to the 'pre-unit era' and re-count: we bet there will be a greater number.



CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.



Railway of the month

Bishop Wearburn

BR North Eastern Region modelled in N

John Spence was inspired by childhood memories.

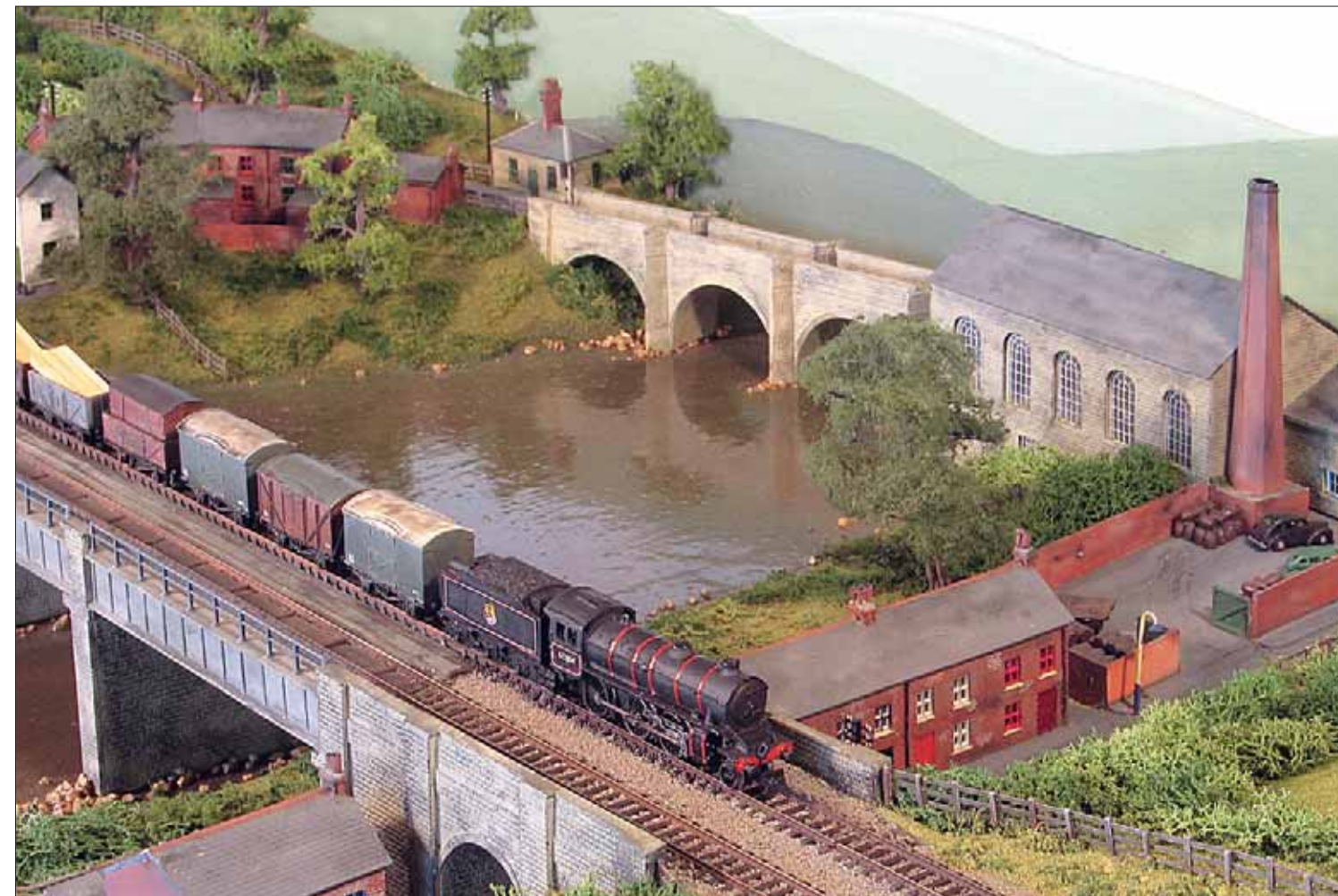
It was Mrs. Dunbar who did it; my grandmother used to take me with her when she went to visit her friend Mrs. D. who lived in Chester-Le-Street, and the main line ran in a cutting at the bottom of her garden. In addition, there was also a footpath that ran at the side of her house and a footbridge over the line. What a choice; I could either sit on her back garden fence or lean over the bridge in my efforts to watch the trains. Of course, I thought that every train that passed was the *Flying Scotsman* until put in my place by older local boys who were there alongside me to inhale lungs-full of steam and smoke. And this is only part of the beginning; of course, I had the obligatory Hornby-Dublo as a child, lost interest in my youth and regained it once I started earning and had pocket money for such things as model railways.

I have described my previous layouts *City Central* and *Kirkby Maltersdale* in RM March '88 and February '92 respectively, and explained how my interest grew, so on with the current layout. But where do I begin; base-

boards, electrics, scenery, buildings, details, stock? All of them covered in nearly every article for RM and so difficult to come up with a fresh approach! Nevertheless, here goes.

Bishop Wearburn is set in County Durham, somewhere between Darlington and Durham. As the original main line struck north through Penshaw (still a freight line) I have supposed that BW was originally a single-line branch off

the main line, which by-passed Durham, but was doubled when the diversion was laid. The original branch continues into the Pennines towards Crook whilst the main line forges north to the cathedral city. Travelling from right to left as viewed from the front, the line crosses the River Wear adjacent to a late-medieval road-bridge. Standing next to this is a large Victorian warehouse, now storage for a local



Above left: a rather grubby Thompson B1 No.61051 leads a parcels train into Bishop Wearburn. Although the skies are blue, the day is cold and no customers sit in the pub garden by the river.

Above: Class K1 No.62004 takes a long freight across the river. This locomotive uses a modified Langley B1 body kit mounted on a Kato chassis.

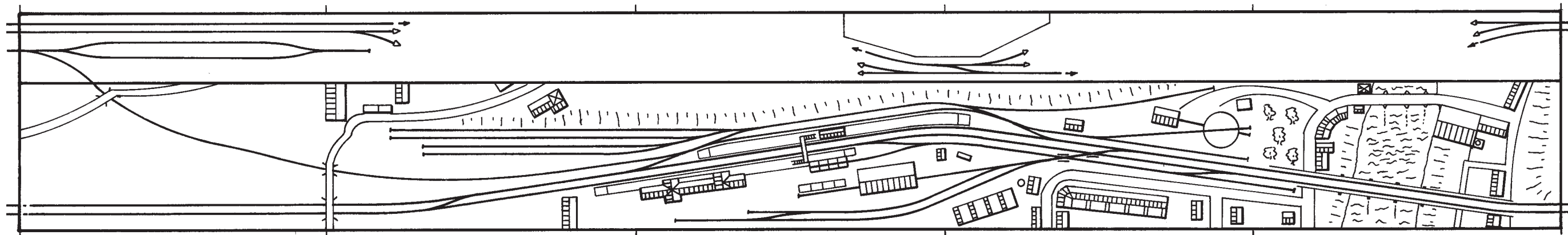
Photographs by Steve Flint, Peco Studio.

brewery, and nearby workers cottages. Across the river, the land that rises on the south side of the river features inter-war housing and terraces of the Victorian period, with adjacent allotments. As the line approaches the station there is a goods yard featuring a shed, cattle docks and raised coal drops typical of the North Eastern region. Similarly, the station features staggered platforms, the down line hous-

ing the main buildings and a footbridge connecting to the up, island platform; from this the branch can be accessed. Continuing south, the branch rises gradually between the main line and exchange sidings overlooked by a church and graveyard, the Rectory, a farmhouse and associated buildings. From the sidings, a headshunt extends north, and access to a turntable can also be obtained. In the early days, much freight (particularly livestock) was handled and the turntable was installed to facilitate larger engines from both Gateshead and Darlington sheds. There is also a single road engine shed to service the branch locomotives.

My first layout was set in the East Midlands, where I now live, and the second on the Settle-Carlisle route. My original stock contained locomotives, coaches and wagons of the former Midland and LMS railways, supplemented

by some BR Standards. These suited the locations of my previous layouts very well, but when my mind began wandering again with thoughts of another layout, I was inclined to revert to those childhood memories. As a child I actually lived in South Shields, but this was only at the end of a not very glamorous or interesting branch from Newcastle. So, back to Mrs. Dunbar and all those A1 Class Pacifics heading express trains to the south! I had begun to collect the odd ex-NE/LNER loco and already had some of the late, lamented Gresley coaches by Minitrix, and some Thompson coach kits. And with the introduction of Union Mills locomotives a few years ago there was no excuse! Somewhere in the North-East it had to be. After studying the atlas, I came up with a location that served my purpose. I also wished to create a more urban location than on *KM* and not another city





Left: a K1 hauls a long freight across the Wear. Full-length trains show the great advantage of N gauge in creating panoramic views.

Below: having brought its train so far, a failed WD rests next to the small engine shed, built only to house branch locos between duties. A breakdown train stands in readiness for the unforeseen.

location, but rather, as many stations are located, on the edge of a town. This way the proximity of an urban setting could be hinted at without the need to create too many buildings. So, I eventually settled on the idea of somewhere between Darlington and Durham. But what of the track plan?

I have a number of books and videos about railways in the North-East but, strangely, there is very little about the main line. However, I do have a copy of *The Newcastle and Carlisle Line* by G. Whittle which describes a route that, to this day, I have never ridden. I have, however, driven over the Pennines many times, going through Haltwhistle. The track plan for this was perfect for my needs yet not quite in the right place. Not only that, but it lacked the variety of express trains which I wanted to be able to run. So I cheated. I have moved the modified track layout from its cross-country location and relocated it in south County Durham. Well, all modelling is compromise! I am now able to run examples of a variety of express and local passenger and freight locomotives and stock in a plausible location.

One of the most crucial elements of a model railway is planning before laying the track. It may seem obvious, I know, but my early attempts were marred by lack of forethought. To avoid this, I produced full-scale track plans using Peco paper point plans. By marking baseboard framework on the paper plan I was able to place the pointwork to avoid the joints and could also see what the finished layout might look like. This even applied to the fiddle yard which lies behind the backscene, the layout being a continuous

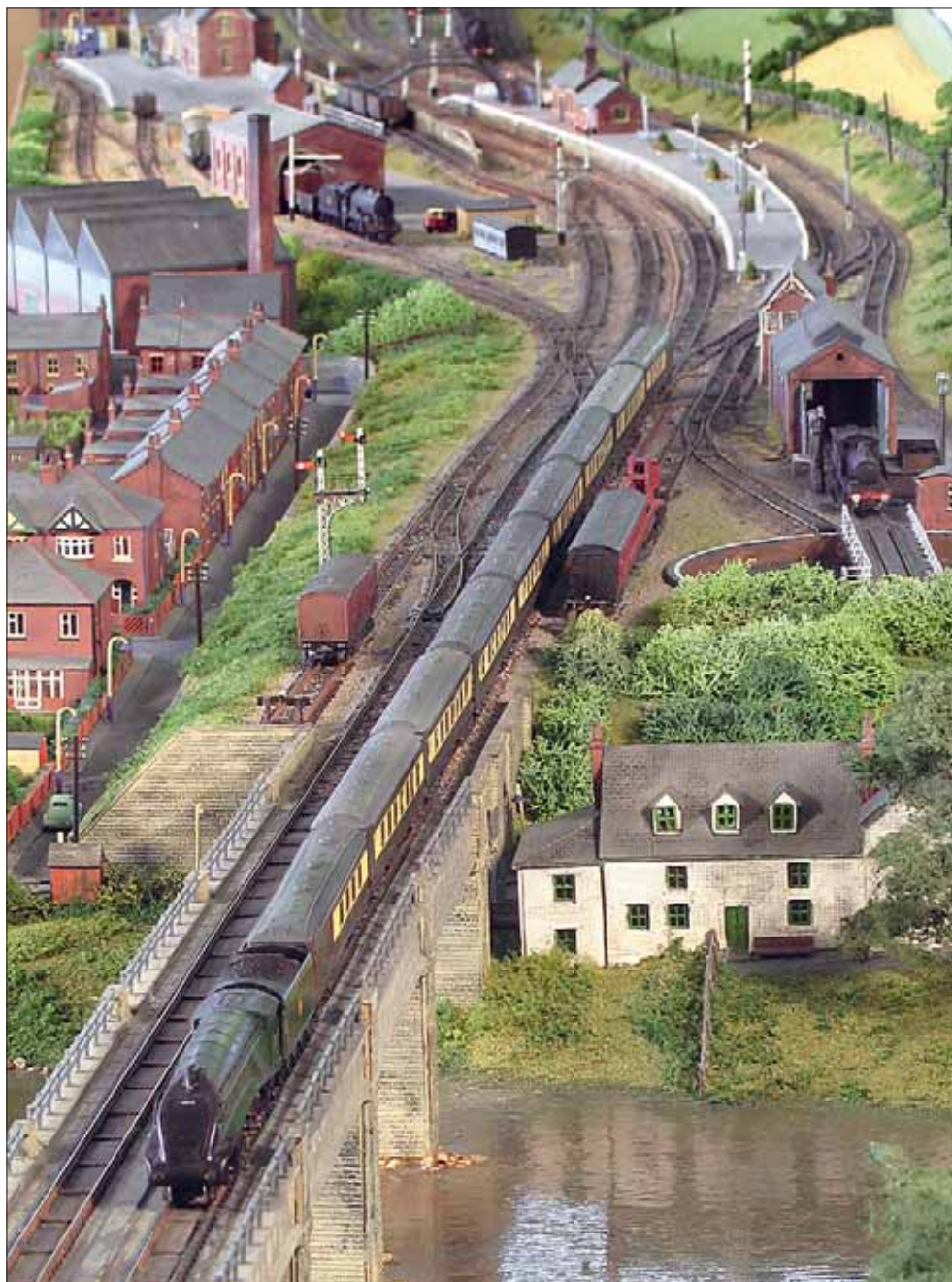


Right: an A4 takes the Tees-Tyne Pullman on the last stage of its journey north from Kings Cross. This picture shows the extent of the station area and related facilities.

Below: having brought cattle trucks down from the branch, the K3 is turned for its next duty. The seldom-used snowplough lies at the end of the headshunt.

run and providing storage for several trains each way. Yes, I would have liked to accommodate more trains, but I preferred not to have the boards too deep, but more of this later. Each pair of baseboards accommodates either the up or down storage yards at the rear, with only two tracks crossing the end and central joints. This leaves room for an integral control panel on the baseboard where the tracks narrow and also cuts down on the number of wires that have to cross by multi-pin sockets. This is the same method I used on my previous layout and was described when featured in RM.

Now, carpentry is not my strong point, yet I can put together a fairly sturdy set of baseboards that will not strain my back and are unlikely to warp. Using either 3" x 1" or 4" x 1" for the outside frames and 2" x 1" for internal strengtheners, hinged folding legs, also of 2" x 1" can also be accommodated. The boards were finished with a top of 1/4" ply which is not quite thick enough to accommodate the screws which hold the point motors in place, so I simply cut a small rectangle of the same ply to double the thickness where required. A centre hole is drilled in the ply plate to accommodate the pin from motor to point and, once glued in place, motors can easily be screwed underneath. Although it is always advisable to minimise the number of tracks crossing board joints, on *BW* I have up to eight tracks breasting a joint in one particular place. This was unavoidable without sacrificing the track plan but by using thin copper-clad strips just two or three tracks wide with a small screw at either side of the track, some flexibility in the height





Left: A1 No.60124 Kenilworth is a Foxhunter body kit mounted on a Farish A3/4 chassis.

Below: a J39 shunts its train in the yard and a short train of Thompson coaches stops at the island platform to allow an express to pass.

of the track can be achieved should there be any movement in the boards. This, like many of the other methods I have used, is not of my own invention, but learned from fellow modellers over the years. The alternative is to build longer boards, but this has to be weighed against manageability if planning to transport them. On *BW*, there are currently four scenic boards, each 4' x 2'8", with two covered end-boards which carry the tracks around 180 degrees and into the fiddle yard behind the backscene. However, as I write this, I am currently constructing a fifth scenic board. This will increase the scenic section to 20' and the total length to 24' and will show more of the branch line, in particular before it disappears through a road bridge; I wanted to avoid tunnels.

The track and pointwork is, of course, Peco finescale, rail sides painted rust to disguise their height further and to tone them down. Once glued to the trackbase, and wired in sections, I always test out the layout by running trains, and let's face it, that is what we all like, isn't it? At this stage in construction, it is easier to make any adjustments. Incidentally, I never glue in pointwork permanently as it can sometimes fail and need to be replaced; I find that the track at either side is enough to maintain its position. Once sure of smooth running, it was ready for ballast to be applied but I prefer to leave this until the base for scenery is constructed.

In order to create the structure for scenery, I first take a trip to the nearest supermarket and ask for any unwanted cardboard boxes. Now I know that some modellers prefer to use more sturdy materials, but this can increase the weight, a consideration when the layout is to be transported. I do use plywood for the exter-



Right: A3 No.60052 Prince Palatine rushes south through the station with a rake of Gresley stock.

Below: Farish A4 No.60025 Falcon passes the signal cabin with Gresley coaches by Minitrix.

nal contours so that it doesn't easily bend if knocked, but the internal contours are cut from supermarket boxes. Platforms of thicker card or even plywood can be used where buildings are to be situated, if not on the actual baseboard level, and then the next stage can be undertaken. Again, it is important to have visualised the contours of the land as part of the initial plan; remember that railways were cut through the landscape, not the other way around, so I find it is best to produce a basic drawing when at the planning stage; no matter how poor your artwork may be, it will help in the long run. Once the card contours are complete I weave a lattice of thin card cut from cereal boxes on to which I add several layers of newspaper, liberally coated with a fungicidal wallpaper paste. Once dry, if the edges do curl, they can be held into position with PVA before painting.

At this point ballast was added to the track. I used a product by Woodland Scenics, brushed into place and then glued with PVA, diluted, a drop of detergent added and then painstakingly applied with a dropper. I have used a powdered glue in the past and then just sprayed it with water; either way produces a hard finish which will not crumble, especially desirable if the layout is to be portable. I would recommend a test on some spare track if you have not tried either method before, just to get the hang of it; too runny a mixture will wash away the ballast, too thick and it won't penetrate. Once this is dry and hardened, I return to the task of completing the scenery.

Returning to the scenery, on the *papier mâché* base I drew on roads and field boundaries with a felt-tip pen, again usually designed as part of the initial plan. Roads can be painted in using poster paints and I always paint





fields brown before adding flocking so if there are a few thin patches it looks as though the earth can be seen through the grass. Again, I used products by Woodland Scenics, a little more expensive than other brands, but much more natural in tone. I paint on a thinned PVA solution and then quickly add patches of various shades before adding the base colour. I avoid certain shades of green as they always appear even brighter on a model. Tamping down the flock with a small sponge will help it to adhere, and any excess can be brushed off or sucked up with a table vacuum and re-used. As this mixture will progressively contain elements of the other shades you use, it will mellow even further and produce a very realistic shade for re-use. Buildings were, of course, glued into position first and once all this was complete, details were added. Field fences, made from Peco kits, were glued into place, small holes having been poked into the contours with the point of a pair of compasses at the required intervals, and some flock sprinkled to hide any visible glue. The river was created with a painted base coat followed by a first layer of varnish into which the stones were sprinkled. Successive layers of diluted varnish were added and flowed around the boulders creating the necessary depth. When this had dried, I must admit it did look rather too glossy so I toned down the river with thinned Humbrol paints and the desired effect of flowing water was achieved.

Going back a step or two, I have usually made buildings in between constructing the

boards and track laying, etc. This is mainly because they are possibly the most time-consuming elements of layout construction. As I previously stated, I wanted the layout to suggest that the station served a town, so buildings typical of the area and period had to be undertaken. Having scratch-built all the buildings for *Kirkby Mellersdale*, I knew that it could take me many months to produce the number required this time. However, there are some excellent kits available, and I decided to use some of the Kestrel kits, either as they came or as basis for adaptation. For example, the stepped terrace adjacent to the station approach utilises several of the four-house terrace block kits produced by Kestrel. They were cut in half in order to step them and I had to scratch build the outbuildings at the rear. The main station building utilises the Kestrel 'town station', again with some adaptation and the addition of a typical NE 'conservatory' booking hall. Unfortunately, this cannot be seen from the viewing side but provides the operators with a bonus. As the kits are relatively inexpensive, they are a good basis for such experimentation and not beyond the capabilities of patient modellers.

Returning to the subject of kit-bashing, the basic terrace and, indeed, the 1930s semis are both very adaptable. I turned one of the semis into a detached house simply by reducing the body and roof by half, and the three-storey Georgian house was developed into The Rectory, opposite the church.

The goods shed, signal cabin and water

tower were scratch built, copied from NE prototypes, as was the brewery adjacent to the river. The old medieval road bridge was constructed from card, laminated with Slaters embossed styrene sheet. The rail bridge, which forms the main feature at one end of the layout, was similarly constructed, but using I-shaped plastic girders, and topped with handrails from the Peco turntable. I happened to be down in Devon some years ago and paid a visit to Pecorama where a very nice gentleman found me sufficient spares for this purpose.

Lineside furniture was then added, and I must thank my good friend and fellow operator Steve Weston who built the wonderful lattice signals for me. They are MSE etched brass kits that require great skill in folding and soldering together. Other details add interest for the onlooker whilst waiting for the next train to appear. As an exhibitor, I insist on keeping things running to entertain the public.

And finally, the stock; a mixture of r-r and kits, the following classes appear; A1, A3, A4, B1, K1, K3, J's 25, 26 and 27, D20, O2 and WD are on parade. After the demise of the British outline Minitrix range, it was certainly good news when Graham Farish began to produce LNER types and now that Union Mills provides an increasing range of ex-NE locos, N gauge modellers can indulge in trains typical of the LNER. The B1 is the Langley body kit but mounted on a Farish A3/4 chassis, as is the Foxhunter A1. The Ks are both mounted on Kato chassis, the K1 being chassis powered,

Left: Class A1 No.60124 heads north with a Pullman set. The rake of coaches in one of the sidings contains an articulated twin-set adapted from Farish suburban coaches.

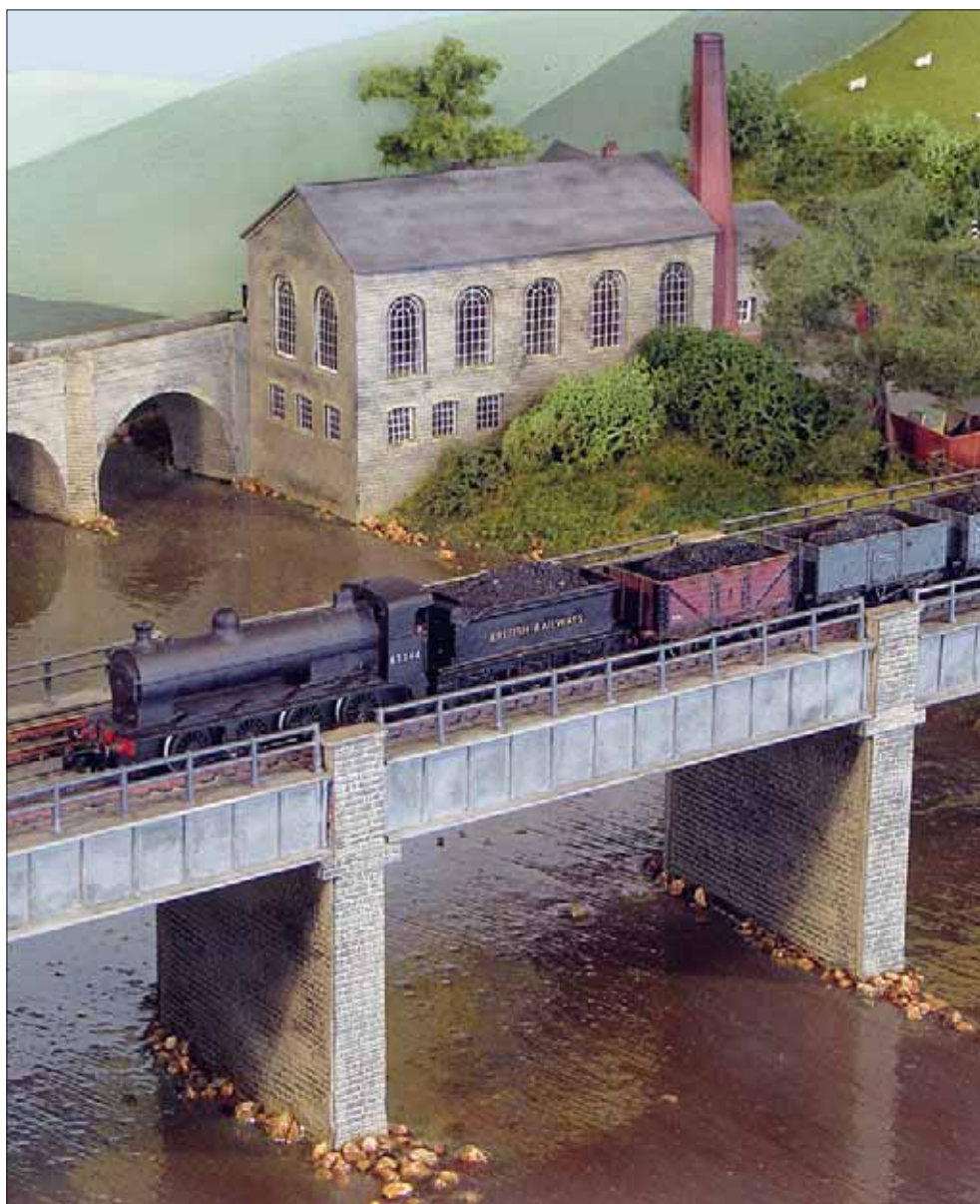
Right: near the end of its working life, an O2 hauls a train of coal wagons over the girder bridge.

Below: J39 on a local train of Thompson coaches built from kits by BH Enterprises turns towards the island platform which also serves the branch.

but the K3 utilises a Union Mills tender drive with a body kit by Foxhunter, soon to be available to all. The O2 is also by UM, but with a tender body from a Nu-Cast J26/7 kit. The WD, also by Foxhunter and mounted on an 8F chassis, has incorrect valve gear but it's all about compromise and making the most of what is available. I hope that, by the time this article appears Bachmann/Farish will have finally produced the long awaited V2.

As well as to Steve, my thanks must also go to Alan, Tim, Les and Dick who help to operate at exhibitions. After selling my last layout, there was a period of five years before I was ready to exhibit *BW*, and by the end of it I was more than eager to get on the road again; I just love it! After all, there is the opportunity to show off all one's hard work, but I also enjoy the social aspect and talking to other modellers, whether fellow exhibitors or visitors. So, if you visit an exhibition where *BW* is on display and feel inclined to chat or ask questions, please do. I look forward to sharing my enthusiasm and interest with you at some time in the future.

Bishop Wearburn is due to appear at Taunton and Colchester in October, details of which are in 'Societies & Clubs', and at Kidderminster, Grantham and Farnham in 2005.



Ascott-under-Wychwood

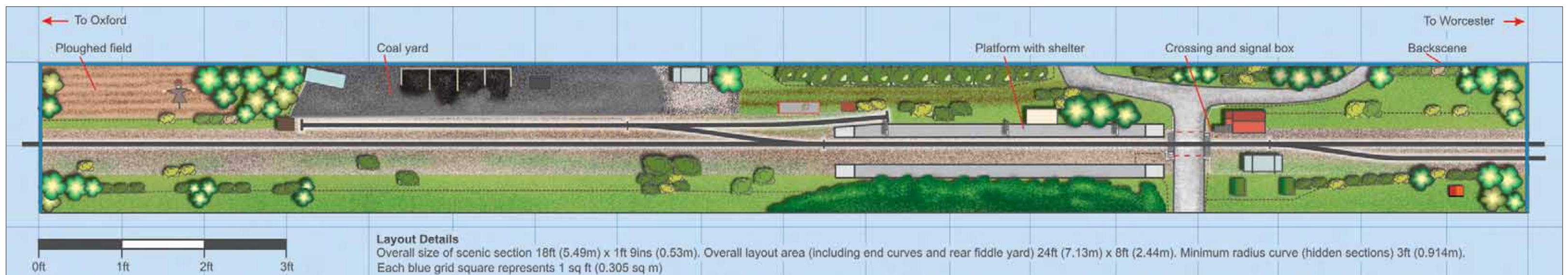
A battle to improve upon reality

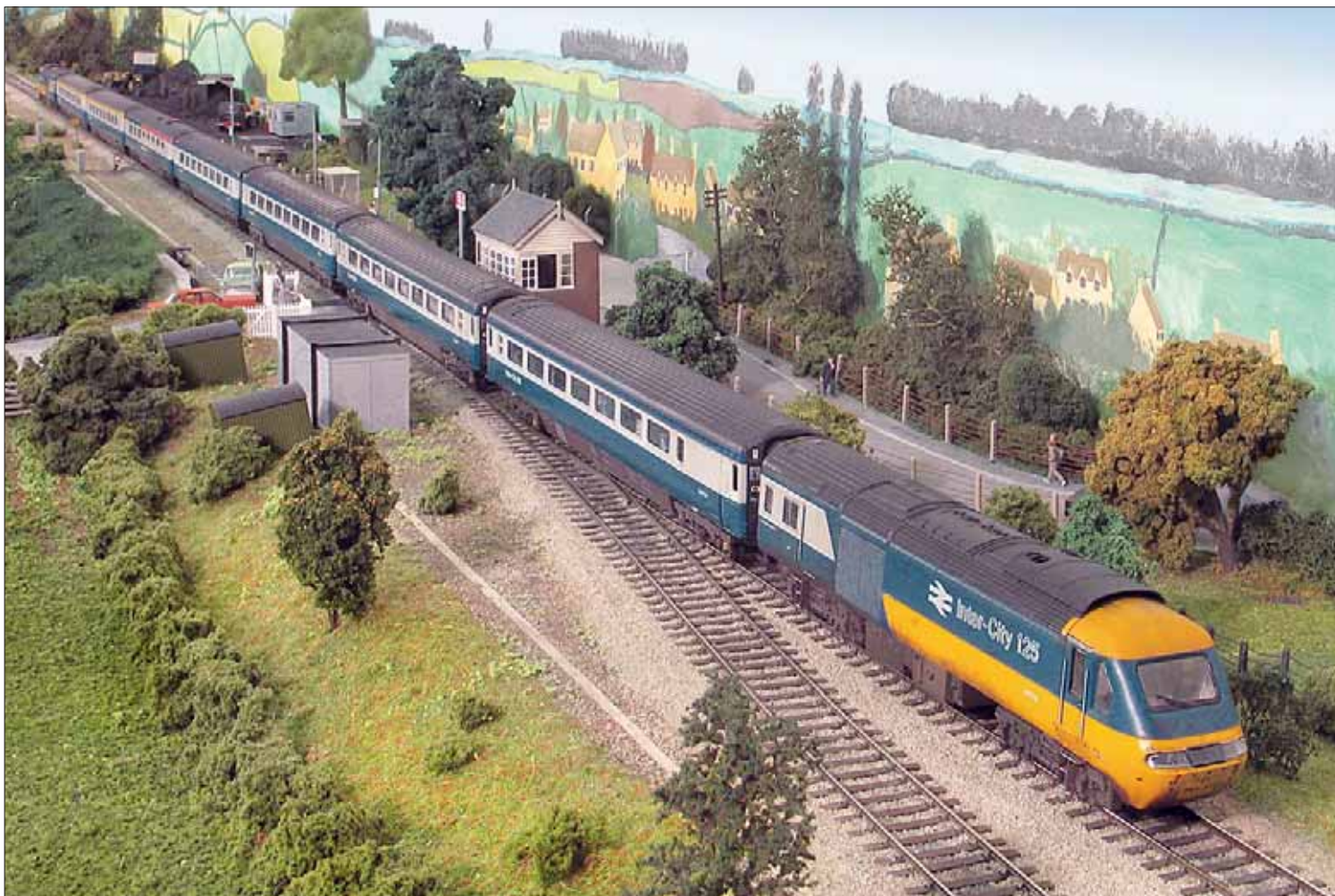
Ken Gibbons relates how rigid adherence to the prototype is not always desirable.

Left: introduced in 1984, The Cotswold and Malvern Express speeds past the junction heading for Great Malvern. No.47 440 waits patiently for it to pass before continuing its journey to Poole. Our camping friends have had the same car and tent for nearly 15 years!

Below: the signal box dates from around 1880 and is of a type, though standard GWR, which were mostly found on the OW&WR lines. The model is scratchbuilt using Slater's plain and brick embossed plasticard for the shell, the roof parts are from the Wills range and window frames from an old Builder-Plus NER signal box kit. The steps again are scratchbuilt, and the slight sag on the porch is entirely prototypical.

The village of Ascott-under-Wychwood lies in the valley of the river Evenlode in Oxfordshire. To this day this most pleasant place retains a railway station, albeit of a most basic form, for commuter traffic on the Oxford-Worcester line. The company that built the line was the famous Oxford, Worcester & Wolverhampton Railway; the OWWR, known also as the Old, Worse and Worse Railway on account of the chicanery of its Chairman, rather than its running. After sifting through history books however, it seemed no 'worse' than many other lesser railways of the time. Once absorbed into the Great Western fold the line settled down to a useful, if unremarkable existence.





Eventually, during the mid 1960s, the inevitable post-Beeching rationalisation of the line began and many of the less used stations were closed. Ascott, a wayside station in the traditional mould, survived the cull and in 1971 became the northern end of the now singled section from Oxford. Double track was retained from here onwards to Moreton-in-Marsh creating, in reality, a long passing loop. Beyond Moreton, the rest of the route to Worcester was also singled, save for the loop within Evesham Station. From that date the most noticeable changes have all been in the type of rolling stock seen in service, the only big visual change to the station site (other than the demolition of the original buildings some time prior) being the removal of the coal siding during the mid 1980s.

Why and wherefore?

I've been acquainted with this line for well over 30 years now, having first travelled over it on specials during 1973 and 1974. Since then I have developed more than a passing interest in the line, and that's maybe something to do with it being very much an oft forgotten part of the erstwhile Western Region. Between 1991 and 1996, I spent many enjoyable weekends photographing along the line. Despite its much rationalised and reduced status the whole line still seemed to exude an aura of the traditional railway, reinforced by numerous loco hauled trains that were diverted along the route on Sundays.

Alas, by this period, there was little freight,

though it was not much different in that respect to many other routes, as those years were if anything a nadir for that type of traffic. Getting to know the line renewed my interest greatly and many hours were spent poring over books. The conclusion from all the research was that the line would be a great subject to model, being a stamping ground over the years for such favourite classes as the Warships, Hymeks and, of course, the Class 50s.

Given the relative lack of changes to the route post '71, I felt that it would form a good backdrop for a varied collection of 4mm rolling stock covering the WR from the early '70s to the early '90s, though obviously keeping

them in 'groups' so that at an exhibition, viewers wouldn't see a Class 42 passing an NSE liveried 47. Thus was born a desire to model the line which bore fruit back in 1994 when I built a 3m long (scenic) 'pastiche' very loosely based on Moreton-in-Marsh. Sadly, this did not survive my house move to pastures east in 1996, though parts recovered from it have appeared on a few schemes since, including of course, this one.

Having succeeded, then been thwarted, the desire was still there to create another layout based on this line, this time preferably of a real site. Ascott-under-Wychwood was chosen as my next 'victim', for the reasons that follow.



Left: HST workings began in 1984, some seven years after I modelled this Hornby/Jouef hybrid. It's frightening where the time goes.

Below left: 37 344 on an MOD train in the late 1980s. Unlike the HST model, this model will soon be replaced, despite never having run much. Still, that's progress. Oh, and the lamp huts are at those crazy angles in real life!

Right: on the local 'all stations' service a Class 116 sets off for Oxford.

The need for speed

Many friends and acquaintances know that it seems I have unwittingly become a serial layout builder! In my defence, I can explain this as springing from a desire to recreate those places of railway interest that I have either seen and liked, or would have liked to have seen, had circumstances allowed. Fortunately my likings do tend mostly towards sites where the railway presence is not of a major form. This is probably an unconscious admission that although I'd like to model something as grand as Chester or even Crewe, I know full well that without the aid of a time machine, plus a warehouse or two, I'd never get past the half way mark with such an idea, and that's not even broaching the small subject of available finance. So, to satisfy my desire to cover many varied subjects, things have to be restricted to depictions of smaller sites, or vignettes of something larger, and if possible based on real life locations.

One benefit of thinking small in this vein is that projects can take shape relatively quickly. Given my normal battle with time this is a useful philosophy, and having committed myself in early 1999 to the Hull MRS show in November the same year, it proved to be an essential philosophy. Ascott's minimal facilities would prove a blessing to construction (or so I thought). Adding the cherry to the cake was the fact that most trains pass through the station at reasonable speed, with many going at full line speed. The vision of an HST or Class 50 at full throttle, albeit in model form, seemed irresistible, so construction began.

Another deadline

The physical nature of the construction is, to be truthful, very ordinary; you know the usual 50mm x 25mm PSE frame and legs with a 6mm plywood top. The only thing of note is that the trackbed is raised by about 25mm with timber spacers to enable the slight embankments of the site to be formed easily.

Track was SMP with handbuilt soldered paxolin pointwork, the layout configuration being essentially an 'oval' with scenic portion at the front and conventional parallel-looped fiddle yard at the back. Things progressed but, as usual, time scored a convincing victory over me. The running was, for a debut, fairly tolerable. Fellow HMRS members Brian Sunman and John Gregory worked wonders operating, whilst I stood by with tools at the ready. One success of the first outing was that we proved that even in EM gauge, a 'tailchaser' appealed to all ages from two upwards. The scenery, however, was less than acceptable, entirely my fault for not finishing it on time. Thanks to



some deft work with lichen by fellow club members, Ian Fleming and Paul Windle, it didn't look too appalling, though in the aftermath I resolved to bring it up to the same standard as *Lapford Road* (see RM Sept 1999).

Something was still missing

What 'scenery' had been modelled was removed. It had been an experiment using modern carpet underfelt for ground cover and had failed. The ballasted trackbed (which had by now dried out!) remained along with the coal yard which just needed some detailing. Landforms were rebuilt using *papier mâché*, the roadbeds re-done using 3mm ply, the signal box was finished, the road surface re-laid with a plaster skim, scatter and bushes added and fencing installed. The front boundary fencing came from the original OWW layout and, being true to prototype, was re-used with integrity.

And so we attended another three shows, but all, except myself, felt that something was still not right scenically. Even I was baffled, I had tried my best to replicate as near as possible the quantity and size of hedges and trees that would have been found in and around the station circa 1982 (this having been chosen as the 'main' operating period for the lay-

out). Although accurate to the real thing it was as if something was still missing. I suppose if anything I was in denial. I had done it exactly to prototype, so just carried on plugging it. However, until this point, I'd not painted a proper backscene, having relied on a neutral blue/white backboard to do the job. Well, maybe this was what was lacking?

With some trepidation, I purchased a box of watercolours and began aiming for a result that I hoped tended towards the impressionist school rather than the style of Jackson Pollock! I thought that a backscene would have sorted it out, but sadly it didn't. The layout still just didn't look right. Friends said it lacked 'atmosphere', there being less of it than rumoured to surround Mars! Well by now, even I was beginning to accept this.

Reasons to be cheerful (at last)

Well, there I was, finally acknowledging there was a problem with *Ascott* and due to return it to our club show in November 2002. Solving the problem was not easy though. I had run out of ideas on how to inject any kind of atmosphere and for that reason had pretty much decided that this show would be the layout's last.



Shortly beforehand, we needed to check out some wiring, and thus all the scenic section was put up in the clubrooms for what I thought would be the final debugging sessions. During one such session, Neil Ripley and Mally Baker (two of the team responsible for the atmospheric North East industrial layout *Walker Marine*) made the suggestion that I ignore the 'no more or no less than in real life' doctrine for the vegetation, etc, and visit our own reality upon it.

The aim was to create a series of pleasing compositions, cameos and focal points using extra hedges, trees, splitting fields into smaller areas, and so on. I have to admit that initially I was hesitant, my original desire to replicate 'real life' unerringly caused me to balk at the proposal. Anyhow, after a lengthy discussion, I reached the conclusion that it couldn't look any worse, even if it was 'wrong'. Consequently, the layout was subjected to a frenzy of scatter, lichen and sea foam trees. What a difference; with each additional, if technically bogus addition, the layout slowly but surely sprang to life.

One potential problem area was at the back of the coal yard where an awkward layout-backscene join occurred. The problem was solved by the suggestion of using a line of 45 gallon oil drums to hide the joint. Thus, thanks to Ten Commandments, the coal merchant went into collecting used drums for reconditioning! The overall result of the scenic treatment is that in terms of overgrowth, the layout probably pre-dates the real site by about 15

Above: 50s were the mainstay of the line for so long, real and model. A well earned retirement beckons for this detailed Lima Temeraire.

Below: one of the much travelled WR Class 31/4s busies itself with an Oxford-Long Marston freight sometime in the late 1970s. Photographs by Steve Flint, Peco Studio.

years! But, at last, some of that elusive ingredient – atmosphere – was gained. Job well done, thanks lads.

Having conquered the strange case of the elusive atmosphere, it was now time to buckle down and sort out the rolling stock. If the landscape had to be a *pot pourri* of modeller's artistic licence, then I sure as heck was going to try to keep the train formations as true to reality as possible. Over the last two decades, Lima and Hornby have provided the modern traction enthusiast with just about everything that was needed for the layout, subject of course to the usual detailing, repainting and upgrading to one's own chosen standards. No problems here then, or so I thought...

And it's goodbye from us –

Yes, *Ascott* is now in a period of transition in terms of model locomotives. At its inception, five years ago, who would have foreseen the likes of Hornby, Heljan and Bachmann producing the superlative models that we have today, the Hornby 50 and Heljan 'Hymek' being just two examples. Such goodies are obviously too nice to ignore and soon many of these

state-of-the-art diesel outline models will find a place on *Ascott*.

This of course does mean that many, though not all, of the items in the photos will be bowing out. As they've done the donkey work for five years, it seemed wrong not to include them in this feature. Some stock appears on the layout for a first time, typically the late British Rail era items such as the class 166 DMU and Railfreight sub-sector 37 (portents for the future, time permitting). Overall I still have the desire to portray the full BR scene c.1971 to c.1991, but blue era is our main interest and for the next few shows at least, we'll still be operating in 1982 mode.

Artistic interpretation vs. reality

Thanks to all the improvements, *Ascott* looks set to live on, hopefully for some time yet. The addition of all the new rolling stock goodies should keep interest to the fore and we've still not got bored with thrashing expresses along the layout or running longish mixed freights (even if we have to rely on diversions). I suppose that the tortuous 'enhancement' phase of *Ascott* does illustrate that the road to getting the result you want can be very long and, furthermore, you need to keep an open mind to the suggestions of others.

The strangest conclusion that I can draw from the process is that sometimes when modelling an exact prototype, reality needs to be enhanced to make the model more visually appealing. With this layout I've learned that strict adherence to prototype fidelity and ultimate scale standards can produce a model that is a wonderful technical achievement, but often little more than a clinical, miniature clone of our mostly prosaic and pragmatic world. Ten out of ten for spot-on engineering accuracy, but oh so artistically dull.

On that controversial note, I'd finally like to thank everyone who has helped with the development of *Ascott* during its five year life (so far) and the numerous show managers for their invitations. Despite the patchy bits, overall displaying the model has been thoroughly enjoyable and that, after all, is why we participate in this hobby.

See *Ascott-under-Wychwood* at the Manchester Show, 1, 2 and 3 October 2004 (full details in 'Societies & Clubs') and the Darlington Show, 4 and 5 December 2004 at the Darlington College of Technology.



Plan of the month

Slaithwaite Mills

Designed for a small space and 4mm scale

Neil Rushby shows how a non-railway prototype can fire the imagination.

Attractive and interesting layouts are defined as such at the design stage. No matter how well made, a dull design will result in a dull layout. Although I enjoy thoroughly sitting at my desk with sketch pad, pencils and pens, I know some people who struggle to find inspiration. The secret is to get out and about and to draw on other interests and experiences. If I only visited model railway exhibitions and read model railway books and magazines then I'm pretty sure my own well of ideas would dry up.

There are a few helpful techniques that we can employ in the cause of originality, and there are a few principles that we need to bear in mind if realism and atmosphere are to be captured. The layout plan I have worked up here never existed, and never formed part of any proposed development, but it is set in a real place. This is the first principle; what we design should be set in a real place. Location will determine so much; topography, architecture, industry and traffic, before we even take into account the nature and practices of the local railway company.

Our example is set in the West Riding mill town of Slaithwaite. The name may be familiar to you as the location of ExpoEM North. It is a regular autumn treat to spend the day at the show, followed by a late afternoon walk along the Huddersfield Narrow Canal to Marsden. Given the right weather it is a splendid stroll, more 'green and pleasant land' than 'dark satanic mills', though industry is still present.

It is the mill complex as the canal leaves Slaithwaite that forms the basis for this design. When out walking (another interest of mine) I quite often spot industries that although never benefiting from a rail connection could be blessed with one in my mind's eye. First handy hint; when inspiration is lacking, find a location or an industry that was never served by rail and give it a connection to our national rail network.

This covers, incidentally, the second principle; give the design a purpose, a traffic source. In this case it would be raw materials (fleeces) and coal for the boilers in with woollen goods such as carpets or blankets leaving by the wagonload. Realism is enhanced by this focus on a limited range of mundane traffic appropriate to the location. One of my pet hates is the clichéd branchline terminus that has a siding for everything – in real life traffic flows concentrated upon the staples for the area served. In this case, less is more.

As the layout is set in a real place we can



Above: the 'new' part of the mill complex. On the plan this is at the left hand or Huddersfield end, and conceals the two road sector plate built inside.

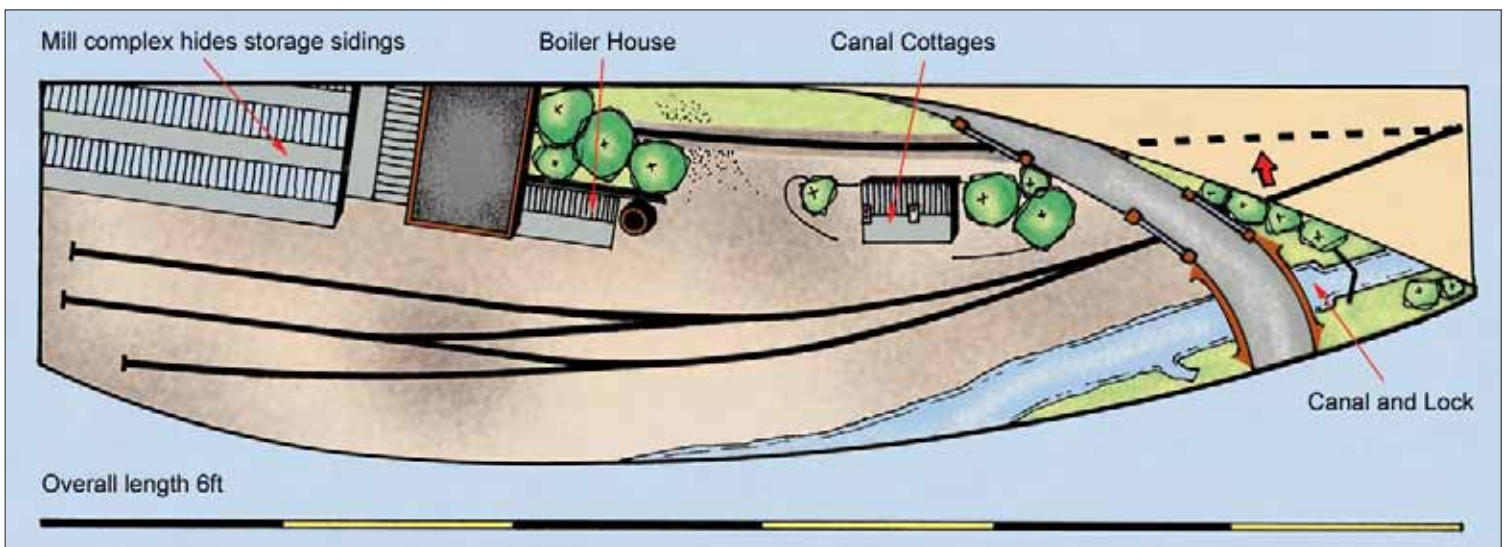


Left: the view from the bridge over the Huddersfield Narrow Canal towards the older part of the mill. It is this part of the buildings that the line disappears behind.

Photographs by the author.

infer that it would link with the actual railways of the area. In this case it means the former LNWR line from Huddersfield to Manchester. I have assumed that as this main line gains altitude by climbing steadily higher up the sides of the surrounding hills, a freight only branch was constructed to serve the string of mills which hug the valley bottom, close to the water they require. I imagine that originally the line would have continued some way past Slaithwaite but that it has been truncated, leading to the need to propel stock back into the yard through the trailing connection.

Slaithwaite Mills is an unashamed minimum space concept; handy hint two, freight only designs can pack more interest into a limited space. Until relatively recently the freight scene was dominated by short wheelbase, four wheeled wagons, unchanged in concept since the birth of the railways. The compact nature of traditional freight stock lends itself to compact designs; two or three four wheelers take up the same space as one bogie vehicle.

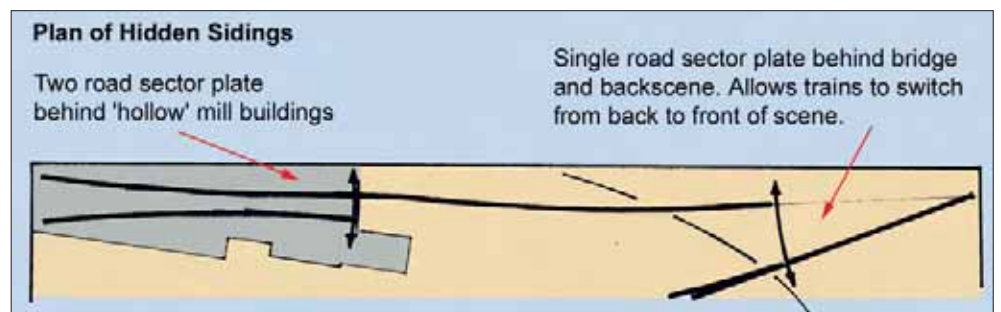


Further interest is gained through the shunting and sorting of wagons and for the requirement of most trains to have a brake van placed correctly, at the rear.

Our design features a loop and a couple of sidings at the front, with two hidden sector plates linked by a section of visible track to the rear (see plans). The left hand sector plate, concealed by the mill itself is for train storage: its right hand companion switches the train from the rear to the front of the scene. In this case our first glimpse of the train after leaving the hidden sidings is as it leaves the mill complex along the rear line. It is only a glimpse as the train disappears behind the canal cottages and under the bridge towards the off scene reversing range. After a short pause our train reverses out under the near arch of the overbridge to shunt the sidings. On completion of business the brake van will have to be placed at the opposite end of the train and the whole ensemble reversed out to the neck, before being able to proceed forward to its destination.

Although the plan was drawn with EM gauge hand made pointwork in mind, it is also suitable for use with 00 gauge pointwork from the Peco Streamline range, though I would suggest checking the formation out with the firm's paper templates beforehand.

Railways are all about journeys whether it be the opulence and romance of the *Orient Express* or strings of mineral wagons snaking down the Welsh valleys from pit to port. The section of line running between sector plates at the rear of the layout is there to hint at a destination remote from the confines of the baseboard. It is an idea inspired by an enjoyable hour or so operating *Rhosnewydd Junction* by Ken Gibbons (see RM March 04). On *Rhosnewydd*, opposing sector plates feed trains onto the layout and are connected by a hidden 'sneak off' track at the rear. I reasoned that if I could find a visually acceptable way of exposing such a hidden line then it would be possible to increase the percentage of visible run. An unplanned benefit of opening up the run between sector plates is that trains passing through a scene, however briefly, emphasise purposeful travel and the sense of journey undertaken. Principle three; minimise the



impact of storage/fiddle yards while maximising the journey the train has to take.

Both sector plates are designed for indexing with two roads only. This is partly to fit them into the limited width available in a minimum space design but partly because a particular prejudice of mine is that layouts should be operated from the front. If we do so then the alignment of the sector plates is invisible: stops to limit travel are very easy to arrange for a two road plate or a one road plate with two outlets, but indexing for a greater number of roads comes with greater complexity. You may also have noticed that the plates are of unequal length; that for storage at the left is 2' long, that on the right only 1'6". On paper it

would have been easy to draw the right hand sector plate at 2', but real life is not that easy and we all face the constraints of finite space. It would be possible if more space becomes available, such as at exhibitions or if obstructing furniture can be removed temporarily, to fit a longer interchangeable sector plate.

Just as the layout is set in a real place I believe that it should be set in a real time. Inconsistencies can destroy the illusion of realism. For *Slaithwaite Mills* to be operated in the way proposed earlier, then we need to place it in an era where the truncation of the branch beyond would be believable. Conversely such byways of the railway network tended to be vulnerable to the onslaught



Right: a winter view looking down the canal to the lock shown on the plan. The mill and the town of Slaithwaite can be seen in the distance. The headshunt where trains would reverse into the yard would be to our right.

Below right: a typical mill building, built by Geoff Taylor, on Dewsbury Midland by the Manchester MRS (see RM December 2000). On this plan, selective compression of the mill would be needed to keep proportions right.

Bottom right: I have borrowed these canal cottages from Haworth. The left hand pair shows a fascinating mis-match of window styles. Although not from Slaithwaite they are built to a common West Riding style in mill-stone grit.

Below left: again this is a scene borrowed from Haworth. It illustrates the atmosphere I wanted to capture, ordinary sidings in an ordinary place, hardstanding and weeds. And if you half close your eyes you could just about imagine a canal in the background.



of the road transport industry and the decline in Britain's manufacturing base. I guess that this limits the time frame to sometime after the second world war but before the winter of discontent. Recently I have become fascinated by the idea of representing one particular day: what were the railways doing when *Heartbreak Hotel* was released, JFK was shot or Neil Armstrong walked on the moon. While we will probably never know what stock was where on these particular days, by focusing on these events we would be able to create a coherent, consistent look.

As I work in EM gauge naturally I design to suit. The plan should be suitable for the other 4mm gauges; given short wheelbase stock even P4 is possible. This is one design that because of its compact size would be suitable for enlarging to 0 gauge. Reduction to the smaller scales is possible but given the opportunity I would try to keep to the same overall length and stretch the plan out. What works visually in 4mm scale can sometimes look cramped in N or 2mm if it is simply shrunk proportionately. Far better to go for the 'railway lost in the landscape' look to which 2mm is so suited.

Finally after all this planning it is important to ensure that our design is capable of being built; principle four. By now I have a good idea of how the drawings I do would look if built, but I still like to mock up the design at full size to check. Quite apart from ascertaining if all the track will fit with sufficient clearance for stock it gives a feel for the visual aspects.

In a limited space design such as we have here, with three different exit points from the scene, sightlines and proportion of the structural and scenic elements are vitally important. Remember the opening paragraph about realism and attractiveness? Our final principle is that we can only achieve this if the scenic elements are given equal priority to the pure railway components of the design.

The ideas that we have looked at so far have been applied to a hypothetical, freight only, minimum space layout. In my next article I will look at presenting a prototype location with a range of passenger and goods services.



Hel-yn-Bach

00 finescale set in BR-period North Wales

The Merseyside MRS' exhibition layout is described by **Graham Foulkes**.

Merseyside Model Railway Society's 00 1950s/60s era layout, *Hel-yn-Bach*, is probably unlike most layouts that are never finished; this one has its completion date moving further and further away! Whilst basically complete, the 00 group has further plans for it.

Hel-yn-Bach is built to 00 finescale standards. The layout is built as an oval, with three viewing sides and a fiddle yard to the rear. It is set in North Wales, with a single main station and a comprehensive motive power depot (MPD). There are hints of a town 'off stage', a relatively large residential area, and somewhere for those residents to work.

The layout name does not actually (well, it should not) mean anything in Welsh. It is simply a comment on what we felt about it in the early days; oddly enough these feelings persist. It also follows in the footsteps of previous Merseyside MRS layout names such as *Ortogo*, and is being followed by DCC controlled *Cwm Bach and Triard* by the Society's Great Western group.

Baseboards

All baseboards comprise ply on cross beams. The scenic boards are no larger than 3' x 3' and fit together in pairs to ease transportation. The fiddle yard boards are longer, but being scenery-free, have less weight. At the end of each baseboard is one half of a piece of timber, cut in two by a 'wavy line'. The bottom half on one board supports the top half when attached to the neighbouring board. This arrangement helps to align the boards accurately, and minimises the number of legs required; only the supporting baseboards have legs.

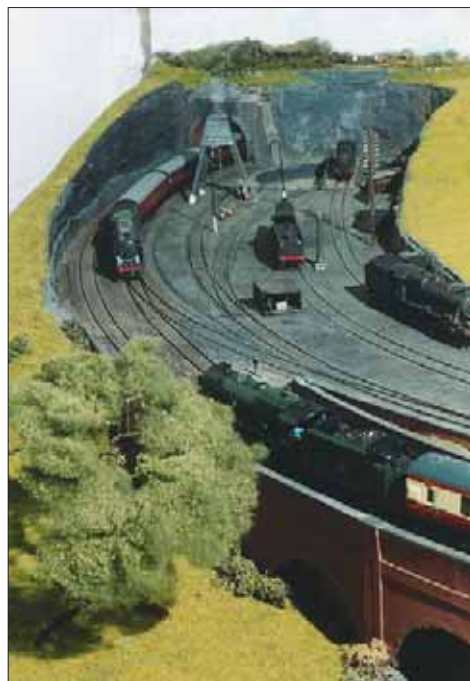
Operation

The main line takes as its basis the passenger timetable for Llandudno Junction in the early 1960s, although *Hel-yn-Bach* is not, as yet, a junction station. As such, there is a mixture of express, non-stopping and local passenger trains, complemented when paths allow, with freight workings.

The layout is traditionally wired with cab-control. The up and down lines, the MPD and the area around the turntable are all separately controlled.

Track plan

All trackwork is SMP Scaleway, with hand-built points. The oval track plan links the station and MPD at the front of the layout, with a twelve-road (six roads either way) fiddle yard. A pair of single up and down lines passes from the fiddle yard, through the scenic gap and



into view. Both scenic ends of the layout start in wide cuttings. At the 'down-end', adjacent to the turntable, the up-line offers access to the MPD via the avoiding line. This line continues behind the station rejoining the main line in the 'up-end' cutting, just before the two-road diesel stabling point.

The MPD is reached from that avoiding line. A coaling stage, two access roads to the turntable and a siding are passed before

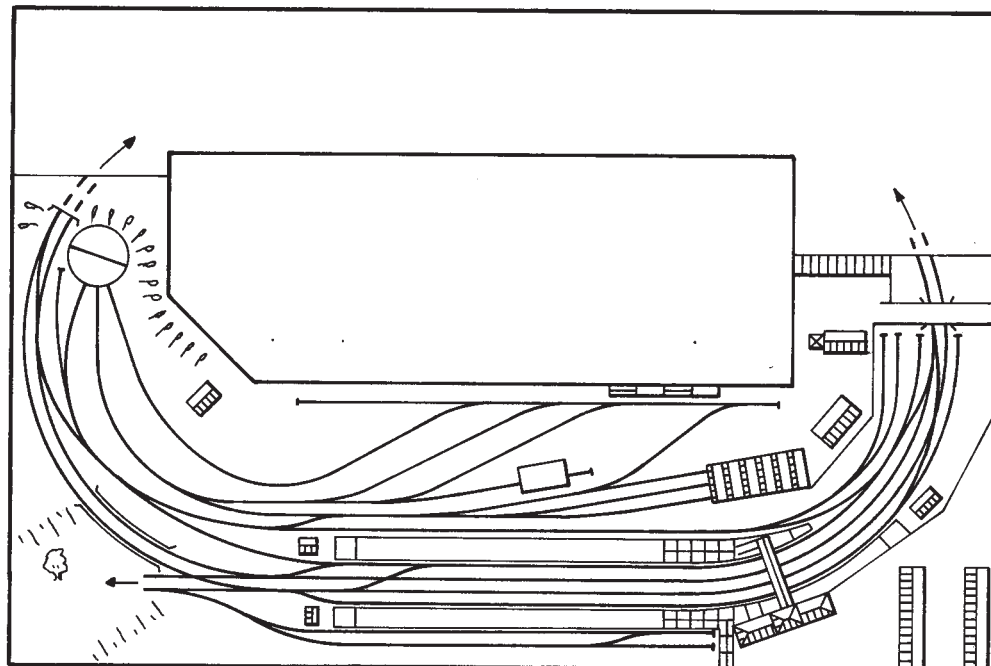
reaching the three-road engine shed, which can hold nine locomotives, plus a further three outside.

Back on the up-line, after crossing the viaduct, both the up and down lines are joined to the branch line, presently shut (unmodelled). We plan to open this branch at some time in the future. Then both up and down lines are split to allow two central roads through the station and two to accommodate stopping traffic. The up platform can accommodate ten-coach trains, whereas the down platform can handle twelve-coach trains. Both platforms will be able to handle traffic to and from the branch. Two quite separate roads in a bay will serve the branch, one with a platform. These have no direct access to the main line and are currently disused; the trackwork is painted over to give that rust effect.

Leaving the station, the four lines are reduced back to two running lines, with a single parallel short siding on either side. Those two short sidings and the adjacent two diesel roads sit in the 'up-end' brick-lined cutting, stopping short of the bridge which passes over the two running lines as they reach the fiddle yard.

Stock

Our 00 group members are ready to supply a vast array of stock for layout use, especially since the ready-to-run market has recently improved its products. There is one simple set of criteria to which we adhere (mostly): the stock must be British Railways-based, exclude



Left: the cutting and turntable with passenger trains approaching.

Right: No.46220 Coronation arrives with a down passenger train at the station.

Below: the station building, diesel stabling point and the town.

Photos by Bill Hodgson and Bill Andrews.

the corporate blue era and have a chance of appearing in North Wales. That leaves us with the very interesting era from 1948 to the mid-to-late 1960s.

At exhibitions, it is usual for John Ince's steam locomotives to please the masses. Some locomotives may have had a simple re-coaling, such as Standard 5 No.73158 by Bachmann, or have extra detail added and a simple weathering such as 2P No.40670 and 4MTs Nos.75079 and 75050, all by Mainline. Others have had more extensive treatment, such as 4P No.42391, 5MT No.44868 and 9F No.92025, which are all Hornby locomotives with Crownline conversion kits. Comet valve gear and a Mashima Motor feature on Hornby 2MT No.78033, again treated with Crownline parts. Unrebuilt 'Patriot' 45506 *The Royal Pioneer Corps* has been constructed from a Mainline chassis, a Hornby body and an Airfix tender. Particular favourites are 'Princess Royal' No.46204 *Princess Louise* built up from a K's kit, and 'Britannia' No.70054 *Dornoch Firth* – a DJH kit. The list goes on and includes several Class 40s with extra detail. Other members' locomotives are a mix of steam and diesel locomotives from Hornby, Bachmann and Heljan, which includes detailed Class 25s and 47s.

Coaching stock follows a similar line. There are a fair few proprietary r-r products, but Comet Models coach sides are in evidence for a healthy supply of Stanier (an early Merseyside MRS Chairman) designed stock. Some of these have been grafted onto Airfix-type r-r coaches; some were included in complete kits, and others have lent themselves to completely hand-built vehicles. There could



also be a glimpse of a 1960s Royal Train, including three hand-built 1941 LMS twelve-wheelers. A greater oddity could be the appearance of a rake of Southern Pride Mk 1 Pullmans. It is also in this area of coaching that the group has tinkered with alternative couplings, close coupling and realistic gangway connections.

DMUs get a mention. The Lima early Derby set and its Met-Cam unit make an appearance, and by the time this article is published, there should be a hand-built Park Royal unit drifting around.

On the wagon front, we have to admit no great advances over and above that which comes straight out of the box, but all good stuff.

Scenery

The station building and the MPD tend to be major focal points of the layout. The station building is based on Bangor. The facade and the footbridge reflect that station reasonably well. Elsewhere, we were keen to give part of the layout a gritty, urban feel. As such, the sta-

tion sits behind a row of local shops, implying that the main town is not far away. The row of shops is based on a Birkenhead street, with a New Ferry bank thrown in for a prototypically difficult corner; I did worry as I photographed that bank.

Behind the diesel depot on top of an impressive cutting, faced in engineer's blue brick, a large area awaits terraced housing. A somewhat gentle gradient leads down towards the engine shed, also based on Bangor. Major employers are represented by the police station (to come), a railway office and a bus body builders; there was one in Anglesey, and this being north Wales...well, it would be rude not to have one. It provides us with an excuse to have some London Transport RTs on display. A large warehouse was removed as it was too large and caused some operational difficulties, although it did hide a change in levels. This area has now been re-levelled; a road that served the warehouse now continues the gradient through the old site, and a useful junction has been contrived to hide an otherwise too sharp bend. Road vehicles are a mix of Airfix, Classic Models and EFE.

Further plans

Signalling is the largest area that needs attention. Temporary buildings and demolition sites currently sit where the terraced houses will be built. There are as many opinions regarding the branch line as there are members of the group, but it would open up the bay platforms for use, even if the branch just dives into a tunnel. We shall see.

One of the benefits of belonging to a large society is the support offered by the others. *Hel-yn-Bach* makes use of the Society's modular lighting rig which has parts unique to this layout; other parts are generic to all the layouts, from steam era to today's railways, from GB, American and European practice and from N to 0 gauge. That, and the layout's recent revamp, have helped place *Hel-yn-Bach* firmly on the exhibition circuit.

The layout is booked to appear at the Merseyside MRS show this month: details in 'Societies & Clubs'.



The waterworks siding

A new addition to the long established 16mm Compton Down Railway

Peter Jones describes this latest development.

We are in a world far removed from grand scenery and lofty viaducts. The ash siding that serves the Compton Down Water Company Limited is more a back alley than a grand boulevard. Other places may speak of the glory of railways; but this is where the work gets done.

The waterworks is freelance but most of the individual structures are based on prototypes. They have mostly been dressed in the skin of the Compton Down house style of slate/shale stonework to ensure an overall harmony. As usual, uppermost in my thoughts was the need to make the whole thing as durable and maintenance free as possible. It is insidiously tempting to build things that look good just at the moment, careless of the future. But, out in the garden, that future soon comes knocking at the door.

I have tried to model the passing of time. High in the background is the original Victorian beam engine pumping house, and the siding was originally laid to take away the ash from its boilers. But over the years the works have expanded and modernised – and as they did so, architectural pretensions were mostly lost. The 1900 waterworks is a very functional building. However, in the 1930s, the modernisation produced a big new pumping hall that did at least have a slightly enthusiastic façade to it. But really the whole place is just a maze of pipes, conduits and buildings that could only have come from unplanned organic growth. Redundant machinery remains in place, adding to the clutter.

As is usual with me, I like things that have the semblance of working. So water does get



circulated through filters. It burbles and gurgles splendidly and the place really seems to come alive when that happens. The gory mechanics for making all this happen involve parts from an old washing machine, petrol pump and a microwave oven, together with raids on the deeper recesses of my toot ('bits that will come in useful one day') boxes.

And here I must put in a WARNING. Mains electricity out of doors needs to be done safely, particularly in association with flowing water. I am fortunate enough to know how to do the job properly. These days too it is absolutely essential for circuits to be protected by proper circuit breakers. If you are not satisfied with your abilities and want running





water for a project then stick to proper sealed pond pumps and get your work checked by a qualified electrician – or get him to do the job for you.

But back to happier topics. The track is part of a much larger light rail system being built and uses Peco 7mm 0 gauge track, of which I have a large quantity secondhand. In an early experiment I laid several lengths after removing each alternate sleeper. In the comfort of the workshop this looked very appealing but when it was bedded in my cement mix out in the garden it was just not apparent.

I use either battery or steam out of doors and so am not troubled by wiring. For me, digital command and control means flicking the switch in the cab! There are some steep gradients involved but they are within the capabilities of the locomotion. As a lad I used to get illicit trips on one of the locos at Hilsea Gas Works, spectacularly struggling to propel six wagons up the bank.

The principal loco is a four-wheel diesel with a cutdown cab. It is mostly brass and features spur and bevel gearing. This has the advantage of a nice bit of inertia but it does need a brake to hold it on the steepest part of the bank. The current wagonry comprises a few scratchbuilt open wagons but in due course, a long rake of BigBig tippers will be introduced. Oh Hornby! If only you would introduce a modern version of the old Triang BigBig range, future generations would name their first-born after you. Being of a lazy dispo-

sition, those tippers will live in a long shed on a siding, probably with a hinge-up roof, so that I don't have the fiddle of taking them out to the track, putting them on rails and coupling them up every time I want to use them. Experience has taught me to be pragmatic over the years. Another example of this is where, up at the old ironworks, there is a small anonymous building. Its actual function is to store pegs for the adjacent rotary clothesline, and stop certain people who will not be named from scattering them all over the layout. There: you can now see just how thoughtful I am.

I like to use scale colour out of doors. The 'house colour' of the water company is pale blue. This can be notoriously difficult to get right: it can so easily seem toylike. What I do is use a mixture of bathroom acrylic paint bought in sample pots. I use several different shades of light blue and some yellow. The blues are mixed in wet on wet to achieve a

natural lived-in look to everything. Faint hints of yellow are also applied to the wet mix. The overall effect is a satisfactory one of fading and age but without excessive weathering. It is important to err on the light side.

There are still several more jobs to be done. In the foreground there will be a building that houses the backup steam pumping plant. It will feature live steam and be a fairly respectable model. That being the case, I shall break one of my own rules inasmuch as it will not live permanently out of doors but will be a steam model in its own right that I can run anywhere, dropping it in place on site when I want to complete the picture. Doubtless, over the years, I shall add further details from time to time. Meanwhile the main track will extend away to the east, towards the intended steelworks. But for now, with the pumps purring away and the fan in the 1937 house humming to itself, the water is splashing playfully in the sunlight. All is well.

Above left: a summer's day at the waterworks.

Far left: peering downwards towards the ash tunnel.

Near left: looking up the hill towards the original pump house.

Above: the waterworks loco stands in front of the 1900 building.

Above right: the interior of the original pump house, electric powered.

Right: aerial view showing the 1900 and 1937 buildings.

Photographs by the author.





St Denys

Part 2 – operation, stock and future developments

Andrew and Simon Tucker continue the account (from last month) of their NSE junction in N.

Operation and stock

The layout is wired for cab control from small panels at each end of the scenic section adjacent to the traversers. Double throw centre off switches allow either operator to drive on any part of the layout although in practice it is normal to bring a train from the other end of the layout onto your own traverser. Peco point motors are energised by push buttons on the panels with LEDs to indicate the route setting.

We operate a sequence of trains typical for our 1991-1995 period. It is based on a two hour segment of the weekday passenger timetable with the daylight freight services condensed into the same period. A printed flip card system provides train information for the audience and hidden prompts for the operator. At present the cast in order of appearance is:

Empty oil tanks to Eastleigh yard. Petroleum sector liveried Class 37 with TTA tanks. 37 891 is a Farish loco with a lowered body and details added before repainting; all the Peco 4-wheel tanks have Taylor Precision Models (TPM) ladders and catwalks. The bitumen tanks have the additional modification of coned ends. Farish TEA bogie tanks are added to the train for the trip working to Fawley refinery. These have also been modified using the TPM kit before having a comprehensive repaint.

Freightliners to Southampton Millbrook and Maritime terminals. Class 47 and container flats. 47 299 (the notorious 'jinxed' loco) in faded blue or 47 302 in tatty Railfreight red stripe livery are modified and repainted Farish. We also have 37 178 and 37 298 operating as a pair in faded Railfreight Distribution livery, again Farish with modifications and an Ian Stoate unmotorised chassis to one loco; the wagons have been detailed using the TPM kit and the 30' containers have all been cut and shut to make 20' and 40' versions before repainting in appropriate liveries.





Left: pride of Bournemouth depot, 73 109 Battle of Britain – 50th Anniversary hauls the boat train stock of first class NSE carriages with a GUV for all the luggage.

Lower left: this closeup of a 'heavyweight' Class 37 with an oil train shows the improved appearance of the lowered body.

Bottom left: 47 299 rumbles east with a Southampton-Coatbridge Freightliner passing a 4-VEP EMU standing at platform 4.

Above: 47 348 St Christopher's Railway Home with a short train of military vehicles from Didcot heads for Wool.

Below: 73 134 Woking Homes passes the former Dukes Road crossing with a Winfrith Heath to Sellafield nuclear flask train.

Fast and semi-fast services to Waterloo. Class 442 Wessex Electric. 2401 *Beaulieu* and 2414 in NSE livery are both converted from Farish Mk 3 carriages using the TPM kit and Fox transfers. Motorising is by means of the TPM chassis and the motor and bogies are from Bachmann American locos*.

Nuclear flask train, UKAEA Winfrith to Sellafield. Class 73, wagons and brake van. 73 134 *Woking Homes* in InterCity livery is from a CJM kit, the FNA flask wagon and HEA hopper runners are from TPM kits and the CAR brakevan is repainted Minitrix.

Southampton to Eastleigh local service. 4-VEP EMU. 3157 in original NSE livery is formed from old-type Farish Mk 1 carriages with TPM window inlays and cab ends and TPM/Fox transfers. Motorising by TPM/Bachmann.

Light engines from the Freightliners. They pass to and from Eastleigh for stabling.

Portsmouth Harbour-Cardiff and Brighton-Cardiff workings. These are normally a Class 158 DMU. Farish 158 860 in Regional Railways livery has been modified including fixed air dams and close coupling. Occasionally a Class 150 dmu is substituted: 150 254 has been made using two Farish Mk 3 carriage bodysells with our own ends and overlay sides, with motorising by TPM/Bachmann.

Steel rod and bar from Cardiff to Northam Yard and return working from Hamworthy. Class 60 and BDA bogie wagons with rod and bar and SEA covered wagons for coil. 60 044 *Ailsa Craig* in Mainline freight sector livery is a TPM body on a modified Farish Class 50 chassis, whilst the bogie wagons are from the N Gauge Society kit. On the end of the rake are two John Grey SPAs modified with scratchbuilt hoods.

Bournemouth-Edinburgh Cross Country. Class 43 HST. Power cars 43006/07 are detailed Farish models in InterCity Swallow livery. Spare power car 43013 is one of the surrogate DVTs, made with the aid of the TPM conversion kit.

All stations Waterloo to Brockenhurst. 4-VEP EMU. 3430 is similar to 3157 above but with the inlays cut and shuffled to produce a refurbished version with extra seating in the former luggage area*.

Portsmouth & Southsea-Southampton. Phase two 4-CIG EMU. 1887 in original NSE livery is formed from Farish Mk 1 carriages with TPM window inlays and cab ends and Fox transfers*.

Didcot to Marchwood military port. Class 47 with a mixed rake of VAA/VCA/VDA/VEA/VGA vans and OAA/OBA opens with a KFA container flat. 47 298 *Pegasus* is a modified Farish loco repainted in triple grey Railfreight Distribution livery; the wagons are Parkwood Models and Ian Stoate kits together with a comprehensively modified Farish container wagon.

Victoria-Bournemouth. Phase one 4-CIG EMU. 1731 as 1887 but with different power bogies.

Military vehicles, Wool-Didcot. Class 47 and Warflats/Warwells with a VGA van. 47 348 *St Christopher's Railway Home* is a modified and partly repainted Farish loco in Railfreight Distribution livery, and the wagons are from Ian Stoate and Parkwood kits with Landrovers from PG Models and modified Roco armoured personnel carriers.

Waterloo to Southampton docks boat train. Class 73 and rake of 1st class carriages. 73 109 *Battle of Britain – 50th Anniversary** is from a CJM kit with Farish Mk 2 carriages modified with TPM inlays and Fox transfers throughout for the NSE livery. Additional luggage accommodation is provided by a GUV made from BH Enterprises parts and finished in matching NSE livery.

Furzebrook-Avonmouth Liquefied Petroleum Gas. Class 47 or Class 60 with TTA tanks. 47 381 is a modified Farish loco in Railfreight Petroleum livery. However 60 033 *Anthony Ashley Cooper* in triple grey petroleum livery is normally in charge, this being a TPM body on a modified Farish Class 50 chassis. Peco 45T oil tanks have been modified heavily to produce the 23 tanks for propane and butane.

Poole-Liverpool loco hauled service. InterCity liveried class 47 and carriages. Farish InterCity Swallow liveried 47 834 *Fire Fly* is the preferred loco with 47 711 *County of Hertfordshire* as an alternative. The air conditioned Mk 2s and a Mk 1 buffet are Farish modified with TPM inlays and Fox transfers.





Other 'unscheduled' services include: *Engineers trains*. Class 33 or 37 with Borail, ballast hoppers, plough brake van, etc. Farish locos 33 019 and 37 197 are modified and repainted in 'Dutch' livery with wagons from N Gauge Society and John Grey kits.

Route learning. Class 121 'bubble car' L125 is a BH Enterprises kit on a Farish GWR railcar chassis in Network SouthEast livery.

Class 159 DMU. 159 007 in NSE livery is the Farish unit with modifications including fixed air dams and close coupling.

Failed EMU substitution. 4-TC with Class 33/1 or 73/1. 33 102 is our 'bagpipe' 33 with unit 8001 made from Farish Mk 1s using cut and shuffled TPM inlays*.

Steam special. 'Merchant Navy' 35028 *Clan Line*. The Farish model is used straight from the box, with a variety of coaching stock.

* these EMUs were described in our *Going 3-rail in N* article in the January 1999 RM.

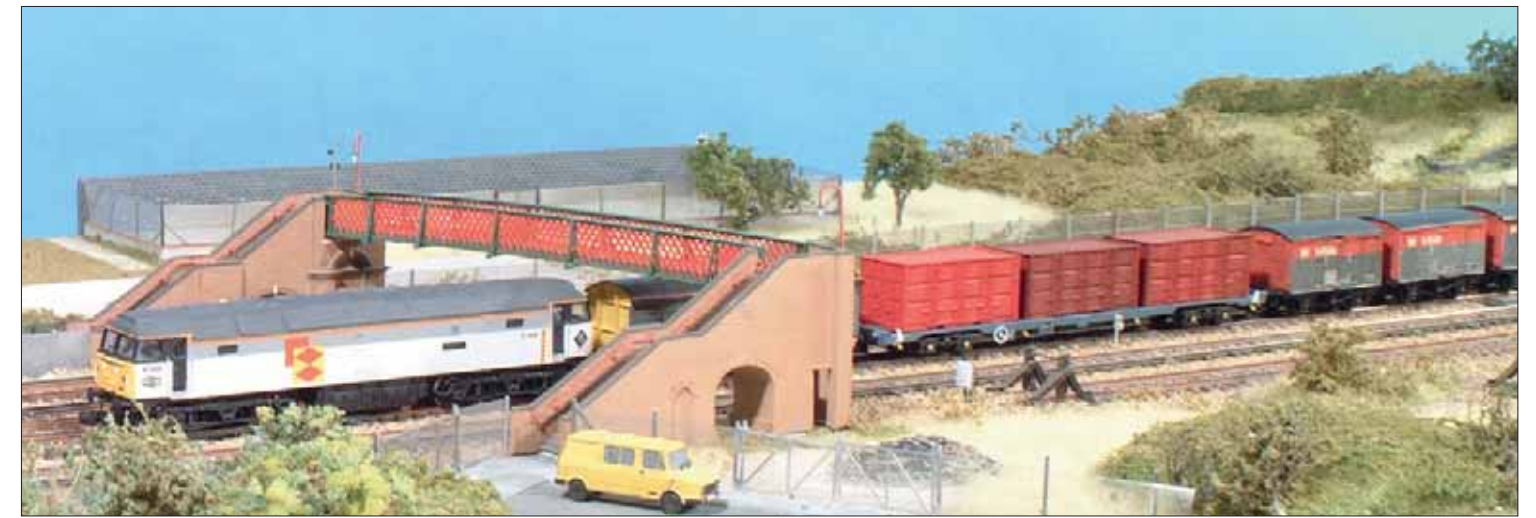
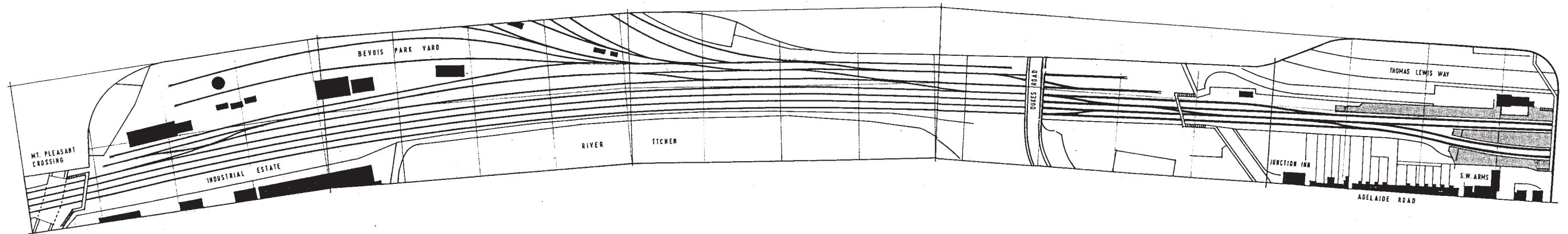
Future developments

Although there are more details that could be added (like lineside cabling and garden clutter) our thoughts are again turning to what to do next and we have decided to extend the layout westwards.

The accompanying plan shows the existing layout and the proposed extension. Three additional scenic boards are required to include the sweeping curve of the four-track main line towards Southampton. With the banks of the River Itchen in the foreground and part of the overgrown Bevois Park yard behind this will be in contrast to the suburban scene on the present two baseboards. The overall length of 20' will represent over a scale half mile.

To make everything manageable, beyond the end of the scene the tracks are to curve around to new longer traversers behind the operators. Larger traversers will allow us to continue filling the gaps in the timetable.

Under construction are Class 47 and Cartic 4s on a Southampton Docks-Washwood Heath car train; Class 60 and bogie LPG tanks for a Fawley-Longport service; a second Freightliner set including 'lowliner' wagons; two Class 33s and ballast hoppers for an Eastleigh-Meldon quarry working; *Ocean Liner Express* carriage stock; and Class 56 and 58 locos.



Above left: 33 019 Griffon with a mixed rake of engineers wagons from Westbury to Eastleigh pulls away from a stop in the Bevois Park loop.

Left: 4-CIG unit displaying headcode 75 for a Southampton-Portsmouth stopping service swings off the main line and into platform 3.

Below left: looking over the rooftops from Adelaide Road a down Wessex Electric unit is seen passing through platform 2.

Above: 47 298 Pegasus with air-braked stock including a KFA container wagon on its way from Marchwood military port to Didcot.

Below right: a down Class 442 passes under the 'middle' footbridge – compare with our photo of the prototype taken in July 1994.

Photographs by Len Weal, Peco Studio.



Some progress has been made on the new baseboards and after our exhibition commitments next year the present layout will be modified so that it can appear for the first time in its extended form in the summer of 2006. Privatisation has brought rapid change over the last few years but we will keep to our Network SouthEast period and endeavour to portray accurately this part of our railways' history.

Acknowledgements and thanks

We are very grateful to everyone who has helped us with this project. It has a habit of taking over life at home when each exhibition deadline looms and special thanks are due to Jacky and Carol for their patience and encour-

agement and to Catherine for her practical help with the gardens and other details.

Norman and Tony continue as stalwart exhibition helpers and Alex has also joined us as one of the operating team and provider of additional locos. Exhibition managers have been kind enough to book the layout when it was no more than a plan on paper.

Particular mention must be made of Ian How and the members of Solent Model Railway Group for continuing to invite us back to the Eurotrack exhibition at Southampton and more recently Eastleigh where there is much local interest and information. This Group has now gone one step further and has taken over the building on platform 4 at St Denys as its clubroom!

North British station and yard gas lamps

at Alloa, Clackmannanshire

R.D.A. Johnston caught a few such items before they disappeared.

Most if not all modellers proclaim their allegiance to a particular line or area through their choice of locomotives and rolling stock. Others continue the theme through modelling the correct buildings and other scenic effects and by employing appropriate liveries.

In the mid-1960s a number of fleeting visits were made to the ex-North British station at Alloa, following which I produced the accompanying drawings, reproduced to 7mm scale.

Dia.1 – lamp post and lantern. This illustrates the common lamp post fitted with a replacement lantern. Note the decorative detail cast into the pole itself, in some cases almost obliterated by many coats of paint.

Dia.2 – replacement lantern. A fairly common replacement style which does little for appearance and would not win many design awards.

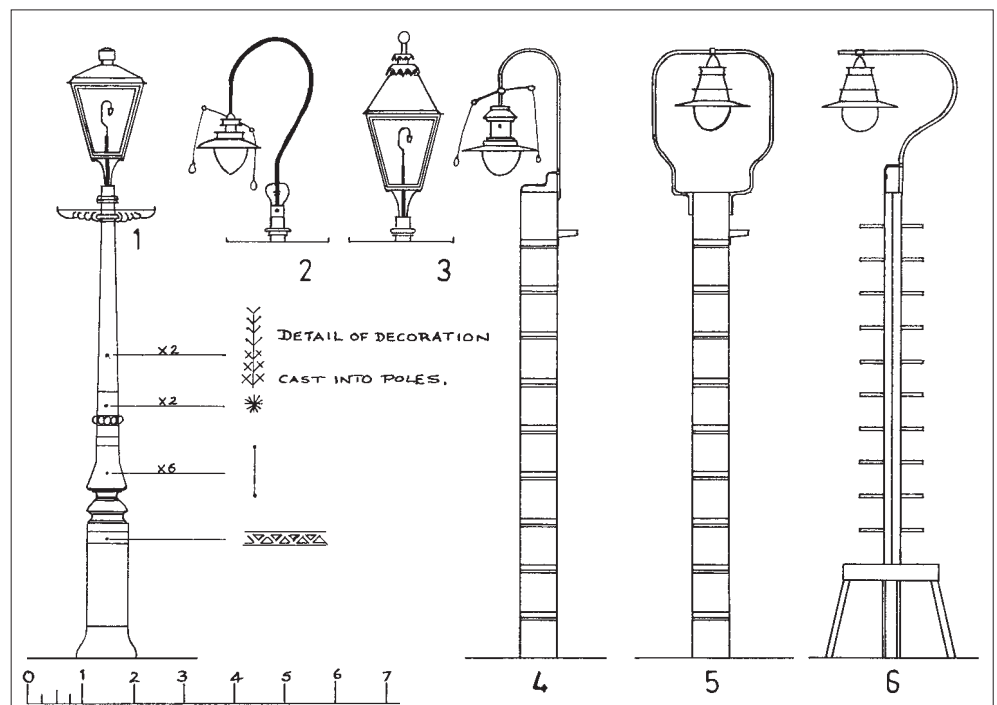
Dia.3 – original lantern. A search through many photos would suggest that this style is, in fact, the lantern fitted originally. As the years passed it seems that some damaged finials were replaced by a plain type without the ball on top.

Dia.4 – yard lamp posts and lanterns. This style of gas yard lamp could be found at various locations. The example shown was situated at Alloa loco. The main body consists of a 14" square timber baulk onto which are bolted cast iron rungs. The gas conduit can be seen at the top of the post.

Dia.5 is similar to Dia.4 but the lantern was suspended centrally from an iron hoop. This example was at the eastern end of Alloa station yard.

Dia 6. A totally different design constructed by bolting together two lengths of rail, then fitting tubular rungs. Again at Alloa and situated at the end of the cart road, this lamp was protected from collision damage by the curious circular guard rail as shown.

Locations. Although original research centred upon Alloa, it soon became clear that this type of gas lamp was quite common, especially to the east of that town along the Forth valley as far as the eastern outskirts of Edinburgh. There are also examples to the west of Alloa and along the former Devon Valley Railway. One, at Haymarket station had the standard pole, the lantern being suspended from a huge loop which all but doubled the total height. Clear examples, some of which have undergone modification at some stage, have been identified at Alloa, Cambus, Cameron Bridge, Dollar, Elie (Fife), Grangemouth, Haymarket, Inverkeithing, Kinross Junction, Ladybank, Leven, Lochgelly, Newport-on-Tay (East), North Queensferry, Pittenweem, Portobello, St Monance, Thornton Junction, and Tillicoultry.





Scale drawings

GWR Super Saloons

Luxurious prototypes for the better known centenary stock

Drawn and described by Jonathan Joseph.

Nowadays the term 'super saloon' is perhaps more commonly associated with high performance road cars, but seventy years ago (and in somewhat different circles) it related to this batch of eight GWR vehicles built for special traffic in 1931/2. Prior to their introduction, the railway had experimented with hiring cars from the Pullman company, but had found this uneconomic for the traffic available – the fact that the Pullman cars also came with a Pullman-liveried attendant, whose wages were seen directly, rather than being absorbed into general overheads, may have had something to do with it.

The coaches were built out towards the limits of the loading gauge offered by Brunel's original broad gauge lines so as to offer the maximum interior space. While various previous batches of vehicles had been built to many of the same overall dimensions, these were the first to be built to the distinctive profile with almost bulbous sides and doors tapered in towards the corridor connection. Ultimately this was only shared by the limited number of Centenary stock vehicles built four years later. Collectively this small number of coaches (eight Super Saloons and twenty-six Centenaries) seem to have a disproportionate effect on the memories of Great Western enthusiasts, since the mind's eye almost inevitably conjures up this profile when imagining a Western express.

The Super Saloons were intended primarily for the Liner traffic which the Great Western was cultivating from Plymouth, but they were also intended for use on other special duties. As such they were essentially first open saloons, and would have run with brake

coaches and kitchen cars as required. One unusual feature inherited from their Pullman predecessors was the presence of a single compartment with four seats only to provide a more private environment for meetings, businessmen wishing to dictate letters etc.





The photographs depict in the main No.9111 King George, preserved in near-original condition but with the later toilet windows and other details. The photograph opposite top left is of an original frosted toilet window on sister Saloon No.9116 Duchess of York. The three Saloons at Didcot are Nos.9112 and 9113, the latter out of public view pending restoration. The site is also home to conversion No.9118.

Photographs by Len Weal, Peco Studio: we would like to acknowledge the kind assistance of the South Devon Railway in the preparation of this article.

The coaches were stored at Old Oak Common when not in use, and only the required number were provided (the hired Pullmans seem to have been treated as a set, probably on account their being fitted with buckeye couplers within the rake) – indeed, it is reported widely that the only occasions that all eight worked as a train together were the two state funerals in 1936 and 1953. Apart from the Liner traffic, they were regularly seen at Newbury racecourse and on Directors' private specials.

Ultimately five Super Saloons survived into preservation – three including one kitchen car conversion at Didcot under the supervision of the GWS, and two further 'standard' versions on the South Devon Railway. It is, I believe, possible to dine in Super Saloons at both sites, but the opportunity has not yet presented itself to me. If any of the current custodians would like me to review the food offered, purely for modelling purposes, offers of a free lunch can probably be sent via RM!

The coaches were built to two successive diagram numbers, G60 (the first and last pairs) and G61 (the 3rd to 6th built). G60 vehicles initially had only eight seats in the small saloon, whereas G61 were equipped with an additional four that were removable. In practice, the traffic department seems to have added seats (and tables) to all vehicles as and when required and the two diagrams appear to have been effectively indistinguishable in all but the tiniest detail. It has been suggested that the only real difference mechanically was that G61 vehicles provided the removable tables with floor clips, while those in G60s were loose. Additionally in both diagrams, four seats and the related tables could be removed from the large saloon in the two seating bays furthest from the coupé.

Certainly the greatest actual difference from a modeller's perspective was in the upholstery – the first two had their interiors designed by Trollope and Sons (a London firm) while the remainder were completed by the GWR itself. The Trollope chairs appear to have been upholstered in brown moquette, whereas at least some of the chairs in GWR furnished vehicles were blue. The remainder of the inte-





rior was finished mainly in various polished woods with polished brass fittings.

The seating plan in the drawing shows the small saloon in a condition in which the vehicles would probably never have run – the table extensions are all in place, but the four additional seats that would go with them are removed. This has the benefit of indicating the dimensions of the removable sections without any possible confusion as to which seats were optional. Where the missing seats go is, I think, self explanatory. The removable seats (and tables) in the large saloon were the four on the centre line nearest the small saloon.

Other features of note include the slimline ventilators with eight panels which rotated vertically in the manner of radiator shutters. These obviously proved unsatisfactory in some way, since they were later replaced by deeper, more conventional, sliding versions. Also, instead of having ventilators, the (frosted) toilet windows were droplights, with 10" of movement. One in the down position would make a talking point on a model. At some later point, conventional three-pane sliding ventilators were also substituted here, but I have been unable to ascertain whether this was at the same time as the main saloon windows were altered.

After a few years the limited utility of the seating-only format must have proved an inconvenience, since in 1935 the last two vehicles built were rebuilt with their own kitchen/pantry section. In order to make room for this the coupé compartment and seven seats in the main saloon were sacrificed, though the previously optional seats in the small saloon became permanent fixtures. At the same time the ventilator modification described above was also carried out; in fact it was probably done to these coaches first. Whether it was planned to modify further vehicles, I cannot say – certainly the kitchen was comparatively small, and might struggle to cope with both the covers in its own and those of another Super Saloon.

The coaches seem to have survived the war years pretty much intact (their limited route availability probably prevented use in special trains) and all eight were inherited by BR. At

some point after the war the majority (if not all) were altered so that the roof tanks could be filled from ground level, and the end steps and handrails were removed.

A final point of which to be aware on both the original and modified coaches is the height of windows on the doors – most published drawings show this somewhat higher than do the Swindon originals, if not quite on a line with the picture windows in the main bodyside. All the photos I can find seem to agree with the builder's plans, so it is this (lower) height that I have shown.

A full list of names and numbers is appended – the dining saloon conversions at least were de-named in BR days.

Modelling the Super Saloons

Unfortunately the Super Saloons are not available in ready-to-run form, their low numbers and limited utility probably causing manufacturers to fight shy. Those working in 4mm scale probably have the easiest option, since Hornby offers the similarly profiled Centenary stock, in composite and brake third forms. These coaches were previously offered by Dapol, and I believe originated under the Mainline label, and consequently secondhand and discount items are also available as donors for those unwilling to take a brand new full price coach out of its box and hack it up.

The major external change required is a change in the window arrangement – suitable overlays could either be scratch built in metal or plasticard, or alternatively Comet offers a set ready made for the original G60/G61 version (see the news pages for details of the latest kit – Ed.). The composite coach probably makes the most suitable donor (the brake only having doors at one end, as well as interruptions in the bodyside profile) but will still require considerable work. The various steps etc will need adding to one end, and the roof details altering to suit. Sundry items will also need to be added to the undergear. All the examples I have examined also have an additional footstep partway down the solebar, presumably a legacy of sharing the chassis moulding with the brake third. Removal of

this, plus the additional steps fixed to the Centenary bogies, would call for very patient and accurate knifework. Interior detail, probably commencing with a representation of the compartment partition, could be added to taste. Ultimately it might prove simpler to use one of the complete vehicle kits on the market, or scratch build, rather than replace almost every part of the donor model. This is unfortunately really the only option for the two H46 conversions.

In N, scratchbuilding is probably called for, though there is some relief in that the side profile can perhaps be filed down from thicker material, rather than needing to be built up. An article on modelling the vehicles in N by Paul E Parsons appeared in the December 1994 RM. This uses Graham Farish bogies which probably aren't quite the correct pattern, but must also be pretty much invisible as well.

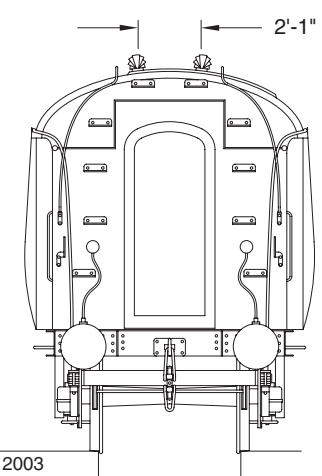
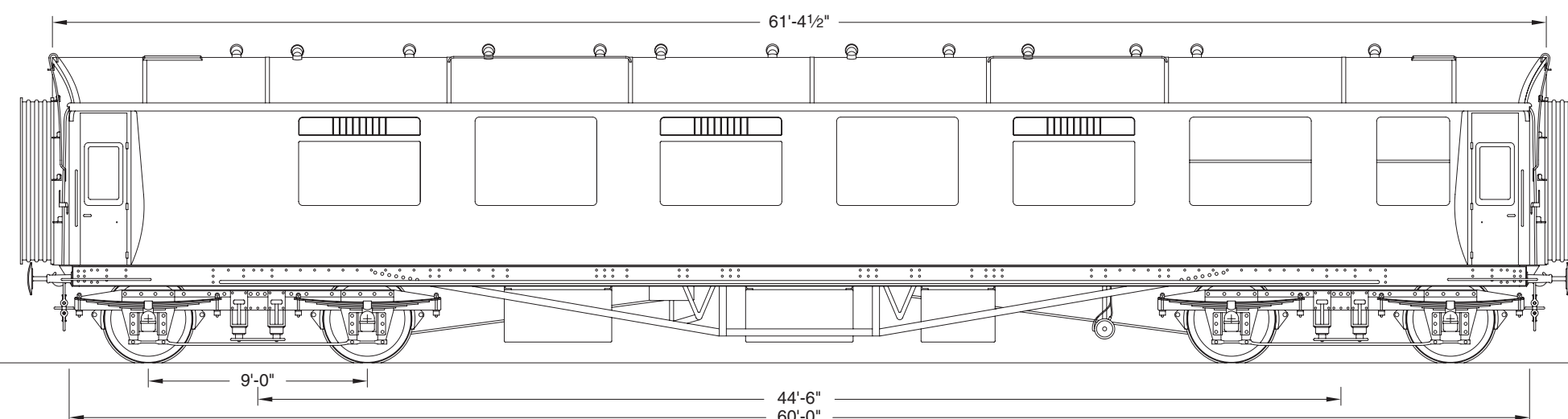
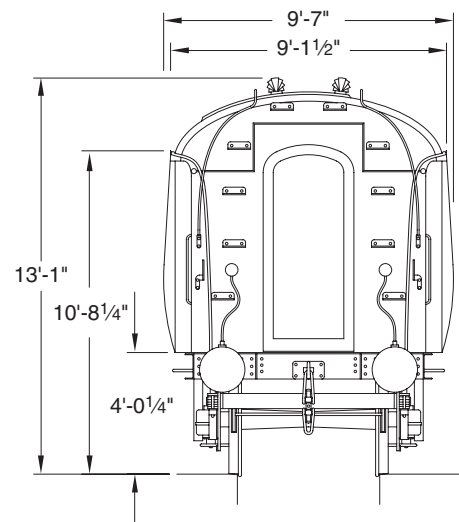
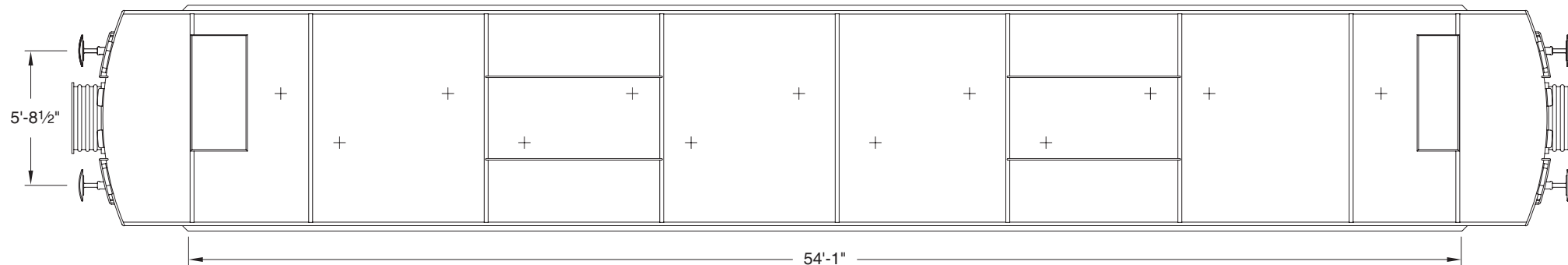
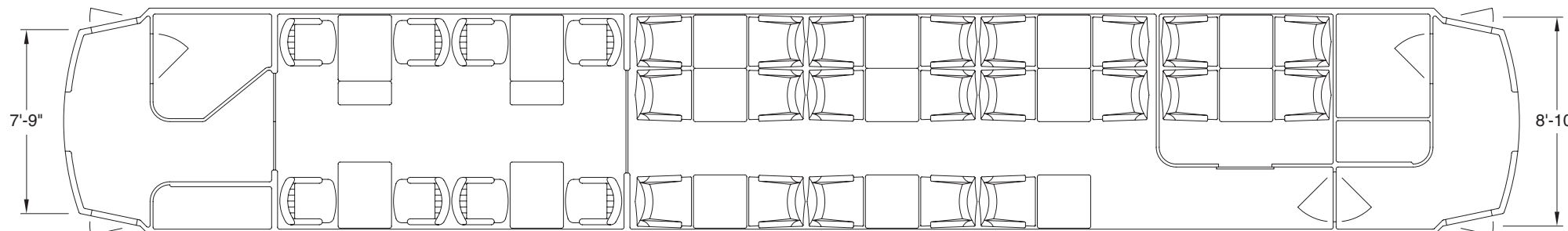
The limited range of mainstream RTR stock available in gauge 0 and above never seems to have included anything so esoteric as a Super Saloon, though doubtless many useful parts are available from specialist suppliers for use by the kit and scratchbuilder.

Naming details

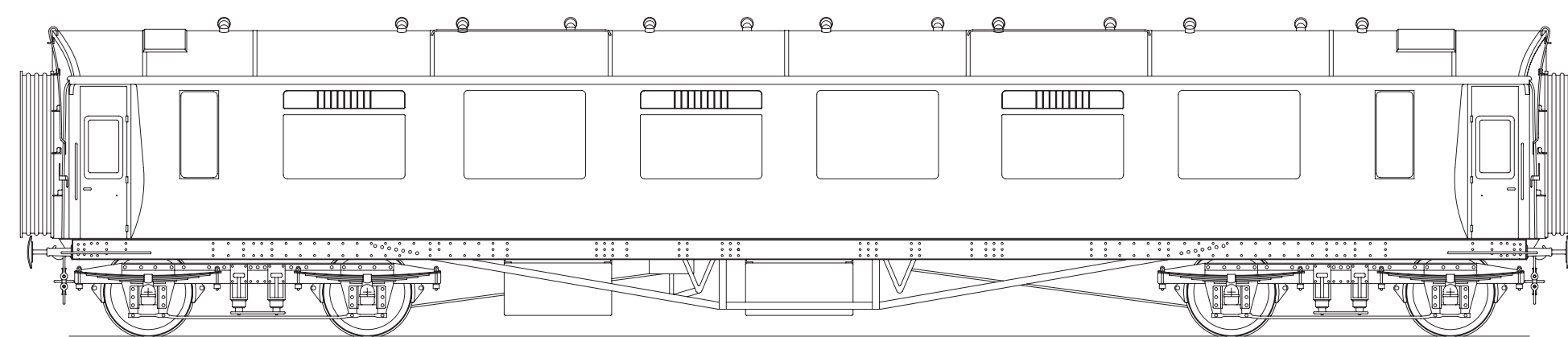
No.	Name	Diagram
9111	King George	G60
9112	Queen Mary	G60
9113	Prince of Wales	G61
9114	Duke of York	G61
9115	Duke of Gloucester	G61
9116	Duchess of York	G61
9117	Princess Royal	G60, later H46
9118	Princess Elizabeth	G60, later H46

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- A Pictorial History of Great Western Coaches (1903-1948)* by J.H. Russell (published by OPC, ISBN 0-902888-04-8).
- Great Western Railway Journal* –
 - No.28 (Autumn 1998).
 - No.30 (Spring 1999).
 - No.32 (Autumn 1999).

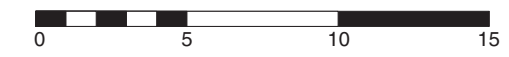


J. Joseph 2003



Opposite Side

Great Western Railway Super Saloon
Dia. G60 & G61



Burngullow

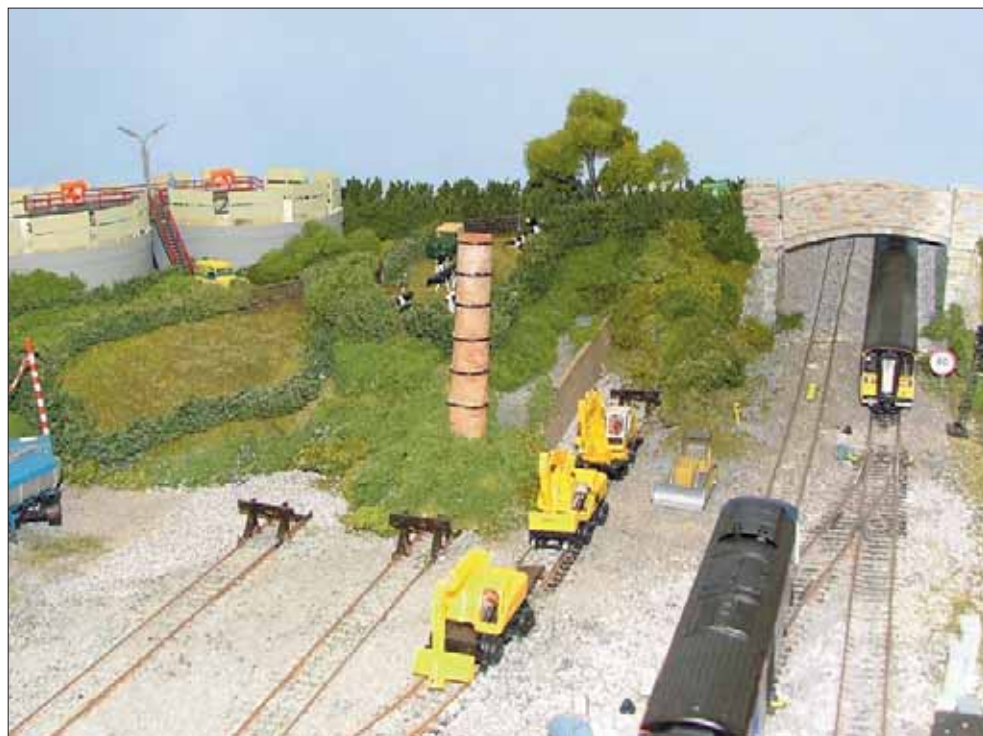
Inspired by today's clay industry in Cornwall

Tony Prideaux built this 16' long 00 gauge exhibition layout.

As a schoolboy in the 1940s, returning home for the holidays using the GWR main line, I always looked for the mass of coal-fired china clay pan dryers at Burngullow. I saw the chimneys belching black smoke, the steam from the clay drying in the pans and the white dust covered figures of the workers as they tipped barrows of clay into the waiting railway wagons. As an adult I still saw the clay works from the train when returning on leave. The dryers and linhays at Burngullow had by this time been torn down and replaced by one large complex, Blackpool Dryers. This had towering silos and long modern industrial buildings most of which, although not used since the demise of the clay hoods, still exist today.

In 1980 I became a lecturer at Plymouth Polytechnic. My home in west Cornwall was too far for me to commute, so I moved to the St. Austell area. In 1987 along came my first grandchild, a boy, who also developed my love of railways and fascination with china clay. Ivor Bowditch, the Public Relations Manager of English China Clays, arranged a Land Rover trip around several of the clay works for young James's sixth birthday, and I then had to produce an 00 layout to suit. Like all such projects it grew with my grandson, and is now a 16' long exhibition layout of the Blackpool complex more or less as it is. The linhays have been shortened and the trackplan simplified, but all the flavour of the original is there!

The choice of location means that we also have the main line traffic to Penzance as a bonus. Dating the layout to the early years of



the 21st century allows us to run the latest rolling stock and double-headed steam excursions as well!

The layout has taken me several years to bring to its present standard: the only problem is manning it. The complex requires a full time shunter and the fiddle yard needs another. My grandson has been my main helper over the

years, but by the time this article appears in print the little lad from the early 1990s will have left us to join the army. How time flies!

The most rewarding thing about modelling a specific location is to have retired clayworkers tell me their experiences of working at Blackpool dryers and railfans talking about waiting for a specific train on the Burngullow



Above: looking towards the eastern end of the layout. A Down DMU has just passed under the Hembal Lane bridge from St. Austell and is held at the signal whilst the HST clears the single line. The track machines in the siding are waiting for possession to carry on with track relaying to the west. The bridge and piers are scratchbuilt using Wills random stone plastic sheets. The point heaters and speed restriction signs are made on my computer, as are the waterslide transfers used on some road vehicles, rail wagons and Alphaline Sprinters. In order to avoid the ink on signs fading, use heavy gloss photo paper and spray afterwards with PC line inkjet fixing spray obtainable from PC World.

Left: road slurry tankers are filled from a separate loading point situated between the front and rear lines of disused silos and using the same overhead pipeline that serves the railway wagon slurry loader. Imerys articulated road tankers are a common sight on the M5 and even further afield. Most of the articulated tractor units used on the layout are Herpa, while the trailers are mainly scratch built with Herpa wheels.

Photographs by the author.

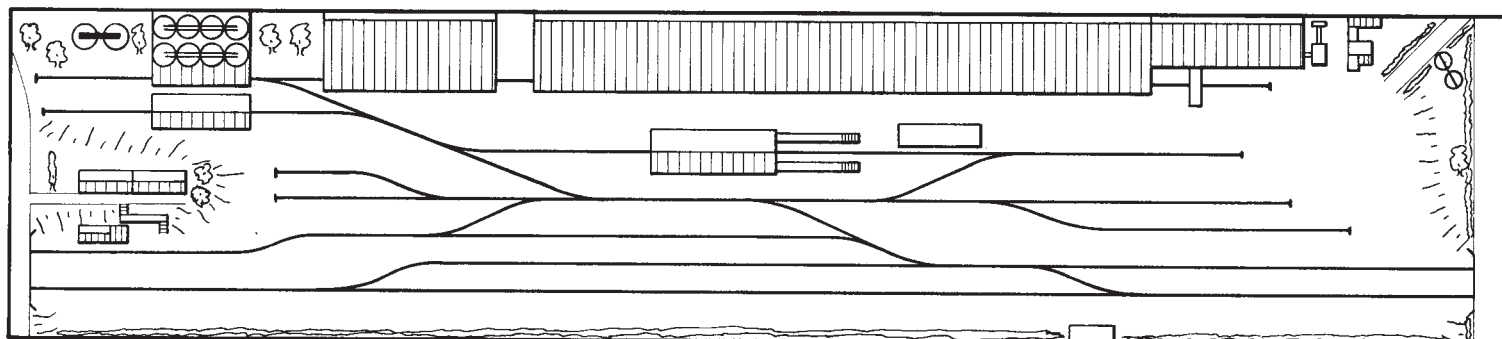
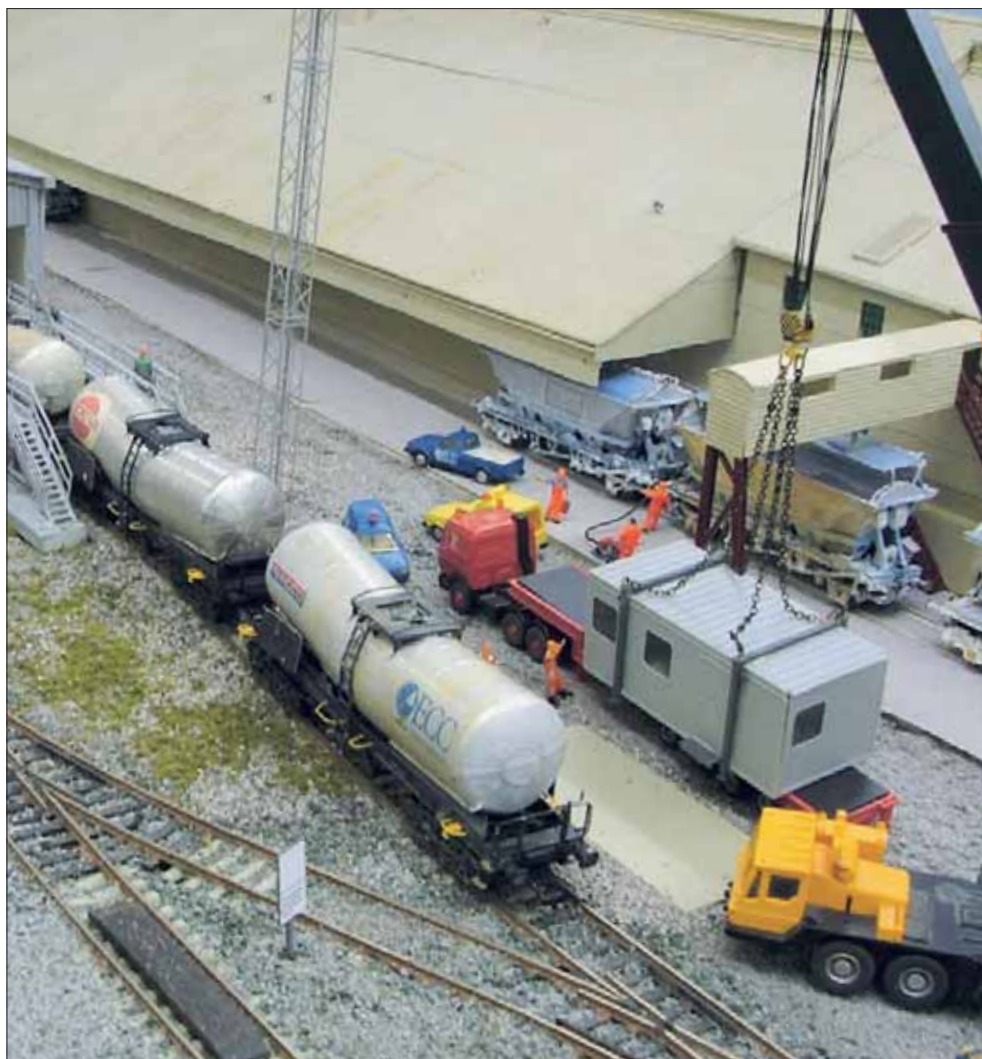


Above: the railway cottages are scratchbuilt from photographs and measurements taken from the terrace of houses themselves. The tenant of No.1 at the time of modelling was a keen gardener and has a well kept lawn unlike No.3, who was a bit untidy! No.4 is having the windows cleaned while the kids play with a scooter.

Above right and right: a mobile crane starts to lift the new NACCO Portakabin from the low-loader, before placing it on the concrete foundations prepared in front of the disused dryers. This building will be used as an office and to store spare parts such as air-brake pads and hoses, bearings, buffers and couplings needed to keep the wagons operational. At the rear of the scene a rake of CDAs awaits loading from the linhays.

bridge. If they think I have got it right then I am really satisfied with what I have achieved. The former manager of Blackpool works made the comment that anyone who shunted the linhays at the minimum speed my Lima 08 could operate at would have been sacked on the spot. That cost me a Roco Class 08 (the Bachmann versions, although announced, were still a pipe dream then) which still crawls around the layout now.

All trackwork is Peco Streamline. Sidings are mainly laid with concrete sleepers flexitrack, main lines, branch and pointwork are all wooden sleepers as in the prototype. The fiddle yard uses Setrack curves and flexible track. Uncoupling ramps are from Peco kits but are being replaced by disguised SEEP solenoid operated ramps which have dummy sleepers added to the top surface and are recessed into the underlay to make them less conspicuous.





The stock used is as follows:

Passenger and mail trains

- 1 Penzance TPO (Southern Pride with Lima Class 67)
- 1 FGW Sleeper (Lima with Lima Class 47).
- 1 FGW HST (Hornby, but no TGS as it hasn't made one).
- 1 Virgin Voyager (Bachmann).

Above: settling tanks are checked regularly.

Below: a close view of the front of the slurry loader. Susan, the resident ex-BR Class 08 shunter (named after one of the secretaries in the office) places slurry tankers for filling. All other rail wagons leaving the works also have to use this building as it contains the only weighbridge. The dirty blue slurry tanker is an STS wagon of similar design to the silver bullets, but of an earlier construction date and not made of stainless steel. These tankers are operated by the wagon lessors CAIB. The 'silver bullets' were built for Tiger Rail Leasing, but were taken over by NACCO on Tiger's demise. Other, more modern, slightly smaller stainless steel tankers are also provided by NACCO. All were manufactured in France. My models of all these tankers are modified from Jouef chemical tankers, sadly not available at present due to the demise of Lima.

Below right: a close look at the old St. Dennis branch box with the extension painted in Transrail Blue. Outside the door point clips and spare flashing tail lights are stored.

- 2 Class 158 (the early one *never* uncouples at the wrong time unlike the newer one).
- 1 Class 153 (A1 conversion).
- 1 Class 150 (Dapol).

Freight locomotives

- 2 Class 66 (Lima) – waiting for the Bachmann one to come out.
- 2 Class 37 (1 Bachmann, 1 heavily modified Lima).
- 1 Class 60 (heavily modified Lima).
- 2 Class 08 (1 Roco, 1 Bachmann).

Freight rolling stock

- 12 Caledonian Paper 'silver bullets' (kit-bashed from Jouef) plus 1 STS, same source.
- 5 'silver banana' tankers, Electrotren kit-bashed, 4 NACCO, 1 OEVA.
- 5 Diesel fuel tankers (Hornby).
- 20 CDAs (Hornby, heavily modified and detailed).
- 3 Tiger Wagons (chassis from Lima continental wagons, body scratchbuilt – article in RM December 1995).
- 3 Polybulks (modified Electrotren).
- 2 Small Polybulks (modified Jouef).
- 4 Cargowaggons (2 Jouef and 2 Roco).
- 2 Plasser tampers (1 motorised Kibri, 1 Bachmann).
- 3 Road/Rail Diggers (Kibri).

- 20 Engineers' wagons (Cambrian, Parkside Dundas plus Lima Seacows).

Main line trains run include the Penzance Postal, FGW sleeper, FGW HSTs, Virgin Voyagers, numerous Sprinter services both positioning stock for branches and Class 158 Alphaline long-distance services to and from Penzance. The only regular freight is a train of five diesel fuel tankers running to Long Rock Depot.

Branch trains include CDAs, Cargowaggons, Tiger wagons and Polybulks.

Trains from Blackpool include slurry tankers, block trains of CDAs and occasionally Tigerwagons or Polybulks.

The only buildings on the layout built from kits are the Ratio platform signal box (exactly the same as the real one), the Weighbridge hut (standard GWR) and the greenhouse in the garden of Railway Cottages. All the rest are scratchbuilt using Wills Sheets and Plastruct styrene angles, strip, girders and ladders etc. The weighbridge, slurry loader and wagon cleaner are fully detailed inside just in case someone wants to know how they work! Bridges are also scratchbuilt, the one at Station Road using Ratio girder panels heavily butchered to produce the correct profiles. Photographs were computer scanned and the prints used to produce the low relief buildings and silos in the background of the layout.



Left: behind the railway cottages the two old sidings are used to store loaded wagons waiting for EWS trip workings to St Blazey yard and as a headshunt for the tracks running to the linhays. The CDAs on the siding are loaded with bulk dried clay from the old Blackpool linhays which are now used as bulk clay holding stores for product produced by Crugwallins dryers when orders are low. EWS is now replacing worn tarpaulins with EWS red examples instead of lmerys blue. The rusty structure in front of the settling tanks is a scratchbuilt model of the original derelict 1960s slurry loading point, abandoned when the new complex was commissioned.

Right: a view of the settling tanks and fields behind the bridge.

Centre right: looking west towards the bridge. The access for rail maintenance equipment is the gate at the bottom of the sloping road behind the empty spoil wagons. The road/rail excavators wait for the next main line possession in the continuing preparation for track redoubling to the west. The 'silver bullets' in the sidings are waiting for the next Irvine train. These trains run to the Caledonian Paper mill two or three times per week depending on demand and each carry over 1,000 tonnes of clay slurry (liquified china clay.) The slurry is used as coating on glossy magazine paper.

Below right: the plate girder bridge on Burngullow Station Road is a favourite spot for photographers, but also serves the large farm at Burngullow Manor with sometimes smelly farm traffic! At present traffic light controlled roadworks are continuing as a new 12" clay slurry main is being laid along the road towards Blackpool clay works causing additional disruption to vehicles.

Below: the Easisheet tarpaulins on the CDAs are opened much quicker with a torque wrench and a portable generator truck than by using the hand cranks supplied with the wagons!

Figures are from Merten and Preiser, vehicles are Herpa, Kibri and Wiking, with scratchbuilt trailers for the artics. All these are standard types, used by the clay industry or railway. The only problem is Land Rovers. The china clay industry uses them in large numbers. The only source used to be Wiking but they were discontinued years ago. As all the vehicles I use are actually H0, Springside or JR kits produce models that appear out of scale.



Loco building on the cheap – part 4

Combine components creatively to construct a Great Eastern J17

K. Chadwick continues his series about using OO stock parts with modelling materials, and builds this unusual 0-6-0 workhorse.

J17 0-6-0 No.65580

Encouraged by the results with three previous Great Eastern models that I had built, I decided to have a go at another, the J17.

The J17s were strange looking machines, a combination of old fashioned small boilers, with large, modern cabs. Early examples of the class were fitted with small tenders, as fitted to the J15s, which when coupled behind the large cab added to the strangeness of their appearance. But they must have been useful engines, otherwise they would not have survived for so long. They were introduced to service in 1900 and the last one was withdrawn in September 1962.

After some thought on the matter, I arrived at the following formula:

Hornby Dean Goods loco body and chassis + Hornby B12 tender + Hornby Patriot power unit (X1075) + Hornby D49 loco cab = J17.

Items required

Hornby Dean Goods loco body and chassis, Hornby B12 tender, Hornby Patriot power unit (X1075), Hornby D49 cab, 2 x 8BA screws, 1 x 4BA washer and various parts detailed in the text.



Stage one – the tender

The modifications to the tender frame and Patriot power unit are as described previously in this series, for the J15 (see RM August) and J19 (RM July).

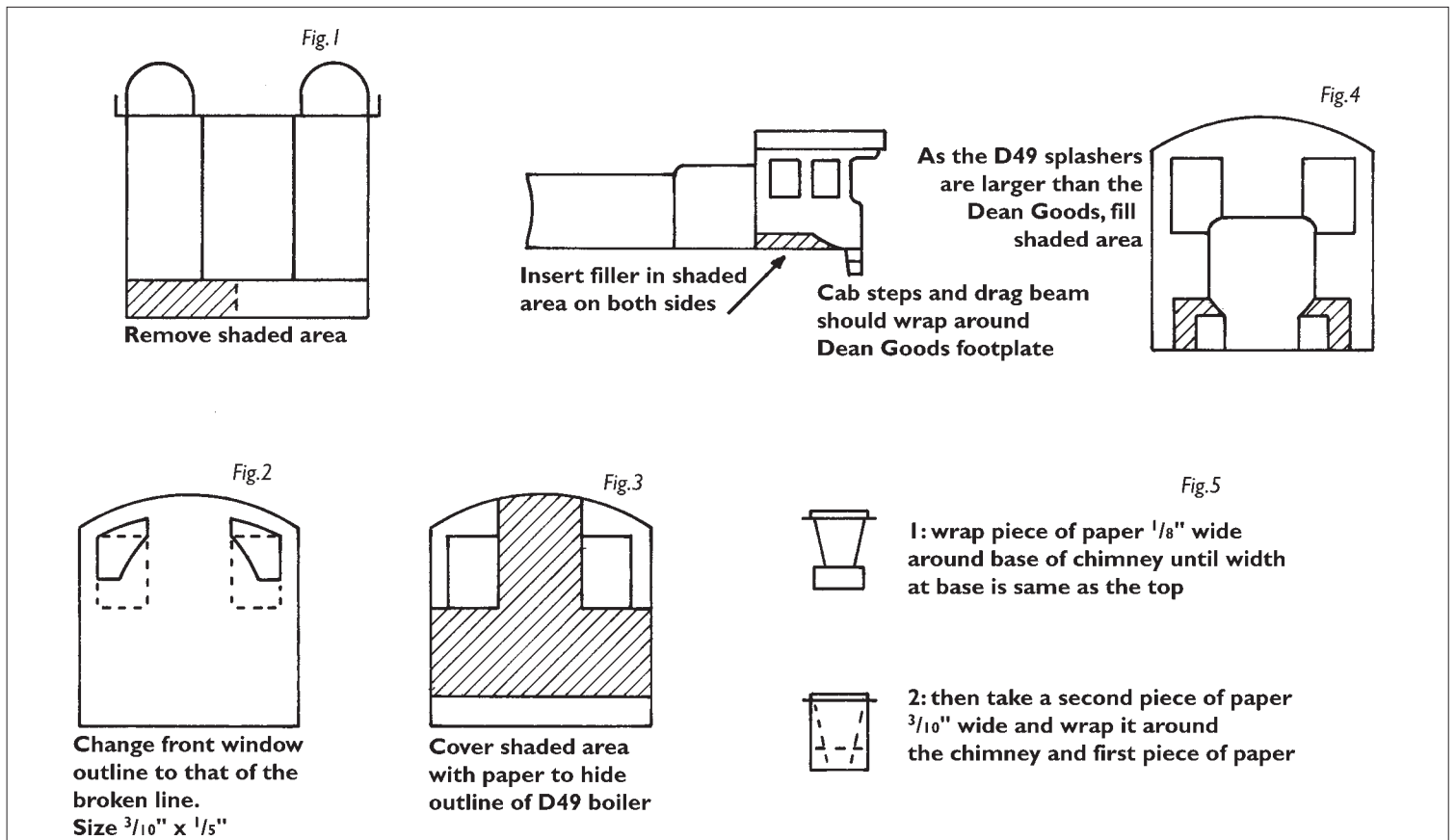
Remove the screw/bolt housing from inside the tender body, then remove part of the body underneath the footplate to allow the passage of wires from the loco to the power unit (Figure 1).

Stage two – the D49 cab

First of all, with a hacksaw, remove the cab from the D49 body, then remove the burr from

the cab front and file flush. Note that the cab sides have vestiges of the running plate which stand proud of the cab side sheets; these need to be removed with a craft knife. Take care not to damage the cab steps and handrails.

Next with the aid of a file and modelling filler, alter the profile of the front windows to a rectangular shape $\frac{3}{10}$ " x $\frac{1}{5}$ " (Figure 2). The Dean Goods firebox is much smaller than that of the D49, so the remains of the D49 boiler will be visible if not covered up. Cut out a piece of paper to cover the area in question (Figure 3) and stick in place, paint it black and leave to dry.



Stage three – the Dean Goods body

Firstly a note on detailing parts. The J17 will need a whistle, a pair of Ross pop safety valves and one Wakefield mechanical lubricator. These items are readily available from more than one source. However, there are four items which are not so easy to find. These are: a pair of Great Eastern clack valves (available from Alan Gibson), a pair of Great Eastern snifting valves (available from South Eastern Finecast as used in N7 kit), a steam dome (also available from South Eastern Finecast), and a chimney (available from South Eastern Finecast or DMR Products, or you could adapt the existing GW chimney).

Now separate the body of the Dean Goods from the chassis (held in place by two screws, one at each end of the chassis). Remove the cab from the body with a penknife or similar. Take care not to damage the boiler handrails. Remove the body weight from inside the boiler (held in place by a screw on the underside of body). Once this has been removed you can get to the underside of the GW style safety valve cover and the steam dome, held in place by plastic lugs on the underside. Remove both by filing away the lugs.

Next remove the GW style vacuum pipes and front sandboxes and then, with a craft knife, remove the short handrails on the running plate (between the centre and leading splashes) on both sides of the loco. Remove the front and rear steps and file any residue flush.

If you have a DMR Products chimney casting, remove the GW chimney and file any residue flush with the smokebox top. Then fill in holes in top of boiler and firebox where the dome and safety valves used to be. When the filler has set, file it flush with emery cloth.

Offer the D49 cab to the Dean Goods body (Figure 4). You will see that part of the cab front will need to be removed to fit over the Dean Goods splashes. Some filing will also be necessary on the underside of the cab to make it fit around the rear of the Dean Goods footplate. When enough material has been removed from both front and underside to provide a square fit with the rear of the firebox and the rear of the Dean Goods footplate, glue the cab in place. Use filler to fill in the resulting gaps at front and sides of cab and when the filler has set, file flush with emery cloth.

Make a reversing rod from scrap brass or microstrip 1.5mm wide x 45mm long and glue it in place on right-hand side of loco with the



rear end just below the handrail where it meets the cab front. Glue the front end on to the old GW reversing rod; this end will be hidden by a sandbox anyway.

Next, manufacture rear sandboxes from card or plasticard $\frac{3}{8}$ " long x $\frac{1}{8}$ " deep x $\frac{1}{4}$ " high, and stick in place on each side of the locomotive between the rear and centre splashes. Then make the centre sandboxes $\frac{1}{4}$ " long x $\frac{1}{8}$ " deep x $\frac{1}{4}$ " high and glue in place between the centre and front splashes on each side of the locomotive. The combined front splashers and sandboxes are made from card or plasticard in the same way as for the J15 (fig.11 of that article).

If you are modelling one of the vacuum braked locomotives, and only seventeen were so fitted, you will need to make a regulator pipe from plastic or metal rod (1mm diameter) 41mm in length and glue this to the side of the boiler, just above the handrail between the front of the Belpaire firebox and the peculiar Great Western lubricator pipe on the right-hand side of the smokebox. File away part of the GW lubricator pipe so that the new regulator pipe butts onto it, giving the appearance of a continuous pipe all the way to the smokebox.

If building a loco without vacuum brakes, no regulator pipe will be needed, so file off the GW lubricator pipe completely. Next glue the Wakefield lubricator to the leading side of centre sandbox on right-hand side of the locomotive. Then glue the clack valves in place on both sides of the loco. They should be fixed to the boiler at its widest point just below the handrails, and just in line with the rear of the leading splashes; note that their feed pipes are carved to clear the leading splashes. Next glue the whistle and safety valves to the top of the firebox and then glue the steam dome in position atop the third boiler band, the same position as the Dean Goods dome.

Now we come to the chimney (Figure 5). If you managed to obtain a casting from DMR Products, then all you have to do is glue it in place in the same position as its GW predecessor. However, if you are unable to obtain a casting, adapt the GW chimney by wrapping a piece of $\frac{1}{8}$ " wide paper around the base of the chimney until the base is the same width as the top. Then wrap a second piece of paper $\frac{3}{10}$ " wide around the chimney and the first piece of paper. This gives a reasonable representation of a J17 chimney.

Glue the Great Eastern snifting valves behind the chimney; they should be 5mm apart (2.5mm either side of the boiler centre line).

Stage 4 – finishing off

Remove the Great Western brake rodding from the chassis; it is only a clip-fit so a penknife should do it. Then make a tender drawbar from scrap brass or wire; its length will depend on your track radii and pointwork, but being a short wheelbase 0-6-0 this model should not cause too many problems. Solder the wires from the loco chassis to the power unit terminals and give it a test run. If you have got the wires the right way round first time, you are very lucky!

Be very careful when selecting an identity for your loco because some of them had vacuum brakes, so ejector pipes were also fitted. The majority of the locos were steam brake only. Many had large tenders, but there were some that had small tenders. Some had tender cabs or weather boards whilst others had neither. One member of the class retained its original Ramsbottom safety valves until well into BR days.

Previous articles

SR rebuilt light 4-6-2 (June 04); LNER J19 0-6-0 (July); LNER J15 0-6-0 & E4 2-4-0 (August).

What sector plate?

We should, from time to time, remind ourselves how fortunate we are in our choice of 'off stage' storage capability. There is the sector plate, the turntable, the cassette, the traverser and all manner of on-off possibilities.

On the 12"-1' railway it's hard graft and the traditional yard layout, typified here by four Class 66s lost amidst the track components, ballast carriers and much other paraphernalia at the new Whitmoor yard in March. **Phil Caley** was on hand to record the action.





Filbridge

An 0 gauge exhibition layout extended

Chelmsford & District MRC took its secretary's construction project under its wing.

Chelmsford's 0 gauge layout *Stoke Bishop* had been on the exhibition circuit for some years and was featured as Plan of the Month in November 2000. The layout was becoming quite well known, so much so that some of us began to think in terms of an extension or even making it a continuous run.

As luck would have it, our secretary Phil Bridge had a layout under construction at home but had no room to set it up, so he offered it to the club. The yet to be named layout was a small ex-GWR terminus-to-fiddle yard layout on three baseboards each measuring 4' x 2' with a chipboard surface.

The problem we faced was how do we join it on to *Stoke Bishop*, which was some 18' long by 14' in an L-shape. With a fiddle yard at one end, this already took up a lot of the available space in the clubhouse.

After a lot of thought and the taking of measurements, it became clear that this extension would only be suited for future exhibitions. The pleasure of running it in the club premises would only be a dream.

We decided that Phil's layout would have to be turned around so that the original *Stoke Bishop* fiddle yard would fit on to the terminus end of his layout. This turned out to be the easy part of the problem leaving us the major one of how to join it up to the original layout? Before trains from *Stoke Bishop* reach the fiddle yard they cross a curved five-arch viaduct over a canal, so in order to change the shape of the layout from an L to a U design, the curve would have to continue on to the new boards, 6' being our minimum radius. In order to save weight we decided to angle the new boards, not make them square like the others. We came unstuck though, as this idea became just as heavy. We decided to use Peco track on the new boards, as Phil had done on his layout, thus making the layout completely from Peco track and turnouts.





Above left: GWR 14xx with an auto coach awaits departure from Filbridge.

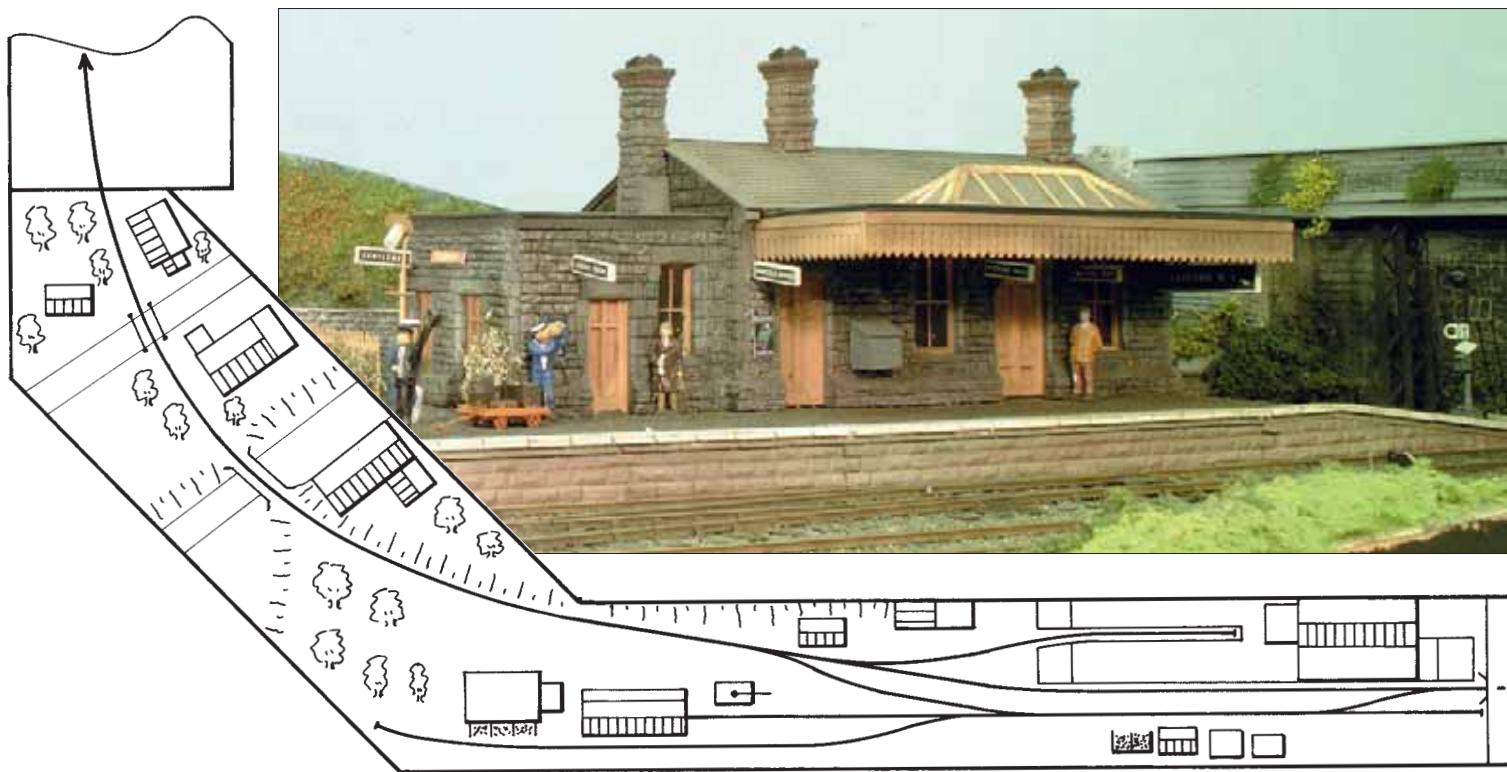
Lower left: in a hurry to a breakdown.

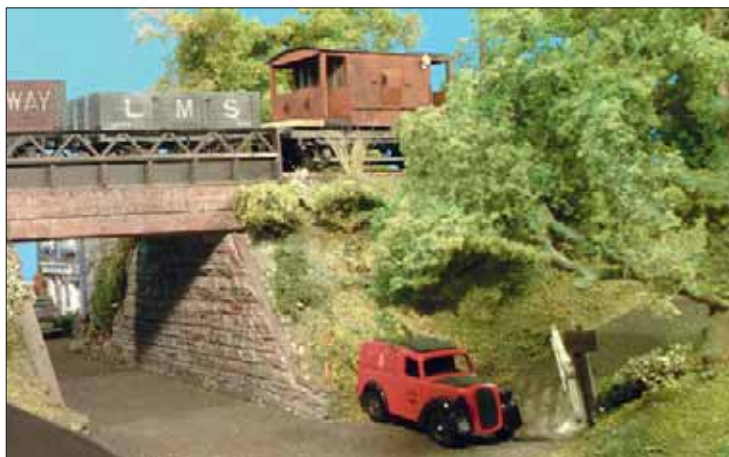
Above: vintage six-wheelers form a local train to Stoke Bishop.

Above right: LNER J69 leaves Filbridge for Stoke Bishop with the daily goods.

Below right: passengers await the arrival of their train to Stoke Bishop.

Photographs by Len Weal, Peco Studio.





The scenic side of things was all very conventional using a mixture of Woodland Scenics products and various flock powders on a plaster bandage base, the embankment being formed by dropping the second base-board a few inches.

On the first board we decided on a working level crossing, thus creating a bit of interest. Fellow club member Jas Millham of S scale fame was made an offer he could not refuse and duly produced a working level crossing. Using a length of studding, two micro switches, a 12-volt motor and a couple of bits of aluminium, our level crossing was in place. This we operate from the Stoke Bishop control

panel. At exhibitions, so many people have asked us how the level crossing works that we now take a set of instructions with us to hand out.

With the exception of Filbridge station, all the buildings are made by various section members and follow no particular prototype. As can be seen from the photos we don't mind what Regional locomotives or stock use the railway. *Stoke Bishop to Filbridge* is a club layout and therefore caters for each member's interest. It's all very well to model, say, the Settle & Carlisle, but if most of your members are into GWR you have a problem.

Well that's about it concerning our exten-

sion to *Stoke Bishop*. As for the future, well we hope to have a new and bigger clubhouse by the time you read this, so who knows a new layout might not be too far off.

Why the name *Filbridge* you may ask, well it was Phil Bridge's layout before it was ours so *Filbridge* it was to be. It is customary to give a mention to all the club members who have worked on the layout over the years, so thanks to the two Rogers, Mike, Mick, Roy, Jas, and of course Phil.

We all look forward to seeing you out on the exhibition circuit.

***Stoke Bishop to Filbridge* can be seen at the Chelmsford exhibition on 23 October 2004. Also booked are Heathcote in April 2005 and Telford 2005.**

Editor's note: the foregoing article was written by Geoff Selvage who died in hospital on 14 July. He was naturally looking forward to seeing the layout in RM but sadly this will not happen. Our condolences go to Geoff's family and friends, Chelmsford Club members and the many modellers around the exhibitions who knew him.



Top left: GWR Prairie and B set pass The Ship Inn on the approach to Filbridge.

Top right: the daily goods passes over the road bridge.

Above left: Filbridge goods yard.

Above right: LNER B12 with six-wheelers passes Filbridge box.

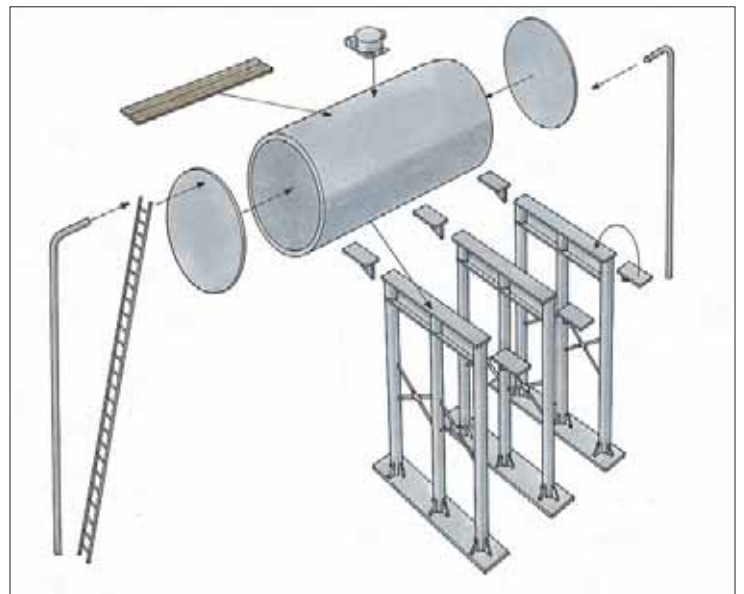
Left: crossing keeper's cottage at Filbridge.

...an exchange of railway modelling ideas for beginners of all ages

Structure modelling

The first in a new occasional series

Paul A. Lunn presents advice and encouragement for newcomers to this aspect of the hobby.



Welcome to what I hope will be the first of several articles that look at entry level structure modelling. Ideas will be based around items usually found in a beginner's collection or cheaply purchased either new or secondhand at a variety of retail outlets. Basic models will be enhanced by careful use of scrap materials or artwork included with a particular article.

My first suggestion is for a somewhat unusu-

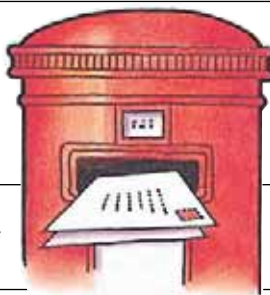
al water tank and is inspired by a prototype version that used to exist at Middleton Top on the Cromford and High Peak Railway in Derbyshire. It comprises a cylindrical tank mounted on cast iron supports with a water feed pipe, a water outlet pipe to a neighbouring water crane and an access ladder for service and maintenance. To keep this as an entry level model and so that it will withstand a cer-

tain amount of rough handling, I have avoided some of the more vulnerable detail e.g. walkway safety handrails. The photo shows it complete less painting; grey or rusty would do.

This is a simple structure easily converted in very little time. Few specialist tools or knowledge are required and the use of scrap materials ensures that cost is kept to an absolute minimum.

Item	Project cost	Source	Comments
Tank supports (3)	£1.80 to £4.00	Hornby R659, from retailer or swapmeet	Space supports at 30mm centres. Using fine abrasive paper rub lightly any surface to be glued.
Tank pipe	£0, ideally	Waste at home or from DIY or Builders Supply	Use a piece of 40mm diameter 92mm long grey sink waste. I had a piece left over from a building project. Space tank equally across all 3 supports.
Tank ends	£0	Supermarket	Cut 2 discs, 40mm diameter from thick plastic food or goods packaging (<i>not</i> the expanded soft foam type) and glue to ends of tank. Cut and sand to shape.
Outlet/inlet pipes	£0	Plastic sprues from Dapol girder bridge kit but any of the correct length would do	Cut 2 to length – one at 80mm and one at 110mm, both with right angle bends and a short pipe of 11mm. Remove all blemishes/flashing with fine abrasive paper.
Access hole	£0	As above	Cut to shape and sand with fine abrasive paper.
Ladder	£0 to £2.15	Ratio or similar	I had 2 pieces left from an old Ratio signal kit.
Walkway	£0 to £2.25	Wills SSMP-201 or supermarket	Use offcut of Wills material, or thick food/goods packaging scribed so as to look like wooden planking.

READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

STONEBRIDGE HOPPERS

Thank you for publishing my request in the June issue seeking information on the Stonebridge Hoppers.

I thought at the time that I was 'pushing the envelope' to the extremes with the answers that I was seeking.

The outcome has been most satisfying. Would you be so kind as to pass on my sincere thanks to Peter Thompson, James Ireland, David Kirk and Peter Brookes. Goodness me, what a talented source of information we railway modellers are.

BARRY PEARCE

GLASGOW QUEEN STREET AND FOOD FOR THOUGHT

I refer to Ian Futers' article in August and would make the following observations.

Barriers are now fully automatic and in use at all times and this also applies to the west end of Edinburgh Waverley. Having gone into what was used on the West Highland line, Ian omits to mention other workings which brought Pullman cars and Haymarket Pacifics to the station. The now deleted Hornby R1024 *Queen of Scots* train set features two images on the box lid of No.60031 waiting to leave the station on the up service. The larger black and white one shows a part of the semaphore gantry at the station throat.

It is unlikely that six 2-car sets would leave Queen Street in a single train. This should be a 6-car formation on the Edinburgh service (2 x 170s or 3x 158s). Regarding the Strathclyde 156s, these can and do turn up anywhere south of Aberdeen and to suggest that they don't work on the West Highland is one statement I would question. Two x 2-car sets is the normal West Highland train, splitting as Ian suggests.

I live 13 miles east of Edinburgh on the East Coast Main Line. Strathclyde 156s are regular performers on Saturday North Berwick-Edinburgh services. The Class 90 ex-Virgin push-pull sets are only used Monday-Friday for cost reasons, while a fairly recent trip from Longniddry to Cowdenbeath in Fife utilized a Strathclyde 156 both ways from Edinburgh to Cowdenbeath over the Forth Bridge! This is because a 156 had been put on a Fife Circle diagram for a Haymarket Scotrail unit.

Incidentally, my most recent trip to Kirkaldy (to see the new *Queen Mary 2* lying just east of the Forth Bridge) would probably set a record for variety of trains used on a short return journey.

- 🌀 Longniddry-Edinburgh: Class 90 plus ex-Virgin Mk3s.
- 🌀 Edinburgh-Kirkaldy: Class 150 Scotrail.
- 🌀 Kirkaldy-Edinburgh: Class 170 Scotrail.
- 🌀 Edinburgh-Longniddry: Class 318 in Strathclyde livery.

This last one is a regular daily through working from Glasgow Central via Carstairs leaving Glasgow at 15.15 or so to form the 16.39 from Waverley, Monday-Friday.

North Berwick in its latest form could be modelled with a larger fiddlyard (four or five roads) feeding a single platform capable of handling four coaches. Apart from the 90 formation, one each 158, 170 and 156 could cover all but one service, the exception being the 318 mentioned earlier. It's also a dead end!

Back to the Strathclyde 156s. I believe I'm right in saying that they cover the Stranraer-Carlisle-Newcastle services, bringing them into Newcastle Central. Over the last ten years or so in this area I've seen a Central Trains 158 on hire to Scotrail, Arriva/Northern Spirit 158s returning south from overhaul and similarly West Yorkshire 307s and even a WYPTE 158. Excursions at one time saw Anglia 86/2s and complete sets of Anglia coaches reaching Edinburgh. Earlier than that, the South West Trains 159s were fitted out at Rosyth and were sent from Derby via the East Coast line in full NSE livery!

ALEX RANKIN

In fairness to Ian, the article was written as part of his West Highland Wanderings series, but we considered it worthy of standing as a Plan of the Month in its own right - Ed.

'CRYSTALATE'/WALLACE SPIERS WAGON

This wagon, as reviewed in the July issue, has been made for Ballards by Dapol, using as a base its ever versatile 7-plank, side & end door open wagon, taken from the standard 1923 RCH design. The original of the Crystalate wagon however, was built by Hurst Nelson and was not quite the same. The excellent photograph, mentioned in the review, is on page 104 and also on the back cover of *Private Owner Wagons, A First Collection*, by Keith Turton (Black Dwarf Lightmoor Press), a very good source of information, reviewed in the December 2003 issue.

Having looked at the photograph and the model I realised that only a little work would be needed to make the model look more like the original, and I adopted the following procedure.

Prise out the plastic coal load and paint the interior of the wagon in weathered wood, Phoenix Precision Paints No.P990.

Using a sharp knife, cut off the side door centre springs and re-use each of these to make two heavy duty door stops. These are a recognisable feature of many Hurst Nelson wagons. Glue them just under the hinges with impact adhesive.

When set, paint the blocks, together with the solebars and buffer beams,

chrome yellow. Humbrol No.154 is a very good match to the body colour.

Paint the corner plates at the fixed end of the wagon red, Humbrol No.19.

The original wagon had all its iron-work picked out in red. I have not done this myself as I did not want to risk spoiling the lettering, but it is an option.

Give the end door of the wagon a light coat of gloss varnish. When dry apply white lettering, starting on the second plank from the top, to read:

COAL SUPPLIERS
WALLACE SPIERS & CO
25 ST PANCRAS ROAD LONDON

I used Modelmaster waterslide private owner transfers. All the letters are 1.5mm, apart from the small 'o' of CO, which is 1.0mm, all from sheet P995, and the ampersand which is from sheet P998. It is a little bit big, but looks OK *in situ*. Mould the transfers over the planks with Carrs Transfix or similar.

When dry, go over the end door, including the transfers, and the two red corner plates, with matt varnish, which blends them back into the finish of the wagon.

Carry out some light weathering to taste, I used Green Scene brown and black powders, applied with a finger tip and a small brush to get the effect I wanted.

Put back the coal load, or do as I did and use a more realistic stonecast one, in this case Harburn Hobbies FL182 (67mm x 29mm). This has the advantage of not only being the right size, but simply drops in and out, so that the wagon can be run as full or empty at a stroke.

The actual work on the wagon took about half an hour, not counting waiting for things to dry. When completed the wagon makes a good running mate for the Hornby Wallace Spiers wagon. This I also weathered lightly, and as it is not supplied with a coal load, fitted a Harburn Hobbies FL189 casting (56.5 x 26.5mm).

DAVID K. SZTENCEL

MORE ON THE 24

Oh dear, once again I find myself playing catch-up. I'm afraid that I forgot to thank Steve Flint for the superb photos he took to accompany the article in the August issue. Mine are the rather average pics, Steve's are those that are properly lit and in pin sharp focus.

However the excellence exposed the deficiencies in my weathering of 5091. The light treatment it got was perhaps too light. The paintbrushes have come out and 5091 now has a much more workaday coat of grime on the roof, underframe, lower body sides and ends. Both 5091 and 5092 now also sport data panels at the appropriate positions on the cab sides, a small addition but a big improvement.

There has been some progress on

disposing of the surplus that the project had generated. The mark of a Yorkshireman is that he believes that the Scots exhibit a reckless generosity in their handling of money; true to type I cannot abide waste. Two of the spare Bachmann bodies have been passed on to a friend, the remaining body, a 25/3, has had damage to the head-code box repaired, conversion to the earlier exhaust arrangement, and a repaint. It will be mated to the spare Hornby Class 25 chassis. It is a bit of an experiment to see if the deficiencies of the Bachmann body can be ameliorated in the painting and weathering process; specifically can the eye be deceived into thinking that the cab roofline curve is sharper than it actually is?

On the subject of thrift I should also mention that the best price I found for a donor Bachmann 24 or 25 was at my local model shop, Monk Bar Models of York; an illustration of the often-quoted advice to use your local shop. I buy as many of my modelling requirements as possible locally, as being a frequent customer enables me to snap up bargains when they occur.

Finally I would suggest a visit to the Scalefour Society website at www.scalefour.org/map.htm. Click on the portfolio pages and have a look at the work of Jim Smith-Wright, particularly the underframe mods. Stunning work but I'm not that brave.

NEIL RUSHBY

NBR DRINKING FOUNTAIN

Further to my article on North British gas lamps in this issue, the drinking fountain illustrated here would make a fine model. It was situated at Alloa on



platform one just east of the road over-bridge. The lettering around the tap read NBR and the semi-circular text above that enjoins users to *Keep The Pavement Dry*. A drink was taken from a beautifully polished brass cup now, alas, long disappeared. I believe the fountain may have been rescued and taken to the SRPS site at Bo'ness.

R.D.A. JOHNSTON

MODELRAFT LTD

I would like to address an appeal to your more senior readers (they'd have to be, to remember what I'm enquiring about) to see if they can help me.

I am collecting information about the old firm of Modelcraft Ltd., which was operational in the 40s and 50s, publishing, among other things, a magazine and plan catalogue, numerous plans for ships, railways, road transport, and the inimitable 'Micromodels'.

I understand that they ceased operations about the mid-50s, and that some of their output was taken on by ERG (also now defunct?) and I am anxious to know what happened to the original firm and their back catalogue of plans.

If any one can throw any light on the subject, loan copies of the magazines or plans, or just generally reminisce about the subject, I would be delighted to hear from them.

IAN JOPSON

16, Ramsgate Drive, Ipswich, Suffolk
HP3 9DB.

ELIZABETHAN RAILWAY SOCIETY

Our model railway society suffered a massive, and possibly fatal, blow earlier this month when arsonists destroyed our club meeting rooms. The Society has been in existence since the late 1950s, and has put on exhibitions since the late 1960s. One of our layouts, *Milnforth*, featured in RM October 2001. Now the club faces closure as we speak. We have lost almost everything, and whilst partially insured will face massive oncosts and increased costs upon rebuilding, which we are determined to do. We need the modelling community's help and wondered if you could help or support us by publishing our rebuild appeal in the magazine.

Our club faces its darkest hour, please help us.

JOHN WATSON

Hon Secretary, Elizabethan Railway Society, 5 Church Avenue, Sutton in Ashfield, NG127 2EB
T: 01623 550307
E: rach.john@btopenworld.com
M: 07812 144410

A TALE OF TWO LOCOS

This is a tale of two locos with a happy ending. I started my N gauge layout just as Farish ceased production, so I bought Kato and Micro Ace, both of which have done well, particularly the latter. But the Gresley and Stanier Pacifics have always fascinated me, and there was this gap in the collection.

I was one of the first to take delivery of the Bachmann-Farish *Duchess of Abercorn*, and you can imagine the disappointment when it proved unsuitable and had to go back. I had already eliminated all the 9" radius curves along its route and this was not easy in a cramped space.

A year ago I received a birthday

present of a small Farish tank engine which hopped about the points like a demented sparrow. So once again it had to go back, but this time, for some unknown reason, I exchanged it for a nice looking 2-6-4 tank engine hoping that the longer wheelbase might help, and it did. It performed quite well.

Something must have happened to the wheel profile and setting since the first models appeared. For me it was a miracle when the *Duchess of Hamilton* arrived. She is beautiful. She isn't blue and she has smoke deflectors, and although she has no tender pick-ups she is quite powerful and takes the Peco medium radius Setrack points with ease. She will even negotiate a trailing small radius point, and the 10³/₈" radius inside curves are no problem. You can convert these into 12" for the outside track by cutting off one 'D' shaped end and making half a dozen cuts in the inside plastic longeron. Check against a former.

I cannot speak for the coaches because my sidings are limited to 67' units, but I do want to thank Bachmann for listening, for learning, and for perseverance in a very good cause.

P.T. STRAFFORD

GOOD SERVICE

I would like to say a big thank-you to East Kent Models of Whitstable and Modelspares of Burnley for their prompt and helpful service.

I'm sure that other amateurs like me get a lot of fun and pleasure out of conversion work or upgrading of their existing Hornby or Tri-ang models. These two companies have been invaluable over recent months and I cannot praise them enough.

I have no connection with either company other than being a very satisfied customer.

P.S. HARRISON

KINGS GREEN WHARF – LAST WORD

It is clearly evident that Messrs Holliday and Andrews have spent a great deal of time admiring Steve Flint's excellent posed photographs of *KGW* but they appear not to have read – or have possibly missed the spirit of – the accompanying text. Had they entered into the spirit of the article we feel that they would have realised that *KGW* was not meant to be taken too seriously and certainly was not built with rivet-counters in mind (e.g. the business names). It was built to entertain the public. It has done this for some time and continues to do so as demonstrated by the invitations to exhibit up and down the country – indeed, *KGW* was at Taunton last year when the editor of RM personally commissioned the original article.

Whilst we stand in awe of the erudite treatise on wagon lettering, usage and longevity we would draw the attention of your correspondents to the many inaccuracies with the road vehicles, ploughing engines, etc and discrepancies such as the headroom on the canal tunnel... but maybe they choose to ignore the non-railway aspects of layouts. If we had set out to portray an historically correct and prototypically accurate model of a railway scene we would have done many things differently. All aspects of modelling require a certain degree of licence.

We feel that it is important that all

modellers should occasionally remind themselves of Cyril Freezers final words in *First Steps In Railway Modelling*: 'You don't have to conform to anybody else's ideas or even model an actual prototype. It's your railway, and you should build and operate it as you think fit.' In the meantime purists should wait for our club's new 0 gauge layout – *Helmethwaite and Chapel Lane*.

STEVE PAGE

St Neots MRC

Thanks to all who have contributed to this topic – Ed.

COARSE SCALE 0

As an avid 0 gauge GWR scratch builder of locos, rolling stock and track in detail I previously used parts such as coarse scale wheels and brass components which were available from Bond's O'Euston Road, London, which moved to Midhurst, Sussex.

I also built 0 coaches available from Westdale coach kits. Are the above suppliers still in operation, discontinued their business or passed their franchise to others?

Having been in Asia since 1989, it is not easy to get model news: my expatriate pals provide model and steam magazines for me on their return from the UK as post deliveries are not guaranteed in the Philippines due to theft.

I would appreciate any readers' information on my questions.

RICHARD HART,

Citi Pension House, 476 M.J. Cuenco Avenue, Maboloc, Cebu City 6000, Philippines. richlionhart@hotmail.com

THE DISABLED EXHIBITOR – ADVICE AND PRACTICALITIES

Ten years ago I was paralysed from the waist down and confined to a wheelchair. Getting used to moving round in a wheelchair took time, but I had to have a hobby and model railways seemed to be the right direction in which to head.

Exhibiting a layout can be daunting and problematic if not planned in advance. True, the problems are plenty but they are worth getting over to enjoy the banter and great friendship that can be had at exhibitions from fellow exhibitors and public alike. So it's best to start from the beginning in the planning stage.

First of all you have to take into consideration the extent of your disability and also your layout design and the ease of transporting it to and from the exhibition venue. My layout *Hollies End* (RM July 2004) was born in mid-1999 when I constructed the first boards and in the following 18 months I got the layout to a standard for exhibiting at a show.

My club, Basildon MRC has a member who has become a true friend and my right hand in helping me at exhibitions since day one. His name is Robert (engineer) Woodhouse.

Before *Hollies End* I had been a 'fare paying' visitor to many an exhibition for two main reasons: to find out ideas and practical designs for a layout and to look at certain things about the venues ie, accessibility, steps, ramps, parking and toilets. I also spoke to exhibition managers about things involved with disability.

With exhibiting a layout more likely, the first thing I did to help managers was to print a 'spec sheet' that gives

them all the details about the layout, and also details of my requirements to assist me and them.

Being in a wheelchair the area behind the layout at a show is most important. In order to manoeuvre round means about 5' in depth has to be added on to the overall measurements, otherwise it can be very awkward to go from left to right if less room is supplied. Also allocation is vital: I try to get positioned in a main hall or something similar as it gives me more room in which to move.

Exhibition managers I have dealt with over the years always get a phone call from me, or a comprehensive letter explaining the finer details of my requirements to make my visit to their show a good one.

Now getting to a venue has been sorted out from day one. I have a very good understanding with my fellow assistant exhibitor Robert Woodhouse. We know each other's jobs, which have been formed over the two years showing the layout together. True, we have altered a few things (for the better) but it is vital that your helper is aware of your requirements as much as exhibition managers are.

We have a proven routine in place; the left hand knows what the right hand does and visa versa. This is worth aiming for as teamwork is vital to success. We have had awards for best at shows so it is possible to be up with the 'Big Boys'.

Now back to the very first exhibition we attended. If only some of the other clubs had the organisation arrangements in place as the Crawley MRC has: its management team made sure that the layout area was ample for me, and also a disabled toilet was on site and close by on a flat floor area. Even parking was near my position. This had been sorted out by the team well in advance of my attending. Of course I know other managers do their best with what they have at their disposal but if toilet facilities are not suitable for a wheelchair it's very off-putting for people like me. Some of the places I have had to use as a loo, well you can't imagine.

So to recap on the basics: a list for disabled exhibitors and managers alike is as follows:

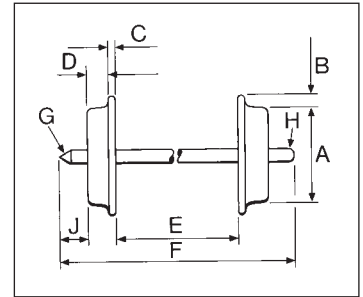
- * Give details in full 'spec sheets' to exhibition managers.
- * Try if possible to visit the venue to check out amenities before exhibiting there.
- * Try to meet the exhibition manager and let him see what you need for himself, then come to an agreement.
- * Check out toilet facilities and if not suitable try to get to speak to the venue's caretaker for a private loo to be available to you.
- * Be flexible in decisions: after all you are a guest and managers are doing their best for everyone.
- * Last but not least enjoy the event!

I have spoken to disabled people about some of the pitfalls of exhibiting and have sent them away with ideas of exhibiting much clearer and more positive in their thoughts. After all the people that are able-bodied are mostly only too pleased to see and to help disabled people enjoy this hobby of ours.

BRIAN ('WHEELS') STUBBLES

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Latest BR Class 50 in 00 from Hornby



The newest refurbished Class 50 to join the fleet of highly regarded models is of another preserved 'celebrity' locomotive.

Controversially then, and perhaps so even now, 50 007 *Hercules* was renamed *Sir Edward Elgar* in February 1984, to commemorate 50 years since the composer's death. It was also repainted green, the first 50 to carry any shade of this colour. It shared this livery style with the selection of Class 47s which were repainted to mark GW150 a year later, but was the only

green 50 until D444 post-preservation.

Given that the mechanics and fine details are fully up to the high standard of the first release, *Ark Royal* (see RM January), we need not repeat ourselves. The livery has been executed very well, and note that the red-backed name and number plates mark *Elgar* out as a post-BR machine: in service and early in preservation these were picked out in black. (The purchaser can replace these printed plates with etched examples if it is desired to model '07 in earlier days.) Similarly, for

the post-1996 period, miniature three-section snowploughs are included in the detail pack for the modeller to fit, along with the buffer beam pipework.

Time has somehow smoothed over the initial reluctance to see 50 007 as anything other than *Hercules* (and the true 50-basher has a photo of its scant 11 months in large logo livery: the writer has but can't find it...). It's certainly a very welcome addition to the collection of Hornby Hoovers.

Incidentally, the Hornby price list gives this catalogue reference number

as being a weathered 50, number TBA, but the catalogue and box list it correctly, as here.

SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate, Kent CT9 4JX.

PRICE
ref.R2408, £85.00.

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm, E. 14.5mm.

BR Standard Class 5 with 1F tender in 00 from Bachmann

New in the list of Bachmann 'Blue Riband' superdetailed locomotives is Nine Elms' No.73110 which, for a while in the 1960s, carried the name of withdrawn 'King Arthur' No.30755 *The Red Knight*. Twenty such 4-6-0s took on the identities (the plates were cast new) of characters in the Arthurian legend. Very nice etched, red-backed plates are included with the loco for self-affixing although most, like your reviewer, will probably prefer to forget the whole episode and let 73110 remain unnamed as nature surely intended.

The model has the maker's discreet tension lock couplers fitted in NEM pockets and sprung buffers all round. A socket is fitted for the installation of a DCC decoder.

The superdetailing is breathtaking, not just in the things that we have come to expect, like lubricators, speedometer drive, lamp irons, brake gear and a prototypical tangle of separately-applied pipework: but in unexpected features which are difficult to describe. The boiler feed clacks sit in deep undercut recesses which almost convince the eye that what it sees is the *cladding* and the boiler proper is



inside, as in the real thing. Likewise, the cut-outs for the lubricators in the footplate valances give the impression of being made in thin plate and not in a strong plastic moulding. The feedwater pipes, on their runs along the footplate from cab to clack valve, run through retaining cleats and, between those fixings, they are not *quite* straight. This is realism of an almost photographic quality, with a touch of *trompe l'oeil* added here and there.

Compared with the Bachmann model of 73030 (see Dec 2003 issue), the whistle has been moved from just

behind the chimney to the firebox top alongside the safety valves.

The tender is new, and represents the Type 1F, which boasted an impressive 5,625 gallons capacity and 7 tons of coal. Given the lack of water troughs on the Southern, this extra capacity came in handy.

The tender has been modelled with a good load of coal – which can be prised off gently to reveal a fully detailed coal space – and the late BR crest. Both the tumblehome and the turned-in plates at the top of the sides seem a little on the sharp side, giving

the vehicle a somewhat 'slab-sided' look which is at variance with our own recollections, photographs and other published information.

SAMPLE SUPPLIED BY
Bachmann Europe PLC, Moat Way, Barwell, Leicestershire LE9 8EY

PRICE *ref.32-506, £92.65*

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm, E. 14.5mm.

Three- and two-car Class 158 DMUs in OO from Bachmann



Given the speed at which things appear to happen on the modern railway, one wonders how a manufacturer can be expected to keep up – let alone a monthly magazine! As a case in point, the Northern Spirit Class 159 seen here, a new identity of which has joined the Bachmann range this year, is already historic: since the operation was taken over by FirstGroup/Keolis the units dedicated to the trans-Pennine routes are undergoing partial re-liveries with blue lower bodysides, thereby obscuring the lower section of the large 'N'.

The models are, mechanically, identical to the previous incarnations of contemporary DMU (see the South West Trains 159, last month). Our sample represents No.158 799, in the condition prior to the rebuilding of one of its driving motor seconds into a composite vehicle with 32 seats in each class. Perhaps Bachmann might like to offer a revised interior in due course,

complete with working table lamps à la the Hornby Pullmans? In addition to identical interiors, the driving coaches carry identical running numbers – 57799 – one, the vehicle that is now the composite, should be 52799.

Also new to the fleet is 158 797, one of Central Trains' 2-car units. The chief livery change from previous units is the replacement of the train operator's 0800 telephone number on the bodysides by the URL of its website.

In both cases the liveries have been executed very well (with the exception

of the wrong digit mentioned above). The definition between shades, such as on the doors of the Central unit, is excellent. (The doors are required to be a different colour from the bodysides to aid their location by passengers with poor sight.)

Detail parts for the modeller to add are bogie footsteps at the cab ends of the units, and 'handed' guards.

These attractive models will be high on the shopping list of anyone modelling the recent scene in the prototypes' sphere of operation.

For OO

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY

PRICES

Northern Spirit (ref.31-513A) – £92.05
Central Trains (ref.31-504A) – £72.25

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Weathered powered/unpowered duos and new 58 in OO from Hornby



Two more of the economical powered/unpowered combinations of locomotives from Hornby are firstly Class 37s Nos.37216 and 248 *Midland Railway Centre* in weathered Mainline finish. The second multiple working set features Class 58s in weathered EWS livery as 58 024 (with ampersand) and 58 037 *Workshop Depot* (without). Only the former in each case is powered in the normal way, and the latter is unpowered, but still weighted so that double-headed and top-and-tailed trains can be simulated effectively.

The unpowered 58 has no gears, so retro-motorization would not be an easy option. The electrically talented, however, may be able to 'bus up' the

dummy to the powered engine for the ultimate in current collection.

Bear in mind when 'topping-and tailing' that the dummy loco is quite heavy and when it is leading, and virtually serving as a DVT, careful driving should be the order of the day.

The weathering of the locos is quite understated and pleasing to the eye. The cab windows look rather grubby but some may find the wheel tyres still a little too bright for a working loco. It all depends on what you like. The 58s' roofs seem rather clean which is perhaps not surprising as there is no exhaust port, a very surprising omission bearing in mind the usual Hornby attention to detail. One should remem-



ber, however, that the Class 58 was first reviewed in our January 1983 issue.

Another new Class 58 (motored only) now available is the weathered 58 003 *Markham Colliery* in the once-familiar Railfreight Coal Sector livery. The weathering sits well on the rather

sombre colour scheme, and one is left with the feeling that this is indeed now an historic prototype. It is a late identity change, too: R2252B is identified in the Hornby catalogue as 58 047.

For OO

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES

37 duo (ref.R2412) – £75.00.
58 duo (ref.R2411) – £75.00.
58 003 (ref.R2252B) – £54.00.

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Latest Class 86s in OO from Hornby



As the Class 86s reach the end of their long and distinguished careers, Hornby is marking their passing with no fewer than three new versions for this year. One of the identities harks back to times far removed from the electrified West Coast Main Line.

In catalogue numerical order the machines are 86 215 *The Round Tabler* (ref.R2160A); E3172/86 233 *ALSTOM Heritage* (ref.R2414); and 86 235 *Novelty* in InterCity 'swallow' finish (R2415). The first carries the smart but now-obsolete Anglia turquoise – the company has metamorphosed into part of 'one' – and will be a good stablemate for previous Anglias in the Hornby range. 86 233 carries the original AL6 blue scheme, with modern accoutrements like the cantrail warning stripe and current-design OHLE flashes. The livery was applied in summer 2002 to mark the farewell of the class from its home metals.

Two 86s carried plates honouring entrants in the Rainhill Trials of 1829. One – 86 235 *Novelty* – was named



thus in June 1979 to mark the centenary of this important event. Here the attractive IC scheme has been applied, again with current live wires flashes.

Liveries are uniformly neat, with crisp definition between shades. Printing is good, too, even if the BR lion-and-wheel crest on E3172 is inevitably flat and not in relief.

A curiosity of the 50th edition Hornby catalogue is the statement that the pantographs on these models are

non-functioning. This is not only at odds with the packaging (where users are cautioned against running locos taking their power off live overhead along the same track at the same time as those receiving track power alone) but the models themselves as well. For 'under the hood' is the traditional basic switching arrangement, whereby the position of the slider on the roof maintains or breaks contact with the phosphor bronze strips on the inner surface of the roof: current is passed to the

motor from the pantograph or not as required.

We suspect that many are deterred from modelling the 25kV overhead lines because of the complexity of 'stringing the wires' – not necessarily so complex in more recent installations, however – and it would be a pity, because unless 'dragged' over a non-electrified route as a diverted service these attractive models must remain in the familiar red and yellow boxes.

For OO

SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate, Kent CT9 4JX.

PRICES

Anglia 86 215 (ref.R2160A) – £48.00.
'heritage' E3172 (ref.R2414) – £54.00.
IC 86 235 (ref.R2415) – £54.00.

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Sound modules from Remtrak

Remtrak has new versions of its type SND 'Real Sound' sound effects modules. These now contain up to five different real sounds, and have a built-in volume control. The casing has also been improved.

A wide range of sounds is available, including sets of British steam loco whistles, British diesel horns, American steam loco whistles, American diesel horns, two assorted American steam or diesel selections also incorporating a car horn and level crossing bells; bells (tram, streetcar, level crossing and church); ship and steamboat whistles. There are also two units offering longer single sounds of about 20 seconds duration, American level crossing bells and a church bell tolling. 'Natural' sounds are also included, such as rain, watercourses and the 'dawn chorus' of birdsong. Further selections are planned.

The sounds are either royalty pre-paid recordings from sound archives, or specially made recordings. (Note that some of the modules in the range include recordings cleared only for private use.)

We tested SND25, which contains four British steam locomotive whistles, described as a long Gresley Pacific, Mallard, a Bulleid whistle, and a tank loco; and SND35, which offers four diesel loco horns and a steam whistle.

Identifying the sounds may be subjective, but the quality was surprisingly



good using the built-in amplifier and small speaker.

(In the more elaborate SNDA range, the output can be taken to an external amplifier, in which case the internal speaker can be disconnected. The modules can be chained for simple connection to an amplifier.)

The modules come in a robust plastic casing 95mm x 60mm x 30mm, which has mounting flanges at either end for fixing to baseboard or panel.

Connections are by small screw terminals along one side of the casing. The units need a 9-16V AC or 12V DC power supply.

The overall volume control for the built-in speaker is by a small potentiometer, adjusted with small screw-driver.

Each sound is activated either by a simple push button, or it can be worked by reed switches, so a train can trigger a sound when it passes a specific point on the layout.

The unit only plays one sound at a time; it ignores subsequent triggers until the current sound is finished.

The units store about 20 seconds of audio, which can be divided into 4 second sections. Modules can be produced with custom sounds from your own recordings – contact the address below for details.

In short, these modules are quite easy to use, versatile, produce good sound quality for their size, and are attractively priced, making them well worth consideration if you like the idea of sound effects.

Command Micro Systems can also supply suitable power supplies, connecting cables, external speakers, push switches, reed switches, and actuating magnets. The illustrated A5-size catalogue and leaflet pack, with full information on these modules and all its other units and components, is available for £1.95 (post paid in the UK).

For all scales

MANUFACTURED BY
Command Micro Systems,
Hampton House, Courtlands Road,
Newton Abbot, Devon TQ12 2JA.

PRICES

£22.95ea. Postage & packing £2.50
on UK orders under £200.
Overseas – rates on application.

Caught short?



New to the Harburn Hamlet range of stonecast resin scenic items is this portable toilet (£4.95), just right for the model building site or outdoor event. It is 18mm square x 32mm tall.

Also new is a rectangular stone flower bed (£5.50), ideal for a municipal setting. Dimensions are 70mm x 28mm x 15mm tall.

For 4mm scale

AVAILABLE FROM
Harburn Hobbies, 67 Elm Row,
Edinburgh EH7 4AQ.

PRICES in text.



Latest version of Class 08 in OO from Bachmann



Given that the over 1000 'standard' BR 0-6-0 shunters (including those outside the mainstream 08 family) were built from 1953 on through the decade and well into the next, detail differences are bound to crop up. The latest version of the Bachmann model 08 boasts several alterations over its immediate predecessors, which were reviewed in September 2003.

The latest models represent black-liveried No.13029 (later 08 021, BR Derby October 1953) and 08 243 in blue (*née* 13313, BR Darlington June 1956). Comparison with older versions show that these models have the early panelled door style, and a different

arrangement of frame-mounted cabinets. 13029 sports two battery cabinets – 08 243 only has one, on the nearside – and note it possesses its nose ladders: these were later removed, to protect staff from live wires. The bodyside doors are of the old-type hinged variety.

Livery treatment is subtly different, too: on the blue 'Gronks' the 2003 version has yellow rods and red buffer beams: here we have the situation reversed, yellow beams and red rods. Additionally, the horizontal handrails on the bodysides have been picked out in white, or more likely moulded from self-coloured plastic of that



shade. The BR symbol appears 'slimmer' on 243 than 748, too. Finally, the OHLE warning flashes are of the original design, *vice* the 'double flash' type seen on the previous model. The shed-code plate on 13029 is 84E Tyseley & Stratford-on-Avon.

Mechanically, the models are every bit as good as their predecessors, and in one respect better: when the 08 was first reviewed here in February 2001, we commented that the spring detail and suchlike on the loco's frames was a little 'thin'. Pleasingly, the latest two models display an increased (by about 10thou) depth in the detail hereabouts.

These charming models of equally

charming prototypes are sure to be as popular as their forerunners.

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY

PRICES

Black 08 (ref.32-110) – £46.50.
Blue 08 (ref.32-111) – £46.50.

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Latest Dapol PO commissions



1E Promotionals has commissioned a further two private owner wagons from Dapol, in the colours of Massingham coal factor P. Softley and F.J. Davis of Aylesbury. Both are limited to a certified run of 250, and are priced £7.50 (plus £1.00 P&P) from either of the joint distributors, KRS of Leighton Buzzard and GE Models of Sheringham. *KRS Model Railways, 14 Brickhill Road, Heath & Reach, Leighton Buzzard, Beds LU7 0BA. G.E.Models, Platform 2, North Norfolk Railway, Sheringham Station, Sheringham, Norfolk NR26 8RA.*

Buffers of Axminster has a further two commissions, both of which have Somerset & Dorset area connections. Timsbury Colliery was near Bath; Kilmersdon Colliery at Radstock saw the last workings over the otherwise closed northern section of the S&D until its demise in the 1970s.

The wagons are priced £6.99 each, plus 50p per wagon for postage and packing.

All four commissions feature the neat Dapol moulded coal load. *Buffers Model Railways Ltd., Colston Cross, Axminster, Devon EX13 7NF.*



Black 5s return to Farish N fleet



New to the Chinese-production Graham Farish range is the Stanier Black 5, in both LMS and BR (early emblem) finishes. The models represent now-preserved No.5305 (one of the Armstrong-Whitworths of August 1936-December 1937) and No.44896 (Crewe 1945). The choice of one of the 18 Black 5s to make it to preservation is a good one, as it allows the modeller interested in post-1968 days to justify its appearance on a special.

Although the too-small front bogie wheels have been retained, they are at least more discreet in blackened form. Similarly the inevitably overscale motion benefits from being blackened. The modeller may wish to tone down the rather bright pickups in similar fashion.

The painting and finishing are excellent: 5305 wears the san-serif 1936 livery in which it is so well-known in

preservation, whilst 44896 has electrification flashes present, and a legible 55C (Farnley Junction) shedplate.

On plain track the models run well enough, but performance is affected by dead frog pointwork due to only the coupled wheels picking up current: we would recommend that wiring the tender be a priority when the purchaser gets the model home.

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES

5305 (ref.372-125) – £79.95.
44896 (ref.372-126) – £79.95.

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.



Bogie Freightliners and oil tankers in N from Graham Farish



New versions of two of the popular bogie wagons have arrived from Graham Farish.

The Freightliner flats now boast lettering on the framing – legible TOPS coding and all – and are offered with three 20' containers in original livery (ref.373-451) or two 30' boxes in the more recent scheme (ref.373-450). The containers are fixed in place.

The 100-ton oil tanks come in the house colours of Shell/BP (ref.373-550) and Fina (ref.373-551), and are also finished very well.

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe
PLC, Moat Way, Barwell,
Leicestershire LE9 8EY.

PRICES
Freightliners (both types) – £8.95ea.
Tankers (both types) – £9.50ea.

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.



Another weathered 'Pug' in 00

All right, we'll admit it: we like 'Pugs'. In July last year we made space for the Hornby weathered version, No.51231, and we've done it again here with the 2004 identity, 27A (Liverpool Bank Hall) stablemate No.51232.

Other than that one digit, the model is identical to its predecessor. Power Class 0 it may be, but it was still up to handling eight coaches on our not-quite-flat test bench: for shunting a few wagons that'll be power enough.

For 00

SAMPLE SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICE
ref.R2335A, £35.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Etched brass freelance diesel body parts from Worsley Works

Following the release for 0 scale (see CM September 2003, p.411), Worsley Works has repeated its kit of etched brass parts to create a freelance narrow gauge diesel, in either 3.5mm or 4mm scale versions. The frets include an American-style switcher cab plus end walkways and steps. Pilot steps and mounts are also provided as optional extras.

These parts are intended to be built on to any suitable N gauge hood unit, rigid framed or bogie – in keeping with Worsley's 'scratch aid' philosophy, they leave scope for the modeller's ingenuity.

The choice of scales is largely nominal, and selection will probably be defined by the model used as a basis and/or the required loading gauge.

The 4mm scale parts are shown here applied to a Graham Farish 08. This involved making a slot in the bonnet sides and top (it is not necessary to cut right through) to accept the etched cab front, removing the original cast cab above the window base line and behind the front sheet (this is only to leave the cab interior clear behind the windows), removing the buffers, and filing the buffer beams smooth. The original side steps have also been removed. The N gauge couplers can be discarded as the walkways include



coupler mounting plates. The resulting loco is 65mm long, 26mm wide, and stands 35mm above rail level.

The rear walkway would seem to be essential as the cab back has a central door; however, the front walkway could be omitted, or notched to fit around the hood, if length is a factor.

The components have been very nicely etched, with detail and construction lines on both faces. The walkways are particularly impressive, displaying chequer plate top surface and perforated step treads. The steps are an ingenious fold-up design which engages with half-etched grooves on the inside of the pilot beam and rear plate.

The cab front, sides, and back fold up from one piece, with just one join to

solder. The roof is provided. The cab doors are separate parts, to enable another layer of detail. It is best to assemble the doors and steps before folding up the cab walls. Take care doing this as some fold lines are very close to the edge of the parts.

The battery compartment door is etched in one side of the cab, with catch and hinge detail recessed; an overlay with these features standing proud (i.e. with the main area half-etched away) is provided as an alternative.

Depending on the chassis used and the height of the running board, the bottom steps may be omitted: our example uses the full three steps at the rear and only two at the front.

The running boards can be made

from brass strip – maybe even the scrap edge of the fret – and the provision of a valance or a chequer plate surface is a matter of taste.

The kit does not include glazing and there are no 'solid' details as castings. The builder must also supply wire for handrails and door handles, though the fixing holes are present.

For 4mm scale narrow gauge (009)

MANUFACTURED BY
Allen Doherty, Worsley Works NG,
19 Douglas Road, Worsley, M28 2SR.

PRICE £8.00
Postage & packing £1.00 per order.
(Please make cheques payable to 'A.Doherty'.)

DCC decoder assortment from Train Control Systems

M.G.Sharp now has available a range of Digital Command Control decoders from American manufacturer Train Control Systems (TCS). They are naturally compatible with NMRA DCC standards, and seem neatly made.

They share a number of novel features: 'dither' is claimed to be exclusive to TCS, and works on the lowest 20% of the speed range to create the ultimate in slow speed control while 'Quiet Drive' gives smooth quiet engine performance.

All the decoders have a 'Factory Reset' function which provides a fast way back to the original settings.

The instruction sheets have full documentation of the Configuration Variables (CVs), and (sensibly) provide space to record your settings,

Finally, TCS offers a 'Goof Proof' no-questions-asked warranty.

Ref.A1 (£18.50) is an advanced decoder for Atlas and other models, which replaces the light board with a printed circuit board measuring 73mm x 17mm. It is rated at 1.3 amp continuous, 2.0 amp peak motor drive, plus four 100mA function outputs.

It will automatically detect whether it is running on DC or DCC, and responds to all program modes, with OPS mode (on track) programming.

It can accept standard two or extended four digit addressing, with basic and advanced consisting, and has the usual programmable features: 14, 28, or 128 speed step control; user loadable speed tables; programmable start, mid, and maximum voltages; and an optional kick start feature, which overrides the dither.

There is a brake on DC feature which allows stopping and starting when a DC section is active, with programmed acceleration, deceleration, and the desired lighting.

Function remapping is feasible, to



let most buttons control the lights.

There are many light function options, many of which are specifically American-oriented – reversing headlights, Rule 17 dimming (when US trains meet, the bright headlights must be dimmed), opposite dim, random flicker (for the firebox, or similar), blinking ditch lights, Mars or gyra light, rotary beacon, single pulse strobe, double pulse strobe, and flashing.

Ref.M1 (£21.95), measuring 14mm x 9mm x 4mm, with flying leads, is small enough for N, powerful enough for 00.

Its specification is similar to the A1, and while it has only two 100mA function outputs, there is an extra light option – momentary pulse.

It also sports two new features – optional full range dither, and decoder lock, which allows individual programming of any one of six decoders with the same address, by locking out the others.

Ref.M1P (£25.50) is the same decoder but supplied fitted with an 8-pin dual inline plug.

Ref.M2 (£24.50), with flying leads, is the same size as the M1, and similarly

specified except that the maximum continuous motor drive rating is 1.0amp (again with a 2.0amp peak), and the decoder has three function outputs, two at 100mA and one at 60mA.

It also offers the option of button control of the motor circuit, for use with a smoke unit or additional lighting up to 1.2amp.

Ref.M2P (£26.95) is the same device supplied fitted with an 8-pin dual inline plug.

Ref.T1 (£14.75) measures 26mm x 16mm x 5mm and also offers 1.3 amp continuous motor drive with a 2.0 amp peak, plus two 100mA function outputs. It is billed as the only two function decoder with lighting effects. Compared to the A1, it has simplified light effects – reversing headlights, Rule 17 dimming, opposite dim, random flicker (firebox), and momentary pulse. Otherwise the specifications are as above. It comes with a detachable 9-pin wiring harness, with flying leads.

Ref.T2 (£24.50) has the same specification but offers five 100mA function outputs.

Ref.TH141 (£21.95) is also as above, but with four 100mA function outputs, and an extended selection of light effects – reversing headlights, Rule 17 dimming, opposite dim, random flicker (firebox), blinking ditch lights, Mars light, gyra light, rotary beacon, single pulse strobe, double pulse strobe, and flashing lights.

Ref.TH150W (£25.50) repeats this specification but provides five 100mA function outputs. It is fitted with flying leads, permanently attached (though the label claims it has a 9-pin harness).

Ref.TH150DP (£21.95) measures 21mm x 17mm x 8mm (over pins) and has the same specification as the above, but is described as 'plug-and-play' – the printed circuit board incorporates an 8-pin dual inline plug, which will mount directly into the appropriate socket (space permitting). It is supplied with a spacer to lift it clear of any adjacent components – this is a simple block with eight pins one side and eight corresponding sockets on the back.

Finally, ref.K1 (£2.55) is a wiring harness kit which consists of a 9-pin edge connector with leads ready attached, plus a printed circuit board and pins to assemble an 8-pin dual inline plug. Full instructions and a wiring colour code diagram are provided.

For various scales

MANUFACTURED BY
Train Control Systems, PO Box 341,
845 Blooming Glen Road, Blooming
Glen, Pennsylvania 18911, USA.

AVAILABLE FROM
M.G.Sharp Models, 712 Attercliffe
Road, Sheffield, S9 3RP.

PRICES
In text.

Harburn office



New to the Harburn Hamlet range of stonecast 4mm scale scenic accessories is this general purpose railway office. Dimensions are 70mm x 43mm x 67mm over chimney, and it is finished neatly. The solid model weighs 250g.

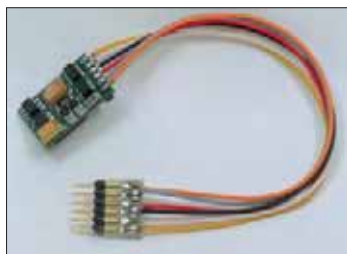
The Harburn Hamlet range is distributed to the trade exclusively by the Pritchard Patent Product Co., Underleys, Beer, Seaton, Devon EX12 3NA.

For 4mm scale

AVAILABLE FROM
Harburn Hobbies, 67 Elm Row,
Edinburgh EH7 4AQ.

PRICE ref.FL186, £12.95.

New DCC decoders from Fleischmann



Fleischmann has released a new DCC decoder (ref.6857, price £TBA) specifically intended for N gauge, though it would also be suitable for small 00 or 009 locos. The decoder itself measures just 13mm x 9.1mm x 3.7mm, and is supplied with a connecting lead c.80mm long terminated with a NEM651 six-pole inline plug.

The decoder provides 600mA for the motor and 100mA for the auxiliary lighting. It is DCC only and can be set for 14, 28, or 128 speed steps. It features load regulated feedback to maintain constant speed, an auxiliary lighting output automatically sensitive to direction, programmable maximum and minimum speeds, programmable



braking and inertia characteristics, and of course a programmable address. It is fully protected against short circuits and overload. Fault conditions are indicated by using the loco lights – a short causes them to flash,

while overheating produces double blinking.

Where space in the loco is at a premium and a high current capacity is not required, this new decoder should prove a useful option for DCC systems.

Actually intended for small 00 locos, with a power capacity of 1,000mA, is the second new decoder (ref.6872, £TBA) to join the range. This measures just 20.3mm x 10.6mm x 4.1mm, and the six-pole NEM 651 connector is in the form of pins on the edge of the circuit board. It is therefore intended to be plugged directly into to an appropriate socket, in a model with the necessary clearance.

Other than the increased power capacity, electronic performance is similar to the previous unit.

MANUFACTURED BY
Gebr.Fleischmann, Postfach 910148,
D-90259 Nürnberg, Germany.

UK SALES AGENT
John Hills, Fleischmann UK
Marketing & Distribution,
Riverside Studio, 40 Brook Lane,
Ferring, West Sussex, BN12 5JD.

Book Reviews

The LSWR at Nine Elms

The Curl Collection Volume 1

Barry Curl

KRB Publications, PO Box 269,
Hedge End, Southampton
SO30 4XR.

300mm x 215mm 360pp
Hardback £35.00
ISBN 0954203577

This substantial technical history is subtitled *The Works and its Products 1830-1909*, and a further two volumes dealing with the LSWR and SR at Eastleigh through to 1948 are in preparation.

The author has access to the unique collection of LSWR glass plates which were saved by his railwayman father Reginald Lewis Curl when he was told at Eastleigh in 1967 that 'everything obsolete must be scrapped'.

The book covers the period when the LSWR workshops were at Nine Elms, in association with the motive power and goods departments and, in the early stages, the London terminus. There is a redrawn PRO track plan of the whole site in 1847 which could well inspire a model railway of the 'ultra-historical' type.

The subjects covered in this very thorough history include the initial development of this Thames-side area in the parish of Battersea in the county of Surrey and the involvement of such figures as Joseph Locke, Thomas Brassey and William Tite in the London & Southampton Railway/LSWR. The locomotive engineers down the years, and the famous products for which they were responsible, are given generous space: John Viret Gooch, Joseph Beattie, W.G Beattie, William Adams and Dugald Drummond. The locomotive photographs are mostly the beautiful 'official' ones mentioned above. Many show the machines under construction or awaiting repair after minor or quite major damage. These latter often reveal to us modellers aspects of design and construction usually hidden by such niceties as platingwork, cladding, bufferbeams etc.

The photographs are supported by weight diagrams which give major dimensions of a side elevation. There are also some engineering drawings, including the Adams bogie and coloured drawings of broken locomotive crank axles. Other drawings show the track layout at the Works at different period, and the amazing 'Battersea Tangle' which included, in about a square mile, Nine Elms and Longhedge works, Stewarts Lane MPD and the main lines of three railway companies.

The author does not forget the environmental and human aspects of this huge and long-lived enterprise, and discusses the railway's influence in its environment and the welfare of the workers. A generous section of photographs entitled *Around the Works at the turn of the Century* gives an interesting insight into daily life in the various workshops.

Extracts from the LSWR Minute Book are placed throughout the book



Above: they way we were – Class 31 and Mk 1 stock, c.1982, heading west along the famous river- and seaside stretch of the former Great Western near Starcross.
Photograph: Tim Rayner.

Opposite page: 47 736 heels to the curve off the ex-LMS Gloucester-Bristol main line at Westerleigh with the Serco test train on 15 July 2002.

Photograph: John Chalcraft.

and provide much interest but are set in an italic typeface which was not at all easy to read for this scribe.

A 25-page appendix lists all the numbers issued to Nine Elms locomotives from 1835 to 1909.

If it had not been for Reginald Curl's foresight and effort in 1967/8, this locomotive history could not have been published to such a high standard. It is appropriate, therefore, that the book is dedicated to his memory. We await the subsequent volumes with considerable anticipation.

Bedford to Wellingborough

Geoff Goslin
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904473 314

The latest in the *Midland Main Lines* series, this latest Middleton also covers Hitchen, Northampton and the Higham Ferrers branch. The book is arranged in the publishers' now established style, with captioned photographs of stations and locations arranged in route order. The dates of the photographs range from pre-Group to post-privatization, and modellers will appreciate the views of stations, signal boxes, viaducts and other items of Midland infrastructure.

It is an odd but not happy coincidence that this area saw more than its share of quite serious accidents over the years. The events at Oakley Junction (1938), Turvey (1960), Oakley Viaduct (1949), Sharnbrook (1909) and Wellingborough (1898) are described and illustrated.

As usual, the photographs and captions are supported by OS maps of main stations, gradient profiles, timetable facsimiles and the 1947 RCH map of the area.

Taunton West

Roger Siviter
Great Bear Publishing, 34
Shannon Way, Evesham WR11
3FF.
190mm x 240mm 80pp
Hardback £14.99
ISBN 0 95411 150 3 1

The title is perhaps a misnomer, as the book covers more than the area controlled by the erstwhile signal box of this name. Here is a good selection of mainly BR 'blue era' pictures taken on and around the WR main line between Taunton and Penzance. Most of the photographs are by Roger or Christina Siviter and it goes without saying that they give us some breathtaking views on the South Devon sea wall and, west of the Royal Albert bridge, of the sharp curves, lush countryside and viaducts of the Cornwall main line.

Train types include passenger, parcels, china clay and the Paddington to St Austell Motorail. Loco classes range from 08 (Wenfordbridge branch) to 25, 31, 33, 37, 45, 47, 50, and 58. Even a couple of Class 40s make a surprise appearance.

This is an excellent 'diesels in the landscape' album.

Branches & Byways

Sussex and Hampshire

John Vaughan
Ian Allan Publishing Ltd,
Hersham, Surrey KT12 4RG.
295mm x 215mm 256pp
Hardback £35.00
ISBN 0 86093 585 X

This delightful book carries the Oxford Publishing imprint and is the author's second contribution to the OPC *Branches & Byways* series.

Naturally, the book is of special interest to South Country railway enthusiasts. It embraces not only branches of the main railway companies but also a couple of light railways, all contained within the two counties defined in the title.

Branch lines visited in the author's established style of photographs, text and long captions, include Bexhill West, Ardingly, Kemp Town, Dyke, Hayling Island, Bordon, Gosport, Lee-on-the-Solent, Bishops Waltham, Longparish, Newhaven and Seaford,

Fawley and Lymington. Cross-country 'Byways' include the 'Cuckoo' and 'Bluebell' lines, Three Bridges to Tunbridge Wells West, Pulborough, Chichester and Petersfield to Midhurst, and Meon Valley. Light railways are represented by the Rye & Camber, and Basingstoke & Alton.

The text is interesting and informative, and the monochrome photographs well-chosen and reproduced. Most were taken in the late-era BR steam period, but there are several 'then and now' comparisons providing proof of the huge changes which have occurred in such a short time.

The Western around London

A Colour Portfolio

Kevin McCormack
Ian Allan Publishing Ltd,
Hersham, Surrey KT12 4RG.
190mm x 240mm 80pp
Hardback £14.99
ISBN 0 7110 3027 8

This collection of colour photographs records the last years of Western Region steam operation in the south up to the end in 1965. Some of the images of run-down engines, shorn of name and number plates make depressing viewing, but fortunately there are also a good many locos in more typically WR 'sparkling' condition to compensate.

The 'around London' of the title is quite liberally interpreted, and locations include Reading, Basingstoke, Guildford, Reigate, Banbury, Oxford, Watlington and Aylesbury as well as London area stations including Paddington. Most of the photographs get the full-page treatment, and all are well reproduced and captioned. This album would make an excellent gift for any Western fan over fifty.

Narrow Gauge & Industrial Album

Gordon & Ann Hatherill
RCL Publications,
Cambrian Forge,
Gardolbenmaen,
Gwynedd, LL51 9RX.
273mm x 210mm 128pp
Softback £23.50
ISBN 0 9538763 5 7

This collection of previously unpublished photographs from the authors of the acclaimed *Slate Quarry Album* is a delight from start to finish. It covers narrow gauge railways in England and Wales, from Kent (various cement lines, Bowaters at Sittingbourne, and the Lodge Hill and Upnor), through ironstone lines in Oxfordshire, to mineral working in mid-Wales, goods on the Welshpool & Llanfair, the Vale of Rheidol, the Snowdon Mountain, and Penrhyn, right up to early preservation of the Talylyn and Festiniog railways, in both of which the authors played an active part. As a tantalising appendix there are a few Manx images.

The work is subtitled 'personal notes and observations', and while it is inevitably selective and makes no

claim to be comprehensive, it does cover a lot of ground, and at time when such interests were not common – most of pictures date from between 1952 and 1965 – and when the use of colour was rare. The observations are not only personal but also uniquely qualified because of the authors' technical competence, and involvement with early preservation. The text includes anecdotes that reveal information not found elsewhere.

In fact, most of the photos are by Ann and it is clear that she combines practical photographic skill with an eye for a good picture. The images range from a close-up of a works plate to a view of a train almost lost in a vast chalk pit; from informal moments with staff or fellow volunteers captured in a casual snap to timeless scenic classics; from small details of locos, stock, or surroundings to broader views which illustrate an aspect of operation or simply the setting of the railway.

At the heart of the book are 125 duotone (black & white) and 144 colour photos, supported by more than twenty scale drawings of locos and stock (ranging from outline blueprints through works general arrangements to fully detailed plans by Roy Link), diagrams, and maps. The photos are all excellently reproduced (with no hint of errors from enhancing colour or clarity), and the book is printed on high quality art paper for optimum results. Once again publisher Roy Link's design skills have ensured a sympathetic presentation, with restrained use of the graphics devices facilitated by modern technology.

As well as long and informative captions adjacent to each image, each is credited and commendably most are dated (month and year), though these details are again appended vertically to the side of the picture – an irritation when there is space within the caption. But this is a minor comment on an otherwise beautifully produced book, which is full of fascination.

An invaluable source for historians as well as inspiration for modellers.

Warning: despite its seemingly innocent pictorial appearance, this is not a book for a casual browse. It is a siren waiting to ensnare the unwary, and hold them in thrall to the seductive

charms of a vanished realm of narrow gauge. It is a virtual time machine – not only will it transport the reader back to a bygone age, but also in what seems like just a few minutes there, several hours may pass in the real world, to which the reader is oblivious!

We have only two questions – given the proliferation of railway picture albums, many no more than average in content or quality, why has it taken so long for such good material to get published? And is there any more?

Demand is likely to be strong – indeed, we understand the hardback version is already sold out – so do not delay if you are at all interested.

Postage and packing is £4.00 for the UK, £8.00 for Europe, and £12.50 by air to world zone 1 (USA, etc.) and £14.00 to zone 2 (Australia, etc.).

Major debit and credit cards are accepted.

Cambrian Lines

Rex Christiansen
Ian Allan Publishing Ltd,
Hersham, Surrey KT12 4RG.
280mm x 210mm 80pp
Softback £12.99
ISBN 0 7110 3006 5

This book is an addition to the *British Railway Pictorial* series. It takes as its subject the ex-Cambrian Railways lines between the Welsh Marches and the Irish Sea as they were under BR ownership in the fifties and sixties. The well-captioned photographs are all in monochrome – front and rear covers are colour – and evoke a nostalgic picture of Dean Goods, 'Dukedogs', old Cambrian 0-6-0s and of course 'Manors' and BR Standard classes. The pictures are supported by a good map, timetables and facsimiles of contemporary advertising.

The author, a Cambrian authority, covers the gradual transition from steam to diesel, the rationalization of the infrastructure and line closures, the nature of the traffic carried and the rise of preservation.

This book will appeal to all who are interested in Welsh railways, and particularly in the ex-Cambrian lines which retained a distinct identity for so long.

Gloucester to Bristol

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904474 35 7

This book is part of the publishers' *Midland Main Lines* sub-series and is of particular interest as it also includes the branches to Nailsworth, Stroud, Dursley and Thornbury. We also get to see the Gloucester Docks system, complete with street running. There are in addition many views of Midland architecture and signals which will be of interest to modellers, including the ex-Bristol & Gloucester stations, most of which are now gone eg Charlfield, Frocester, Yate, with their distinctive 'broad gauge' track layouts and sizeable goods sheds.

As with other Middleton books, a chapter on the geographical setting and historical background of the route is followed by captioned photographs of the stations, junctions and important locations in journey order. All this is seasoned as always by well chosen OS map fragments and ticket and timetable facsimiles. There is also a gradient profile and an interesting page showing the rather complex evolution of the railways in Gloucester itself.

This is a worthy addition to the ever-growing Middleton list, and is naturally of particular interest to MR/LMS enthusiasts.

Hampshire Narrow Gauge

Vic Mitchell and Keith Smith
Middleton Press,
Easebourne Lane, Midhurst,
West Sussex, GU29 9AZ.
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904474 36 5

This new offering in the *Narrow Gauge Branch Lines* series from the Middleton Press continues their inexorable east to west exploration of the south coast, following on from Kent and Sussex with a look at Hampshire (including the Isle of Wight).

Now, this may not immediately spring to mind as fertile narrow gauge country, but the area had a diverse selection of minor lines serving various industries, and some military installations, plus a number of leisure lines, some vintage and some more recent, and the historic Hythe Pier tramway.

Ten commercial enterprises are featured, ranging from the large AGWI refinery through clay pits and brickworks to sewer and tunnel maintenance contracts. To emphasise the point about the variety, there is a two-page list of other known users of light railways for which no illustrations could be traced!

The large naval armaments depot at Dean Hill is just within the county, and this section is one of the largest and most interesting in the book, most pictures coming from a visit in September

2003 just before closure. (Note that the loco in Picture 45 is one of the Baguleys, not a Hunslet as captioned, and the coach described as 'four-wheeled' in the caption to Picture 48 is a bogie vehicle, albeit a short one: both these slips are apparent from adjacent images.)

Vintage views of railways at RAF Calshot, Woolmer, Hurst Castle, and the Haslar Hospital complete a fascinating and all too brief glimpse of operations which by their nature were not in the public eye.

In contrast, those in the leisure category depend on public exposure. Substantial coverage is given to the recently re-located East Hayling Light Railway, and the splendid new line within Exbury Gardens.

The book follows the familiar Middleton album style, with informative captions for the 123 black & white photos, each reproduced as well as the originals will allow. The pictures are supported by a selection of maps, diagrams, and track plans – always a strong Middleton element.

Whilst inevitably selective and often tantalising, the collection nevertheless fascinates, and these are just the kind of quirky subjects that might inspire an unusual modelling project.

Midland Record No.20

Compiled by Bob Essery
Wild Swan Publications Ltd.,
1-3 Hagbourne Road, Didcot,
Oxon OX11 8DP
273mm x 215mm 80 pp
Softback £9.95
ISSN 1357 6399

Those who receive the *Midland Record* on a regular basis will be pleased to find that, with No.20, they now have the complete treatise by David Hunt on the Kirtley double-framed goods engines. The story of freight through Birmingham is also continued as told by Keith Turton.

In total, ten deeply-researched articles comprise this issue of the *Midland Record*, plus a double-page section entitled 'By the way...' which bears the sub-title 'Miscellaneous observations concerning previous issues' where articles from earlier *Records* are revisited and discussed, or extra facts added.

A remarkable feature is the high standard of photography, much of it dating back a century or more when large format glass photographic plates were the norm; today's digital gadgetry is not always the best! The text is substantial throughout, packed with detail and written in a factual, no-nonsense style.

Great variety in the selection of articles is due to Bob Essery who maintains the interest through each issue in this continuing series. Even if the reader's first interest lies elsewhere, the broad approach makes it rewarding to relate and compare the contents of the *Record* to affairs of other railway regions.

There is a cause for some celebration because it is the tenth year of publication of *Midland Record*. The Preview edition appeared in 1994 and No.1 in the spring of 1995.



Heljan Class 52 progress, and more

We have been able to examine a further four pre-production bodysells for the eagerly-awaited 4mm scale Heljan 'Western'. Albeit incomplete – they were 'proofs' to check livery application, etc – they displayed evidence of subtle changes from the sample we were able to photograph at the Nürnberg show earlier in the year (see RM April).

Note in the closeup of the cab front area the very fine changes in curvature of the roof both transversely and longitudinally. Note too the delicate nature of the rivetwork on the cab window frames, and the neatness with which these have been picked out in silver against the warning panel yellow.

Heljan expects to have production versions available for sale very soon, and we shall await a review sample in earnest.

Heljan has embarked on its first wagon project for the UK outline: a Dogfish engineers' wagon. They are anticipated for November delivery in six versions, namely:

- 4085 DB993016, 'Dutch' livery
- 4086 DB983192, Mainline branding on hopper
- 4087 DB993314, Mainline branding on solebar
- 4088 DB993057, olive green
- 4089 DB993413, olive green
- 4090 DB993634, olive green

In our report in the April issue mention was made of the proposed Class 66: this has been abandoned, however Heljan is proceeding with its plan to release Class 57s, with the launch intended to be at the Warley show at the NEC in December.

Heljan UK, P.O. Box 474, Peterborough PE8 6FF.



DCC workshops in Nottingham

Sherwood Models and David Nicholson of ZTC Controls are arranging two DCC workshops and demonstrations on Saturday 4 November at the Sherwood Community Centre, Mansfield Road, Sherwood, Nottingham NG5 2FN.

The first workshop is aimed at those considering DCC, new users and those wishing to improve their skills and knowledge. This session will last about two hours.

The second workshop offers more practical advice on DCC including decoder programming. Again it will last about two hours.

Places are restricted to 25 persons to each workshop. Admission is by ticket only: prices are £12.00 and £17.00 respectively or £22.00 for a combined ticket for both courses.

ZTC Controls, 24 Chilwell Street, Glastonbury, Somerset BA6 8DB. Tel: 08702 418730.

Hornby changes loco release dates

Owing to tragically unforeseen circumstances, Hornby have changed the release dates for the following:

BR Class 31s D5512, 31 270 and 31 110 will now be released in February 2005. The 'Granges', *Hardwick Grange* in GWR finish and *Derwent Grange*, *Resolven Grange* in BR livery will be released in March 2005.

LNER A1 *Flying Scotsman*, LNER A3 *Windsor Lad* and BR A3 *The White Knight* will be available June 2005.

On a more positive note, Hornby is pleased to announce that the new LNER and BR A4 locomotives, plus the new teal and crimson-and-cream Gresley coaches are on schedule for release in September.

New prints by Barry Freeman

We illustrate two new railway paintings, available as prints produced from originals by Barry Freeman, a member of the Guild of Railway Artists.

Star Quality depicts now-preserved GWR 'Star' Class 4-6-0 No.4003 Lode Star at Patchway, north-west of Bristol, on the climb eastwards from the Severn Tunnel and set in the early 1930s. Many consider the 'Stars' Churchward's masterpiece: certainly they served the GWR and its successor with distinction from 1907 until the last was retired in 1956.

The Land of Lost Content takes its title from a line in an A.E. Housman poem: the setting is recognisable

instantly as Ais Gill, summit (1169' ASL) of the Settle-Carlisle line.

Centre stage are two Stanier 'Jubilees', No.45608 *Gibraltar* leading No.45729 *Furious*, hauling the *Up Waverley* at the top of the Long Drag from Carlisle. The year is 1958, and the timeless bulk of Wild Boar Fell looms in the background.

The signed prints have an overall size of 24" x 16 1/2", and an image size of 22" x 14": they cost £25.00 each or £45.00 for both, including postage and packing.

A.M. Freeman, 27 Harmans Way, Weedon, Northampton NN7 4PB. Tel: 01327 349109.



SHOP NEWS

OPEN

Newport Model Centre, Gwent

Dave Thompson's shop has been open for just over a year now and in that time he has created a very well stocked retail outlet, primarily catering for the railway modeller. The shop helps to fill a void in an area not noted for having too many model shops.

Although being a general model shop, 00 and N gauge modellers are served well with all the big name products in r-t-r and kit form. Accessories in 0 gauge are also to be found on Dave's shelves.

British outline is dominant at present, but there are future plans to stock US and continental items.

Dave is very much aware of the increasing interest in DCC, so Bachmann and Lenz digital products will be in stock in the not too distant future.

Babette and Lee, his part-time assistants help out on Monday &



Tuesday and Friday & Saturday respectively to enhance the policy of friendly support that is creating a very good reputation amongst the customers.

Those with interests in R/C cars will also be pleased to know that Dave has now opened a new dedicated section.

Newport Model Centre, 181 Caerleon Road, Newport, Gwent NP19 7HA. Tel: 01633 220200.

Malc's Models, Ilkeston

A brand new shop has opened between Derby and Nottingham run by Malcolm Grubey and his business partner Steve Waterfall, both active modellers.

Malcolm and Steve's new shop venture carries stocks of N and 00 scale items from Hornby, Bachmann, Dapol and Peco plus plastic kits, die-cast items, Metcalfe products and a range of slot cars.

They will advise on starting a model railway or enhancing an existing layout. In addition, they will carry out repairs and offer a model weathering service. It is good for our hobby to support the local model shops, so visit Malcolm and Steve or give them a ring.

Malc's Models, 170a Nottingham Road, Ilkeston, Derbyshire DE7 5AB. Tel: 0115 986 7181.

Hobby Shop, Chingford

Paul Warawi spotted a niche in the market in the Chingford area of London and decided to establish his own model shop.

After several years in the film processing industry and with the desire to have his own business, Paul developed his lifetime hobby into his livelihood. It was a good decision because from its opening in June, each week has seen more trade and expansion in stock with a constant stream of new cus-

tomers going through the door.

Paul is meeting the demand from 00 and N gauge modellers with Hornby, Peco, Metcalfe, Airfix and others to satisfy rolling stock and scenic needs. Those requiring die-cast collectable cars, kites and a range of other hobby equipment are well catered for too.

Hobby Shop, Unit 3 Village Arcade, 49-51 Station Road, Chingford Road, London E4 7DA. Tel: 020 8529 7377.

Wilmington show

Enthusiasts at Wilmington Parish Church will hold their annual model railway exhibition on 8-9 October at St. Michael & All Angels Church Hall, Church Hill, Dartford, Kent.

This major fund-raising event has donated £25,000 to national and local children's charities. This year's show has a target of £5000 to be shared between The Railway Children charity and Demelza House Children's Hospice at Sittingbourne, Kent as well as the church's own youth worker fund.

Most popular scales will be represented plus good trade support, dis-

plays, demonstrations and refreshments. Access is easy from the M25 and A2 with good sign-posting.

Extra features to be enjoyed are a Foden steam lorry and a live steam exhibit featuring Hornby products.

Full details in 'Societies & Clubs'.

If you can make any sort of donation large or small including collections, locomotives, stock, track, books, toys, videos etc. every penny raised will go directly to charity.

Contact The Reverend Richard Arding on 01322 220561 or: richardarding@btopenworld.com

Comet Models GWR Super Saloon



Comet Models now has ready the full kit version of the GWR Super Saloon in 4mm scale, the vehicles which are drawn and described by Jonathan Joseph in this issue.

The Super Saloon has long been available in the Comet range, but only in the form of sides for conversion of ready-to-run coach equivalents. The

coaches are now available as full kits.

Kit KW54 GWR Super Saloon £36.00.

Sides only for conversion or scratch-building £8.50.

Markit wheels and bearings £3.95.

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE. Tel/fax: 0121 242 2233.

Gremlins in the sound circuits

It seems that the gremlins have crept into Christopher Payne's article about the sound system used on his 1:24 scale layout *Sutton Wharf* (RM September), albeit in a small way.

In Figure 1 on page 518, the labels for the CM-2 chuffer module and the SWM-2 whistle module were transposed – it should be the chuffer that has the parallel connection to the traction circuit, logically enough.

In Figure 3, the switches are noted

as SPDT – single pole, double throw: in fact, single pole, single throw (SPST) were used, as the diagram shows. The double pole (changeover) switch is only needed for whistle speaker selection, as shown in Figure 2.

We should point out that these errors were the result of the need to reset the labels for publication and not in the author's original material.

Our apologies for any confusion or inconvenience this may have caused.

Hurry for Manchester advance tickets

Advance tickets for the 68th Manchester MRS annual exhibition on October 1-3 are available at the following prices: Adult £4.50, Pensioner £3.50, Junior £2.50 and Family (maximum 2 + 2) £12.50. They can be obtained by sending an SAE to **Robert**

Fysh, 'The Oaks', 57 Moss Lane, Timperley, Altrincham, Cheshire WA15 6LQ. Closing date Monday 20 September. No callers please.

Sadly we received notification too late for inclusion in the September issue, so don't delay!

Macaw B kit in 0 from Connoisseur

The GWR Macaw B, British Railways bogie bolster C wagon has been introduced as an 0 gauge kit by Connoisseur Models.

The heavyweight 30-ton, 48' long bogie bolsters were built in considerable numbers from 1907 until early BR days.

Originally intended to carry rails for the PW department, its usefulness of design became apparent and it was used to carry all manner of loads. Large numbers of these wagons were built over this period with a number of detail differences introduced as the design evolved.

The kit represents the final design with lever brake gear; this design was continued by BR as its standard bogie

bolster C and continued in service until the early 1980s.

The components are etched in brass. Bogies, buffers etc. are cast in whitmetal. The buffers and couplings are designed to be sprung. Load securing chains and hooks are included.

Full instructions are supplied in a 12-page A4 booklet together with advice on liveries, exploded drawings and photographs of the finished model.

The kit requires wheels, but details of these are included. The price is £48.00 post free.

Connoisseur Models, 33 Grampian Road, Penfields, Stourbridge DY8 4UE. Tel: 01384 371418.



News from DJH Engineering

With effect from 1 September 2004 the DJH range of 00/H0 and 0 kits and accessories in the UK is now only available direct from the factory, website, exhibition stands or the sole distributor Tower Models.

This new regime will mean that kit retail prices will be reduced and customers will receive sales support and news direct from the manufacturer via a mailing list. Technical support will be free of charge.

A new 7mm scale kit of the BR Brush Type 2 (Class 31) diesel is now available (ref.K322A, price £TBA). The usual metal cast one-piece body and brass cast and etched grille details is accompanied by a new-style instruction booklet featuring many more assembly pictures.

DJH Engineering Ltd., Project House, Villa Real, Consett, Co. Durham DH8 6BP. Tel: 01207 500050. www.djhmodelloco.co.uk.



The current 56-page Townstreet catalogue (£3.80) has full details of the wide range of cast buildings to create street scenes in 4mm scale.

Just introduced are two new two-road engine sheds, one 7 1/2" (£46.50), the other 12" long (£67.50). Extra length can be gained by the 4 1/2" add-

on set (£21.00); P&P £4.60 per order. The photo doesn't show the doors – included in the kit – and hides the fact that the kit allows one or both tracks to be extended through the rear wall.

Townstreet, The Old School, Carnbee by Anstruther, Fife KY10 2RU. Tel (1400-2000): 01333 720226.

New Townstreet loco sheds



DCC-fitted locos available

Hobbyrail of Sutton Coldfield, in conjunction with the UK Model Shop Directory, announces that it is in the position to offer selected Bachmann, Heljan and Hornby locomotives 'chipped' with TCS decoders.

Please note that **this is not a decoder-fitting service**: the following models are supplied complete with TCS M1-UK decoders ready-fitted and tested. From Bachmann: refs.32-675 Class 45 No.D67 *The Royal Artilleryman* (£75.00); and 32-075A GWR Class 56xx 0-6-2T No.6600 (£59.00). From Hornby: refs.R2250 BR Black 5

4-6-0 No.45253 (£89.00); and R2355A BR Q1 0-6-0 No.33017 (£79.00). From Heljan: ref.3500 Class 35 'Hymek' No.D7017 (£89.00).

We understand others will be available in due course. Postage & packing is £3.00 for the first locomotive and £2.00 for each additional model. For full details contact Hobbyrail at the address below, or e-mail the UK Model Shop directory at: TCS@ukmodelshops.co.uk

Hobbyrail, 55 Riland Road, Sutton Coldfield, West Midlands B75 7AN. Tel: 0121 378 0680.

Jack Ray's visit

Occasionally at Peco we receive special visitors. This summer, Jack Ray was on holiday in the area and he came to look around.

Jack, now well into his eighties, wrote for RAILWAY MODELLER between 1952-57 and has been an inspiration to modellers for several decades. Although he is not so active in the hobby now, he retains an infectious, youthful enthusiasm. He and his modelling friends were instrumental in founding the Gauge 0 Guild, without which 7mm modelling would not be as strong.

He is associated in particular with *Crewchester*, his magnificent 0 gauge garden railway which graced his Ipswich home.



Jack (centre) with Michael Pritchard (left) and Editor John Brewer.

Model Town in full

A fifteen-part series called Model Town had its premier on Home & Leisure Channel (133) and the Discovery Home & Leisure Channel (134) between July 26 and August 13: mention was made in our news pages of this series in the August issue.

For those who would like to view it again or see it all in one session for the first time, Modelling Stunt Day on Saturday 18 September will show all fifteen episodes consecutively from 1730-2300.

It involves the stage-by-stage construction of a 00 gauge model railway measuring 400 sq.ft.

The layout features fully-functioning rail, road and tram systems, a working canal, towns and villages complete with all manner of buildings, and a rolling landscape of hills and valleys.

A wide variety of skills and techniques will be demonstrated with visits to some of the finest model makers in the country, including Pecorama.

Ron Curling

It is with sadness that the Great Yarmouth & District MRC announce that Ron Curling passed away on Wednesday August 4.

He was regarded as a master modeller and his skills produced the superbly-built and much-travelled layouts *Scrubbs Lane* and *Sharraine*.

Ron was always on hand to give advice and help others with their projects; he will leave a large gap in the club. We extend our sympathy to Shirley and family.

Pauline Boyle

Just as we closed for press we were saddened to learn from Dapol MD George Smith of the death of Pauline Boyle, Chairman and company co-founder, suddenly on August 18 when on holiday with her children.

We send our sincere condolences to her family and business colleagues.

New for the 'Ratty'

The Ravenglass & Eskdale Railway Preservation Society has confirmed an order for a new 15" gauge diesel locomotive from TMA Engineering of Birmingham.

Following in the footsteps of *River Mite*, the steam locomotive built for the Society in 1966, this new diesel will play a key role in the operation of the punishing seven-mile line from Ravenglass to Dalegarth in Eskdale. The railway is expected to take delivery of the new loco in July 2005. With his family's permission, it will be called *Douglas Ferreira* in memory of the late General Manager of the railway from 1961-1994.

Coming next month

Out Thursday 21 October



MOORCOCK JUNCTION

The late Andy Calvert built this N gauge layout: Graham Smith tells its story.

SEDGEMOOR ROAD

Chas May was inspired to build this small MPD by a Paul A. Lunn plan.

LONGROYD BRIDGE

Adrian Bottomley describes the Huddersfield Railway Modellers' 7mm layout.

ETTON PART 5

Peter Goss concludes his short series on the extension to his 00 layout.

RAILWAY MODELLER

NOVEMBER 2004

£2.80

For every **BRITISH RAILWAY** enthusiast



Harlow Mill

– Essex layout suggestion



Longroyd Bridge

– 7mm Branch Terminus



Sedgemoor Road

– Western Region loco depot



Scale Drawings

– GWR Goods Shed



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FEATURES



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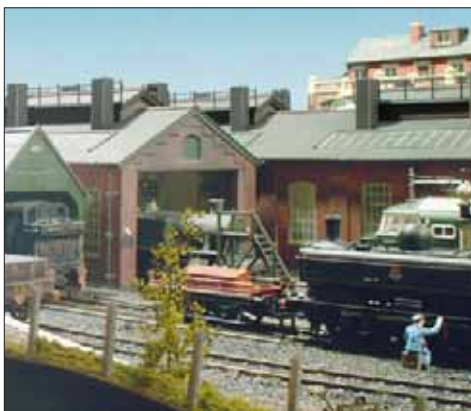
Railway of the month
MOORCOCK JUNCTION

A tour of the late Andy Calvert's remarkable N gauge portrait of the Settle & Carlisle route, conducted by Graham Smith.

620

SEDGEMOOR ROAD

Chas May built a 1960s Western Region loco depot inspired by an idea from Paul Lunn.



624

HORRABRIDGE

A day trip onto Dartmoor in 1995 inspired J.C.I. Smith to build this compact 8' x 2' layout in 4mm scale.

625

NORSHAM ROAD

N.W.A. Horsham relates the history of an N gauge layout that was relocated and updated.

628

Scale drawings
GW-STYLE GOODS SHED

Scratchbuilt 'in the style of' for N scale by Frank Lax.

630

THE LINESIDE HUT

Geoff Thompson suggests a simple garden railway project for the autumn.



633

LONGROYD BRIDGE

A 7mm scale layout built by Huddersfield Railway Modellers and described by Adrian Bottomley.

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Plan of the month
HARLOW MILL

The potential of this busy Essex location for modellers has been assessed by Robert Peters.



640

PINCHINGFIELD

Chris Ford relates his experiment with 1:24 scale narrow gauge.



644

EXTENDING ETTON – 5

Peter Goss builds the ground base and locates all the structures to complete this extension of his 4mm scale village.

650

OTTERBURN – 2

Ian Futers completes the construction and detailing of this small 0 gauge Northumbrian layout.

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Right away

FIRST STEPS IN 0 GAUGE

Tom Lewis builds a Tower Collection Andrew Barclay 0-4-0ST beginners' kit.

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New Hornby LNER models launched, and full report from the Gauge 0 Guild Convention 2004.

613 EDITORIAL



THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

November 2004 · Volume 55 · Number 649

Shows you how – every month

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COVER: an HST speeds past the camera with a special on Moorcock Junction. Photo: Steve Flint, Peco.

BELOW: Workington, Christmas 1998, with Pacer passing the Victoria Square tree. Photo: Andrew Graham.

RAILWAY MODELLER

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Back numbers information – see Classified advertisement under 'Trade Sales Books'.

CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.

Published on the second Thursday of the preceding month.

A fitting tribute

Our Railway of the Month, *Moorcock Junction*, was the last to be completed by the late Andy Calvert before his passing two years ago. We would not of course claim 'sole agency' on his modelling – certainly in recent years his byline appeared far more frequently in other publications than ours – but given that an article in RM back in 1976 fired his enthusiasm in the first place, and he was a deserving winner of our Cup for 1992 with *Nether Stowey*, it seems appropriate that this magazine should present the finished feature, written by current owner Graham Smith, on Andy's last layout.

Free CD-ROM extra advance notice

Next month we and our sister magazine CONTINENTAL MODELLER will have the latest in our free Christmas cover mount CD-ROM. The main movie feature this year will be an appreciation to the work and life of David Jenkinson. Film will include his last famous railway *The Kendal Branch* (RM January and February 2003) and archive footage taken on the Settle & Carlisle, most of which will not have been seen before. There will also be some narration by David's close friend Bob Essery.

To supplement this there are four clips of layouts: *Brooklands Park*, *Moorcock Junction*, *Stump City* and *Autenbach*, the last two being features from CONTINENTAL MODELLER. Please note here that complete films of these four layouts will be included on the RAILWAY MODELLER and CONTINENTAL MODELLER 2004 Annuals respectively. These very useful publications will be in the form of CD-ROMs, available in March and more information will be presented early in the new year. The Golden Jubilee celebrations at Pendon Museum during July receive prominent coverage, and there is much more besides which we are confident will enthuse all our readers. Those of you who do not have computer facilities hopefully will not miss out on this special Christmas bonus. Nearly all public libraries these days have computers for general use at very little or even no charge at all, and in addition we are sure that there is always someone on hand to help you use the machines if you do not already know how. For more information we refer you to our 'News' feature found on page 664.

Christmas cards and calendars

Global warming may worry some, but we're worried about global speeding: when this issue is published there will be just over two months to Christmas, and it only seems a moment ago that we took our editorial tinsel down...

Traditionally we have published a short roundup of the Christmas cards and calendars that we receive for review in our December issue, but this time we have decided to change. Partly for space reasons and also to allow greater time for the cards to perform their intended function (i.e. be seen in the magazine, bought and sent to someone), we present part one of our cards coverage this month.

Those received after presstime will form part two, in the enlarged December issue, but we hope that this wider spread of publicity will be welcomed.





Railway of the month

Moorcock Junction

A journey on the Settle & Carlisle

*This tour of the late Andy Calvert's N gauge layout is conducted by **Graham Smith.***

This model was envisaged and built by the late Andy Calvert who had wanted to capture in miniature the essence of that famous railway across the Pennines in such a majestic and spectacular fashion. It had been his ambition for a number of years and he had carried out extensive research in his quest to recreate his dream.

One of his first thoughts was which location actually to model. He then considered that it might be best to base the model on a fictitious area and incorporate many of the prototypical principles and scenic features of the line. So you are able to see a wide representation of the Settle & Carlisle journey in this layout.

Sadly as the layout was approaching fruition Andy was taken ill and died a few days before *Moorcock Junction* was to be shown at the 2002 Warley Exhibition at the NEC. As it had

been Andy's wish that the 'show must go on' his friends in the Barrowfield Group operated the layout for the weekend as a tribute to its builder. It was at the Warley Show that the decision was made to dispose of the layout and most of the rolling stock.

It was then that I became involved. I had known Andy for well over 25 years and we had many discussions about the layout and N gauge in general over a cup of tea on my patio during Andy's lunchtime calls, so I considered that *Moorcock Junction* should remain on show as a tribute to Andy Calvert and his work for British N gauge modelling rather than just to disappear for ever.

Having found that John Warner of N Gauge Lines had been asked by Andy to dispose of the layout and stock, I asked to be notified of the valuation when available. The valuation

duly arrived by telephone in late January, and following a final viewing of the rolling stock my cheque was made out to Mrs. Calvert. I then took over this magnificent model and set about finding out how to operate it, bearing in mind that at 22' x 7' I had nowhere to set it up completely and also needed a number of friends to help as well.

It is not my intention to go through the construction methods as Andy has already covered them in another publication, so I will go through some of the things we have done. Fortunately there was a file that had been prepared by Andy so we were able to see some of his proposals. The first thing to be done was build a footbridge to cross between the platforms. Research showed that only two stations on the line originally had a footbridge as the passengers normally crossed the line at the



Heading: Stanier 2-6-4T No.42484 rolls to a stand at Moorcock Junction with a local service. Note the fire buckets on the typical Midland signal box.

Above: rebuilt former experimental 4-6-0 Fury in its guise as No.46170 British Legion meets a grimy 9F with empty anhydrite hoppers.

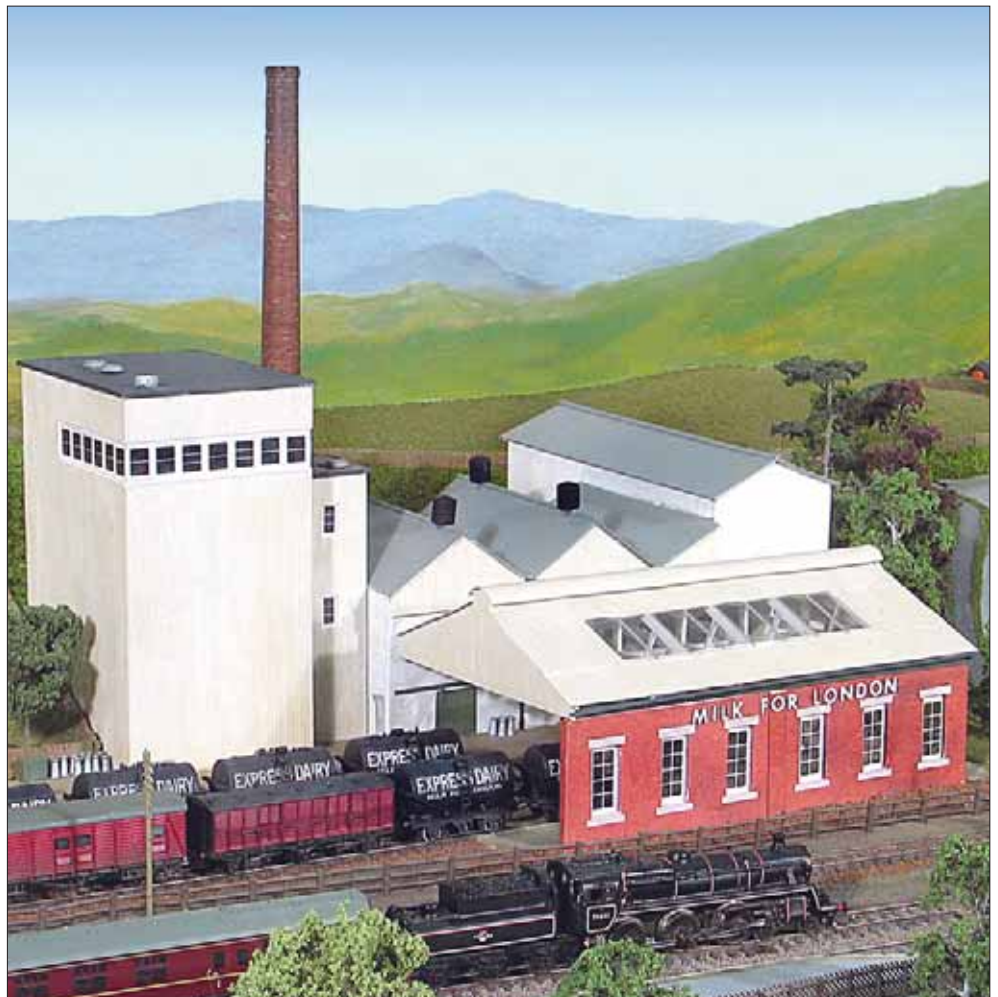
Right: the dairy advertises its primary role in the manner of the real one at Appleby.

end of the platforms, but as the ends of the platforms were so far apart on *Moorcock* it would have been considered dangerous. The footbridge was therefore a must because our little people could be injured whilst crossing the line.

Although there are suitable watering facilities in the MPD it was felt that MR water columns should be fitted at the end of each platform for stopping trains to take on additional supplies, so these were also a must.

Some representation of signals would also be needed. Then I found in my box under the bench a supply of MSE signal kits which could be made up and used, although as we did not wish to break into a wiring system that we had not prepared and for which we did not actually have a complete wiring diagram, it was decided to leave these as non working signals.

As the Settle & Carlisle travelled through a fairly open but beautiful landscape it was decided to leave the buildings as they were; two scratchbuilt houses, a Ratio MR signal box, and a superb scratchbuilt cattle dock





Left: a 'semi' – No.46252 City of Leicester – heads for the tunnel at the right-hand end of the layout (as seen by the viewer). Note how the tractor helps to hide the transition from scenery to backscene.

Right: the ability to run scale length trains in the landscape is one of the advantages of N in a large space.

Photographs by Steve Flint, Peco Studio.

which fits over one of the board joints. The station buildings and loco shed were SD Mouldings, some of which had been modified by Kevin Hardman when he supplied them. These were considered to be fairly representative of the area and they were left in place although Kevin did modify another main station building for us to use.

The other main source of revenue to the line was from the milk traffic. This was represented by a superb model of the Express Dairy Sidings which had been scratchbuilt by Dave Smart and was already installed.

Operation

Andy had always considered that operating his 'train set' should be as close to the prototype as possible and for this purpose had converted most of the stock to either DG or MBM couplings activated by electromagnetic uncouplers set at appropriate positions around the layout.

Control of the Up & Down main lines is from separate control panels using KPC handheld controllers and they control the Up & Down main lines individually. The branch and goods yard both have separate control panels with KPC hand held controllers for individual operation although all panels are linked via a cab control system. Control of the main lines can be handed to the branch or yard for the purposes of adding milk tankers to the stopping trains for transportation to the big cities and also other shunting moves.

The fiddle yard has storage for almost thirty trains on the main lines plus five trains on the branch, so in order to see *all* the trains running you may have to rest awhile. Andy always considered that both the public and enthusiast should all be able to see prototypical length trains and operation whilst not forgetting that we should be enjoying ourselves at the same time, and this we feel has been achieved. Operation of all points is via the usual probe and stud system on the control panels. Our probe is fitted to the handheld controller and



wired via the DIN plug/socket as a fifth wire using 24 volts via a CDU to ensure that interlocking points can be operated together.

Power to the layout is via six Kent Panel Controls transformers which each provide two separate 16 volt AC supplies for the controllers and uncoupling magnets plus one 24 volt AC supply for operating the points. These are in a separate power box which is positioned on the floor for safety. The power box supplies 16 volts AC to the four Kent Panel Controls handheld controllers which power each of the four cab sections i.e. Up and Down main lines plus the branch and goods yard.

Normal operation requires up to four operators, each of whom can 'play trains' in isolation but will often work together for the purpose of operating a model railway.

Rolling stock

Over 30 locomotives, 400 wagons and 75 coaches are available for each operating session. Most of the stock was Andy's, and many of the locos were purchased ready-to-run and then modified, detailed and weathered with considerable skill. Most of the coaches are Ultima and built to suit the layout but a number of the superb new Bachmann coaches are used, duly weathered to suit the area. The wagons are a mixture of proprietary, kit built and N Gauge Society kits, all of which have been weathered and have a number of interesting loads. I have converted eight Peco milk tankers from four to six-wheelers and this makes them more representative of the era and they fit in nicely with the Creamery. To list all the rolling stock here would take a number

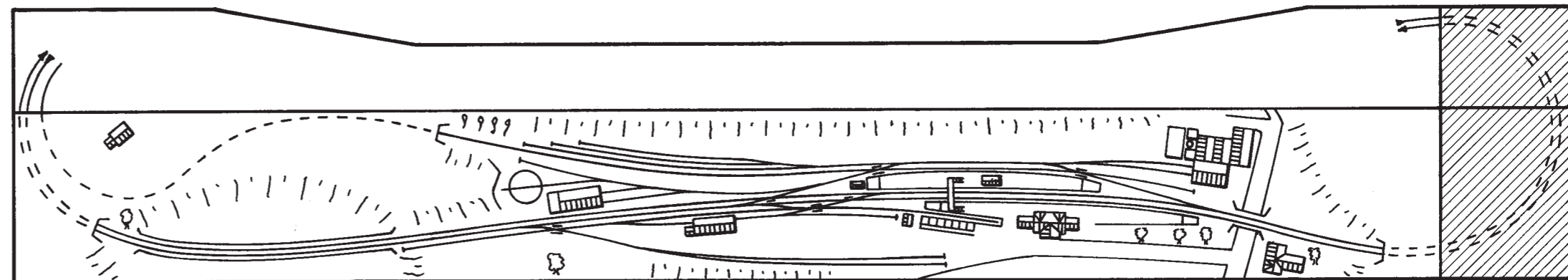
of pages so we have tried to include as many vehicles as possible in the photographs.

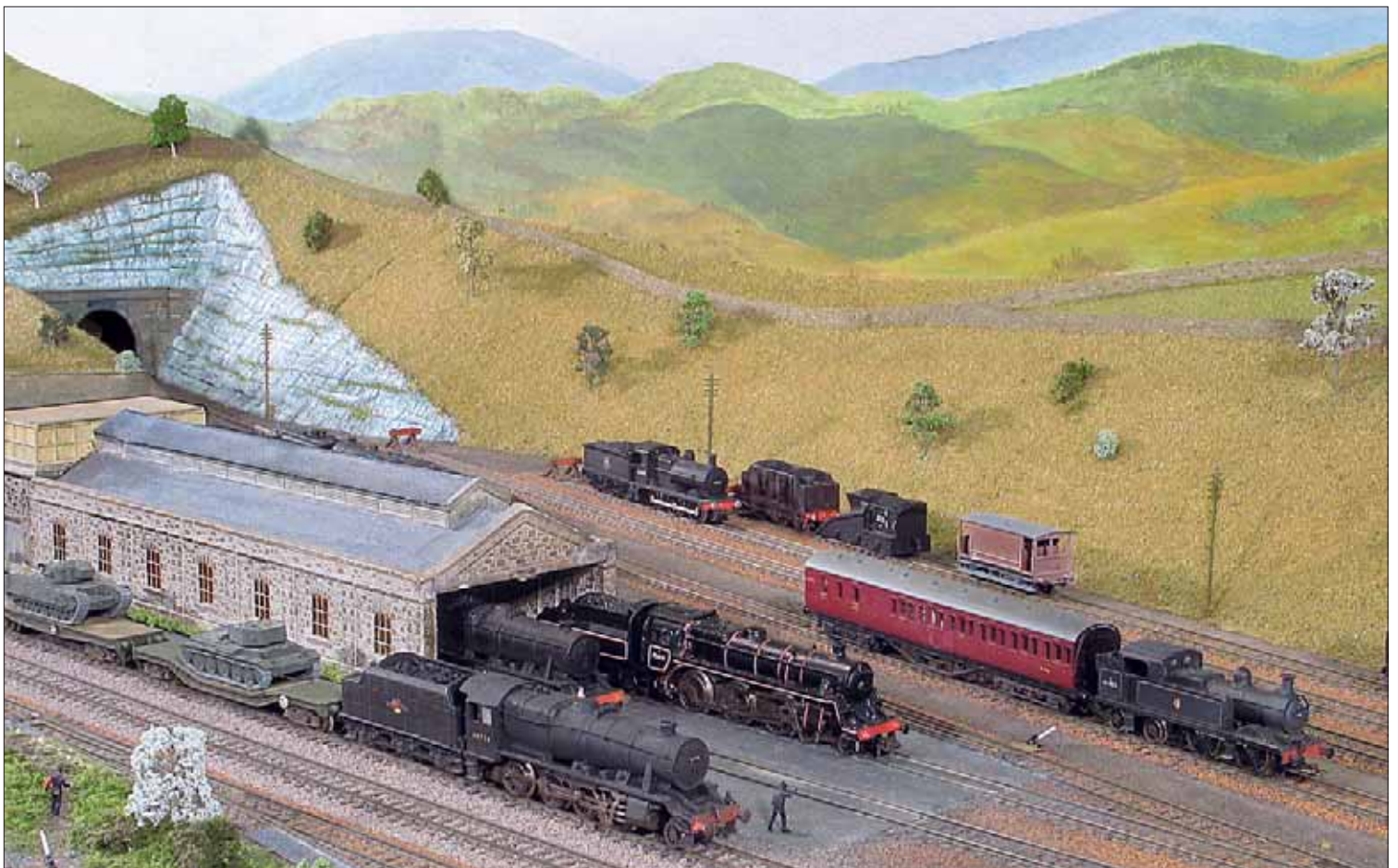
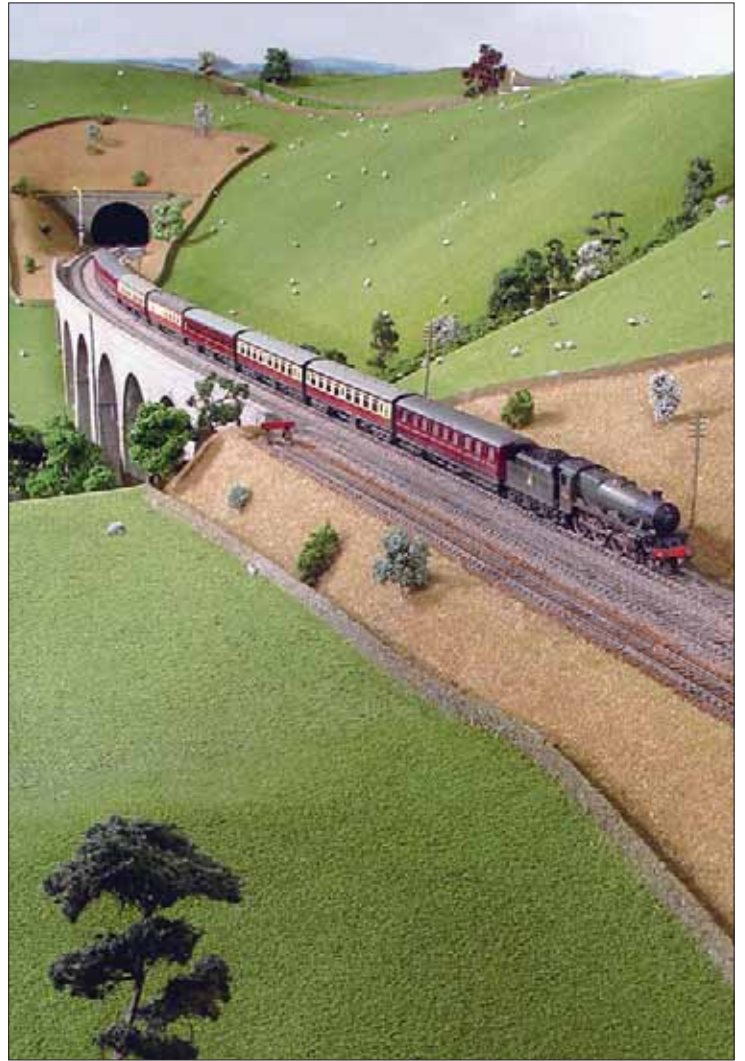
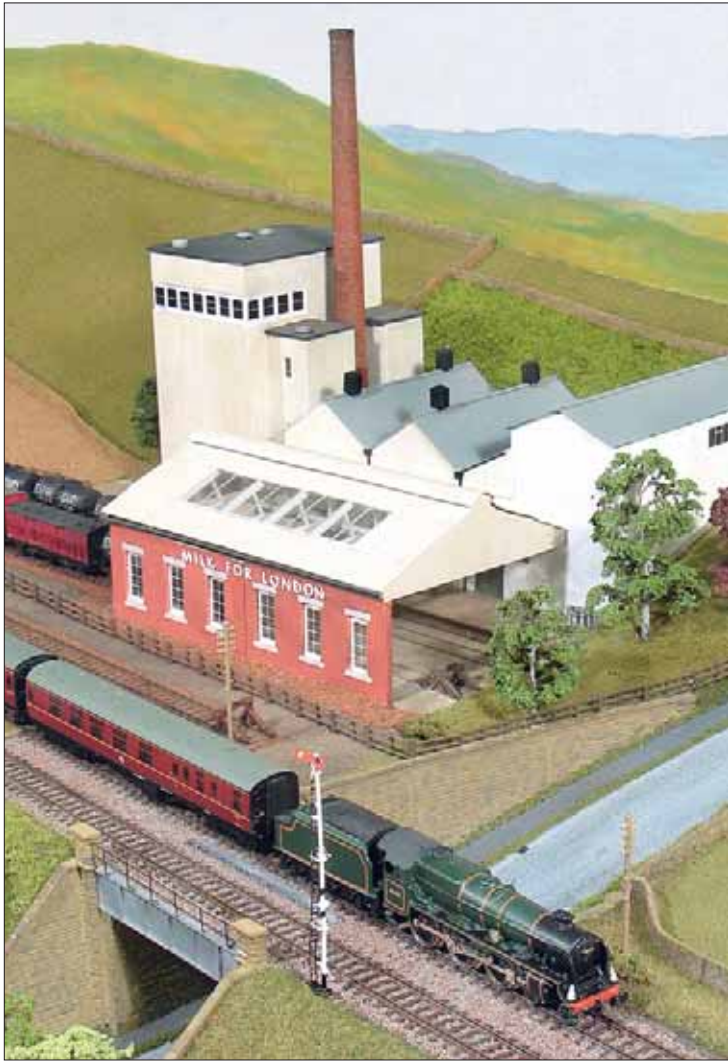
The future

Moorcock Junction is now operated and exhibited by St Aidans Model Railway Group as a tribute to Andy Calvert's railway modelling skills and his contribution to N gauge modelling.

Moorcock Junction will be appearing at Blackburn from 15 to 17 October 2004, Wakefield on 26, 27 & 28 November 2004 and also Stafford on 5 & 6 February 2005 and York at Easter.

I would also like to express my thanks to Eric Beech, a fellow N gauge modeller, without whose help and assistance this would not have been possible, to the Abbey Pumping







Above far left: British Legion again, sweeping past the dairy buildings.

Above near left: the left-hand exit to the storage roads is visible in the background as a 'Jubilee' approaches the station.

Left: the branch train and a military special with an 8F in charge arrive simultaneously.

Above: the push-pull branch service connects with a three-coach stopper, again hauled by the Stanier 2-6-4T.

Right: an 8F is turned behind the mpd for its working back to its home depot.

Station Museum staff in Leicester, who have made a large enough room available on a number of occasions for us to use for practice sessions, and also to Steve Flint for the excellent photographs.

If you see us at a show by all means ask any questions but also take the opportunity to rest awhile and watch the trains go by. Allow yourself time because there can be up to 30 trains appearing during a working sequence.

As to the future, we still have no permanent home for the layout and would welcome a location where *Moorcock Junction* could be set up for the periods between Exhibitions.

It is our intention to make *Moorcock Junction* available for shows for the next five years but after that much will depend upon our own health and mobility.





Sedgemoor Road

A freelance Western Region locomotive depot in the early 60s

*An O0 scale layout built and described by **Chas May**.*

The inspiration for *Sedgemoor Road* came about after reading an article in the April 2002 edition by Paul Lunn in the *Right Away* series, where a simple track plan was illustrated, suggesting a size of 3' x 2'3", pretty much minimal size for a model of this nature.

I have always fancied having a turntable and have collected a stud of mainly British Railways Western Region and Southern stock. This had originally been intended for another

layout under construction, but after being offered a secondhand Fleischmann turntable for only £40.00, I saw this as a great 'warm up' project. It also presented an ideal showcase for the locos, but realising the limitations of the original scheme, I expanded the track plan to 4' x 2'9", providing more scope for operation, scenic interest and depth.

The location is based somewhere north east of Exeter on Western metals, but at a point

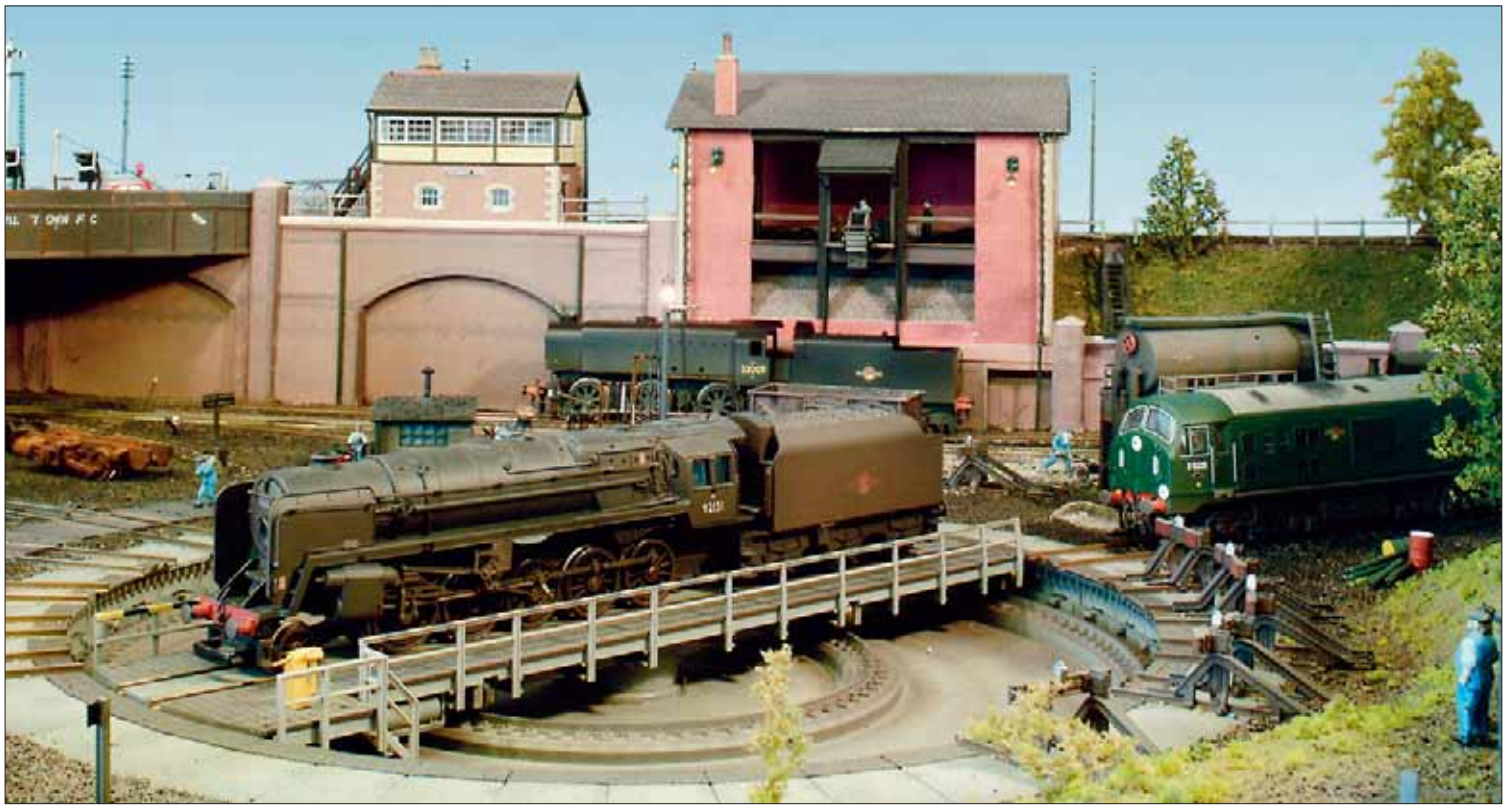
where Southern locos paid the occasional visit. The Bridgwater area perhaps?

The date is early autumn '64 and green diesels are becoming more frequent with each passing month. Steam locos are receiving less and less attention, in spite of some of the 'standard' classes that are less than 10 years old at this stage. The architecture closely resembles a Great Western shed at Long Rock, near Penzance, but although the occasional Black 5 did put in appearances there, the Bulleid 'Merchant Navy' Pacifics certainly did not stray west of Exeter, due to weight restrictions. My chosen location of 'Bridgwater area' gives a great excuse to run visitors from the Somerset & Dorset line, with all the variety that entails!

Sedgemoor Road was originally a freight yard until the early twenties, and the retaining walls and the signal box that stands sentinel over the yard were in place at that time. However increasing freight traffic brought a requirement for more substantial loco stabling facilities than was available at that time, so the freight yard was relocated to the west of this site and new loco storage and servicing facilities were constructed here. This can be seen with the differing colours of brickwork showing both old and new additions.

This is the first model I have constructed to





Left: suburban motive power. No.80120 moves onto shed. 4122 awaits a much needed clean.

Lower left: 57xx Class No.8763 receives attention before heading back to Stoke Gifford on shunting duties.

Above: 'the good, the bad and the ugly'. Freight engines gather around the table as the foreman looks on.

Below right: Class 04 D2282 moves over the crossing with a load of coal for the stage.

'exhibition standard', the first showing being at Thorncombe Railway Exhibition in November 2003 without many of the finishing details that have been added subsequently. At a later date it is always my intention to include this in a larger layout design with minimal modification.

As a secondary aim, I originally intended to build the entire layout on a restricted budget of only £200.00 and use up as much as possi-

ble from the 'scrap box', spending money only where necessary. I'm sure Paul Lunn would approve! This would mean careful choice of available kits and structures that could be bashed at low cost. This had been adhered to, but the cost of additional electrical components and features has pushed the total up subsequently to £340.00. However, the improvement in atmosphere and realism justifies the cost handsomely and also increases the pleasure of operation!

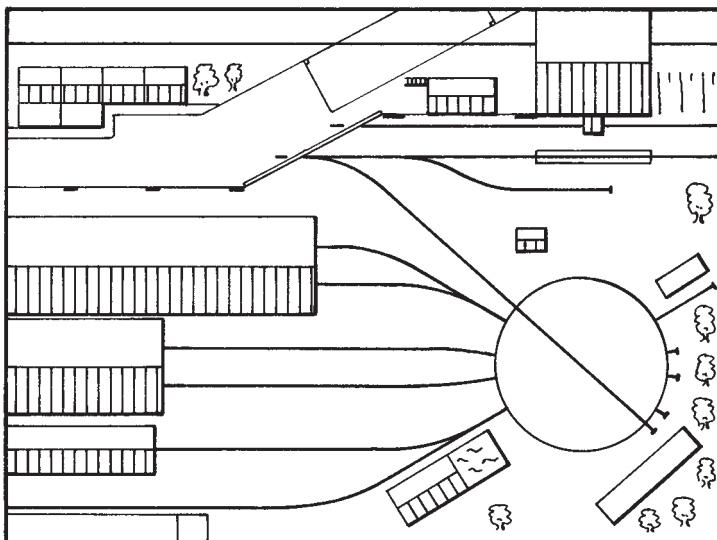
Regarding tight budgets, one suggestion for a title was *Myserleigh Road*, but not wishing a reputation to be established, this was rejected!

Baseboards and track

Did I mention a specific board size? That was because I had an old chinagraph board of that exact size sitting in my garage! Blockboard is heavy but self-supporting over these dimensions, therefore not requiring any additional framing underneath – simple. The sides are

6mm mdf approximately 12" deep, of which 3" is an undersill further supported by 9mm marine ply around the inside edge. The sides form a box to give tremendous strength and zero twist. The high level backscene was constructed in similar fashion with liberal use of a router to form apertures for the front, switch panels and fiddle yard traversers, etc. Countersunk mdf screws and wood glue hold it all together.

Foldable timber legs raise the track/viewing height to 52" when supported on a standard 30" table top. Viewing screens and light panel made from 6mm mdf finish the theatrical presentation *a la* Iain Rice so most people look into it rather than down on it giant fashion. Many favourable comments have been received regarding this type of presentation and it adds to the realism greatly. By the way the mdf was bought cheap from a free ads paper and kitchen hinges were secondhand – very cheap!





Above: a disembodied voice shouts 'put yer back into it!' as Sam struggles with his sack. The driver of the 'Merchant Navy' is obviously a comedian.

Below: newly delivered 'Hymek' D7074 has its tanks topped up, 4MT awaits and Colin shovels yet more ash.

A neighbourhood friend heard I was into 00 gauge and gave me a small quantity of Peco code 100 track and points that he no longer required. This furnished 80% of my need, the rest is Peco Setrack straights second hand from a bargain bin. Got to think of that budget!

Electrocution and lighting

I mentioned theatrical presentation before so lighting is important; better to have too much than strain to look at those rivets! B&Q supplies miniature strip lights for kitchen cabinets and two of these provide all the white light I could wish for. Scenery lights are supplied by Patronics in Southampton and have a more natural yellow hue. The loco shed is lit by 16 white LEDs soldered in parallel with their resistors to copper covered welding wire. The lamp shades are made from Peco fibre washers and painted accordingly. Effective and realistic.

As regards control, being a 'shunting' layout it requires lots of isolating sections with up to 14 locomotives in such a small area. So eight separate feeds and ten isolator breaks keep me from insanity, all indicated on a mimic panel with red LEDs at the rear adjacent to the traverser yard. In spite of its logic I still need a lie down in a darkened room after two days of exhibiting! Oh, for the cheapskates among you the mimic panel was made from a plastic panel from a fridge near to hand – nice.

Buildings and scenery

With cost constraint and ease of construction in mind (to encourage newcomers), I chose Metcalfe card kits for the loco shed, coal stage and terraced houses. Townscene provides the card retaining walls and Hornby supplies the signal box and the water tower tank. The signal box was disguised with brick paper and stone quoins, treated to a repaint into BR Western colours and had the interior treatment via a Springside kit.

The water tower was 'bashed' from the loco shed office kits (x 2) to form the foreman's office/tower assembly and is placed strategically to direct the viewer to see around and at the most favourable angles of my choosing, or 'view blocking' as Iain Rice puts it. The brick chimney was scavenged from a shop's scrap box and now has a smoke unit fitted. Extra detailing on all buildings disguises their parentage as does a spray from Railmatch sleeper grime paint. The grounded coach body is courtesy of Ratio (via a swapmeet); oil store, diesel refuelling facility and small loco shed are scratch built from the parts box using mainly Knightwing parts.

View blockers are used again on Avalon Terrace, the houses and shops just hiding a coal train of two wagons and diesel shunter aided by trees and poster hoardings. The two shops are of particular note as I acquired them from the bookshop at Horsted Keynes

station on the Bluebell Railway. Someone had obviously taken a lot of trouble building this Wills kit, adding proper interiors and lighting and, you guessed it, it only cost me \$5.00!

The level crossing is a working Wills kit complete with hazard flashers powered by a chip again supplied by Patronics, thanks Ron. Final ground covering was a mixture of Carrs granite ballast and Woodland Scenics grit covered liberally with real ash and coal from the Mid Hants Railway shed at Ropley. Water columns are modified Tri-ang metal items from the 60s, suitably enhanced with wire and chain, about



Right: Class 04 with coal train waits for the signal behind Avalon Terrace.

Below: travel-weary Black 5 No.44762 awaits raking out over the pit as Colin surveys the last engine's ash pile.

Photographs by Len Weal, Peco Studio.

50p each as I recall. Someone recently asked if I had used some of that new paint on rust treatment now available, to which I replied no, it came off the back of a Great Western cast iron plate from a signal box. Suitably scraped, collected and sifted it gave an excellent result and is totally original, genuine, and free no doubt! Those marvellous sapling trees are sea moss from the 'Forest in a Box' people, suitably covered in scatter.

Locomotive stock

The cost of the layout obviously does not include locomotives, but on question of value it would be hard to deny the stunning value and sheer quality of today's offerings from Hornby and Bachmann. To this end I would rather concentrate on getting the scenery to a high level of realism and purchase most of the super locos straight out of the cabinet.

There are some however which have had to be kit built or modified; the 9F would never do with its tender mounted motor. Modelyard provides the conversion to proper drive which is well recommended (see RM April 02). The Class 22 conversion caused a few gritted teeth moments but the A1 Models kit is comprehensive and of fine quality. You just need nerves of steel.

The 'big two' provide a stud of 14xx, 22xx, 57xx, Standard Class 4MT and tender engines, 'Warship' and converted Hornby 'Hymek'. Although old I love the Mainline 61xx Large Prairie, detailed and grimy of course. No Western or Southern layout of the period should be without the Ivatt 'Mickey Mouse', weathered courtesy of Bachmann.

Hornby has done a real job on the Black 5, grimy naturally, and as for the Q1 and 'Merchant Navy', breathtaking, I had to have a



pair of each! However are you listening Hornby, why not a rebuilt 'West Country' Class? Not everybody is in love with the 'Spamcans', however fine a model it is.

In conclusion

I would like to think that the 'Paul Lunn spirit' of this project has been maintained throughout the four months that it has taken to complete. Judging by the positive comments I have received at the three exhibitions so far, I think it has been a success. If it conveys the idea that railway modelling need not occupy the whole house, can be varied and interesting to run, not cost a small fortune and can be finished before boredom sets in, then hopefully many more 'fledgling modellers' such as myself will be encouraged to take it up.

I have tried not to repeat the oft quoted advice on certain aspects of the construction; it's all tried and tested stuff, However if I were

to offer any advice to those out there, it would consist of the following:

- a) Don't rely solely on other peoples' layouts for inspiration, go out and *look* at real examples. Observation is the key, research can be fun and you will learn about architecture and social history to boot.
- b) The human eye can be deceived quite easily to your advantage. If you aim for a 'consistent quality' with your modelling over the whole area in view, the eye might not notice that for example card and brick paper has been used almost exclusively on this project, when your natural inclination would be to reach for the embossed styrene. This 'consistency' has fooled many people who ask me who supplies the kits for the loco shed and are surprised at my reply!
- c) It's far more convincing to model the 'ordinary humdrum' well, than to try and get away with too many 'extraordinary scenes'. For example, how often does a wedding, a circus and a thatched cottage fire scene all happen at the same time in our model 'hamlets'? Fun yes, realistic no.

Acknowledgments

Mention must be made of the organisers of the Thorncombe Railway exhibition without which this layout would not be here now.

Also thanks go out to two shops in particular, Ron Boreham at Patronics in Southampton for all the electrical advice and lighting and Peter Farr at Hendford Halt in Yeovil, for advice and a multitude of bits. Thanks also for letting me grub around in your second hand bins!

Final credit must be given to Keith for lugging this layout about, putting up with me at exhibitions and to Anne for putting up with me all the time!

Sedgemoor Road is booked to appear at the Thorncombe exhibition this month. See 'Societies & Clubs'.



Horrabridge

An 8' x 2' diorama in 4mm scale

A day trip onto Dartmoor in 1995 inspired J.C.I. Smith to build this compact layout.

Horrabridge is a small village situated on the western fringe of Dartmoor, and it was served by the GWR branch line from Plymouth to Launceston. This picturesque line meandered away from the main Paddington to Penzance route at Tavistock Junction and followed the leafy Plym valley before calling at Horrabridge on its way to Tavistock and Launceston.

Research

The model was built as a direct result of a day trip onto Dartmoor, during which I spotted what was obviously an old railway goods shed being used as a builder's store. Closer investigation revealed an ex-corn and coal merchant's warehouse built to a similar pattern, an old loading ramp, and little else. I took some measurements and a few photographs for future reference.

A year later, having dismantled an unsatisfactory fictitious GWR branch terminus, I decided to tackle a real location. Scale drawings of the station indicated that a reasonable representation could be constructed.

Planning and construction

Apart from reversal of the western (down side) siding points, and shortening of the whole plan to fit an 8' limit (our spare room dimension), the model plan follows that of the real Horrabridge.

The original idea was to add further sections including a pair of fiddle yards to allow the trains to run; at present the model is no more than a diorama. My real interest is in construction and detailing, so the extensions may never materialize.



Two sections, each 4' x 2', were built as open top frames which rest on free-standing trestles, to permit mobility. The trackbed and level ground consist of 1/4" ply, topped with insulation board, then chamfered cork sheet under the Peco Streamline track, which is ballasted with genuine Dartmoor granite, the abundant spoil from China Clay extraction.

Points are operated with coat hanger wire rods running in drilled-out wooden blocks glued to the framework; crude but cheap and

effective. Signals, currently static, are Ratio kits with additional brass wire handrails.

Scenery is chicken wire and plaster bandage supported by profiled insulation board offcuts. Liberal application of plaster/PVA glue completed the landscape. The old quarry face was scribed and shaped whilst still wet, and coloured with artists' acrylics. Pasture and cultivated grass is dyed lint, whilst rough grass is car insulation felt. Both were glued down with PVA before peeling off the backing and trimming the fibres – nothing original here.

Trees and buildings

Most model trees seem to be far too small, and I was determined to include some scale models. Scrap copper wire of various gauges, recovered from a demolition site, was held in a vice, twisted and soldered with a blow torch. More plaster/PVA was applied, and trunks were sprayed grey (not brown).

Foliage included pan scourers for the Scots Pines, wire wool for the hawthorns and lichen for the big ash trees. A range of scatter materi-

Above: early morning autumn sunshine catches the autococh heading southwards, whilst passengers await the first Launceston service on the other side of the tracks.

Left: coal empties head south towards the marshalling yards at Tavistock Junction behind an incorrectly headcoded 4588.

Photographs by the author.



Norsham Road

An N gauge layout that was relocated and updated

N.W.A. Horsham relates its history.

This is the story of an N gauge model railway, constructed by myself, which began life in Devon and now after modification is situated in my son's house in Cornwall.

Concept

Originally the railway to be a GWR main line to suit my age. Now it is a WR main line where locomotives of other regions could be seen as at Oxford.

Construction

I started to build the railway in the early 1970s when in my fifties with an all steam fleet of locomotives. The layout was transferred to my son's house in Cornwall in 1984.

The present site is in a room of smaller size and shape to the original so a good bit of modification was required, eg. losing 15" off the length. The basic layout has been altered, only where it was necessary, owing to its new smaller size. My son has altered the layout to represent a BR (WR) location of c1962.

Track/electrics

I originally laid Peco Streamline track with Insulfrog points on Peco foam ballast. My son has relaid all the track with Electrofrog points and on Peco granite ballast chippings with the rail sides painted to represent rust.

Points are operated using a mixture of Peco and H&M point motors. There are also a few

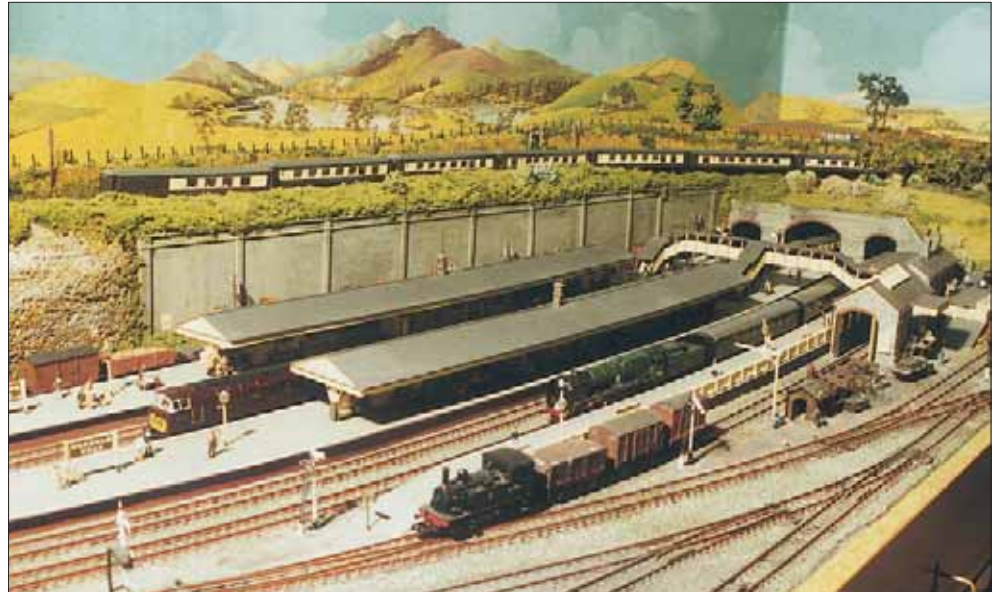
Above right: Norsham Road station.

Right: King George V and Harlech Castle meet at Norsham Road.

Below left: auto train passing Batterhill farm.

Below right: Collett 0-6-0 No.2241 comes off the branch.

Photographs by the author.





Above: Plymouth-bound 7782 and autococh wait at the up platform. The brick-built Saxby & Farmer signal box contrasts with the wooden station building, the corrugated Pagoda hut and the local slate shelter on the down platform.

Above right: the postman collects his mail outside the station building; his dog has adopted his favourite position.

Below: Bill Smith's warehouse (its full-size counterpart now a builder's lock-up) is dwarfed by the scale-size ash trees. The cows are destined for the paintshop to become Devon Reds.

Below right: logs are yet to be chained onto the bolster trucks on the yard siding.

als and foliage nets was employed to simulate October colours.

Most buildings are fairly accurate. The stone goods shed and warehouse, still in existence, were tackled first. Having previously used

brickpapers, I decided to try embossed plasticard for the textural advantages. Thick card and balsa walls were covered with Wills and Slaters sheets, with thin, scribed plasticard quoins and Das wall ends to signify depth of walling materials. Proprietary gutters and downpipes were employed initially, but later models feature wire pipes, which are a better scale. Garden sheds are card, covered in strips of wood veneers.

The Saxby & Farmer signal box, unusually in brick on this model, utilised Ratio parts left over from the previous layout. The station building is from Wills planking with microstrip window frames, and is surrounded by individual card slabs, in various shades of grey. Like the other buildings, it is bedded into ground scatter of ash, fine sand and N scale ballast.

Stock

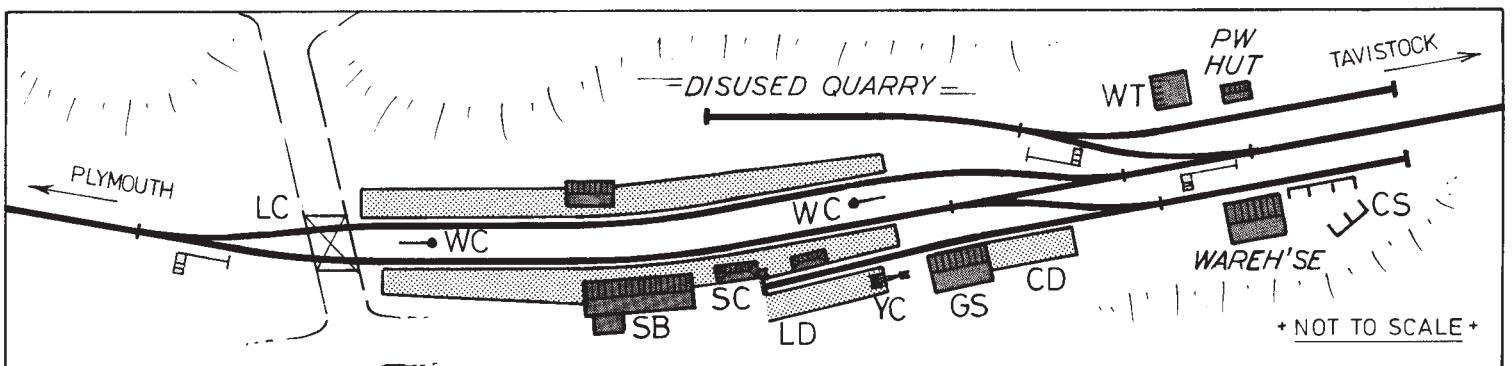
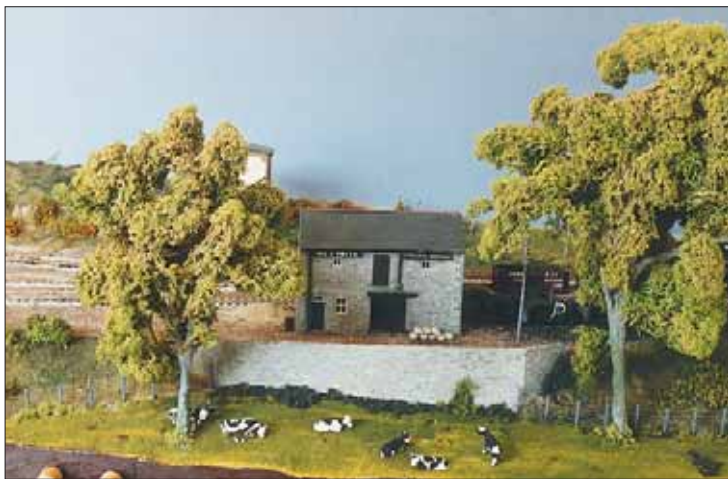
The five locos are all ready-to-run, repainted in pre-'36 livery and with added detailing of real

coal, scale couplings, tools and crew. Much work remains to be done in terms of weathering, though some 'dirtying' of running gear has been attempted.

A flush glazed autococh and 'B' set transport the passengers, whilst ready-to-run freight vehicles are gradually being replaced by kit-built models, which are finer and in, the case of coal wagons, can be embellished with personalised liveries, much to the amusement of my best man etc. Operation is virtually non-existent, so 3-link couplings are entirely appropriate. Again, plenty of winter evening hours will be spent on weathering, largely with that airbrush Mrs Smith bought me for Christmas.

Final details

The addition of the final details is a great pleasure to me. I am humbled yet inspired by the occasional trip to Pendon Museum where the work is mind-boggling. I try to arrange cameo scenes which can catch the eye.





points operated by manual rodding under the baseboard, all in the locomotive shed area.

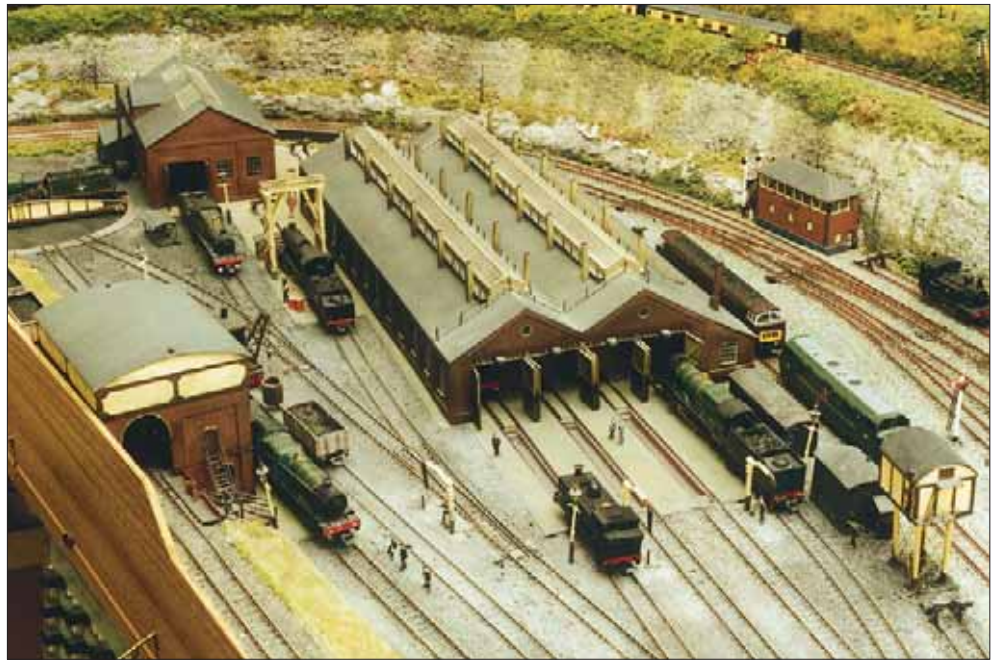
Scenery

The scenery is constructed from expanded polystyrene carved to shape and then covered with grass matting. The lineside fencing was made using monofilament cord attached to the fence posts, a soul destroying job.

The trees are mainly constructed using electrical wire twisted together, then teased out to form branches, painted then covered with scatter material.

Ninety percent of the buildings are scratch built from plasticard and or card using scale drawings of original buildings. The locomotive shed for example is as near as possible a scale model of Leamington Spa GWR shed, consisting of a four road brick running shed, coaling stage, turntable etc.

The main station is Norsham Road (where the loco shed is situated), typical of the GWR, situated miles from the town of Norsham. There is also another much smaller station serving the village of Rosslyn.



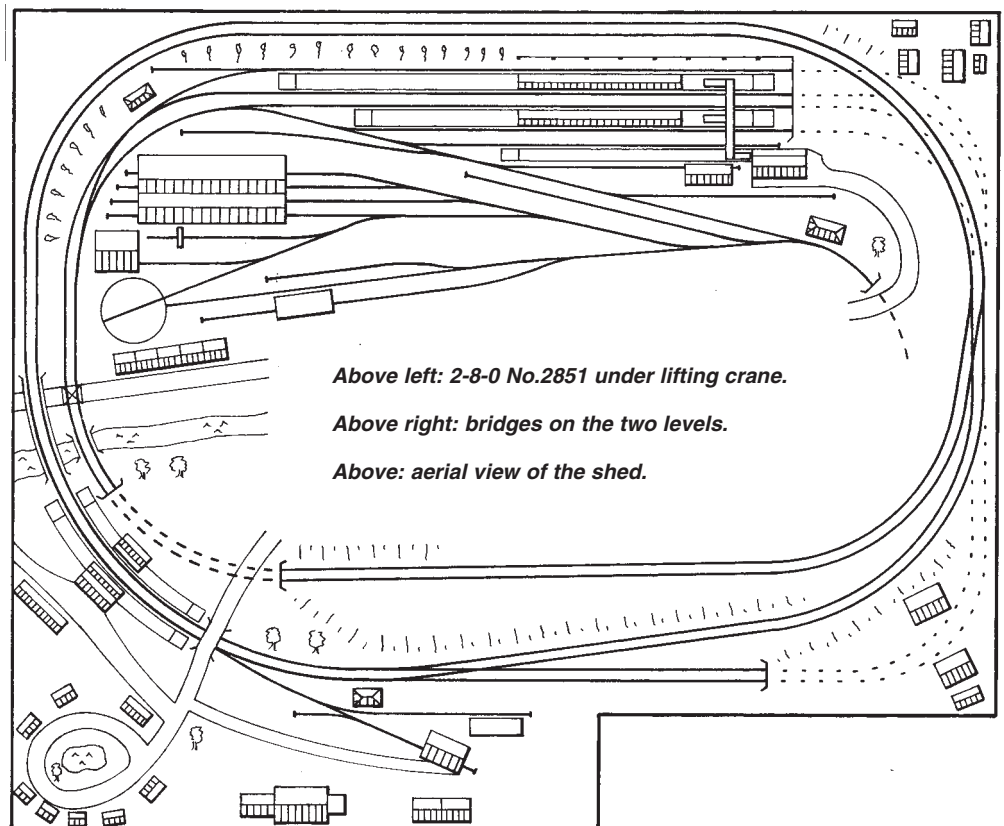
Locomotives

I have, and still do scratch build/modify/repair locos for the railway although I have reached the ripe old age of 79. I leave the painting/lining out to my son.

Over the years I have built the following locos: two 'King' Class 4-6-0s which are modified Graham Farish 'Castles' with new larger boilers/fireboxes, longer frames and new bogies; a 4700 Class 2-8-0 which is a GF 'Castle' body with new boiler/firebox and new chassis; 1400 Class 0-4-2T, not a kit; and a 'City' Class 4-4-0 is under construction.

My son has built a 5600 Class 0-6-2T, 4575 Class 2-6-2T and 4200 Class 2-8-0T, all with scratchbuilt brass bodies: the chassis of the last-mentioned is still under construction. He has also rebuilt a GF Compound 4-4-0 as an SR L1 Class 4-4-0, again with a scratch built brass body.

There are 46 locomotives in total and of note are a Peco 'Jubilee' and a Peco B4 0-4-0T body kit on an Arnold chassis. The original locomotives that I had have now been re-liveried from GWR to BR and locomotives of other regions (mainly SR) have been added, together with a few diesels of the c1962 period.



Scale drawings

Great Western style goods shed

Scratchbuilt for N scale

Frank Lax built a model 'in the style of' rather than specific.

For my current layout I decided that I required a goods shed other than those already available in kit form using either card or plastic as the modelling medium. The shape that I needed was larger than some of the available kits and I felt that in general they did not look particularly 'Great Western'. Looking through photographs of Great Western branch lines it became clear that there was more than one type of goods shed to be found and so I decided to construct a model that was 'the style of' rather than based upon a specific example. I studied several books with details of the goods sheds to be found on GWR branch lines, mostly termini, and made a list of the basic parameters such as size, door style etc in order to see if there was a generalised form upon which to base the model.

From the accompanying table the average goods shed is 36'4" x 53'6" over the rails, with flat-topped hinged doors. The space I had available is for a shed some scale 38' x 50' which is pretty close to the average for a branch line. For simplicity I had decided upon flat-topped sliding doors which were present in some 30% in the above selection, so all in all a fairly generalised goods shed could be built.

Not having built anything other than plastic kits to date I was a little slow to take the design forward other than drawing out the plan, front and end elevation of the proposed building. I wanted to build it in stone and felt that the Peco stone wall sheets (NB-40) would be a good starting point, but could not decide on the precise building method to adopt as with any previous minor scratchbuilt items such as

Location	size (feet)	Over/alongside rails	door top	hinge/sliding
Fairford	30 x 40	over	flat	hinge
Lambourn	15 x 25	alongside	flat	hinge
Tetbury	45 x 90	over	flat	hinge
Watlington	28 x 50	over	flat	hinge
Abbotsbury	35 x 42	over	flat	hinge
Ashburton	38 x 50	over	rounded	sliding, later hinge
Moretonhampstead	38 x 48	over	flat	sliding
Princetown	30 x 60	alongside	flat	hinge
Helston	40 x 50	over	flat	sliding
Bovey	64 x 80	over	flat	sliding

platforms or docks, it has proved difficult to get good corner joints when the mitre has been filed onto the sheet.

Finally I hit upon the idea of using a block of wood as a template, in this case a short length of 2" x 2" timber, and near one end I cut an accurate 45 degree angle using a borrowed mitre tool. In order then to cut a mitre on the ends of each plastic wall the template was held down on a piece of fine sandpaper whilst the plastic wall was slid gently from side to side against the sandpaper whilst keeping it held in upright and in good contact to the template. In this way the template is not damaged by the sandpaper and a fresh area of the latter is easily available by moving the whole assembly slightly to one side from time to time as required.

In this way I mitred the four corners of the already cut-out walls quite quickly. The drawing that had already been made was to full size (in 2mm scale) and could thus provide,

usefully, the required sizes for each wall and any apertures by simply marking off against the drawing. This approach I feel reduces the risk of a marking up error which may occur if a ruler is used to transfer the dimensions from the drawing to the plastic sheet.

The next problem, one that had also held me up for quite a while during the initial design stage, was how to cut out the three main apertures in the walls easily, these being the doors for the rail traffic in the end walls and also the door(s) for the road traffic access in one of the longer walls. As plastic sheet can normally be snapped apart at a well scored marking it struck me that it should be possible to use this technique to open up the door apertures without resulting to a lot of filing, which in my case is usually a recipe for disaster as my filed lines are rarely straight.

I found that by scoring the three outer lines, sides and top, for each opening and then scoring the diagonals, but this time scoring right

through, it is possible to snap away first the base triangle of plastic, then the two side triangles and finally the upper triangle, the result being a nice square aperture without any filing or, dare I admit, a worsening of one's mood or temper, which is not what a hobby is supposed to do. Another advantage was that I was able to cut away the apertures from quite close to the edge of the plastic sheet without causing the plastic to break, again another distinct possibility if using a file. The only filing that was resorted to was to cut out two small rectangles to allow a pair of windows to be fitted in the rear wall. This was done quite slowly with frequent checking for straightness and for size against the etched brass frames from a kit of industrial windows.

Having now got the four sides all cut out and prepared they were solvent welded together easily, first of all as opposite corner pairs before jointing the two pairs together finally to form the basic shape of the model. To form the inner platform, 10mm high strips of stone wall were cut off by scribing with a craft knife and were then solvent welded within the body, one straight across the inner track side and three short pieces to form the road vehi-

cle cut out. Once set a piece of white card was cut to shape and secured with PVA.

When it came to fitting the roof, I tried using some roofing slate sheets initially but did not like the effect of the join in each roof half as the sheets are smaller than the roof plan of the model. Next I tried cutting two roof halves from card but as this was found to distort easily they were subsequently cut from 40thou white plasticard with an overhang of about 5mm on the sides and edges. A mitre was cut into the join at the roof apex using sandpaper. Two strips of 5mm wide plasticard were then added between the side walls just below the apex to help support the roof proper. One roof half was glued into place with just a couple of drops of solvent to allow for adjustment before gluing the first half in more thoroughly followed by the second half.

To strengthen the joint between the two halves of the roof at the apex a length of 40thou square microstrip was solvent welded to the underside of the roof. Barge boards were also cut from 40thou sheet, 2.5mm deep, and then trimmed and solvent welded to the edges of the roof of the sides only. In order to give the impression of a slate roof the plasti-

card was carefully scribed horizontally at 2mm spacing and then vertically across alternate courses to produce overlapped rectangles approximately 6mm long. Scale 3' x 1' slates sound large but they look acceptable to me and I suspect that had I attempted to scribe anything smaller it would have been unsuccessful. Once scribed the roof was sanded lightly to remove burrs and soften the effect of the scribing.

Any large aperture in a load bearing wall requires a joist of wood, steel or concrete to support the material above it and I did not want to try filing out a slot in order to fit a cosmetic one. I decided therefore to hide the joist from sight simply by solvent welding a length of 'U' section plastic strip above each door aperture to act as the track for the four sliding doors, in the same manner as that at Moretonhampstead. The other alternative of a curved stone lined top to the aperture would I suspect be even more complex to model and at the side doors would not even be practical due to the low angle and resultant height of the roof.

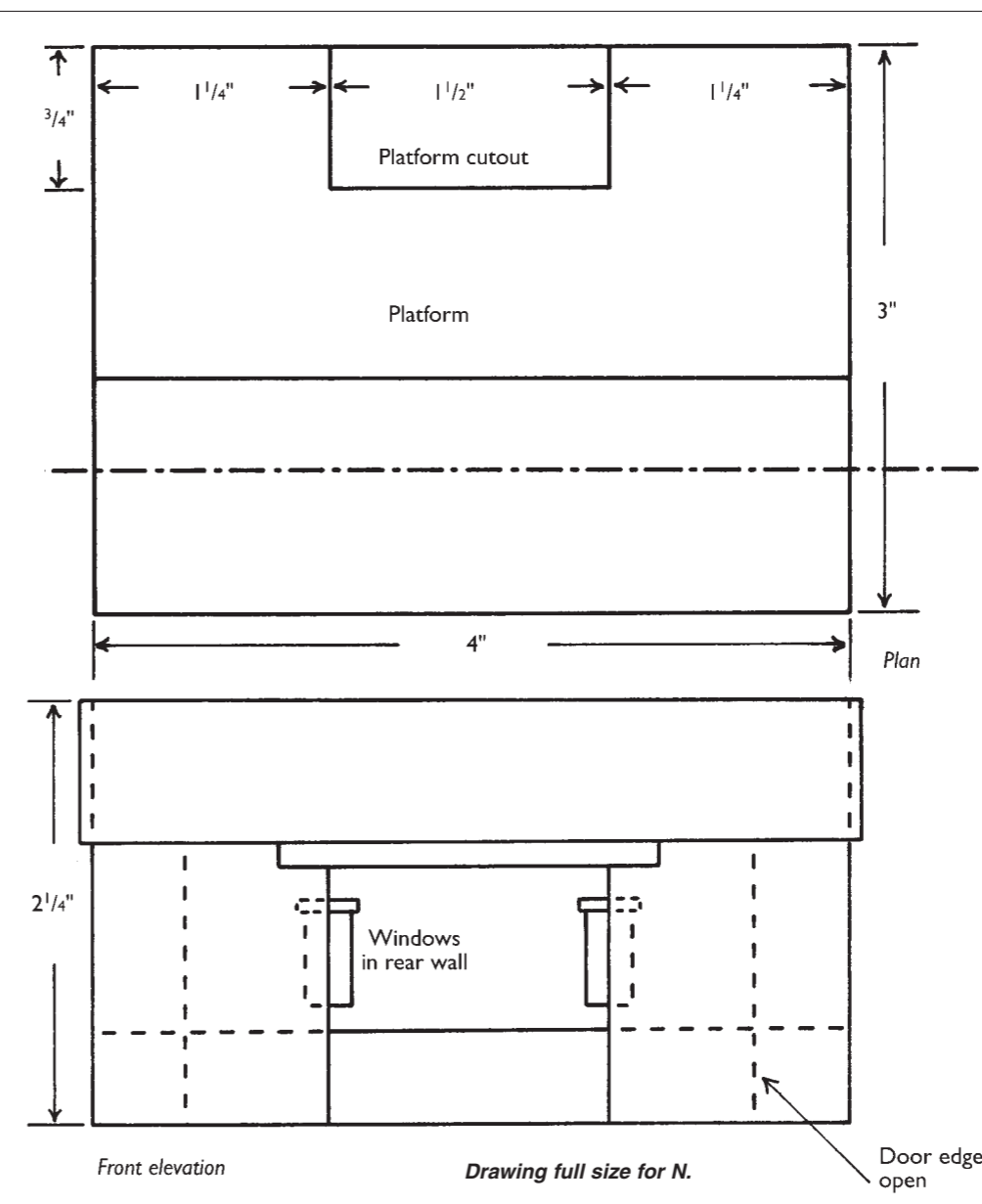
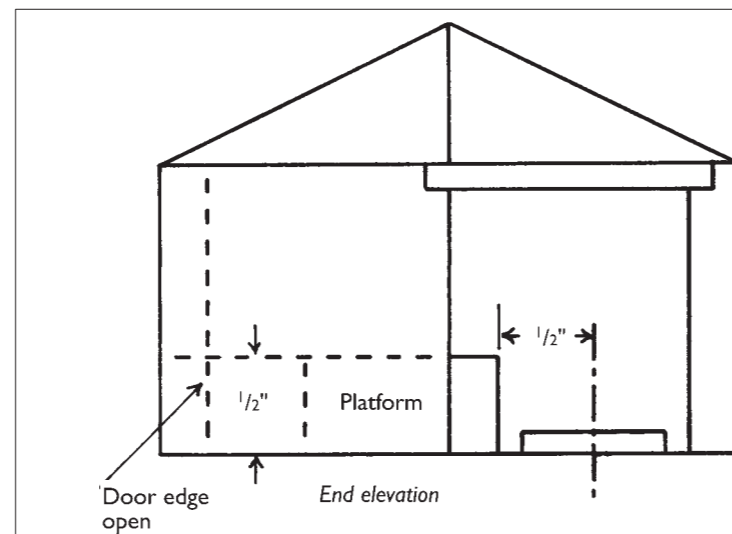
The doors were cut from Ratio wood plank sheet and then solvent welded directly to the walls, close up under the track, in the open position. The guttering along the long edges of the roof is 2mm diameter half round plastic strip with Slaters 0.6mm diameter plastic rod for the down pipes, all solvent welded directly to the roof edge or wall and underside of the gutter respectively, for strength. The bends in the down pipes were formed gently with small pliers prior to fitting and then strengthened by over-painting with solvent once glued in position on the walls. A short length of N scale ladder has been solvent welded to the side wall of the platform at one end of the road opening within the shed.

The roof has been painted in dark grey whilst the barge boards and doors were painted in light stone. The door sliders, gutters and down pipes were painted in dark stone with the window frames white. The platform and ladder is painted in a light grey, mixed from acrylics to suggest concrete. The external stone walls have been painted in a range of greys with individual stones picked out in assorted reds, oranges, browns and blues. A little smoke damage has been suggested on the door sliders, stonework and barge boards above each rail opening with a touch of dry brushed brown acrylic paint.

The resulting model does I think give a good representation of a small Great Western branch line goods shed and looks quite attractive in position with a few wagons nearby. Being scratch built it does allow a lot of flexibility in the design of the complete model goods yard so that one can tailor the shed into the model rather than build the model around an available kitbuilt alternative.

References

Great Western Branch Line Modelling Part 2 by Stephen Williams (Wild Swan, 1991).
Great Western Branch Line Termini combined edition by Paul Karau (OPC, 1999).
The Moretonhampstead Branch by John Owen (Waterfront, 2000).



The lineside hut

and the benefits of socializing

Geoff Thompson describes a simple garden railway project for the autumn.

One of the great joys of garden railways is the opportunity to visit other folk's railways, or have an open day yourself. Such meetings allow us to share our hobby with like minded people, and can provide a good deal of inspiration; but they also have a very practical value. At most garden meets there will be, inevitably, a range of different levels of experience and modelling skill. Such meetings are friendly occasions, which provide an opportunity to talk to someone who has trodden the path you are contemplating taking, whether it be building a raised track, constructing a kit or scratch building a piece of rolling stock. Many a mistake has been avoided and many a problem has been solved through the pooling of talent at a garden meet.

Unless you live near a specialist garden railway shop, the opportunity to see the abundance of British outline ready to run locos and rolling stock, or see the range of kits on offer, will be limited to those occasions when you can make the journey, or a garden railway exhibition is held near where you live. Seeing pictures in the magazines or on websites certainly whets the appetite, but is no substitute for seeing the real thing. Garden meetings are, in this respect, invaluable, because not only can you see much of what is available, you can observe and hear locos and stock in action.

Variegated railways

If you visit a few garden railways, you will begin to realise that there is a huge variety of ways to achieve having a place outdoors to run trains. Some are totally functional, with nothing more than track to run on; either up on stilts, set atop a wall or laid directly at ground level. Others are very scenic, with buildings and lineside structures, and plants chosen for their likeness to shrubs and trees in the appropriate scale, e.g. many sedums and dwarf conifers.

Some railways are highly detailed, so much so that you could take a photograph in many locations that it would be difficult to distinguish from a picture of the real thing. Many have some scenery and buildings here and there, the latter often quite simple, with just enough detail to give an impression of location, adequate for viewing in a garden, rather than close up at eye level.

Garden railway operations vary a good deal too. Most people have some variation of the circular route, which has the benefit of being able to set trains running and just sit and watch if the mood takes you. End to end is prototypical, but you need a big garden for a realistic journey length. Out and back is a variation of this, with trains leaving one location



and arriving at another, but in reality the two locations are not far apart, making it easy for the driver to meet the train as it arrives at its destination.

Most of the garden railways I visit are British outline narrow gauge, so they tend to be single track, with minimal pointwork for stations and sidings. Some people, on the other hand, fill their garden with track, creating a veritable spaghetti junction of multi level complexity; not my taste, but if they enjoy it, why not?

The one single most important piece of advice I would give anyone contemplating taking up garden railway modelling is go and visit some railways. Even if you are not sure about entering the hobby, if you are seriously interested, you will receive a warm welcome. There are folk who, for whatever reason, don't have a railway of their own, but simply run their locos and stock on local garden railways. If you don't know anyone with a garden railway, the various societies (Association of 16mm NGM, Gauge 1 Model Railway Association etc.) can usually put you in touch with a member near you.

Open all year

The garden railway meeting season will be drawing to a close in a few weeks, and thoughts will turn to preparation for the autumn. Modellers with highly detailed buildings may remove them indoors for the duration, but the SWR is not a tourist line, we are open all year round. The passengers and staff on Waddingham station will not sit or stand out in the winter weather, but folk will remain in the shelters, the signal box will not be empty and it will be business as usual, if a little less frequent. Autumn and winter running have great appeal if you run live steam locomotives, because the exhaust effects are wonderful in the cool air.

My buildings withstand the winter weather very well. The station shelters, lineside huts, stone walls and factory buildings are concrete mouldings which are not disturbed by gales, snow or ice. They are from a range produced by Tuxcraft, suitable for 16mm or G scale. Without being highly detailed, they nevertheless look realistic, and when painted with matt paint, or rust treatment for corrugated roofs,



give the impression that they have been there for a hundred years.

As the days begin to shorten, garden railway modellers will be looking for 'inside jobs' they can do. One easy and inexpensive project is to create a building or two for your railway which will look the part, and can remain outside all year round.

There are some very nice structures for our garden railways, but we don't always need smart and colourful buildings, do we? Every railway has huts, sheds and shelters which have a useful function for staff, but lack any of the glamour associated with the public face of the railway. They also often get overlooked when the decorators are called in, so they can look a bit neglected. Aside from trains, structures give that much needed third dimension; height, to our model railways. Little sheds or huts don't take up much space, so they can find a place almost anywhere around the line. They can cost next to nothing, too.

An easy autumn project

I made the structure for a work's halt in a few minutes, mostly from scrap wood. The frame isn't seen, so the wood can be un-planed. I used a plank from a goods pallet, which is ideal because it is treated timber. The back needs to be 12cm high or more internally, as wide as you wish. The sides have a slope at the top for the roof pitch, and must be as high as the back at their lowest edge. Back and sides were glued and nailed together with 3cm nails. Make sure the back doesn't extend beyond the height of the sides. If you are building a shelter, you will need to add a front bar of about 1 to 2cm high, glued and nailed into place at the top of the side walls. If you are making a hut, glue and nail on a front wall, again making sure that it doesn't extend beyond the height of the sides. Use planed timber, i.e. smooth, for any wall which is to have the door.

Above left: Ray Wyborn's scratchbuilt Jack in 7/8th scale, having a run out prior to returning to the workshop for painting.

Right: Ken Aylott's Accucraft Superior pulling a rake of well used scratchbuilt balcony coaches which Ken, now aged 81, made many years ago.

Above: corrugated 'iron' sheeting in plastic and aluminium.

Above right: the 'tin hut' provides shelter at the halt serving Snitterby foundry. The other buildings are cast concrete from Tuxcraft.

Photographs by the author.



If your hut is less than 11cm deep (external dimensions), you won't need a wooden roof, but if it is deeper, nail a piece of thin ply on top, cut the same size as the walls, with no overhang. If you decide not to have corrugated sheets, the roof should have an overhang, see later paragraph.

If you are making a hut with a door, glue three pieces of wood in place on the planed wall to represent the doorframe. Lollypop

sticks split lengthways will do. A decorative picture-hanging pin, or a tack part-nailed into the door and bent over, will make the door handle. If you are feeling benevolent towards your workforce, cut a straight piece of tube about 4cm long from an old plastic pen to make a stovepipe, drill a hole in the roof and glue in place. Paint or timber treat the wood. Now we need to transform our crude wooden box into a proper railway structure.





Left: Tuxcraft station shelters, hut and stone walls remain outside all year round, with only a lick of paint on the 'woodwork' required once in a blue moon.

The roof sheets should have a 5mm or so wall overhang all round, a little more, say 15mm, at the front of a shelter. The uppermost side sheets should just touch the roof overhang. For buildings such as this, I find that the best glues are the thick, sticky multi purpose adhesives such as UHU or Bostick. They have a little 'give' which absorbs the inevitable expansion and contraction of the model outdoors.

If you have an aversion to corrugated sheets, or can't source them, you have some alternatives. Using thin plywood for the walls and roof (this time the roof will have a 5mm all-round overhang) you can make your hut rendered concrete. This will require mid grey matt painted concrete sections, with each slab etched out using the point of an old drawing compass or small screwdriver; or wooded planks, which you scribe vertically on the walls. 5mm to 8mm wide is about right.

If you have a felt roof, you can use black 'wet and dry' emery paper glued to the roof plywood, and painted with matt varnish to preserve the paper. Medium grade emery will have about the right texture for roofing felt, once varnish is applied.

The inside of the shelter can be painted any colour you choose, as can the 'corrugated iron', but remember that buildings such as these were not painted to draw attention to themselves. Muted matt colours will work best. If you wish to have corrugated asbestos, strictly speaking the channels would be wider, but I doubt if anyone will notice. You can use mid grey paint and speckle with dark grey, brown or black by spraying from about 45cm away and moving the tin rapidly side to side. Practice on a sheet of paper to get the technique right.

Finally, paint the doorframe and door, and give the stovepipe a lick of matt black. My shelter was painted dark grey, but the paint began to peel, and so I went with mother nature and added to the dilapidation by applying some rust treatment. I like to think it looks rather authentic.

If you are wondering about the window for the hut, it is on the other side. There are no corrugated sheets on the back of my shelter, either.

The Gauge One Model Railway Association, PO Box 5252, Northampton, NN5 6XB. www.gaugeone.org

The Association of 16mm Narrow Gauge Modellers, Bruce Flaxman, 40 Grain Road, Wigmore, Gillingham, Kent, ME8 0ND. www.16mmngmodellers.org.uk

G Scale Society, Peter Jackson, 16 Northfield View, Randlay, Telford, TF3 2ND. www.g-scale-society.co.uk

Tuxcraft, 9 Newcastle Street, Tuxford, Newark, NG22 0LN. www.tuxcraft.com

Cover the hut or shelter with corrugated sheets, glued into place. Model stockists sell small bundles of aluminium sheets fairly cheaply, but some people obtain theirs from food (e.g. baked beans) tins! If you attempt the latter, remember you could get badly cut, so you must wear thick gardening gloves. Use proper tinsmith's shears and file off the sharp edges before handling the sheets. The full sized sheets should be about 12cm by 4cm

with the channels lengthways. You can also obtain plastic moulded panels of 'corrugated iron' sheets about 30cm by 45m, one of which will do a typical lineside hut or shelter.

Sheets should overlap by one channel at the sides, and by a couple of millimetres top to bottom. Higher sheets should overlap the lower ones of course. Shaped pieces, e.g. around the doorframe, can be cut with an old pair of large scissors.



Longroyd Bridge

A 7mm scale layout built by Huddersfield Railway Modellers

Adrian Bottomley tells the story.

Longroyd Bridge is the 7mm club layout of Huddersfield Railway Modellers (not to be confused with the Pennine Model Railway Association, which is also based in Huddersfield). Confusion has arisen because the Pennine Group holds its exhibition in Huddersfield town centre, while Huddersfield Railway Modellers holds its in Holmfirth, home of *Last of the Summer Wine*.

The confusion cleared up we can now move on. The layout, for a variety of reasons into which we don't need to go, has undergone numerous changes since its birth, and is still changing even as I write (we only use water soluble glues for ballasting).

The layout consists of a suburban line with a branch (change for Lindley and Birchencliffe). Located on the Yorkshire side of the Pennines, the layout has a definite Holme Valley feel to it as all the buildings are based on prototypes from the valley. The line was originally Lancashire & Yorkshire, but is set in BR days in the 1950s. Just when in the fifties depends largely on the liveries of the stock on

Above: *Longroyd Bridge* itself, dwarfing ex-L&Y 2-4-2T No.50799 and 'Jinty' No.47469. An extremely close copy from photographs, it was constructed very carefully from Plastruct and plasticard by Jim Noble.

Photographs by Steve Flint, Peco Studio.

show at any one time. A wide variety of stock can be seen on the layout because on 1 April 2002 an Act of Parliament gave running rights to the LMS, GWR, LNWR, LNER, L&YR, S&D, M&GN, H&B, LSWR, SR; in fact any stock of standard gauge that will run reliably. Rogue stock is banned.

The layout is constructed from 12mm ply baseboards set on trestles. Originally it was 3'3" wide and 36' long including fiddle yard, running terminus to fiddle. It soon became apparent that there was no scenic interest at all, so the layout was widened by 2', making it 5'3" wide. The extra boards bolt on to the back of the layout and can be removed to allow more room in the clubrooms.

These boards are mainly scenic with the

exception of the outer end board which houses the coal drops for the station yard. The coal drops are based on Lockwood and modelled by David Beaumont (an ex-footplateman), who once modelled the whole of Lockwood station, including the famous Lockwood viaduct. They had to stop him before he modelled all the way to Sheffield. It is our intention to construct a further fiddle yard to allow through running.

The track on the layout is Peco Streamline and the pointwork is a mixture of old Peco and hand built. Jim Noble (of *Lime Kiln Wharf*) built the double slip and the signal box. The points are operated by Tortoise motors and the signals are scratchbuilt from brass and operated by solenoids.

Scenics are a mixture of Woodland Scenics and Slaters Plastikard. This phase of construction was done to a deadline so there was no time to scribe stonework onto card or anything else. Instant buildings were needed and they still took seven months to complete. All the residential buildings can be found at



Hinchliffe Mill (a small village near Holmfirth). The station building is based loosely on Thongsbridge. One of the mills is based on Moorhouse & Brooks in New Mill and the other one is an enlarged model of our club rooms at Mill Moor Road, Meltham.

The lattice girder bridge is a near copy of the bridge at Longroyd Bridge, carrying the Huddersfield to Penistone line, and again modelled by Jim Noble (without Jim we would have had to find someone else: a tall order). The platform surfaces (artists' mounting board in sandstone colour) were laid flag by flag by David Beaumont. The mills and the residential buildings were built by myself with Jim's assistance.

The electrics were done by trial and error – twice! The layout is divided electrically into four sections: Branch, Up line, Down line and goods yard. The feed to these sections is taken from four four-way switches. These switches are fed from four separate controllers. This allows any section to be fed from any con-

troller. Any controller can feed the whole layout if necessary.

The controllers are of the hand-held type, connected to the layout by four DIN sockets. Extension leads allow the controllers to be used anywhere on the layout.

The Tortoise point motors are controlled by double-pole, double-throw switches housed inside the large mill building.

Although there has been the odd moan about how we can do all this for the money, I think we have enjoyed the project despite the

Above: Manchester train awaits passengers. The porter is on the wrong platform.

Opposite page, left: Moorhouse & Brooks' warehouse is actually a slightly enlarged model of our clubrooms.

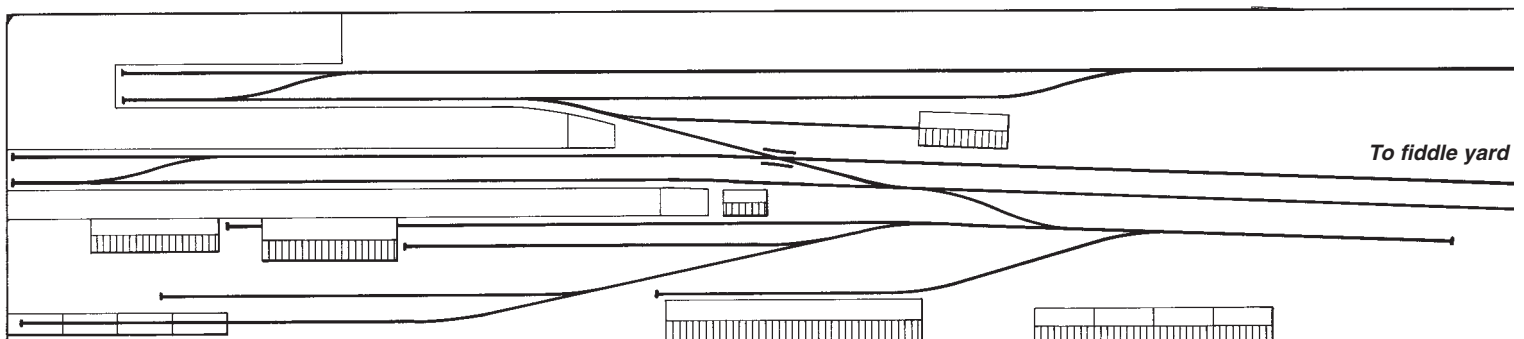
Opposite page, right: a pickup goods heads for Huddersfield.

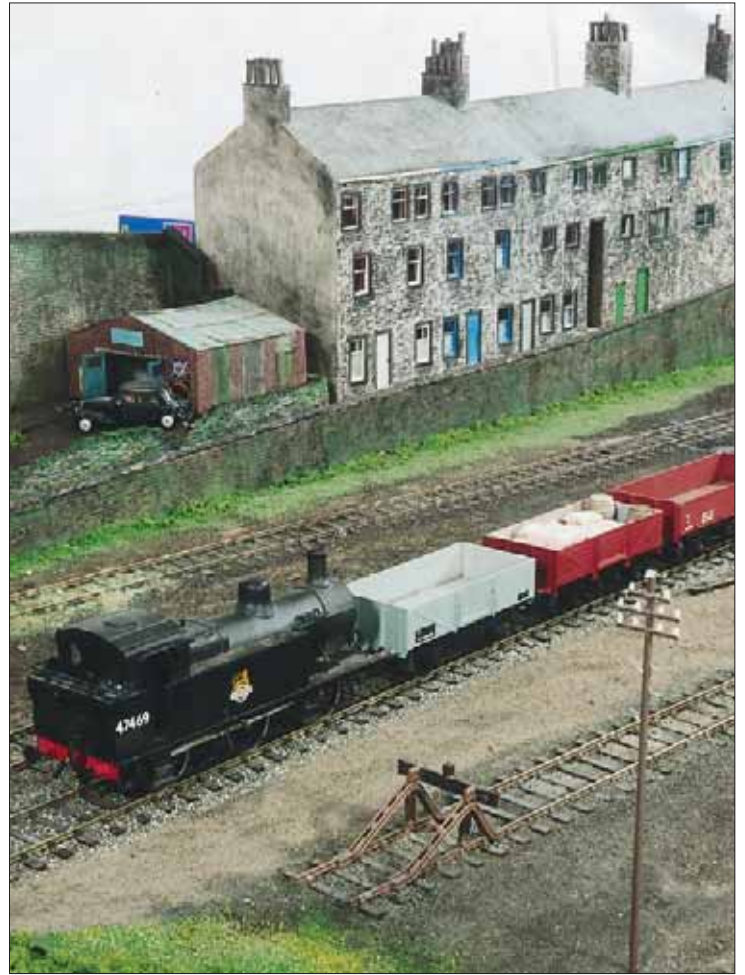
Right: goods train for Manchester passes Ebenezer Chapel.

time limit. In the future there will be plenty of time and scope for additional detail and cameos all over the layout. These can be built at leisure, without the pressure of a deadline.

We offer no apologies to the purist, we do this for our own pleasure and enjoyment. There are enough difficulties in railway modelling without imposing our own. We run what we like and what we can get our hands on. If we had to wait until we had sufficient Lancashire & Yorkshire stock to operate the layout we would be extremely broke, very old and probably bored to death waiting for a new loco. As it is we can't run a main line express because we don't have the stock. All of us involved in the project are new to 0 gauge and acquiring new stock takes time.

Longroyd Bridge can be seen at the Huddersfield Railway Modellers' exhibition at the Civic Centre Holmfirth on October 30 and 31. See 'Societies & Clubs' for full details.





Plan of the month

Harlow Mill

Overhead electrics and heavy freight on the former Great Eastern

*The potential of this busy Essex location for modellers has been assessed by **Robert Peters**.*

Construction of the railway line from Bishopsgate – now Liverpool Street – to Bishop's Stortford commenced in 1839 by the Northern & Eastern Railway (N&E). The first part of the line to be opened was from Stratford to Broxbourne in September 1840: the remainder of the line was built and opened in stages, with Harlow (now called Harlow Mill) opened in August 1841. In an agreement dated 23 December 1843, the Eastern Counties Railway (ECR) took over the N&E, thus continuing the building of the railway northwards.

Harlow Mill (today serving the residents of Old Harlow) was the principal station for the area until Harlow Town station (serving the residents of Harlow New Town, now Harlow) was opened to the public in 1960, taking the main passenger traffic away from Harlow Mill station.

Passenger traffic

The line from Liverpool Street to Bishop's Stortford was electrified in the late 1950s with Bishop's Stortford being the limit for the outer-London suburban traffic. High- and low-density Class 305 EMUs operated these local services until replaced in the mid/late 1980s by Class 321 EMUs, and now Class 317 EMUs; 317s now operate all services between Liverpool Street and Cambridge.

The Stansted Airport link was built in the late 1980s with services being run by BAA-owned Class 322 EMUs. 317 7xx EMUs, working a 15-minute frequency in both directions, now run these services.



Left: an eight-car Liverpool Street-Stansted Airport service displays the latest livery (first unit) and the older livery as used by the owning company. The four views on this page were taken on 24 April 2004.

Lower left: a local Bishop's Stortford-Liverpool Street service (left) departs Harlow Mill passing a non-stopping Liverpool Street-Cambridge working.

Bottom left: Harlow Mill station building. This is the original N&E structure as can be seen today.

Bottom right: Harlow Mill signal box.

Top right: the first light of the morning of 27 April 2004 catches 60 065 entering the Up loop at Harlow Mill with its train of PGAs while 59 104 Village of Great Elm waits its turn in the Down loop.

Right: trackside view of 59 104 waiting to reverse its train into the Up loop.

Lower right: 59 104 passes Harlow Mill signal box as it reverses its train into the Up loop.

Bottom right: having run round its train and pulled its train clear of the points that allow access to the lower yard (B on the plan), 59 104 prepares to propel its train into position for unloading. The Bardon rake can just be seen above the end of the train.

Photographs by the author.

Freight traffic

The main freight handled at Harlow Mill was sand for the United Glass (UG) glassworks, and general goods – initially dealt with by British Rail, then by National Carriers Limited. This traffic went over to road haulage in the late 1960s; the sand traffic went the same way in the early 1980s.

Before the end of the sand traffic the resident shunter, 08 520, was unofficially named *Duchess of Harlow* (a picture of this 'celebrity' loco appeared in the November 1982 issue of *Modern Railways Pictorial*). When the UG traffic finished the resident 08 was allocated elsewhere.

The yard remained unused, apart from storing, for a short time in the mid-1980s, condemned Southern Region EMUs awaiting scrapping.

Foster Yeoman started to deliver road stone to Harlow Mill in the mid 1980s from its Merehead Quarry site in Somerset. A pair of 37s, a Foster Yeoman-owned 59 or occasionally a 47, would trip this traffic in from Acton, West London. Now Class 59s predominate. This service has always utilised bogie open wagons, where they are unloaded in the lower yard by crane grab. This traffic now operates under the name Mendip Rail Limited (MRL) and comes from Whatley Quarry in Somerset.

Foster Yeoman has recently installed an asphalt plant to allow the company to complete road construction and repair contracts in the local area. An occasional train runs on a four-weekly or as-required basis, the aggregate traffic being tripped in from Dagenham with the train having started from Tower in South Wales. A Freightliner-owned Class 66 is diagrammed for this service.





Wembley. This used to be a Class 47 duty and continued its journey to Dover.

Engineering trains run on an as-required basis and are usually hauled by a Class 66. On one visit to the station (Saturday 24 April 2004) two trains passed by on their way south: one was a train of empty spoil wagons, the other carried concrete sleepers and ballast. The latter was hauled by No.66 171 (see left).

The line also acts as a diversionary route for both the ECML – when there is engineering work between Kings Cross and Peterborough – and the GE main line, between Stratford and Ipswich. Diverted Freightliners originating at Ipswich also pass through.

It is not uncommon for a Class 60 to replace a Class 66 on any of the above workings. There may be other workings I have not mentioned here as the nature of freight workings is changing constantly.

Other traffic

Specials have also been regular visitors. Three 'Deltic' specials ran through the area before the fleet disappeared from the rail network in 1982. I remember seeing 40 084 head northbound on a special in the early 1980s: additionally, I was on a trip that saw three Class 33s traverse the route on a special in the mid-1990s.

BR Standard Class 7P No.70000 *Britannia* hauled a special through Harlow Mill during April 1996, and in February 2004 'Battle of Britain' Class No.34067 *Tangmere* hauled a northbound special through the area.

The plan

The plan for Harlow Mill has the potential to develop into a good exhibition layout. With the situation of model rolling stock and locos improving all the time the track plan lends itself to either 00 or N gauge. The situation with multiple units favours 00 gauge; for N gauge, multiple units would need to be scratch built.

In the mid-1990s some of the warehouses in the upper yard were destroyed by fire and subsequently demolished. The rest of the warehouses were demolished a few years ago to allow Bardon Aggregates to build a purpose-built unloading facility to replace its previous arrangement at Bishop's Stortford. Loaded stone trains run on an as-needed basis from the Bardon Hill site in Leicestershire. A Class 60 is diagrammed for this service. There can be as many as six daily services in a week.

Both Foster Yeoman and Bardon deliver different grades of aggregate to Harlow Mill with the aggregate being unloaded into the correct bins in the yard. Harlow Mill is now an important centre for the distribution of aggregate in the local area, making the yard the busiest it has been for decades.

A passing northbound freight is a scrap metals train that runs from the Isle of Sheppey to Snailwells scrap yard near Ely. The wagons used are air-braked bogie opens and are usually hauled by a Class 66. The track layout at

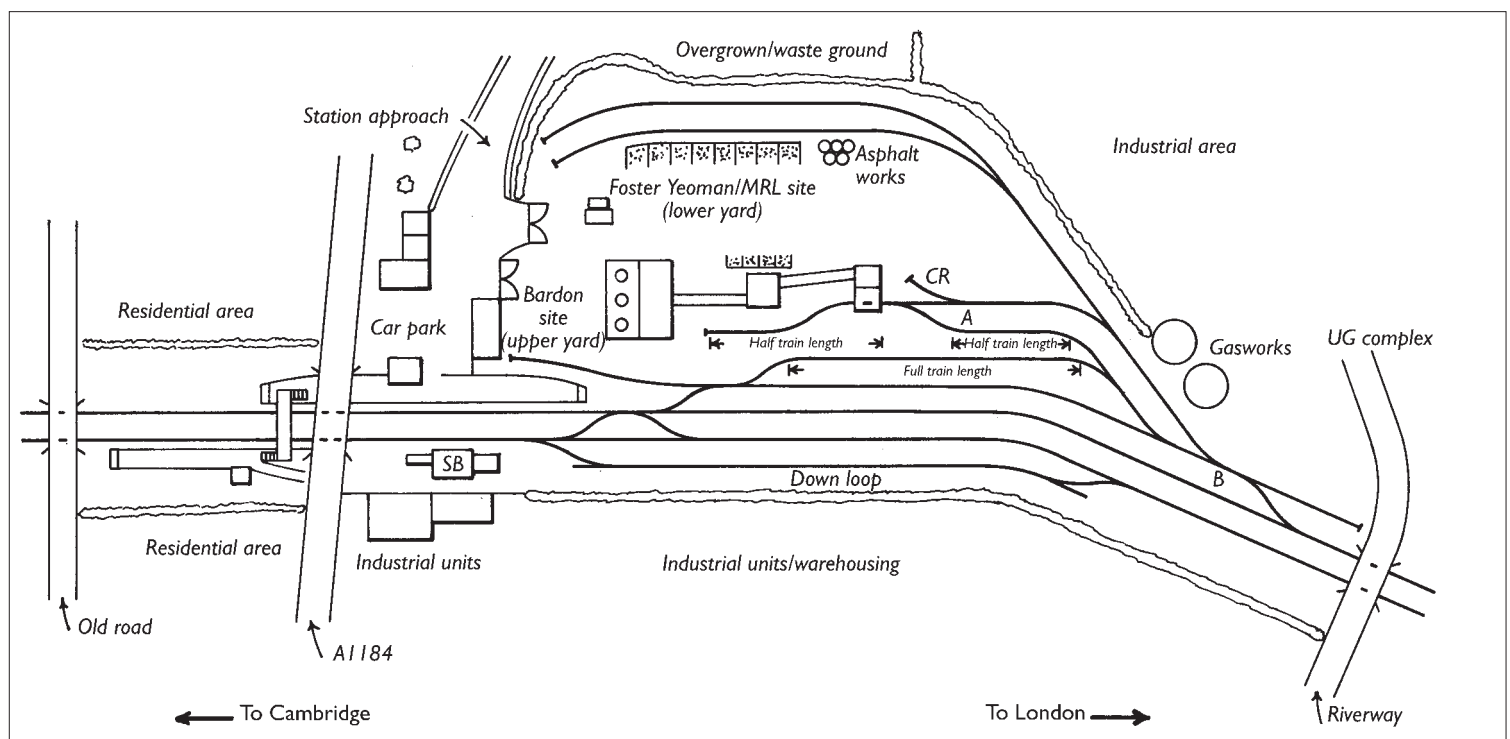
Snailwells requires the empties to return travelling south via Bury St. Edmunds and the Great Eastern main line via Chelmsford.

A Class 56 used to haul the Redlands 'conveyor-belt' train that ran from Peterborough to the site of the former power station at Rye House and return. This service now runs under the name of Lafarge and without the 'conveyor-belt' vehicle that gave the train its nickname. It is diagrammed for a Class 66 and now originates from Mountsorrel in Leicestershire.

Another Class 66 diagram is a trip working of bogie ferry vans travelling from Papworths at Queen Adelaide junction north of Ely to

This is roughly how the track layout looks today. The modeller can adjust the layout or scenery to his or her own requirements. If they feel it necessary they could change one of the traffics to add variety to the wagons seen. The second track in the lower yard could become a dedicated bitumen siding with its own rake of tankers. The options are endless.

Key: CR = Cripple Road, SB = Signal Box.



List of suitable stock

Class	Manufacturer	Gauge
59	Lima ¹	00
	BH Enterprises, CJM ⁶	N
60	Lima ¹	00
	TPM ² , Bachmann ⁵ , CJM ⁶	N
66	Lima ¹ , Bachmann ³	00
	BH Enterprises, Bachmann ⁵ , CJM ⁶	N
EMUs		
317/9	Bratchell Models ³	00
322	Bratchell Models	00
Freight stock		
PGA	Lima ¹ , Hornby	00
	Graham Farish, Bachmann	N
PTA	Lima ¹	00
	TPM ² , ISM ⁴	N
POA	Appleby Engineering	00
	ISM ⁴	N
Ferry Vans	Roco	00 & N

- ⊗ Engineering vehicles are numerous and available from many sources in 00 and N gauge.
- ⊗ Modellers might find it useful to belong to a group or society that is relevant to the gauge in which they model. They might only be able to get certain items of interest from the relevant group or society if they are a fully paid-up member.
- ⊗ This list is by no means exhaustive.

- ¹ May only be available secondhand.
- ² TPM – Taylor Precision Models.
- ³ Due out in 2004.
- ⁴ ISM – Ian Stoate Models.
- ⁵ Proposed model.
- ⁶ CJM offers a building and painting service for the more discerning N gauge modeller.



Above: as things used to be at Harlow Mill, in April 1996. An NSE-liveried Class 317 EMU prepares to stop at the station with a Liverpool Street-Bishop's Stortford service.

Most of the other models required are available off-the-shelf- refer to the table for details.

The building of the current facility by Bardon has removed all trace of the former tracks in the upper yard apart from the run-round loop.

The track plan means that both trains access the yard at the same point but depart from different ends of the yard. The Bardon working accesses the yard first as the train has to wait on the Up line, the old run-round loop opposite the down platform having been removed several years ago. This movement is timetabled this way.

This train enters the yard moving all the way to the headshunt at the opposite end. The loco propels the train into the unloader, one wagon at a time. The length of the track in the unload-

Below left: Class 7P No.70000 Britannia passes through Harlow Mill with a special passing northbound. Note the NSE furnishings that adorned stations at this time. April 1996.

ing area is equal to half the train length. Once the first half of the rake has been emptied, the loco pulls the train out to uncouple the empties (line A on the plan). The loco pulls the remainder of the train beyond points B to allow it to propel the rest of the train around the empties. When the rest of the wagons have been emptied the train is shunted and coupled up to make a complete train. The train is placed into the main run-round loop for the loco to run round the train. The train is now ready to depart.

The MRL train would reverse into the yard once the Bardon train is clear of the main run-round loop. The loco runs round its train, pulling it clear of points B allowing access to the lower yard. Once clear, the train is propelled into the lower yard for unloading.

The signal box at Harlow Mill, although out of use, is used as a training area, hence the lack of boarding at the windows, unlike other boxes still standing such as at Cheshunt and Brimsdown.

Conclusion

If anyone wants to see trains running without much time for drawing breath they should spend some time at Harlow Mill. There now seems to be an air of optimism about the place, unlike the depressed atmosphere that choked the railway a quarter of a century ago. Who said privatisation, freight-wise, was bad for our railways?

I would like to thank Phil Wood for his help with train times. Getting up at the crack of dawn certainly has its benefits.



Pinchingfield

An experiment in 1:24 scale

Chris Ford describes the layout he created to accommodate the rolling stock built by **Les Coleman**.

I suppose most layouts are conceived by inspiration from the prototype or in many cases another model. Not so this one, which, if I reach back far enough, actually started as the result of messing around with a calculator to see what oddball gauges could be represented on 16.5mm and 9mm track. One of the more likely was 12.5mm = 1' or 1/2" scale (1:24). A few years down the line it seems as if there are 1/2" scale layouts coming out of every corner, but at that time this felt as if it could be developed and therefore create something a little out of the ordinary – a 15" gauge line in 1/2" to the foot scale.

So a little casual research was done – nothing particularly serious – there did not seem to be that much prototype information around, and this research mainly took the form of snatched conversations at exhibitions. However, a work-related trip to the south Kent coast led me to the Romney, Hythe & Dymchurch Railway where photos were taken and a few basic stock dimensions were noted down, from which I made a couple of rudimentary drawings. Keep in mind that this was not a single direction exercise, rather a disjointed set of small projects running parallel with the building of the 009 layout *Wood End* (see RM January 2004). What did nail it all down was me penning a short article in *Narrow Lines*, the journal of the 7mm Narrow Gauge Association, which included a photograph of a diesel and a sketch of an RH&DR open wagon. Bearing in mind the difference in scales, I was expecting a few 'Disgusted of Tunbridge Wells' letters in the next issue but the reaction seemed favourable, and inspired a mate of mine – Les Coleman – quietly to start building some stock. This was waved under my nose from time to time until quite later one of us suggested building a layout to run it on. So *Pinching Field* was born. (The name is a cockney rhyming slang derivative: half inch = pinch. Like a lot of these things, it started as a working title and is still with us.)

Les and I disagree on a few things, but the basic thrust of the layout was that it should be a simple display for his stock, which is eclectic to say the least – from New Zealand railcars to British mine locos. So the sense of place had to be rather vague.

Baseboards were my standard length of 43", with a width (coincidentally) of 15". Two of these plus a small storage yard took the overall length to a bit over 9'. Built using a rather mixed technique of MDF inverted tray with 2" x 1" cross-braces, the whole structure would rest (once again) on the old trestles from the *North Lane Works* 0 gauge layout at a height of 45" off the floor, and would be oper-



ated from the front. I now feel that this was poor planning as there is an inbuilt awkwardness to the operation which consequently requires two operators to work it with ease. The front operation was my habitual favourite position, but I did not take in to account the fact that recent projects had been a lot shorter, so I now needed to walk up and down or grow 6' long arms! This is due to the use of local point control rather than the more sensible – in this case – use of some sort of remote control or point motors. So even after twenty-five years of layout building, lack of planning got me again!

Track is Peco – well, butchered Peco. Taking the 0-16.5 range of points, I cut half the sleepers out. If you say that quickly it sounds pretty easy. The reality is that nearly all of the point has some bearing on the stability of the unit. Put another way – one wrong move and you end up with a handful of separate rails and sleepers – yes, I did! But there were only four

to do so once I had got the hang of it, so not too many problems. Plain track was a comparative doddle. Take a yard of track, throw a third of the sleepers in the bin, and spread the remainder out to match the spacing of the points. Easy!

Track was laid directly onto the MDF in the usual manner, using the aforementioned local point control in the form of 25p DPDT slide switches and a short length of wire-in-tube. Money saved, but weight lost with all the walking up and down.

The track plan was once again kept fairly simple: the stock was to star, not the intense – or lack of it – operation. I say this as the reality is that time at exhibitions has mostly been spent talking about the construction techniques of building 1:24 rolling stock from cardboard and the choice of scale.

At this point the track was left unballasted (this would be done almost last) and tested with existing stock.





Above left: the Atlas battery-electric loco hauls a short train away from the small hut.

Below left: the battery-electric loco with a train of large skips in tow runs through the loop.

Above: a short maintenance train appears from behind the large shed. The mobile cement mixer is based on a Romney, Hythe & Dymchurch prototype.

Right: the rickshaw-conversion speeder runs towards the refuelling point while Elephant, from the Driving Creek Railway in New Zealand, waits in the shed.

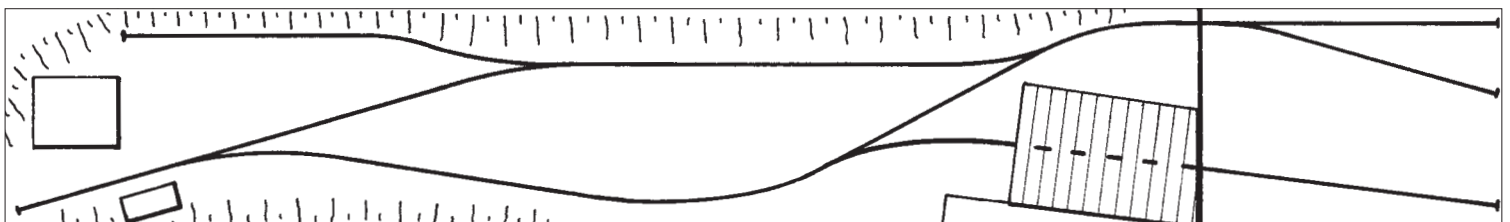


To create the fairly open feel that we wanted would require quite a large amount of grass type material – about five square feet of it. Having used carpet underfelt on a couple of smaller scale layouts, I felt that this would be the answer, and that it would probably be even more effective in this scale. Being a believer in “if you don’t ask, you don’t get”, I mentioned to the maintenance chap where I was working that I was looking for some scraps of underfelt. “Oh, yes” he replied, and promptly returned with almost a whole roll. “Thanks very much” I smiled, thinking “How am I going to get this home, and where am I going to put it?” (I think a good 70% has been given away to good causes, and I carpeted the loft!)

The colour needed to be changed from brown to green, so remembering that the way

I had done it before seemed to work, I repeated this: therefore; small bits of felt and two buckets OUTSIDE! One containing a 50/50 thin bleach and water mix, the other with olive green Dylon cold dye, remembering to keep an old two-litre bottle to store the dye afterwards. (This bottle has been passed round most of the modellers in Sussex now, which is pretty efficient use of 57pence worth of dye!)

The felt was dunked into the dye, allowed to drip off for a few seconds, then straight away dipped in the bleach bucket. This means that the dye does not take fully and comes out a lot lighter and patchy, so I was left with a ‘palette’ of light brown thorough to dark green. A word of warning: do this on the lawn, and do not wear a pair of shoes that you will want to wear in public again!





Left: the Japanese Bo-Bo runs past the hut and refuelling point.

Below left: the small hut and refuelling point.

Below: the rickshaw-conversion speeder couples up to the mobile crane.

Right: Elephant hauls a timber bolster wagon past the shed whilst the Japanese Bo-Bo waits by the large processing shed.



a scrap MDF base and smeared with white DAS modelling clay, scribed with brickwork with a small screwdriver – another tedious job: I love them! The roof was to be corrugated iron, but of course no-one makes corrugated sheet in 1/2" scale – more thinking...corrugated cardboard – ordinary boxes! A quick measure up found this to be spot on for size: great! Cut it up and slap it on – er, no...packing cases are not designed to come apart easily and the wiggly bit that I want is in the middle of the sandwich. More hours of fun were now spent carefully (with a craft knife) de-laminating bits of packing case. For those who are new to cardboard packing, what you get is the wiggly bit firmly stuck between a pair of flat bits...very firmly stuck. Undoing it takes ages! And what you are left with after much cutting and peeling is hairy wiggly cardboard which needs to be shaved, for want of a better word. Only when cutting, peeling, and shaving have been completed can it be used as roofing. But now it needs extra support, as the bits that were doing the support role have now gone. Once again, at this point 4mm scale Wills kits looked very appealing!

The hut, now roofed and glazed, was painted with artists acrylic, with which I love working. Once dry it was finally attacked with ash, coal dust, and talc to tone down and texture.

The large shed to the right was almost the last thing to be done and, to be honest, interest had started to wane – especially when I realised how much wiggly-hairy card I needed. Said shed was based on a number of farm/industrial examples – simple and attractive, but some would say 'architecturally challenged'. The problem I had here was that it needed to have a line running behind and a line inside (both exits to the storage yard), both which needed to handle the 15" gauge Hudson skips (built in card, and very nice

So with all this grass dyed, the next thing to do was 'plant' it. It is at this point that I start asking myself why I am doing it this way. (I had the same question while laying the individual slab wall on *Wood End*.) The ground surfaces were built up using a papier-mâché base with paper towels over screwed up newspaper, and any other bits of rubbish out of the bin – most of my layouts over the years are at least 10% crisp packets! With a quick sealing coat of matchpot emulsion, followed by Mothercare PVA (it comes pre-thinned), the felt was glued on clump by clump. I really can only manage about half an hour of this at a time. Apart from the tedium, the nylon bits within the underfelt start to wear at the fingers as you pull the clumps off.

Once planted and set, the felt was teased up and trimmed with a pair of decreasingly sharp nail scissors. As the effect required was a scrubby open feel, not much other vegetation was added. One reason is that once you are into the larger scales things like individual leaves become important. So although I steered well away from trees, a bit of weedy growth was needed. This caused a bit of head-scratching until a bottle of dried parsley came into view, the stuff that you get in supermarkets. In the absence of any other ideas this was used in limited quantities around the layout. It is little problems like this that keep me amused when moving between scales, especially when there is not the commercial back-up of instant packets of this and that available and you cannot sprinkle the remaining bits of

a Woodland Scenics packet on your potatoes! (Edible layouts, here we come.)

The buildings were no less of a problem. As with the leaves, there was not the option of Slater's sheets and Wills window units. But a while before I had been given an old Hornby Dublo engine shed, the walls and roof of which could be described as 'beyond repair'. They went in the bin, but not before I had removed the window units. In 4mm scale they are a little on the large side, but in 12.5mm they make great starting points for frames of around 2' square.

Two buildings were needed, a small hut, and a larger shed with which to mask the two exit roads. The small hut, if 5.5 square inches is small, was built before the rest of the layout – a tester if you like. It is made from plywood on





too). While these are minimum gauge, they are a scale 5' wide at the top, so clearances are very tight and have resulted in an odd shaped building. This is not without prototype, but I am not awfully happy with the end result. The structure was built from odd bits of ply and launch sticks from fireworks – charred but otherwise sound! – and clad with much wiggly/hairy card, then painted with acrylic and weathered.

The last structure of note is the fuel tank. It was built by Les from card and surrounded by a brick wall made from a 1:35 military kit. Other scenic bits and bobs include fences from either bits of de-laminated ply and post and rail from dowel and cotton.

What had not been done at this stage was the ballasting. The feel that I wanted was virtually overgrown and very weedy. First the track was painted liberally with Humbrol acrylics – a mix of brick red, browns, and greys, very random to avoid any inconsistency. When just about dry this was followed up by ash worked in with a broad brush, to take any shine out, and to give a rough, dusty appearance. The underfelt grass had already been taken right up to the track edge, and now more was added in between the rails. What I was trying to get here was ballasted track that does not look ballasted. But some ballast was needed – next thought process! Ordinary commercial products were not going to work here so samples were taken from Les' gravel drive. These were sieved until a mix of fine brick dust, sand, and general dirt was retrieved. This was added to the track over the felt, allowing this to poke through, and adding sand, ash, coal dust, and tea leaves to give variation.

I think in general terms that the finished layout has turned out more or less as we wanted. There are a couple of things that I am not happy with, but a line has to be drawn some-



where. The purpose of the project was to act as a backdrop to the stock, not to overwhelm it. In this respect it has been successful.

Pinchingfield will be among the layouts on display at Expo Narrow Gauge on Saturday 23rd October in the White Oak Leisure Centre, Hilda May Avenue, Swanley, Kent. More details in 'Societies & Clubs'.

Top: the Japanese Bo-Bo propels wagons into the big processing shed.

Above: lunch break, and the dog waits for the ball to be thrown.

Below left: Elephant shunting a van.

Below: the Bo-Bo working a permanent way maintenance train.

Photographs by Len Weal, Peco Studio.





See the extended layout at the Hull MRS' exhibition this month: full details in 'Societies & Clubs'.

Extending Etton – 5

Completing the village scene

Peter Goss builds the ground base and locates all the structures to finish this extension in 4mm.

It's all in the mind
Imagination is a wonderful thing. I had a picture of the village scene in my mind several

months before completion. Although I made sketches along the way in order to plan and position items, the whole finished model,

including ground levels, trees, roads, gardens, texture and colour, was in my head from the start.



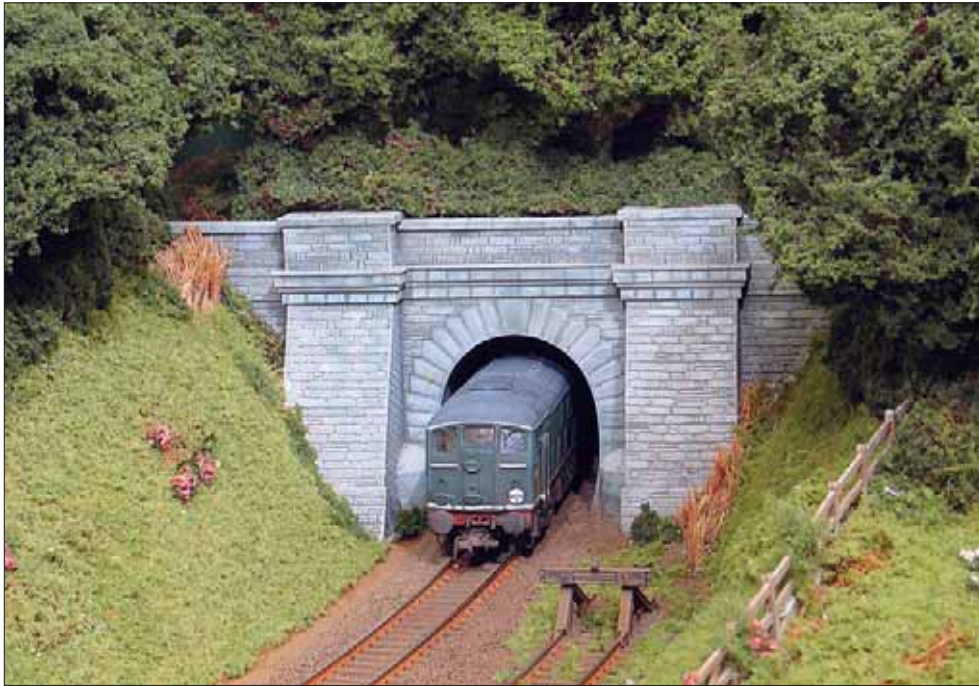
The village extension is divided into strict areas. At the left is the railway continuing from the existing layout onto the extension boards for a short distance before diving into a tunnel. The tunnel has a thick wooded area over the top to act as the visual break between railway and village that I wanted. I find it disappointing sometimes to view a layout all in one go and be able to see from one end to the

other all at once. It is far more interesting to explore and discover the model in small sections at a time. At an exhibition, I might talk to a visitor at the village end of the layout, only to discover fifteen or twenty minutes later the same person down the other end still exploring the details. I then pick up the conversation again, which is quite amusing, but if I was the spectator I would do the same.

Black gloom and musty darkness

A model railway countryside tunnel entrance normally necessitates a hill behind. I did not want a tunnel entrance positioned at the end solely to disguise the fiddle yard entry: it would have to have some ground substance and visual weight behind it to make it look convincing. The total extension length of two metres was therefore divided up as follows.





Previous spread, top left and right: the whole model village scene is only about 400mm wide, although it is 1.5 metres long. The buildings were specially chosen because of their shape and length and in particular their historic character. The clustering of the structures with trees tightly packed in is intentional and wholly correct.

There is a railway on the extension. Here it is, all 400mm length of it. Rushing out of the tunnel is a renumbered Bachmann Class B1 No.61010 Wildebeeste of Hull shed at the head of a returning holiday excursion from Bridlington through to West Yorkshire. The bridge just visible in the foreground sits at the end of the original layout.

Previous spread, bottom left to right: the bus excursion to Blackpool awaits departure. Hanging baskets outside No.39 are made from sawdust (dyed with acrylic paint) on green foliage netting and fixed to black-painted plastic-headed drawing pins. No.39's gable wall features 'Yorkshire bond' triangular brick chevrons below the stone copings. This brickwork detail is very typical of the region.

Bank House Farm House is a long thin building with tall white-painted vertical sliding sash windows. The lovely red mix brickwork glows in an orange ambience. The two black-painted circles are plates of steel connected to reinforcing rods which travel through the building as structural ties holding the front and back walls together. The grey Massey Ferguson tractor is typical of the East Yorkshire agricultural scene during the 1960s.

Townend Farmhouse sits at the very end of the layout and is surrounded by its own open lawned garden. It is a warm summer's day and one of the windows is open, as it was when I surveyed the property. Ah, perfect!

Above: a closer view of the tunnel mouth and its surrounding greenery. A BR/Sulzer Type 2 (later Class 24) emerges from the blackness and slows for the station throat.

Right: the rear of Cherry Corner. The real building also featured lots of flowers, hanging baskets and small barrows full of colourful blooms, made as described. The single storey part of the building on the left used to be the village blacksmiths. Its historical contents are now housed at Beamish Living History Museum.

The first 500mm would be exposed track running into a cutting. The second 500mm would have the track completely within the tunnel with the wooded hill over the top and also, at the front, the beginning of the village street scene. The final metre would be the remainder of the village street scene with a simple two-track fiddle yard hidden behind it (See RM August 2003, page 492, fig. 2).

The hill over the tunnel was designed to be removable to gain access to the tracks below for maintenance. Being removable, the hill includes two key features: firstly, when the hill is in place no joint or gap is visible from the top; and secondly, when looking into the tunnel mouth all that can be seen is generally black gloom and musty darkness.

The removable section has a pre-fabricated plywood base upon which the hill is constructed, and lifts out vertically in one piece by means of two secret wires fitted to the hill's plywood base and threaded up through the trees to just below leaf top level. The top ends of the wires were bent over to a hoop shape and painted dark grey. They are so well concealed that I sometimes cannot find them myself! I made two 'paper clip pen' lifting



hooks which locate in the hidden wire loops and allow the module to be removed.

Sticking three rows of lightweight black material strips on the inside of the hill base created the darkness effect I wanted. The rows of strips are spaced out from each other by a few centimetres and hang down to just above rail level inside the tunnel. Trains simply brush the strips aside and no problems have been encountered so far. Because there are three rows of strips, light is eliminated completely from behind creating a fully black and endless tunnel when viewed from the front. I reduced the three rows down to just two at a later stage, with no reduction in darkness apparent.

To add to the dimension of darkness and atmosphere I would require a sizeable number of large trees clustered around the tunnel portal and away up the hill thus forming a wood. This would add a very real vertical dimension to the layout and also act as the substantial visual break between railway and village.

In the event, so many trees have been included that the effect is quite stunning and certainly gives an impression that the railway is actually going somewhere. The heavily wooded cutting forces the eye into it, along the track and into the tunnel as a natural focal point. A subtle gap in the trees at the front will make a very good viewing point.

By virtue of the raised ground level to accommodate the tunnel, the village street scene has been modelled a good 75mm or so higher than the adjacent station building. But as the trees provide the visual break, both are not viewed together and no visual jarring occurs. The village road rises along its length by about 20mm or so before dropping down into the sunken road detail at the far end. It is assumed the village road meets with the road overbridge at the station. Both the road on the station bridge and village road are at about the same ground level.

Down to the woods

Before planning the large area of trees, some real life observation was required and several small and medium wooded areas were studied. Viewing was carried out in mid to late summer time, which matched the seasonal period being modelled.

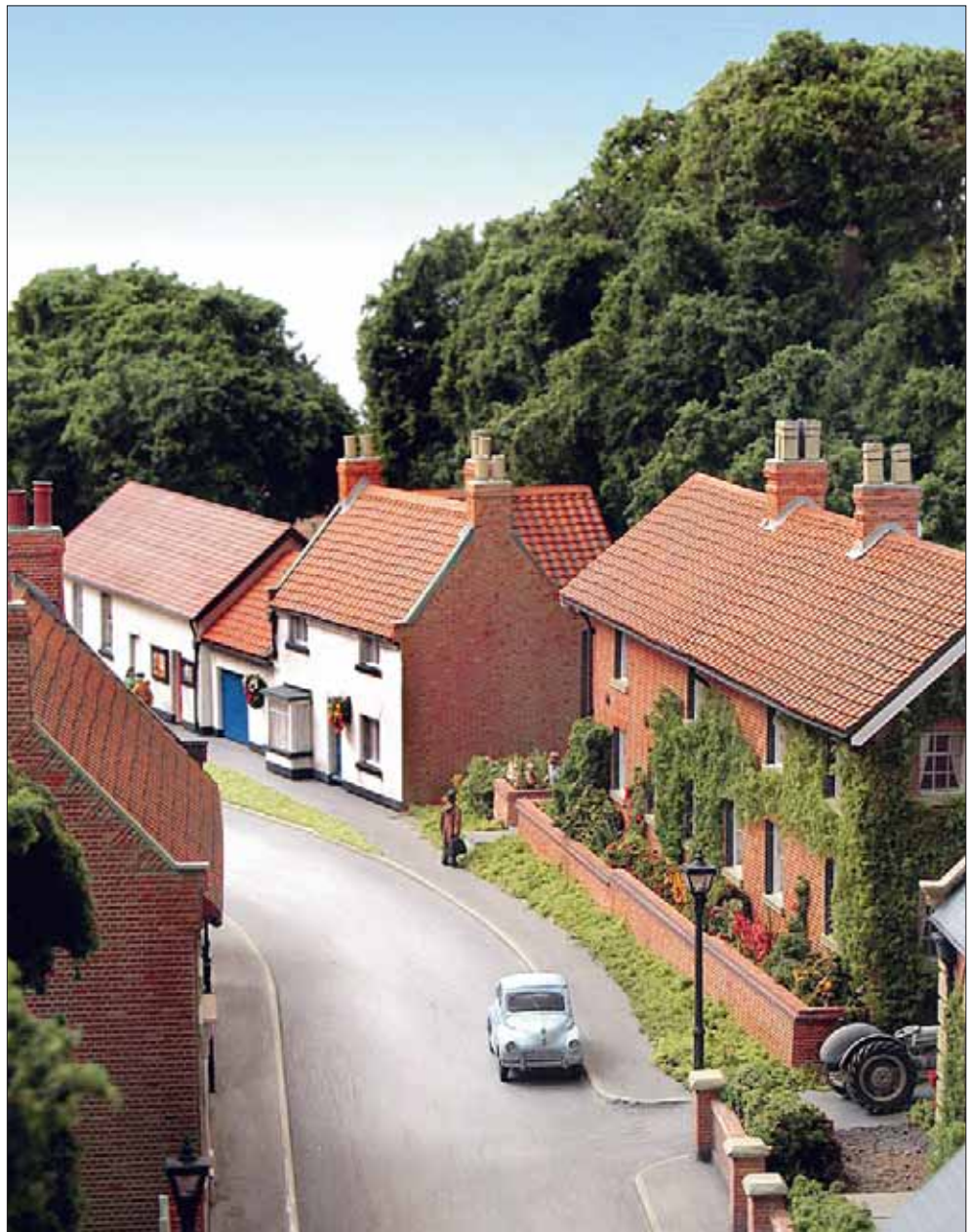
Right: a long shot showing the main road sloping down and away. The sizeable number of trees provides a high backdrop contrasting nicely with the orange and white colours of the buildings below.
Photographs by Steve Flint, Peco Studio.

The trees studied were typically found to be of one medium green colour with occasional darker ones. Each tree could be identified individually, but only just; the general impression was of one very large tree clump. The lower branches extended out a fair distance horizontally, beginning at just above head height. Around the perimeter of the wood small medium green bushes grow just inside the tree branch extremities and form a continuous vertical green screen from lower branch level down to the ground, similar to a fence. Several gaps were noted in the bush screen revealing the ground cover inside the wood of bracken, twigs and the like. All these aspects would need to be incorporated in the model.

Thirty trees were eventually modelled for the two extension boards, which when added to the existing models on the rest of the layout, total some 55 trees in all. In reality even a large number of trees seem to disappear when clustered together. Each tree was constructed to fit a particular place on the model and had a numbered paper tag on a length of string attached to its base for identification during construction. A separate diagram plan showing tree locations and numbers was prepared for reference as I went along. In the event, the dangling paper tags proved invaluable because when the gunk and spray was applied (see below) to the trees everything in or around the trunk area was obliterated.

Tree clusters effectively consist of 'half' and 'quarter' trees (when viewed from above) growing so close to each other that they seem to form one large tree. The model was planned using half and quarter trees and, once made, they nestled with each other quite tightly. Additionally I added some real twigs to representing the trunks of other trees. These were placed in and around the model trees, to bulk out the wood density visually and add to the depth of the model when viewed through gaps in the bush lines.

Tree construction uses 6mm steel tow cable as a foundation, cut into lengths of between 9" and 12". Wearing gardening gloves and using pliers, the lower part of the trunk is unwound a little bit and rewound into three or four root projections. Masking tape is wound around the root ends and also around the trunk, up to no more than say half way. The top half of the tree is then unwound completely into individual strands. The steel cable type I used has a central core of a single strand with six or seven other groups of fine wire wound clockwise and anti-clockwise around the central one. The unwinding takes tremendous patience and needs to be done one cluster at a time, rewinding again before the next cluster is unwound. With each cluster some of the single strands are partially wound back up again to form thicker branches, leaving single strands at the ends to form finer twig ends. The top branches are covered with more masking



tape and the finished tree skeleton is then trimmed to final size using cutting pliers.

The 'bark' is made from a mix of water, PVA glue, plaster powder and whatever else is lying around – the technical term I use for this mixture is 'gunk'. This is brushed on thickly and when absolutely dry, horsehair cuttings (non-rubberized) are glued to the tops of the branches to represent the smallest twigs. The whole is set aside to dry again, then sprayed a general brown colour from an acrylic car aerosol. Then I wash and/or dry brush other brown, green and grey colours afterwards to create the various shades of bark colour that can be observed on the real thing.

Finally, a course turf or other foliage material is applied to the exposed surfaces of the branches and twigs with neat PVA glue. My leaves are Woodland Scenics medium green course turf (T64). When the glue has dried any excess loose material is shaken off and the whole tree is then sprayed lightly with a water-PVA using a garden mister. This gives a final 'fix' to the foliage material.

When fully dry, plant the tree into the ground, glue card strips over the roots and fill

up the area with plaster filler to give added support. Finally the filler is painted a suitable dark colour and covered over with ground scatter and flock powders.

Ground contours

After the two baseboards for the extension were built, additional timber surrounds were added to the four sides of each so that the top of the edge timbers equalled the finished ground level. This provides both a solid edge for the boards and of course the all important damage protection during transit. In fact all the *Etton* baseboards travel in wooden purpose built crates. More work and weight I know, but well worth it for both transportation and home storage protection.

Infill ground is simply 50mm thick block polystyrene slabs and thinner polystyrene ceiling tiles fixed with neat PVA glue. The contours are cut roughly with a sharp bread knife, then Surfomed to produce gradients and levels. The whole is then covered with *papier mâché* using newspaper strips and a water/plain flour mix to give a solid crispy modelling surface when dry.

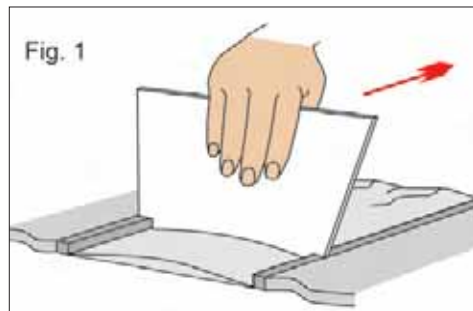
Roads and footpaths

Roads either have kerbs or they don't. Mine required both varieties. Modern concrete kerbs were just starting to creep into villages like Etton during the early sixties. Up until then, grass verges marked road boundaries, especially in the open country as they still do today.

Model kerbs can be made of plastic strip glued down to represent the road kerbs and back-of-footpath pin kerbs. Scribing the kerb joints helps with the final visual appearance but is not essential. As the base modelling surface will probably be uneven, the plastic kerb strips generally require packing up to level or to a gradual gradient using bits of card until they look right to the eye. Try looking down a real road kerb sometime and you will see that changes in gradient are always gradual and gentle.

Once set, plaster filler mixed with a bit of PVA is spread in between the plastic strips to form the footpath surface. To form the recessed road a plasticard former will be required. This is shaped to the desired road profile and includes a rebate cut out at either side to slot over the raised kerbs. The filler mixture is spread out to form the road surface and the former is then scraped along the full length, with the rebates sitting on top of the kerbs (see fig. 1). Finished kerb heights are normally 150mm high from road level, which equates to a 2mm kerb height from road level in 4mm scale.

When dry a finer type of filler could be used for the final coating to provide a very smooth



surface. It can also be sanded finely, if felt necessary, before painting. I used normal enamel modelling paint; light grey for the road, and slightly darker grey for the footpath surfaces. You will need to observe the real thing of course, and preferably on a dry day because after it rains all surfaces appear much much darker. Add a sprinkling of talcum powder to the wet paint surface to create a patchy, textured matt finish.

A final dusting with a touch of black powder (powder paint) will provide subtle weathering and clinch the look of it. This needs to be done as the very last job to blend everything together, and extremely carefully.

Walls and buildings

All the buildings on *Etton* have been made removable. This is for two reasons; for maintenance, and for possible internal lighting and detailing later. The buildings are set into the ground ever so slightly to avoid unsightly gaps around their bases. Ground levels around the buildings generally follow the finished adjacent garden level apart from where banks and retaining walls are required. Retaining walls should only be used when absolutely neces-

sary. In general building terms such walls are normally avoided if a bank will suffice.

The sunken road detail employs a broken retaining wall: that is, a wall that has failed and is starting to fall over. Thus it was modelled deliberately leaning over slightly. Painting garden walls is the same as described for the houses in the previous article, and further dilapidation can be used to show wetness and algae growth. Photographic reference should definitely be used for guidance to avoid overdoing it.

Hedges are made from rubberized horsehair cut into strips and sprayed brown (I used the same brown as for the trees). When the paint was dry I coated each strip in neat PVA and applied Woodland Scenics medium green course turf (T64). A final spray over with the water/PVA mix from the garden mister finished them off.

The gardens on *Etton* are generally of three varieties; lawned grass, flowers and borders, or rough scrub woodland.

Lawned grass is not as simple as it may at first appear. I have never quite managed to find a suitable fine flock green colour that will match my current modelling style and colours captured in photographs. Earlier attempts on the original model have resulted in a dark colour, which may need replacing at a later date. I experimented and eventually came up with a formula of one part bright green flock to one part burnt grass colour flock, mixed together in a little glass jar until a nice bright but muted green colour is obtained. Remember to note down any variance of mixture for future batches, stick a label on the jar as well and write on the mix ratio and the manufacturer's name of the flock used. Mixing flock of similar grain is the best way to obtain a decent colour to match your favourite colour photograph.

Rough scrub woodland describes the ground cover inside the wooded areas and untreated patches of rear garden nearby. A chocolate brown painted or washed ground surface is first prepared and left to dry. This can be left as raw earth in some areas if you wish. Crumpled up non-rubberised horsehair with a little green flock attached will give a decent

Left: looking up the scale width road toward Townend Farmhouse. White, red and yellow rows of plants are as planted outside Cherry Corner, just as in real life. Huge roof eaves overhang to Bank House Farm House with black painted guttering.

Below left: the sunken road detail. The road slopes steeply up to The Old School House. On the left is a broken brick retaining wall. On the right is a grassy bank with fence and hedging.

Right: East Yorkshire Motor Services bus routed to Hull. Named Pocklington Star, it ran on the nearby A1079 York to Hull road. Pocklington is a small market town a few miles away.

Below: the MGA is a kit with added clear plastic windscreen and painted cream. Village hall notice boards feature small poster cutouts and plasticard glazed fronts with black painted edges representing the timber frame surround.



bramble effect. Raw fine sawdust can be used as rotting leaf matter direct on to the ground.

Flowers and shrubs

Having someone in the family who has just received a flower arranging degree with honours is obviously an advantage! But without a doubt looking at the real thing is the best policy to begin with. The flowers on *Etton* are basically made into three structured varieties, each with varying colours.

Flower heads for all types of plants are first made using medium grade sawdust suitably sieved and mixed with acrylic paint on an old saucer. When dry, I roll the lumps between two fingers to loosen them up into individual pieces, and store them in a little glass jar ready for later use. Colours used should be pink, yellow, red, purple and white; these are the most common flower head colours. Quite an amount will be needed of each colour – at least twice the amount you think you will need.

Low lying flowers are the easiest to make first. Small solid foam clusters are broken up and glued into dry solid lumps with PVA adhesive. Then I add flower heads, simply dotted onto the lump. When fixed firmly I brush on a coat of the water/PVA for final fixing.

Second easiest to make are shrub clusters. Using some commercial tree foliage netting, I break or cut it into small clusters and make them rigid by adding the PVA glue and allowing to dry. Then I add flower heads, again using pinhead sized PVA spots dotted on, before finally re-coating with the water/PVA mix.

The third type, the most complicated but

most stunning, are small groups of tall standing flowers. I cut small clusters of long strand doormat (coir or coconut type) into lengths, paint green and leave to dry. Then I add the flower heads at one end and a little way along them stem with the PVA in the same manner as before. (Buy a doormat especially for this purpose, or else you will have to explain why there appear to be large mice in the house!) When dry, some strands are grouped together and, including some plain green ones, are glued at the base with Evo-Stik or similar, rolled between fingers and left to dry. The flowers at the top of the group should splay out. The finished cluster is then planted into a small-drilled hole and glued in place. This method is quite difficult and frustrating with many casualties but well worth it in the long run.

Climbing plants and Virginia Creepers are green or red dyed foliage netting glued straight onto building walls.

And finally...sounds like

Since completion of the trees for the extension, all the original trees on the main layout were re-covered to bring them up to the quality of the new ones. Following that several model birds have been added to the tops of fence posts, in the trees and so forth.

So naturally, I have now included sound effects to accompany the model composition in the form of a recorded cassette. Occasional sounds featuring birds singing in a summer garden accompanied by the odd lamb bleating and steam train whistle in the distance are played. Exhibition audiences now crane their

necks roofwards looking for the birds before realising they are in fact indoors. With the sound being played only occasionally, with plenty of gaps, it is not too annoying for other exhibitors either!

A postscript – signals

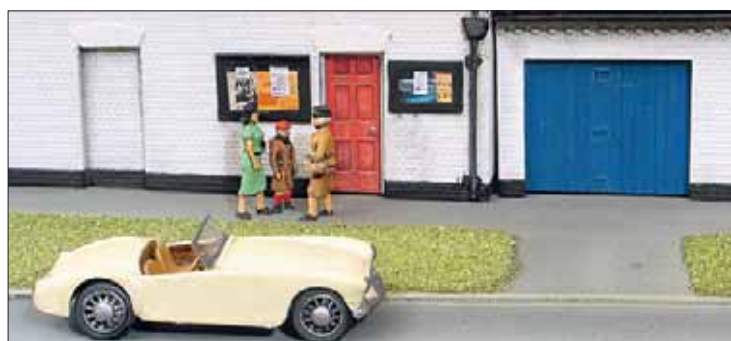
As constructed originally, the layout used a range of rail-built signals, all working with motors and servo discs under the board. These were however incorrect for the British Railways North Eastern Region and period being modelled. So I have investigated correct signaling arrangements and after talking to several colleagues arrived at a modified signalling plan.

A new set of BR (NE) signals has since been commissioned from Model Signal Engineering and will be fitted shortly. This completes all the main works to the layout, but is a layout ever finished?

RAILWAY MODELLER

With several *Etton* articles now published in this magazine, I think it only right to thank the editor, sub-editor and staff for their continued and enthusiastic support over the last few years. It is a real honour to be invited to write about and feature *Etton* in these pages.

I know from the many, many comments made at exhibitions that the public has followed my crusade from the start with the same enthusiasm. In fact a lot of people have asked for dates of past issues so that they can obtain and read up on previous articles they may have missed. So here is a list of dates with previous *Etton* articles featured.



Etton – the full story

November 2001	Railway of the Month (and CD-ROM feature)
February 2002	Carpenters Arms Public House
March 2002	The Warehouses
August 2003	Extending <i>Etton</i> – 1. Design and planning
October 2003	Extending <i>Etton</i> – 2. Building surveying
February 2004	Extending <i>Etton</i> – 3. Preparation of scale working drawings
September 2004	Extending <i>Etton</i> – 4. Model building construction
This issue	Extending <i>Etton</i> – 5. Completing the village scene

Otterburn Part 2

A Northumbrian branch terminus set in the 1950s

Ian Futers describes the construction and detailing of this small 0 gauge layout.

Part 1 (in the April 2004 issue) gave a brief *resumé* of the history and historical facts behind this small layout. The photographs provided for that article were taken when the layout was really still under construction. Some of the structures were simply posed for the photographs. There were no chimneys on the station building and astute readers will have noticed that the platform mounted signal cabin was not even in place. It took a couple of weeks of concentrated work to bring the layout alive and suitable for exhibiting.

In the April 2004 article, I went on at length explaining the reasoning behind the *Otterburn* track plan and how I have incorporated two Northumbrian stations, Kielder and Woodburn, into the layout. There are two Y turnouts leading off the main line into the freight siding. A loading bank is situated there and then a kickback siding off that siding ends in a small coal road next to the platform ramp just like Kielder. The exit to the hidden sidings is covered by a copy of the road bridge at Kielder. Other non-Border style structures will be mentioned in the text. The run-round loop comes off the main line and ends in a small sector plate at the Woodburn end of the layout. A catch point protects vehicles running onto the main line from the loop; see track plan in the April issue.

All the above was designed to fit on two fairly standard baseboards which were constructed with softwood struts and plywood surfaces. EM Gauge Society pattern makers' dowels provide the alignment between the two scenic boards. That gives the main visual section a length of 8' and a width of 17". The two boards are self-supporting with sets of hinged legs and all the screw holes are filled with plastic wood. They are then finished in a gloss clear varnish. Struts with hinges and loose pins keep the whole structure rigid. At one end there is an additional baseboard which forms the main set of hidden sidings whilst at the other end is a small 18" sector plate which allows the locomotives to run around the loop.

The visual section is enclosed totally in a stage style of setting by using two end sections (similar to solid stage tabs) which bolt onto the actual ends of the visual section. To that is added a two-piece hinged fascia board which also holds six spotlights. The spotlights act as a front of house lighting bar, and the fascia is really a proscenium arch. As a result, the front of the layout, in particular, should never be in darkness. The fascia simply bolts onto the end boards and by using adaptor plugs and sockets, the lights only need one plug which connects underneath the layout. The whole layout will dismantle in about two or three minutes



and can be erected by one person in about ten minutes. Everything is carried in a purpose built carrying frame which has two wheels fitted for ease of movement. In reality, the carrying frame can be lifted out of the car and then wheeled into the exhibition hall, assuming it is all on the level. Previous layouts have seen me and my assistants going back and forwards to the car many times in order to collect all the bits for the layout including stock boxes.

Once set up, the layout has a drape (to match the varnished woodwork) which fits around the main sections and the whole creation simply needs one 13amp socket to set it into operation. There is a mains box with sockets and transformer, inter-baseboard leads, three stock boxes, a couple of controllers and a basic tool kit.

Once the baseboards were built, some thought was given to additional struts to hold the two overbridges and roadway as well as some of the embankment shapes. A firm plywood backscene was also fitted along the two sides and backs of the baseboards. Underneath the Kielder end bridge would be the control panel so the openings were cut out in the backscene to enable these important items to be reached in case of maintenance. The control panel was drilled and painted to receive its track diagram and then the switches were fitted and wired up with the feeds and return wires. The feeds for the track and turnouts came directly from the transformer box via speaker sockets.

As soon as I was happy with all the above, and the layout had been erected and dismantled a number of times, thoughts turned to laying the trackwork. Cork tiles were glued down onto the baseboards in readiness for tracklaying. The kickback siding required two Y turnouts and a left hand turnout would be required for the main line and run-round loop. A small catch point was also required for the loop in order to protect it.

The trackwork is Peco bullhead and the Peco rail joiners are cut down in size slightly. Track and turnouts have small fixing holes drilled every six or eight sleepers. These holes are then countersunk because I use small 1/2" No.2 wood screws to fix the track. As usual, much use was made of the eyes to obtain the correct alignments. Over baseboard joins I laid long lengths of track and then once the track was fixed down the rails were cut through. Great care was taken at the ends of the baseboards which had rails which would form isolation gaps. I make the gap wider than I should invariably to allow for expansion in hot exhibition halls.

The point motors were added along with the associated polarity wiring. I use the SEEP variety but place them on a small piece of foam so they are not screwed tight against the baseboard. I allow them to move slightly as their baseplates can distort if you screw them up too tight. The rest of the wiring was added in neat looms running along the softwood struts. Cable clips keep everything in order.



Left: J21 0-6-0 No.65042, a typical 'Northumbrian' locomotive waits to depart the station with a short freight.

Above: signal box based on that at Kielder Forest. BR North Eastern Region tangerine nameboard.

Above right: a BR mineral wagon stands at the coal siding.

Below: a close-up of the MSE Stevens ground signals. The track is Peco 7mm bullhead.

Below right: the G5 about to back under the bridge in order to run round its coach via a sector plate.

Photographs by the author.

Where there is a rail joiner fitted to allow for power continuity, I also add dropper wires linking the rails. This gives added protection should the rail joiner ever work loose.

Everything was taken to the sub-miniature control panel and rather than fit the transformer into the layout, I constructed a power box which has the transformer, two mains sockets and a small compartment for storing the layout's wires and bolts. This box is painted bright yellow and sits underneath the layout so that the two 18v leads can easily reach the two sockets near the control panel. This is a system I used many years ago when I first started out exhibiting. As long as I do not forget to take the yellow box, all will be well. That was



the main reason for commencing to fit the transformers into my layouts. However, we blew a transformer up, strangely enough at the 2002 Newcastle Show, and as it was hidden behind the backscene, it was a bit of a job to change it over. I remember way back in about 1973 I did the same thing with a transformer, again at a Newcastle Show!

Once the track has been laid and the electrics fitted, a period of playing trains takes place. All the stock which would be utilised on the layout was tested, and clearances were checked out. After all the preliminary planning and subsequent construction, I find this period very satisfying. I am sure I would be quite happy exhibiting the layout at this stage because there are many elements of its development that will shortly be hidden under scenic details. These details I install as second nature because I want the layout to operate well at every show where it appears. I do not want to spend my time at an exhibition clutching a soldering iron fixing faults, although problems can sometimes occur. Many problems you see on layouts are frequently simple power continuity faults or the result of poor soldered joints. I test each section of track as I go along but even then difficulties can occur.

The end fascia support boards were fitted during the tracklaying stage because the hidden siding board and the sector plate tracks had to be lined up carefully. The lighting fascia was also constructed and varnished. It is actu-

ally quite useful having the layout lighting working when the scenic work commences.

The first stage of the scenic work consisted of the two end bridges being constructed *in situ* using offcuts of softwood and plywood. The backscene was also fitted in at this stage. The whole of the backscene was then painted my usual sky colour. The platforms and loading bank were added as well as some formers at the front of the layout to form the embankment frame and roadway at the rear of the layout. The Slater's stonework was suitably weathered and then added to platform and loading bank before ballasting took place.

I used my preferred method of ballasting which is basically a 50/50 mix of fine (4mm scale) granite chippings and powdered glue. I use this smaller grade of ballast in order to represent the typical North British ash ballast found on many of their lines. This is mixed together in an old ice cream tub, with the lid firmly on and then carefully sprinkled over the trackwork. A small 1" brush is then used to move the mixture between the sleepers evenly although the sidings are slightly more uneven. Once I am happy with the result, a flower spray is filled with warm water plus a dash of washing up liquid and the whole layout is sprayed. I think I use too much water, but I am trying to achieve a completely hard finish to the ballast first time round. It never works like that because extra filling in is always needed where loose pieces are found.





The whole layout is left to dry for at least twenty-four hours. Once dry, if the loose areas are quite small I will simply drop some PVA glue onto it. If the area is much larger, the mixture of ballast and powdered glue is used again. The baseboards are banged from underneath to remove any loose ballast there may be. Then the ballasted areas are 'hoovered' to pick up further loose ballast.

Care needs to be taken at the ends of the baseboards and around the switching gear of the turnouts. The glue will also stick to the rail head so that also needs cleaning up. Further track testing is carried out to remove any small individual pieces of ballast and once that task is completed, the whole of the trackwork and ballasted areas are sprayed with Satin Black. The track rail head is cleaned immediately after the spraying, edges as well as tops, and the whole layout is left to dry out once again. Further testing of the stock takes place to iron out any areas of track which are failing to pass on the power to the locomotives. Quite often it is simply a small amount of paint which has been missed in the initial cleaning of the track. The last job to complete is painting the visible edges of the rail the traditional rusty colour.

Because the layout does a lot of moving about, many of the above mentioned structures are well and truly screwed to the baseboard surface or indeed the backscenes. The backscene is certainly given added strength by all of this.

I fabricated the typical North British sleeper built buffer stops from two pieces of softwood and then screwed them in between the track. They were detailed with strips of wood to represent old sleepers. A length of rail was fitted around the buffer stop, so typical of the North British. The final bit of infrastructure was the roadway leading off the Kielder road bridge. The iron fencing was fabricated from plastic card and brass wire threaded through pre-drilled holes. The only thing which is not typically Kielder is the retaining wall behind the loading dock. It was the only way to model the embankment in the space available.

All of the above only took a couple of evenings to put in place and the final part of that was to glue the Slater's stonework plastic sheet to the areas which required stonework. It was weathered with my usual matt black paint which was wiped off immediately. Odd stones

were then picked out in other shades remembering that sandstone is the predominant material for structures in Mid and North Northumberland. They do, however get blackened with age and I have a few photographs taken in that area to illustrate the issue.

The next stage was to fit embankment formers and for this I utilised a variety of methods including one I have used for over thirty years. I use offcuts of the old wood fibre insulation board cut and shaped to fit a particular site, and then covered with my own rather messy version of plaster bandages and then finally smoothed over with a wash of plaster. I have used some old dental plaster for this basic shape making and it has hardened very nicely.

The basic ground cover came from a totally unexpected source. Whilst in Austria for a holiday in the snow I visited a model shop in Innsbruck to purchase a Roco locomotive and my other half spotted some fibre grass underlay by Busch. The colours were not garish and it was quite tufty so I purchased a roll without giving too much thought as to how I was going to put it in my suitcase! On returning to Blighty I experimented with it and all seemed well. I covered the edges by sprinkling on some Woodland Scenics which seemed successful.

All sorts of small details were added such as the fencing, taking care to give the wood a weathered or distressed look. The sleeper fence behind the signal cabin attracts quite a lot of attention. It is simply those wooden coffee stirrers found at posh coffee shops, usually on stations. I glued them onto a plywood sub frame and eventually firmly fixed the lot to the baseboard. It was sprayed in grey undercoat and then dry-brushed using various greys, greens and dusty shades. Literally a few minutes work. Unless the fences had been creosoted recently, there is no point in painting them brown. Varying hues of grey and green are the order of the day in this department. A short section of old rail and wire fencing was also installed. This was a nice soldering job and again the final result was firmly fixed into the baseboard.

Quite a large amount of Woodland Scenics foliage was spread about in particular at the foot of buildings or fences. However it has to be remembered that during the steam era, trackside growth was certainly contained, in order to avoid lineside fires. The trackwork and its appearance was of a very high stan-

dard on many of the Northumbrian and Border branches. It was only towards the end of their life did weeds start to accumulate.

A start was made on the main structures constructing them from 3mm plywood. The station building, which is a smallish version of the one at Woodburn on the Wansbeck line, had Slater's plastic stonework added as did the signal cabin which was based on the Kielder Forest box. This box was a standard Border Counties design. I had measured the box at Falstone many years ago and with the aid of photographs, especially the rear wall view of the one at Wall, it was a pleasant task completed in the comfort of my study. The loading dock is a copy of the one at Kielder and only required dirtying and detailing with clutter including two movable cattle fences so typical of the Border stations. These portable wooden fences were placed at the doors of the cattle vans and sheep or cattle herded off the dock into the van. A bit like the modern typical model railway exhibition barrier!

Attention was paid to detail such as the window frames and station nameboard. The latter is finished in the BR North Eastern Region tangerine paint indicating that the line would have been part of that region despite being so close to the Scottish border. Actually, the Border Counties line survived until 1956 (passengers) and 1958 (freight) and never seemed to receive any of the 1950s style totems or colour schemes, the original black nameboards with white lettering remaining until the end. However, I do feel that a touch of tangerine gives the layout its identity and certainly many older visitors to exhibitions will recognise this. Closer inspection of the nameboard will show that it is made up of two planks of wood. I of course used plasticard but attempted to incorporate the two planks. I did this because our editor sent me a family snapshot he had received from someone showing the Kielder Forest nameboard, and it too had the groove between the two planks. A little touch, but I know it is there.

I have also constructed an MSE lattice post signal to act as the starter signal. This has no ladder as signals on many NBR lines had the oil lamp hoisted up and down the post using a set of pulleys. I have also added a modicum of point rodding which was square section plastic rod suitably weathered. The wooden planking running more or less the length of

Far left: J36 65313, a long way south of its Scottish depot, shunts a solitary open wagon into the siding. Note the working catch point.

Left: the J27 has just drawn forward of its wagons. Towards the end of steam, such locos were used on the Northumbrian branch lines.

Right: arrival of the G5, slowly passing the slender NB signal.

the layout is supposed to represent the planking used in the Borders to cover point rodding so that snow would not clog it up in winter.

The roadways and station yard areas were suitably painted and a small pile of coal was modelled alongside the short coal siding which is off the main loading bank siding. Small cameos of clutter were put in place and at the same time the station platforms were detailed including the typical stone slabs placed in front of the station building and along the platform edge. This was plastic sheet filed and grooved. The rest of the platform was covered in granite chippings and painted.

A small amount of fencing was also fitted by the station building, again suitably distressed. This in fact is a product from the Parkside range and I have been informed that it was scaled down from typical NBR fencing, having been measured up by Parkside somewhere in Fife I believe. Small station platform flower beds were made with offcuts of plasticard and then filled up with Woodland Scenics foliage. This was then dotted with some yellow and red paint to represent flowers. Black oil lamps were made up exactly as seen in a photograph of Woodburn taken in the early 1960s.

My vast collection of Border station photographs was constantly checked including many of my own shots which have amazingly been taken some fifty or so years after the Wansbeck lines closed.

Slowly but surely the detail was added. A single figure has been placed on the platform although his clothes need toning down a little to represent 1950s drabness. Other figures have been added, mainly in the locomotive driving and firing departments. I think there are two passengers in the branch coach so that is about par for the course.

Thoughts had been given to what stock was to operate the layout but in any case, the typical locomotives found on the Border branches were already noted. There is a G5 0-4-4T (65296 of North Blyth shed) for use on the passenger train. This is a George Norton kit built for me by the late Alan Cook of Tyneside. It runs well on a compensated chassis and is in a weathered early British Railways livery. Also built by Alan is the typical Northumbrian J21 0-6-0, No. 65042, and this again a George Norton kit finished in a weathered condition. This is usually the freight locomotive, but they can and do get swapped over sometimes. The heavyweight J27 0-6-0 (65860) should possibly not be used on what was probably a light RA3 line although I pretend it had been an RA5 line when it had been fully open across the Border. In fact the J27s were utilised on the Wansbeck line right at the end of its life in the mid-1960s. That was when the line was only



open between Woodburn and Morpeth. So there is a precedent for using such a heavy locomotive on *Otterburn*. The J27 is now available as a DJH white metal kit and weighs a ton. Complete with a flywheel it can take some stopping. The G5 and J21 are now available from Four-Track Models.

These three locomotives have been around for quite sometime now and it is a tribute to the quality of Alan Cook's building that they still run extremely well. Other locomotives can make an appearance although I prefer to operate the line as it would have done with mainly ex-North Eastern Railway locomotives. I will frequently bring out one of my newer locomotives, an ex-North British Railway J36 0-6-0, which was produced from a Connoisseur kit in the Claymore Range. This class was originally shedded at Reedsmouth and Rothbury, but as the period set for the layout is 1952, they had been transferred back to Scotland.

Rolling stock has also been around for quite a few of my 7mm layouts but only a small amount of stock can be fitted onto *Otterburn*. I tend to use about five or six wagons and vans along with an unfitted BR 20T brake van. All of the stock is made up from Slaters and Parkside kits which have been distressed or weathered. Many have been featured in these pages before but during late 2003 I did construct some new kits including some standard BR vans from the Slaters range. If my layout is based around 1952 I can just about squeeze the planked version into the equation.

One of the mineral wagons has a removable coal load. This was a request from Steve Corrigan who operates the layout with me. He wanted to be able to swap the loads around, bringing in coal and then running the wagon back out as an empty. I think he intends to wait until no one is watching the layout

before swapping the loads! Much of the stock is copied from actual freight trains found in photographs of the Border branches and as a result includes some LNER, SR, GWR or LMS stock, of which in 7mm scale, there is plenty of choice.

Operation of the layout can be quite interesting as frequently a coal wagon is replaced in the very short siding provided for that trade. Careful use of the loop is required if such things as brake vans are not to get placed in the wrong location. As the freight siding is quite short, train lengths can rarely be over two or three wagons or vans. Most of the actual shunting can be done 'on-scene' but when running around the loop, be it passenger or freight, the locomotive runs onto the short sector plate, although in reality, at Woodburn it ran over a crossover of course.

The passenger service is simply made up of one Gresley brake third four-compartment suburban coach. This was made up from Ian Kirk mouldings and it has a full interior fitted. It has compensated bogies and runs very well. It brings back memories of the one-coach local train to Eyemouth (which actually used a brake composite coach usually) or the local service to Rothbury from Morpeth. The Saturday-Only fortnightly service between Hexham and Kielder Forest was also usually only one coach, but invariably a corridor brake third Gresley main line coach. So, one-coach locals were a familiar part of the Border scene.

***Otterburn* is booked to appear at the Newcastle (November), Warley (December) and Normanton (January 2005) exhibitions. See our 'Societies & Clubs' columns in the appropriate issues for full details.**

...an exchange of railway modelling ideas for beginners of all ages

First steps in 0 gauge

Building a Tower Collection Andrew Barclay 0-4-0ST beginner's kit

Tom Lewis (15) tells of his first successful attempt at building an 0 gauge locomotive.



Above: the completed model unpainted (photo Peco Studio) and painted.

My Dad got interested in 0 gauge about four years ago. Like me he had had a train set as a child and had retained some interest. He started by building a few Slaters and Parkside wagons and finally bought a Tower Collection Class 02 diesel shunter kit. This was described as being a kit suitable for complete beginners and it must have been good because he managed to build it without any problems. He went on to build a couple more larger diesels and the house started to fill up with 0 gauge.

Finally I decided to take up the hobby again. Dad likes diesels but I don't. I wanted to build a locomotive but was only interested in steam outline. Given the high cost of kits (especially if you are still at school!) I had to get it right first time.

Cheapest option appeared to be a Mercian 'Winnie' starter kit. Priced at £69.00 it seemed to be a bargain. To this has to be added wheels, gearbox, motor and couplings bringing the total price up to about £142.00. My Dad took me to the Gauge 0 Guild event at Chippenham and I was able to look at the kit. Although I liked the locomotive type the kit is mainly etched brass with some whitemetal parts. It would obviously require mainly solder construction and I wasn't sure if I was up to it. I decided to continue looking.

A friend of my father showed me a Springside 'Pug', which was supplied complete with wheels, gears and motor and I could expect to pay around £175.00 for it. It

was useful to me being able to examine the finished model. All the body parts were made of cast whitemetal so could be glued instead of soldered. However it appeared rather complicated in its construction so I decided against it. I then got a chance to see other models of similar price in the Springside range by looking at a website. I am told the Manning Wardle and the 'Coffee Pot' are both easier to build but I just didn't like the prototypes.

The next exhibition to which Dad was taking me was the Association of Larger Scale Railway Modellers event at Reading. Prompted by my family I rang Tower Models and asked the firm if it was attending and if it would have a sample of its Andrew Barclay beginners kit. The company said it would be there and that there would be a built but unpainted sample on display that I could handle.

A week later at the exhibition I had chance to examine the finished item and to go through the instructions of the kit. The instructions seemed very well detailed and I was impressed by the completeness of the kit. It even included the Allen key for fitting the wheels. What is more, if it was as easy to build as the Class 02 diesel then it should be no problem. After all, my Dad had succeeded, so why shouldn't I?

It took all my birthday money from my parents and family to buy the kit which was priced at £179.95. Dad told me I could use his solder, soldering iron and glue so that would save me a few pounds. I also knew I could rely on help from his friends at the club if necessary. I resisted the temptation to start it as soon as I got home and waited until the following weekend before commencing building. I spent a few hours in the days between to read the instructions and familiarise myself with all the parts.

The following Saturday I decided to start work on the building. The kit came with twelve pages of instructions including a number of exploded diagrams so I began by re-reading them. Tower Models had described the kit to me as a screw and glue type kit that requires minimum amounts of soldering. All the body parts could be glued together with two part epoxy resin. Only pickups, the wiring to the motor and a few small parts would need to be soldered.

The instructions suggest you start by building the body. The saddle tank is cast in one piece in pewter. Everyone tells me this is better than whitemetal because it is stronger, melts at a much higher temperature and contains less lead. The saddle was cleaned up with a smooth file but was basically free from flash. It was now necessary to drill the holes for the handrail knobs. To be more accurate, you have to deepen the holes using a 1.4mm drill. Dad

Top of page left and right: major body castings – boiler, saddle tank and cab – prior to cleaning up; body parts dry-run assembled prior to cleaning up.

Centre: brass chassis with cylinder block in place; and close-up of motion showing pick-ups in place.

Bottom, left and right: completed body from offside and nearside, taken prior to painting.

Photographs by the author.

let me use his Minicraft electric hobby drill. I managed to deepen all eight holes without breaking the drill bit. The handrails can then be fitted in place. Dad told me it would be better to solder the handrails in place but I fixed them with careful use of superglue. The handrail wire was then fitted through the knobs and again I used superglue to secure them. The chimney, water filler lid and whistle are now ready to be glued in place using epoxy resin.

The lower half of the boiler is also cast in one piece. The smokebox door handle needs to be fitted to the smokebox door after deepening the hole with a 1.9mm drill. The boiler, saddle and smokebox can now all be glued together, again with epoxy resin.

The cab is cast in one piece. A few small parts have to be glued to it such as the brake handle and cover. The backhead is a separate piece and has to be glued in place with the regulator fitted. It was now necessary to fit the buffer beams to the front and rear of the footplate. I would have glued this but an interfering father stated it was time to test my soldering skills. He argued that the buffer beams carry the couplings and hence need to be securely fixed in place. Maybe he had a point but I was still a little nervous.

Out came the soldering iron, a liquid flux and some 70 degree melting point solder. As Dad pointed out if I made a mess of it I could drop the parts into boiling water and it would melt the solder but not the parts. That was, as he pointed out, providing I didn't burn a hole in the metal. I was not allowed anywhere near Mum's best pans should I make a mistake during the soldering.

The soldering iron was allowed to heat up and liquid flux applied to the parts, the tip of the iron and the solder to be used. I applied the iron to the solder, melted a bit onto the tip of the iron and applied it to the joint between the bufferbeam and footplate.

Amazingly it worked, it really was that simple. A little more solder was applied to give the joint strength and then the buffer beam at the other end of the footplate was soldered in place. With me feeling more than a little pleased with myself we took a coffee break.

Returning to the job I then glued parts such as the tool boxes and reversing lever in place. With the footplate completed it was laid aside. The handrails are now fitted to the cab sides, following more drilling with a 0.7mm drill. The cab, assembled saddle and boiler all screw fit onto the footplate. The buffers, steps and couplings can now be fitted.

Four hours after opening the box I had fin-



ished the body. I decided it would be better to quit while I was winning and to leave the chassis until the following day. The chassis consists of a preformed heavy brass channel with all the holes already drilled. The wheels and axles supplied with the kit are Slaters. The wheels are assembled on to one side of the axle, then passed through the chassis and the other wheel fixed in place. A balance weight is then stuck onto the wheel. Crankpins, which are also supplied with the wheels, need to be fitted before the wheels are fixed to the axles.



The complete cylinder block is a casting. The cylinder end caps have to be fitted in place and the whole assembly soldered to the chassis channel. As I was now soldering pewter to heavy brass this was a first for me. Lots of heat, plenty of flux and crossed fingers all must have helped because it worked. The gear had already been fitted to the axle when the wheels were mounted to the chassis. I left the grub screw loose so that I could settle the position of the gear once the motion was in place. Tower Models had told me to elongate slightly the holes for the motor screws which would allow adjustment to the fitting of the motor. A dry run, fitting the motor in place with the screws and loose fitting the worm proved this to be unnecessary. However, it was a tip worth remembering.



The grub screws were tightened on both the worm and gear and power supplied to the motor just to give it a test spin. So far so good, but next came the motion. This was supplied in etched nickel. Only the crosshead was a pewter casting.

The slide bars were so well designed they just folded up into shape. This was something I was dreading as I had seen my father's friends struggle with complicated valve gear on other kits. This all but fell into place, so much so I had to double check the instructions to make sure I had not overlooked something. The connecting and coupling rods were all fitted with the nuts supplied. The pickups had already been fitted in place using low melt solder to secure them to the copperclad circuit boards. Wire could now be run through to the motor and secured by low melt solder. The time had come to test the locomotive.

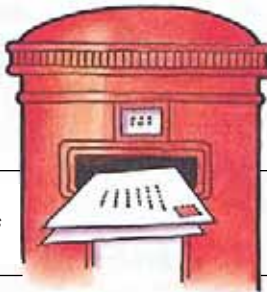
To my relief the model ran fairly well straight away. A few very minor adjustments were made to screws, nuts and the pickups. A very small amount of oil was applied to the worm and gear and the locomotive left running against a block for twenty minutes to allow it to bed in.

A few nights later I was able to take the loco to the club for its first run. It was still unpainted at this time but at least it worked. I have since painted the locomotive black using car undercoat and matt black cellulose spray paint. It is necessary to remove the wheels to paint the locomotive unless you paint the chassis frames before assembly but I didn't think of that.

Summing up I have enjoyed building this locomotive kit and am extremely pleased with the result. An 0 gauge locomotive kit is not cheap and from what I have seen the quality varies from one manufacturer to another. The kit I bought was complete, well designed and truly simple to construct. I feel the finished item is something of which I can be proud. Obviously, due to financial restraints (birthdays once per year and now eagerly awaiting Christmas...) it will be some time before I can afford another kit but if it works out as well as this one I will not be disappointed.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

A SIMPLE SOUND SYSTEM

Following publication of my article on 'A simple sound system' (RM September), the matter of suitability for use with certain varieties of feedback controller has been raised. I have consulted Trax Controls and understand that the firm does not recommend the use of its sound modules with pulse width modulated (PWM) types. For my own part, I can say that since building the unit three years ago it has been used with the KPC switched feedback handheld type regularly with great success.

Trax Controls has also indicated that it would be willing to supply the units without the presets on the circuit boards and with flying leads and suitable pots instead for anyone who wishes to emulate the article.

The system can be seen – and heard – in use when *Sutton Wharf* is exhibited at the Warley (4 & 5) and Wigan (11 & 12) exhibitions in December.

CHRISTOPHER PAYNE

'SALLY ARMY' IN 4mm SCALE

I would like to thank you for publishing the article by Ken Ball in the August issue [*Victoria Square* – Ed.] and for showing the model Salvation Army Citadel on p.442.

It's a great pity that a 4mm scale Salvation Army band doesn't appear to be available: this I feel sure would please many modellers.

What about someone helping us out with this, please?

MICHAEL BISHOP

BACHMANN CLASS 40

An avid Class 40 enthusiast I have been eagerly awaiting the release of the imminent Bachmann model. My attention was immediately drawn to the Bachmann advertisement on page 23a of the September issue, where there are photographs of 40 075, D325 and D368. My first impression is that the long wait for these models will have been well worth it.

However, at the risk of seeming churlish, given the superb overall quality and accuracy of the new models, I could not help noticing an error in the cantrail grille arrangement on D325. The three-grille section at the No.2 (boiler) end of the locomotive should be long-long-short, and not the long-short-long arrangement depicted,

which only applied to locos D200-D259, D267-D286, and D305-D324, i.e. exactly 100 of the 200 locomotives produced.

It is not clear whether the picture of the model of D325 in the Bachmann advertisement is just a pre-production sample, in which case the cantrail grille arrangement may be misleading on the photograph. If not, it is certainly

Below: to illustrate Mr Mitchell's point, here are two Class 40s, showing the side in question. D301, near Stafford with the Emerald Isle Express, depicts the last three cantrail grilles running long-long-short toward the cab. 40 056 (ex-D256) however shows them running long-short-long.

Photographs: BR (LMR & CPU).



incorrect, and will also be incorrect on D368 in this event. What a great shame this would be, given the obvious care that Bachmann has gone to in modelling the different roof hatch and boiler port arrangement at the No.2 end that applied to D260-267, D287-D304, and D325-D399.

Hopefully the error, if true, can be corrected on subsequent batches, and that Bachmann will follow Hornby in its approach to its unrefurbished Class 50, where the firm acknowledged readily and corrected an error in the bodyside window arrangement on the three-grille side, further to improve a very fine model.

DARREN MITCHELL

The error is real, unfortunately: see overleaf for our review of D325 – Ed.

AIRFIX PAINTS – ANY STOCKS?

On several occasions in past years through these pages kind readers have kept me supplied with obsolete model materials such as brick papers. May I once again call upon anyone who has supplies, no matter how small, of Airfix enamel paints?

These paints match exactly the colours used on Airfix wagons and can be used for touching up damaged areas. Using other brands would be cheating! I do have some stocks but these are running dangerously low, due to drying up of the contents in most cases.

The range covered matt colours M1-M25 and gloss G1-G18. Gloss colours were not used on the ready-to-run range but are mentioned on some kit instructions.

May I, as an Airfix fanatic (and preservationist!) thank everyone in anticipation.

P. BOULTON,
55 Pembroke Street, Aberdare,
Glamorgan CF44 7BH.

GQS – AN UPDATE

There is an amusing tailpiece to my letter published last month. As I set off to post it – on a Sunday – I could hear a train coming from the east. I watched bemusedly as an EWS Class 67

Right: as these pages were being prepared, Ian Futers provided these views of two topics under discussion. The North British drinking fountain preserved at Bo'ness does not appear to be the one referred to in the letter by R.D.A. Johnston last month: it lacks the Alloa example's decoration. The Strathclyde 156 was photographed at Glasgow Central on 8 September this year, when forming the 10:42 to East Kilbride.

Photographs: Ian Futers.

passed hauling two GNER Mk 2 barrier vans, followed by a Mk 3 HST buffet car in latest Midland Mainline livery! This was probably heading for Glasgow Works (or Craightinny?) to be used as a stencil/paint guide.

One final item I missed in the list printed on p.594 was a Silverlink Country Class 150/1 seen heading south one afternoon, likewise after overhaul at Glasgow Works.

Incidentally since writing the letter my son and I came home from Glasgow recently on the 15.19 from Central via Carstairs (the 318 working I referred to in the letter). I haven't been over this route since about 1990!

Finally if anyone isn't convinced about 1950s BR being great then I suggest a look at *Bishop Wearburn* and the photos on pages 557 and 559. The setting may be County Durham but it's similar to what I'd like to model myself (anyone got a buckshee Hornby *Blink Bonny?*).

ALEX RANKIN

I refer to the letter from Alex Rankin in the October RM about Ian Futers' article, and would like to answer the question about Strathclyde 156s visiting the West Highland Line.

In common with the lines north of Inverness, the West Highland Line is worked by a small, dedicated fleet of units which have been fitted with Radio Electronic Token Block (RETB) equipment and had their wiring modified to accommodate this. No other units have been so modified and are thus barred from RETB routes.

Although a small number of battery powered 'portable' RETB sets exist for special circumstances (e.g. for use by steam locomotives) it is unlikely that one would be used on a normal service train.

Keep up the good work!

DAVID TURNER

SOUTHERN ELECTRICS, PLEASE

With reference to the article on *St Denys* and the editorial in the September edition.

It was good (even for a dyed-in-the-wool GWR modeller) to see a layout devoted to three-rail electric.

But – in my many years of reading the *MODELLER* I cannot recall ever seeing a layout devoted to Southern Railway third rail operation. With the likes of Ian Kirk offering kits there must surely be someone out there doing this. It would be lovely to see a genuine SR layout of suburban electrics, non-corridor, like the ones wherein we were 24 to a compartment during the snows of 1963 – my fairly brief excursion into commuting to London. I only wish my skills were up to building something suitable myself.

Thank you for an inspiring magazine.

DAVID GEGG



BACHMANN 158

With reference to the review of the Arriva 3-car 158 unit from Bachmann (p.597, October), I acquired one of the models at the Halifax Model Railway Show on September 25 and am pleased to report that it's formed correctly; coaches 52799-58716-57799. Furthermore, 52799 does have the gold stripe above the windows to identify the first class area.

Bachmann must have sent you a misformed train in its rush to get one to you for review!

CHRIS DUNNETT

WHEELIE BINS – THE FACTS

In part 1 of the article by Andrew & Simon Tucker article regarding their *St Denys* layout they say they were unable to determine the dates of introduction of 'Wheelie Bins' in the area.

As an employee of Southampton City Council I have contacted the Council's Waste Collection & Recycling Section who tell me that the exact dates for Adelaide Road are not known but that the original 6-month trial started in September 1995 with the rest of the city being phased in over an 18-month period following the completion of the initial trial.

So Wheelie Bins were introduced to Southampton between September 1995 and September 1997.

ANDREW KNIGHT

CHIPPING ONGAR, GER

I am writing to ask if anyone has any information on the Great Eastern branch line from Chipping Ongar. I do have a book that covers Essex on what is now the East Coast main line, but there are two separate accounts of where the line ended. There is one account saying that it ended in the



Witham area and the other says it ended in the Chelmsford area.

If there is anyone who knows could they please contact me.

SEAN BARLOW,
83 Hyde Way, Wickford, Essex
SS12 9BS

COALVILLE TOWN, MR

Recently I have made a start on recreating the complete railway scene in Coalville, Leicestershire and was wondering if any readers could help me in this. The layout will be quite large and sprawling, a bit like the original, the track plan being based on the 1901 Ordnance Survey map. The initial building, which is currently being worked on, is the location's second locomotive shed, which is just under a yard long in 4mm scale!

Coalville was on the original Leicester & Swannington Railway, with the station originally known as Long Lane after the lane crossed by the railway at this point, and opened in 1833. With the opening of coal mines in the area it became known gradually as Coalville and rapidly expanded from a scattering of farms and a couple of coal mines into a thriving market town. The line was eventually taken over and incorporated in the Midland Railway line between Leicester West Bridge and Burton-on-Trent. The station was renamed Coalville Town in 1924 by the LMS, the former LNWR station being Coalville East. Coalville is the 'capital' of North West Leicestershire today, even though the mines which created it have been gone over 20 years and the station closed in 1969.

The plans of the second engine shed were in the January 1965 issue of *Model Railway News*. I wondered if any readers know if there have been plans

of the other buildings, such as the original engine shed, the station, the signal boxes, the water tower, the coal offices etc already published in the railway or model press. Unfortunately, if the original plans and elevations exist, they are unobtainable as they will be in the keeping of Network Rail, which does not welcome historical enquiries. Obviously, any photos I could borrow would be useful, especially any of things like the cattle dock or the coal offices which seemed to be rarely photographed; photos lent and would be returned after copying.

As well as the normal post I can be contacted on:

coalville_midland@hotmail.com
or 07733 254772. If leaving a message please speak slowly and clearly, especially when leaving your number, as my hearing isn't all it should be!

CHRIS NORTH,
128 Somerton Drive, Erdington,
Birmingham, West Midlands B23 5SS.

PECO ELECTRO-MAGNETIC UNCOUPLING HINT

When using the above system, there is an easy way to extend the magnetised area and thus have greater sensitivity than the magnetised rods permit with N gauge.

It is to cut strips approximately 20mm x 5mm from the top piece of a fret of coupler lift arms (NR-103), bend it slightly and stick one end to a sleeper across the magnetised rod.

You have thus lengthened the effective coupling area up to almost 20mm and made uncoupling much less exacting.

I hope that this helps other Peco users. I am on my sixth layout and have only just worked this out!

RON LANE

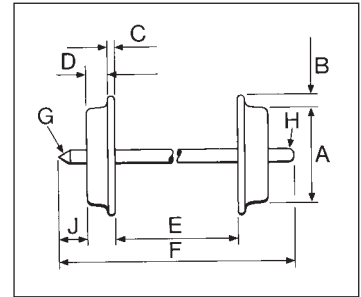


Left: the Southern expressed an admirable concern for toilet provision in its pre-EPB electric stock codings. Thus there were units classified 2-NOL (no facilities); 2-HAL (toilets in one coach but not the other); 2-BIL (toilets in both); and 4-LAV, with provision in one of the centre composite coaches of the four-car unit; it is the second from the front in this photograph. They were stalwarts of the SR Central Section for decades, running unglamorous services such as Brighton stoppers. One such is in the hands of No.2953, last of the original batch of 40 4-LAVs, built in 1932. It is seen departing Wivelsfield on 3 September 1955 with the 4.16pm off London Bridge, via Redhill. LAVs lasted until the influx of Mk 1-designed stock (4-CIGs and 4-BIGs for the Central) in the mid-to late 1960s.

Photograph: Philip J. Kelley.

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English Electric Type 4/Class 40 in 00 from Bachmann



The latest new diesel model to emerge from the Bachmann works is the EE Type 4 in 4mm scale.

Latterly classified 40 under TOPS, two hundred of the 136-ton giants were turned out between March 1958 and September 1962, mostly from the English Electric Vulcan Foundry plant at Newton-le-Willows: a batch of twenty (D305-24) was built by Robert Stephenson & Hawthorn at Darlington between October 1960 and July 1961.

Rated at 2000hp, the 40s were assigned top link duties on London Midland and Eastern regions, but gradually were superseded by electrification and more powerful machines. Withdrawal began in 1976, and was complete by 1985. Several have been preserved, allowing contemporary enthusiasts to enjoy the characteristic 'whistling' sound of their turbochargers, a noise which gave the class its nickname.

Three distinct bodystyles were evident, principally at the cab ends. The earliest 40s had disc headcodes, but D325-344 sported split four-character route indicator boxes. Nose communicating doors were present on each variety, but these draught-prone features were later welded shut. The final variant, encompassing D345-99, had the four-character box centred and in one piece on the nose. Additionally, the pattern of cantrail grilles on one side changed at the train heating boiler end of the locomotives: early machines ran a sequence of long grille/long grille/short grille, working towards the cab; later builds ran a sequence of long grille/short grille/long grille.

Bachmann intends to model all three types: identities/liveries are D368 in green with small yellow warning panel and central four-character headcode box; 40 075 in BR blue with discs on its full yellow ends, and split-box

D325 – our sample – in late-1960s finish of green with full yellow end. The model, when placed on the Ian Beattie drawing published in the July 1999 edition, matched main dimensions very well. The impressive length – 69'6" – of the prototypes is no less impressive in 4mm scale, correctly just shy of 280mm. Note the error in the cantrail grille sequence, described fully on page 656: there were, we believe, no split-box 40s with this sequence of grilles, so correcting it is not simply a case of renumbering the model.

Fine detail work is excellent, with full cab interior visible through the flush-glazed windows. A driver figure is present at the No.1 (i.e. radiator fan – it rotates when blown on – and grille) end. Etched brass frost grilles are provided for the large radiator areas of the bodyside – they have been fitted to our sample – but these seem to have fallen into disuse in the 40s' later years. In position ours bisected the off-white cantrail stripes; they shouldn't, when

compared to prototype photographs. Headcodes are both Class 1 trains, 1D43 and 1A04; to Chester and Euston respectively. It's a pity that these and the fine marker lamp detail are not illuminated according to direction of travel. Even allowing for the need to travel around far sharper curvature than would be asked of the real things, the body seemed to sit a little high to our eyes.

Mechanically, Bachmann has followed previous practice with its models of 1Co-Co1 diesels. The outermost axles pivot in their own trucks within the bogie frames, and the innermost axles are unpowered. The other four axles receive drive from the five-pole motor and twin flywheels arrangement via gear towers. The motor is mounted amidships and surrounded by a heavy (580g) metal casing. The circuit board is on the top of the casing, and this is where DCC users will find the 8-pole dual inline (NEM652) plug and socket for the decoder of their choice. Space

for the decoder will be provided by the recess in the casing towards the No.2 end of the locomotive.

In motion the model is quiet and powerful, eight coaches being handled easily by our sample. However it was noted that the slimline tension lock couplers provided, which clip into NEM slots in the buffer beams, have very fine clearances between hook and loop: stock with tension lock couplers having longer hooks, and/or a greater distance between hook and loop, may foul the 40's buffer beam. Best advice is to obtain the Bachmann slimlines as spares (ref.650-018) and install on a Bachmann coach and use that as a barrier vehicle. Minimum radius is No.2, as befits such a long model.

Buffer beam details are provided in the packaging: they comprise brake and heating pipework, and fit into holes provided.

Notwithstanding the cantrail grilles, the Bachmann 40 is a fine representation of a fine workhorse for BR. The subtle tapering of the body towards the ends when seen from above is spot-on, and the sheer bulk of the machine has been captured well.

All the 40 needs is a sound module, but of course the purchaser can produce that: as Lauren Bacall said, 'you know how to whistle, don't you...?'

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY

PRICE
ref.32-477, £62.95.

WHEEL DATA
B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Recent Class 47s and Mk 3 coaches in OO from Hornby

Hornby has turned out no fewer than six versions of its still-popular Class 47 model for 2004, some of which are illustrated here. All boast the traditional and dependable Ringfield motor arrangement: no longer 'state of the art' of course, but still workable.

Two versions carry Virgin livery: 47 805 *Pride of Toton* and 47 854 *Women's Royal Voluntary Service*, refs.R2289E and R2289G respectively. 47 501 wears Direct Rail Services blue (ref.R2353: note that this is a different fleet number from that illustrated in the current Hornby catalogue). Two others are models of 47s under the wing of Riviera Trains: dark blue 47 839 (ref.R2351) and celebrity repaint D1733 in XP64 experimental train light blue (ref.R2422). Finally there is First Great Western 47 816 *Bristol Bath Road*, commemorating the now-closed depot alongside Temple Meads station (ref.R2352).

The not unattractive to our eyes Midland Mainline livery of teal & tangerine has been superseded by the design illustrated on the new scale length Mk 3s, in both first (ref.R4213) and standard class (ref.R4214) formats. The livery, whatever one thinks of it, is reproduced smartly and with very crisp definition between shades.



SAMPLES SUPPLIED BY
Hornby PLC, Westwood, Margate,
Kent CT9 4JX.

PRICES

Virgin 47s – £52.50ea.
other four 47s – £54.00ea.
Mk 3s (both types) – £18.00ea.

WHEEL DATA

B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Ready-to-run Adams Radial 4-4-2T in OO from The OO Works

The story of the ex-LSWR Adams Radial Atlantic tanks is well known but worth a short reprise. Originally a class of 71 machines, they were built between 1882 and 1885, and all had been sold on or scrapped by 1928 except two, which were retained for use on the twisty Lyme Regis branch.

The lack of any suitable replacements forced the Southern to re-purchase one from the East Kent Railway, a machine it acquired from the War Department after the first world war.

All three, as BR Nos 30582-4, survived until 1961, and one was preserved: No.30583 on the Bluebell Railway, where it remains, currently out of use.

The OO Works hand-built metal Radial is driven on the leading coupled axle, with pickup provided on all wheels except the rear truck. Like its hardy prototypes the model is a proper radial, its trailing axle having sufficient swivel to cope with second radius curves. (Our sample made it round a first radius curve, but under duress...) Performance was good and smooth, and with careful running in will be even better. Weight is around the 250g mark, which should give the model a 'performance envelope' in keeping with the real things at least. No provi-



sion appears to have been made for those wishing to use digital command control, although we did not wish to dismantle our loaned sample to assess the full extent of the interior. Slimline tension lock couplers are fitted front and rear.

The Radial is available in three varieties: Southern Railway olive green, with the customer's choice of running number (ref.SO16); East Kent Railway No.5 (ref.SO17) – the lucky one now on the Bluebell – and British Railways lined black (ref.SO18). Again there is a choice between the three identities, and with the two BR logos.

Our sample was finished very well: if we were to be over-critical the water-slide transfer backing around the numbers was a little too visible at some angles or under some lighting conditions, but no matter.

Many will want to have an example of these smart little machines on their layouts even if they're not into the Lyme branch, the East Kent or even the SR.

For ordering details contact the address below or see the OO Works advertisement in this magazine each month.

For OO

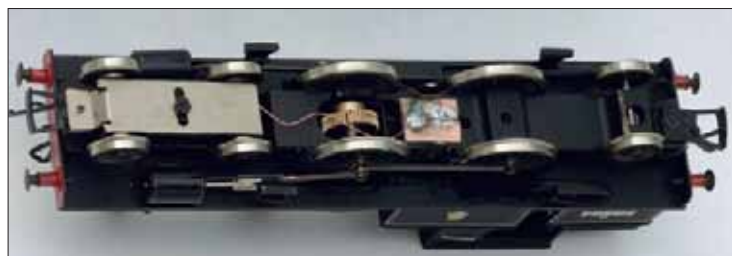
SAMPLE SUPPLIED BY
The OO Works, P.O.Box 22, Hastings,
East Sussex TN34 2TG.

PRICE

£180.00ea. P&P (special delivery)
£5.00 extra per item. Please make
cheques payable to 'Mr Bruce'.

WHEEL DATA

B. 0.5mm, C. 0.6mm, D. 2.1mm,
E. 14.3mm.

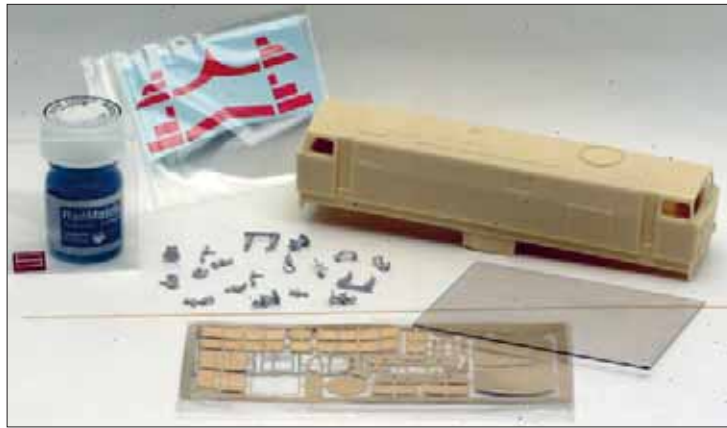


New releases from Model Irish Railways in 4mm scale

Model Irish Railways has two new kits for those modelling the railways of the Emerald Isle, a body kit for a Northern Ireland Railways Hunslet and a CIE cement hopper wagon kit.

Three diesel-electrics were ordered from Hunslet by NIR in 1970 to handle accelerated timetabling of the cross-border *Enterprise* services linking Belfast and Dublin. Built under sub-contract by BREL Doncaster, they had 1350hp English Electric engines, and were diagrammed to run 'top and tail' in summertime bracketing eight coaches, and singly in winter on a five-car rake. They also had other passenger and PW duties. They were displaced from top link work by GM machines in 1981, since when one, No.103 *Merlin*, has been scrapped (1997) and the others stored: No.101 *Eagle* minus engine since 2001 at Whitehead, and No.102 *Falcon* serviceable but unused in Belfast.

The body kit, cast in one piece in resin, is designed to suit a Lima Class 20 chassis (to which minor alterations have to be made). A Bachmann version might also suit, and give the model the benefit of all-axle drive. Castings and – very thin – nickel and brass etches complete the superstructure: etched nameplates, waterslide transfers and the appropriate shade of Railmatch paint are also included,



along with comprehensive instructions and paint diagrams.

The liveries offered are either the original NIR maroon or the later light blue: additionally by request the body kit can be supplied to represent *Falcon* in NIR Intercity Blue, a shade it acquired whilst allocated to pilot duty in Adelaide yard, Belfast.

<i>loco</i>	<i>maroon ref.</i>	<i>blue ref.</i>
No.101 <i>Eagle</i>	L5A	L5D
No.102 <i>Falcon</i>	L5B	L5E
No.103 <i>Merlin</i>	L5C	L5F

Introduced in 1964, twenty four-wheeled cement wagons were built to transport bulk cement from the two

main factories (at Limerick and Drogheda) to various storage depots around the country. Between 1965 and 1972, an additional 130 were built. Originally finished in CIE Golden Brown with black underframes, the livery was changed in the 1990s to the Irish Cement livery of ivory, with the tanks carrying the Irish Cement logo.

The whitmetal and resin kit is complete with all parts (except couplings), paint and transfers. It is a good idea, as the instructions suggest, to assemble neighbouring parts 'dry' before attempting to solder or glue them together. It is only recommended that

the more experienced modeller solders whitmetal and uses a temperature-controlled soldering iron; Superglue or epoxy resin might be preferred.

The chassis parts required some work with a fine file to remove flash and mould lines from the components, particularly around the axleboxes. Some parts needed some easing into place. To ensure the squareness of the chassis, use a known flat surface to build it on such as a small piece of thick MDF or plate glass. Patience and some modelling experience is needed to obtain the best results.

The resin tank body was in two parts and displayed the slightly soapy-looking characteristic typical of resin mouldings. Use of filler around the joint, smoothed down with fine abrasive paper is suggested. Take time to deal with the brass walkways, as they are delicate and not easy to install. Care and some filing are needed when assembling the tank to the chassis. We left our sample unpainted to show the mix of materials used.

No couplings were supplied, but the two pins on the bottom of the buffer beams would accept the Hornby type of tension lock coupling, but others could be fitted if required.

For 4mm scale

SAMPLES SUPPLIED BY
Model Irish Railways, 12 Lyncedale Grange, Portadown, Craigavon, Northern Ireland BT63 5XB.

PRICES

Hunslet loco (all versions) £70.00ea;
Cement wagon kit £20.00ea, four for £75.00.
Postage extra: 10% to UK, min £3.00, max £6.00; Ireland & rest of Europe 20%, min £5.00, max £10.00.



Stanier 8F 2-8-0 in BR and LNER guises in N from Graham Farish



The latest reintroductions of improved steam power from Graham Farish are the heavy freight 8F 2-8-0s illustrated here. As is well known, Stanier's design was chosen for mass production during the second world war by and for all the Big Four railways, plus the War Department, so they were found far and wide, at home and overseas.

Bachmann has chosen to model 48045 in BR condition, and LNER No.3107. The former was one of a batch built by the Vulcan Foundry between December 1936 and April 1937, and is modelled trailing a Fowler 3500-gallon tender. This and the late crest dates the model to the late 1950s, during the period when 41 8Fs swapped their 4000-gallon Stanier ten-

ders for the slab-sided Fowlers. The locomotive bears the small star on the cabside, which denotes a machine with improved balancing and therefore a higher permitted speed (50mph).

The latter, LNER No.3107, is patterned on one of the 68 8Fs owned by the LNER (i.e. not including those on loan from the LMS). Most were built in the company's workshops at Darlington, but 25 were erected by the Southern at Brighton, in 1944. The complicated renumbering of LNER stock in the mid-to-late 1940s means that this 8F (classified O6 on the LNER) is tied to the period between April 1946 and March 1947. The model, reflecting a Brighton example, ought really to have a welded not rivetted tender, but

if this offends the rivets can be chiselled away with care; most will be happy with the model as it is.

Whilst it is tempting to crank the controller up to full and flail the models along at top speed, the job of a heavy lugger is slow speed work. At a steady pace the models perform very well, only stalling on dead frog Setrack diamond crossings. (Addition of pickups to the tenders would obviate this.) The phosphor bronze pickups are a little too prominent for our tastes.

No provision is made for users of digital command control to plug in a decoder, but the tender would be an ideal hiding place for one.

These smart, unpretentious locomotives are sure to find a welcome in

many modellers' sheds. They do their job without fuss – just as the real machines did – and you couldn't ask for more than that.

For N

SAMPLES SUPPLIED BY
Graham Farish, Bachmann Europe PLC, Moat Way, Barwell, Leicestershire LE9 8EY.

PRICES

LNER 3107 (ref.352-150) – £83.95ea
BR 48045 (ref.372-151) – £83.95ea

WHEEL DATA

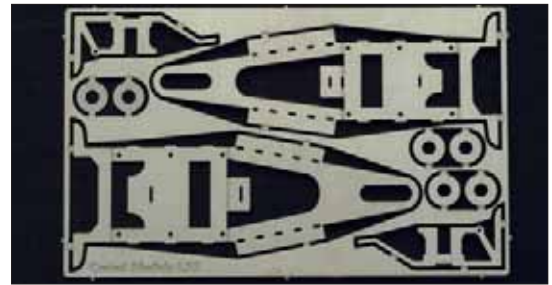
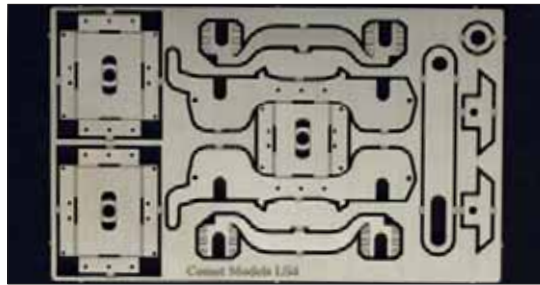
B. 0.5mm, C. 0.5mm, D. 1.8mm, E. 7.4mm.

Locomotive components in 4mm scale revised from Comet Models

Comet Models has revised its range of locomotive components recently, to enable them to be more 'user friendly' for the EM and P4 modeller, whilst remaining entirely suitable for 00.

Illustrated are typical examples of the breed: a fret for an LMS/BR 6'3" wheelbase bogie (ref.LS4); a bar frame pattern pony truck (ref.LS2); and a fret and whitmetal parts for GWR 2-cylinder locomotives (ref.LC2). The etched components are in nickel silver.

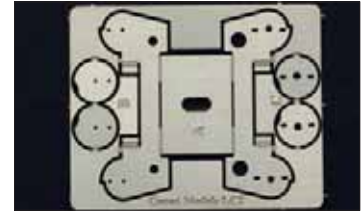
The pony trucks have alternative 'A' frames for 00 and EM/P4, and the length of the swing link is adjustable. The bogies have the option of being mounted with a conventional swing link of being used as a radial truck. The cylinder etches feature breakout sections to accommodate the different frame widths of 00, EM and P4. Loco frames will be revised as well.



For 4mm scale

AVAILABLE FROM
Comet Models, 105 Mossfield Road,
Kings Heath, Birmingham B14 7JE.

PRICES
£3.50ea. Please add £1.50 per order
for postage & packing.



Girder bridge kit and paving sheets for 00/H0 from Auhagen



Noted German scenic specialist Auhagen has just released the first batch of new items announced in its programme for this year, and amongst them is a kit for a steel girder bridge, with stone abutments.

The parts are neatly moulded, and while there is a little flash, it is not heavy or extensive, and the feeds are not very thick. The kit includes a couple of standard sprues, so there are a few spare parts.

The parts are moulded in four different colours – mottled buff or stone, dark grey, light grey, and dark brown; the example illustrated is unpainted.

The stone texture on the abutments is not very pronounced, and the mortar courses seem wide and rather flat. The stone courses on the main and subsidiary abutments do not align.

Both the main and subsidiary abutment mouldings have a groove, almost a hinge, so the sides fold up.

The box girder is made up of a series of eight 'cubes', with solid sides and diagonal cross braces – these are quite complex one-piece mouldings. It is worth making sure that the interfaces are free of flash and mate neatly; they should be assembled on a true flat sur-

face, against a square edge, to ensure that the bridge is straight.

The box girder is detailed with riveted gusset plates in each corner, and the nature of the design means that joints although small will almost inevitably be visible.

The bridge as supplied spans 215mm; it would be feasible to build it shorter, but we are advised that extending the box girder (by adding components from a second kit) would not be realistic unless an intermediate pier was employed.

The girders rest on different bearings at either end – plain at one end, rollers at the other to allow for expansion.

The central metal chequer plate strip and the wooden side walkways are nicely detailed; note that they are longer than the girder, being designed to run onto the abutments, and the joints do not correspond with the deck cross supports. Small links are provided to reinforce the joints, but these are hardly necessary.

The railings are longer again, but only by one section, not the two shown in the diagram.

The instructions are in the form of a

series of clear 'exploded' diagrams, with the parts numbered, so there should be no language difficulties.

If built as supplied, the height to the trackbed is 110mm and clearance under the girder 78mm. There are three moulded lines across the inside of the abutments to facilitate adjusting the height, but of course they could be cut anywhere.

Width over the abutments is 65mm, and overall length 327mm.

Track is not included – the deck should accept almost any type. The width of the deck supports can be adjusted to take TT (or 00n3) track; the walkways are moulded with a groove in the underside to aid adjustment of the width.

As a finishing touch, the kit is supplied with a small printed sheet of coloured road and warning signs.

Useful, potentially versatile, nicely detailed, and easy to build – what more could be wanted?

Auhagen has also recently added two new road surfaces to its already extensive range of moulded plastic sheet materials for scratchbuilders.

The first new sheet is for modern settings – the elongated more or less

H-shaped concrete paving blocks which are now common in remodelled, often pedestrianised, areas (ref.52 408). These would be awkward to simulate, but impart a definite character.

Second are cobblestones laid in a characteristic fan pattern (ref.52 409) – these are so typical of many former station approaches or goods yards in Germany, and indeed can still be found in some places, especially in rural areas, and the former East. They would be also very difficult to replicate manually, yet add so much authentic atmosphere. For UK applications this paving would also suit a pedestrianised area.

Both sheets come moulded in plain grey plastic, and have good surfaces with relief which is not over-emphasised; most importantly, the stone and blocks seem the proper size.

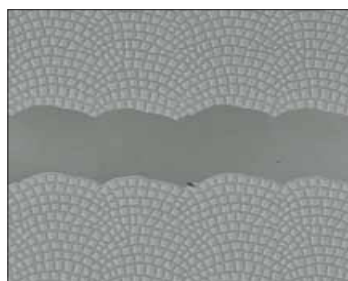
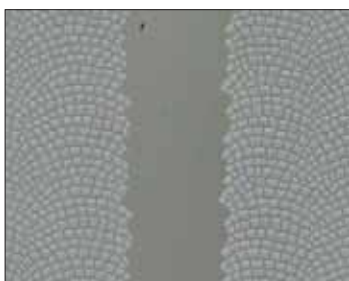
After the quality of the surface textures, the other very notable feature of these sheets is the edges – they are designed to interlock with the next sheet to give an imperceptible joint. It is a tribute to both the design and the manufacture that this is achieved so well.

The basic sheet size is 200mm x 100mm, and the sheet is 1.4mm thick. They are supplied in packs of twelve.

For 00/H0

AVAILABLE IN THE UK FROM
International Models, Plas Cadfor,
Llwyngrwil, Gwynedd, LL37 2LA.

PRICES
girder bridge (ref.11 341) – £13.74ea.
paving – £14.70 per pack.
Prices exclude P&P.



Book Reviews

Great Scenic Railways of Devon & Cornwall

Michael Pearson
Wayzgoose, Park View,
Tattenhall Common,
Staffordshire DE13 9RS
205mm x 300mm 64pp
softback £4.99
ISBN 0 9545383 6 6

Mr Pearson's name will be familiar to these pages: he was the author of a couple of Scotland-based rail books and a collection of freight train foot-plate rides, and his ability to carry the reader's imagination along with him is very accomplished.

Now under the 'Iron Roads' theme he has produced some handsomely-illustrated travel guides, full of interesting fact and useful information regarding accommodation, walking, things to see and do and – naturally – refreshment stops. Added information comes in the form of train service providers (and their contact details), chief amongst which here is Wessex Trains.

The scenic railways covered in this volume are, in order of appearance, Exeter-Barnstaple and Okehampton; Exeter-Exmouth; Exeter-Kingswear; Plymouth-Gunnislake; Liskeard-Looe; Par-Newquay; Truro-Falmouth; and St. Erth-St. Ives. Clear and colourful maps accompany the well-written notes, which trawl up such gems as the Western Region's insistence on routing parcels in its care for Exmouth via the Starcross Ferry rather than hand them over to the ex-Southern for the last stage...

It would be churlish to point out that in one case a rogue extra 't' has appended itself to the end of Newton Abbot, or that Gunnislake station on the truncated Callington branch is actually the second one at this former through station, the original being the 'wrong' side of the main road through the village and subsequently replaced by today's edifice.

This is a most enjoyable book, designed to appeal to the enthusiast and the holidaymaker alike. Guided by this book, the former can imagine Bulleid Pacifics as they cycle across Meldon Viaduct, and the latter can reacquire themselves with a relaxing mode of transport, and one that offers a grandstand view of some of this country's finest scenery.

Bulleid 4-6-2 Merchant Navy Class

R.J. Harvey
Ian Allan Publishing, Riverdene
Business Park, Hersham,
Surrey KT12 4RG.
255mm x 185mm 110pp
Hardback £16.99
ISBN 0 7110 3013 8

This is the first in a new series entitled *Locomotives in Detail* and in it R. J. Harvey looks at the development, operation and modification of the SR 'Merchant Navy' class from its origins in the 1940s through to final withdrawal in 1967. The text is supported by a good selection of photographs showing the locomotives from their earliest wartime days through to rebuilt condition.

The complicated story of the locos' many tender, cab and streamlined casing modifications over the years is lucidly told, and the many livery styles (some short lived) are demonstrated where possible with the aid of contemporary colour photographs.

Best of all, for modellers, there are excellent 4mm scale drawings by Richard Green using fold-out spreads to accommodate loco (side front and top elevations) and tender on the same sheet. This is a useful reference work for modellers of the thirty 'Navies' and it will be interesting to see what comes next in this new series.

Branch Lines to Enfield Town and Palace Gates

Jim Connor
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ.
240mm x 170mm 96pp
Hardback £14.95
ISBN 1 904474 322

Today's route between Hackney Downs and Enfield Town dates from 1872, although the section north of Edmonton is much older. These suburban byways evolved from rural lines and were subjected to periods of improvement and decline as traffic patterns altered.

After the author's comprehensive account of the historical background to



Above: 67s 006 and 001 on shed at Bristol Barton Hill on 26 April 2000.

Photograph: John Chalcraft.

Below: 153 302 at Par with a service from Newquay on 7 March 2000.

Photograph: Alan Pike.

these lines, and a useful map of the GER suburban system, the book takes on the familiar Middleton format. There are therefore photographs, captions and maps of the stations and significant locations presented in journey order. Naturally the book is of great interest to enthusiasts and modellers of the GER, and there are several photographs of station buildings etc in that company's attractive style.

The photographs range in date from pre- and just post-war (N7s, F7s, 'quint-art' stock, typical 'Jazz' trains) through the period of the earlier electric units up to the Class 315s of the present day.

Modelling in Gauge 1

Book 1: Electric propulsion

G1MRA Books, Woodlands
Farm, Frith Way Great Moulton,
Norfolk NR15 2AS.
295mm x 205mm 112pp
Softback £9.50 inc UK P&P,
£10.50 outside UK
No ISBN quoted

This book allows a wider readership to benefit from articles on electric propulsion which have been published over the years in the Gauge One Model Railway Association's Newsletter and Journal. In fact there are over fifty articles reproduced here ranging in date from 1963 to the present day.

Subjects include battery power, with a good deal on NiCads, radio control, 'low tech' and transistor controllers, a guide to common return and cab control, floating motor unit for sprung locos, building a Class 20, ball races, motor bogies, and much more.

Naturally the list of authors reads like a 'Who's Who' of G1 practitioners, some of whom are sadly no longer with us: authors include Bob Hines, Francis Dobson, David Jenkinson, Brian Jones, Stan Roberts and many others.

When ordering the book from the address above, please make cheques payable to G1MRA, adding £5 handling charge for non UK cheques.

Video Reviews

Class 67

CineRail, PO Box 10,
Birkenshaw, Bradford,
West Yorkshire BD11 2BQ.
DVD, 120mins £19.95

This lengthy programme tells the story of these 125mph-capable Bo-Bos, from factory and test site in Spain, via Newport to dispersal and operation on the UK rail network. Produced with the full co-operation of the firms involved – chiefly EWS – the highlight of the programme is a Bristol-Plymouth cab ride, of which more anon.

The 67s started out at the Valencia plant of Alstom, and we see bogies being manufactured, wheels checked and bodies assembled and painted. Once complete, testing took place both here and at La Sagra, close to the AVE high-speed line to Madrid.

The locomotives were landed at Newport with the assistance of Dutch heavy-lift shippers Jumboship: the *MV Fairload* is seen craning the last batch of four to *terra firma*.

Like their more numerous Class 66 cousins, the 67s have GM hearts: a cab tour with a Traction Inspector at Bristol ends with us being in the engine room as the big 12N-710 G3B-EC comes to life, and then is shut down.

Bristol Barton Hill depot is a stronghold for the 67s, and before we leave it we glimpse the past in the shape of metalwork clearly marked 'GWR Wolverhampton'.

Neither beggars nor cab-riding video cameramen can be choosers, and we leave Barton Hill for the parcels roads at Temple Meads in the rain, which stays with us for practically the full journey. The cab ride is not in real time, but there is plenty to see, and we hear cab conversations en route, but indistinctly.

A short section, with more lineside views, the end of the TPO era, and the naming of 67 005 *Queen's Messenger* concludes the programme.

The production is excellent, with good camerawork and clear narration. At one point we overhear, during coverage of the naming of 67 001 *Night Mail* at Bristol Parkway, an unseen local TV news reporter concluding her 'piece to camera' several times as the locomotive comes to a stand: a slightly ragged point in an otherwise slick programme. A slightly odd moment in the script occurs at Cowley Bridge



Junction, where we are told about lines to Barnstaple 'and Bideford' (Torrington actually, or even Halwill), but there is no mention of Ilfracombe or the now-closed SR main line to Plymouth.

There is no 'chapter menu' on the DVD – it launches straight in – but it can skip forward to subsequent segments if commanded (useful if you want to restart an interrupted cab ride from Exeter, for example, and not all the way back at Bristol).

These 3000hp (at rail) diesels may have lost one of their main duties with the demise of mail by rail, but they crop up in all sorts of situations, such as in multiple on china clay duty, as we see in this enjoyable programme.

The production is also available on video at the same price: it includes P&P if ordered direct from CineRail.

Recommended for all interested in today's diesels.

Mainline Memories

Heritage Media Digital Productions, PO Box 43, Horncastle, Lincs. LN9 6JR.
VHS, 65 mins £17.95

This is the first in a series of programmes dedicated to the earlier days of main line steam tours. Much of the content is taken from rare and previously unpublished cine film.

This tape covers the pioneering period of the 1970s and early 1980s and features some locomotives which have not been seen in steam for many years. Locomotives featured include *King George V*, double-headed 'Manor'/Hall' workings with *Hinderton Hall*, *Burton Agnes Hall* and *Cookham Manor*; *City of Truro*, *Pendennis Castle* (including its last run before being shipped to Australia), *A4s Bittern* and *Mallard*, *A3 Flying Scotsman*, Southern 4-6-0s *Lord Nelson* and *Sir Lamiel*, 'Jubilee' *Leander*, 8P 4-6-2 *Duchess of Hamilton*, 7P 4-6-0 *Scots Guardsman*, Stanier Class 5 No.5407, S&DJR 7F No.13809 and Midland Compound No.1000.

The filming is generally to a good standard and awakens many pleasant memories of the quite recent past. The preserved locos add an extra splash of colour to the contemporary BR scene, but in retrospect the seemingly unregulated hordes of linesiding enthusiasts must have caused much concern for train crews and responsible railway officials.

We look forward to seeing more in this series of main line preserved steam memories.

The programme is also available on DVD at the same price.



Cards & Calendars

Welshpool & Llanfair Light Railway

Two exclusive Christmas cards are on offer from the Welshpool & Llanfair Light Railway this year and, as before, they are a delight to the eye.

The first painted wintry scene features Beyer Peacock 0-6-0T No.823 *Countess* passing the new signal box at Llanfair in recent times. The well-filled train is made up of ex-Zillertalbahn and ex-Sierra Leone Railway coaching stock.

The second new card shows a busy scene in the 1920s at the old terminus beside Smithfield Road, Welshpool. Beyer Peacock 0-6-0T No.822 *The Earl* (unrebuilt) heads a mixed train for Llanfair with Foden steam van *Lady Catherine* waiting nearby.

Prices are: five cards £1.88, ten cards £2.99, thirty cards £8.29 any mixture, all post free. Cheques payable to 'W&L Sales Ltd.' at:

R.O.Cartwright (W&L Sales), Owl Halt, Manor Road, Sealand, Deeside, Flintshire CH5 2SB. Tel: 01244 815273.

The Historical Model Railway Society

This year for Christmas, the Historical Model Railway Society offers a card and a notelet. A nineteenth century view of The Sankey Viaduct, Liverpool & Manchester Railway is the subject of T.T.Bury's painting on the front of the notelet. The Christmas card for 2004 is another delightful T.T.Bury depiction of the Railway Office, Liverpool in 1831. The fine reproduction and substantial card weight give an air of quality to both products.

Ten Christmas cards with envelopes are £4.00 and ten notelets with envelopes are £3.50, both including postage and packing from:

Richard Spratt, 36 Harlsey Road, Hartburn, Stockton-on-Tees TS18 5DJ.

Rail Photoprints

Three landscape format calendars measuring 340mm x 240mm feature steam locomotives; diesel and electric subjects; and vintage traction engines, lorries and a road roller in the 2004 range from Rail Photoprints.

The Steam Traction calendar has a selection of full-colour shots of preserved locos such as Standard Pacific No.70000 *Britannia* through to invaluable workhorses like the former Port Talbot Railway 0-6-0ST No.26 photographed on the Severn Valley line.

The Modern Traction calendar has shots of a similar style to the steam version, but includes its own striking collection of colourful diesel and electric trains in a great diversity of settings and seasons.

For road transport enthusiasts, the front cover of the Vintage Machines calendar shows a Burrell Showman's Road locomotive built in 1913; this is the prelude to a fascinating collection of pictures of steam and internal combustion vehicles.

Bus fanciers will enjoy the Britain's Buses portrait format calendar measuring 240mm x 290mm. Colourful classics are captured in their native environments.

All the calendars have useful writing space for notes. They are available from society bookshops, the retail trade or at £6.20 each or £5.70 for two or more copies, including P&P from:

Rail Photoprints, 8 Paulmont Rise, Temple Cloud, near Bristol BS39 5DT.

David and Marion Calendars

Six calendars arrived from David and Marion Canning depicting diesel and electric multiple units (colour), signal boxes (b+w), steam locos (b+w), modern outline (colour), diesels (b+w) and hydraulics (b+w).

The A4 portrait format is topped by a wire binding with a central hanging loop. Both the black and white and the colour calendars have similar layouts starting with an Introduction page out-

lining the background behind their production and the voluntary contribution that David and Marion make to the Cats Protection League as a result of calendar sales.

The photographs are from their own extensive library and from contributors. There is the added bonus of a Tailpiece which includes another photograph and a list of noteworthy dates in 2005. Finally, there is a single page calendar of 2006 to allow us to carry forward those important dates.

The calendars are £7.00 each plus £2.00 p+p, obtainable from:

David and Marion Canning, 20A First Avenue, Ravenswing Park, Aldermaston RG7 4PS. Tel: 0118 981 5678.

Great Western Society, Didcot

This year's edition of the Great Western Society's calendar features scenes of steam in action on British Railways taken from the Colour-Rail collection in a wide variety of locations ranging from London to Cornwall and south Wales.

The locomotives shown feature the Great Western Society's own 0-4-2T No.1466 on the last day of services on the Moretonhampstead branch to the heavy freight 2-8-0 tanks and several classes of Collett 4-6-0s.

There is also a useful list of Steamdays and special events at Didcot Railway Centre with plenty of room set aside in the calendar to make extra diary notes.

The full-colour calendar is A4 landscape when folded and A3 when opened. Price £3.50 at the Didcot shop or £4.60 by post from:

Great Western Retail Sales, Didcot Railway Centre, Didcot, Oxfordshire OX11 7NU. Tel: 01235 817200.

Romance of steam, Infocado

This thirteen-month calendar sees us through to January 2006, but the twelve spreads for 2005 are each worthy of a month's viewing.

The artist Barry Freeman has not just painted scenes that could be depicted equally well as photographs, but he has added character to every picture to capture all the atmosphere of the steam age. He has not compromised on technical accuracy either and there are many subtleties to be enjoyed.

The calendar is 12" square when folded and 24" x 12" portrait when hung. The captions give ample background information about the subject and there is plenty of room for notes next to the dates. The following month's dates are included in miniature at the foot of each page too. Price is £8.99 from:

Infocado, PO Box 172, Stamford, PE9 4QB. Tel: 01780 767711.



RM and CM CD-ROM 2004

Each year, the December issues of RAILWAY MODELLER and CONTINENTAL MODELLER include on their covers a CD-ROM full of news and exciting features from the all over the world.

Clips from four layouts provide some of the action. *Stump City* is an HO3 logging layout by Dave and Midge Grassing. Roger Nicholls' latest H0 model *Autenbach* is set in Austria. In contrast, *Brooklands Park*, an 00 LNER/ER main line layout is from Norwich MRC (RM March), whilst the coverage of *Moorcock Junction* (this issue) provides another chance to see the outstanding modelling by the late Andy Calvert. The full-length movies will be featured in the RAILWAY MODELLER and CONTINENTAL MODELLER 2004 annuals, so be sure to get your copy.

David Jenkinson is remembered in an interview with Bob Essery and in lengthy footage of David's layout. David's own camerawork is demonstrated with his movie shots of the Settle & Carlisle plus archive colour film.

The competition that we ran in the May issue of RAILWAY MODELLER was won by Roy Fitzsimmonds and he carried off the magnificent prize of a Cheddar Models live steam 'Samson' loco worth over £1000. You can see Roy collecting his prize at the Felixstowe dock complex and running the loco at his home.

There is another competition on this

CD-ROM, on the subject of digital command control. If you answer the very simple question correctly, together with another question in the January issue of either RAILWAY MODELLER or CONTINENTAL MODELLER, you could win a fantastic digital starter set containing two steam loco models, two wagons and a brake van, some track and the all-new E-Z Command Control Centre, or a Liliput DB Class 42 2-10-0: both prizes have been donated generously by Bachmann Europe PLC.

The 2004 DCC Open Weekend was a huge success. If you did not have the chance to go, take a look at what happened and reserve your place for the next DCC weekend on 18 and 19 June 2005.

Dr. Michael Watts returns in 2005 with his courses on Track & Control held on 3-5 June and 21-23 October, plus his Scratchbuilt Buildings and Their Settings course on 26-28 August. Book early; these courses are very popular!

Never miss an issue! Why not get your magazine by subscription? The CD-ROM shows you how to take advantage of this idea and introduces a special 13 for the price of 12 offer for CONTINENTAL MODELLER.

Above all, we hope that you will enjoy the CD-ROM. It lasts for over an hour, and is free with the December issue of both magazines. The RM and CM CD-ROM annuals will be out early in the new year.

Sherwood/ZTC seminars correction

Last month we gave details of the DCC workshops being organised by Sherwood Models and ZTC at the Sherwood Community Centre, Mansfield Road, Nottingham. Unfortunately

we were informed incorrectly of the date for these DCC seminars, which should be **Saturday November 6** and not November 4. Other details remain as printed. **Tel: 08702 418730.**

New Bachmann V2 and coaches

Following our report on the Bachmann open days, we received this photo of the firm's new Gresley V2, one of the most significant N gauge models to be launched in recent years.

It has scale wheels with fine profile black wheel rims, correct spacing, intricate motion, current pick-up on all coupled wheels plus the three tender axles. A new, high-specification can

motor with a flywheel is fitted. Fine handrails on the tender and loco body are features as are a fully detailed cab. There are to be two types of tender.

Also new from Bachmann are four types of BR 57' Mk 1 suburban coaches. These will be at the Warley show together with a surprise model!

Bachmann Europe PLC, Moat Way, Barwell, Leics. LE9 8EY.



Peco HAA hopper wagon in N released

The long-awaited Peco HAA hopper wagon in N is now available.

These merry-go-round vehicles were one of the oldest air brake designs dating from the mid-sixties. Several variants were also produced based on the HAA, for example the CDA china clay hopper. They were often to be seen permanently coupled in unit trains.

This is a completely new wagon with brand new tooling to produce a highly accurate model, complete with detail of the air brake equipment and hopper actuating levers. It is fitted with the ELC (Easy Light Lift Close Coupling) and initially is available in BR pre-TOPS livery.

We hope to be able to review the first two liveries next month.



Warley show advance tickets reminder

There are a few days left in which to apply to buy your advance tickets for the Warley show at the NEC, on 4-6 December: closing date for applications is **14 November**. Full details were given in the September issue on p.544. Advance tickets are cheaper than the on the door price, and admit the holders at 0930 not 0945.

Advance ticket prices are as follows. Adults £7.00 each for one day, £13.00 each for two days; children/senior citizens £5.00 each for one day,

£9.00 each for two days; family tickets (2+3) £20.00 for one day.

Advance ticket application forms are available from **Advance Ticket Applications, 52 Calverley Road, Birmingham B38 8PW**. Please include a large SSAE. Credit card bookings may be made via the NEC Box Office on **0121 767 4099**. In addition, Squires Model & Craft Tools is acting as the exhibition's agents for the sale of advance ticket sales: telephone **01243 842424**.

Hornby Class 31s on the way



Notwithstanding the revised Hornby production dates given in last month's edition, due to the sad loss of its chief draughtsman, the firm's 4mm scale Class 31 is nearing completion.

We received these views of the Brush Type 2 A1A-A1A, in both original green with off-white cab window surrounds, and weathered BR blue in late 70s fashion. (Note, on the latter, the swept-clean effect on the cab front windscreen - very good!)

Hornby expects to have these fine-looking models on stream next February: we await the arrival of review samples with great interest.

Hornby PLC, Westwood, Margate, Kent CT9 4JX.





Gauge 0 Guild Convention 2004 report

The Gauge 0 Guild Convention (Guildex) at Telford on 11 and 12 September was very busy with, we believe, a record attendance, and considerable commercial activity – if the sight of visitors laden with carrier bags and boxes is any guide!

The show is used by many specialist suppliers to release new products for the 7mm scale market, and announce plans for the coming year.

We present here a selection of notable new items and interesting products in 0, seen by our team and captured by the Peco Mobile Studio.

Many manufacturers now make a bee-line for our stand to show us their new items, and in fact our photographer was busy long before the show opened. Others we noted while going round the show. However, the event is now of such a size and scope that we almost certainly did not spot everything new from every supplier, for which we apologise.

Suppliers who have products to publicise are invited to contact us with details, as we are always pleased to include such information in our news pages.

DJH Engineering

Seen on the stand was a finished model from the firm's kit for the BR Class 31 A1A-A1A.

The kit consists of a tin alloy body with water tanks and bogie sideframes from the same material. Etched brass and nickel silver pre-formed roof panels, grilles, window beadings and bogies are included, as are many lost wax and cast detail parts. The kit does not include motor, gears and pickups (available separately from DJH), or wheels, though the instructions give recommendations. As an option, a working lighting kit is offered.

Tower Models

An unpainted sample of the new Tower Collection 'Warship', produced for the Blackpool firm by DJH Engineering, was on display. The kit boasts a two-

piece cast pewter body with lost wax whitmetal and brass detail parts and includes gears, motors, and wheels at £399.99 until 31 December 2004.

The Barclay 14" 0-4-0ST beginners kit is complete with wheels, gears, motor, and Allen key, r.r.p £225.00, special introductory price £179.99. See Tom Lewis' article in this issue.

New to the Tower Brass range was an LMS 'Crab' 2-6-0 at £535.00. The loco is supplied ready to run in unpainted brass and features a 7-pole Canon motor with flywheel, compensated chassis and sprung buffers. Coming early next year is a GWR 57xx 0-6-0PT, £399.00.

Sanspareil

The BR Standard Class 5 4-6-0 display model was a pre-production sample, with etched valve gear. Actual kits will feature castings in this department.

A little Sharp, Stewart 4-4-0 as built for the Furness and Cambrian railways was on display but the firm plans to concentrate on Southern Region; Midland Railway kits will be withdrawn after Telford.

The next major project will be a 'Merchant Navy' being designed by Modern Outline Kits of Lincoln. Variations catered for include second and third batches, and first batch with later cab and front end. First batch in original condition may be offered later if demand warrants. Other options will



cover cast or fabricated trailing trucks and various tenders. It will be a limited edition kit.

Under development are LBSCR K Class 2-6-0, LSWR 0395 Class 0-6-0, SR push-pull set and BR Class 52 'Western' diesel.

Dragon Models

As its name suggests, this firm specialises in Welsh prototypes in a variety of scales, plus transfers and detail parts.

In 0 gauge a Rhymney Railway R Class 0-6-2T, in later GW/BR condition (£185.00) can be backdated with an optional supplementary kit (£7.50), which includes Westinghouse pump and reservoir, etc.

An L&Y ballast wagon (£26.00) is designed to drawing 5247 from the L&Y Society and features a one-piece fold-up body.

Cambrian two-plank open wagons include both Pickering- and Oswestry Works-built examples, with appropriate detail differences in the buffer housings and ironwork (each £25.50). They are in etched brass, with whitmetal castings. All instructions now feature colour step-by-step photos.



Above: Tower Brass 'Crab', Tower Collection 'Warship' and DJH Class 31.

Left: Dragon RR 0-6-2T, L&Y Ballast Wagon and Cambrian two-plankers.

Bottom: Sanspareil Standard Class 5, and Sharpie 4-4-0.





Above and left: Just Like The Real Thing 'Peak', seen here as split-box Class 45 D14. Headcode is the Thames-Clyde Express.

Above right: Snow Hill Ministry of Supply 'Austerity' 2-8-0.

Right: both sides of the Kemilway GNR Brake Composite; the 61'6" Brake Third, and 52' Full Brake.

Below: under development – Just Like The Real Thing 'Hymek'.

Lower left and right: DMR Classes B1 4-6-0 and J17 0-6-0, illustrating the version with the standard cab.

Foot of page left: CRT SR Bulleid Tavern Car, complete with brick effect paintwork, and accompanying Tavern Trailer restaurant car.

Photos Len Weal, Peco Mobile Studio.



Just Like The Real Thing

The new diesel kits have cast resin multi-part bodies. The 'Peak' can be built in all four variants of the class, and a 'Hymek', with body in eight parts, will be coming next.

Snow Hill Models

Seen on the Roxey stand was a Ministry of Supply 'Austerity' 2-8-0, built from a brass kit not yet complete, but coming soon.

Kemilway

Displayed on the stand were teak-bod-

ied Great Northern Diag.176 58' Brake Composite (both sides of which were photographed), an LNER end-vestibule 61'6" Brake Third to Diagram 212, and an LNER Diag.129/284 52' non-corridor full brake. All samples were built by Peter Dawson and painted by Dave Studley.

DMR

A Thompson Class B1 4-6-0 is coming soon at £300.00 and there will also be two versions of the J17 0-6-0; with standard cab at £245.00 and with tender cab £255.00.

CRT Kits

This series of coach kits is designed and managed by Bob Tivendale of POW Sides fame. On the stand we saw Bullied coaches including the well-remembered and very funky Tavern Car and its equally funky Tavern Trailer restaurant with minimal windows.

When purchasing, please make cheques payable to 'C.R.Tivendale'.

MSC

There is a nice selection of Billinton and Stroudley/Marsh LBSC locos of Classes E3/4 0-6-2T, D3 0-4-4T, D/D1 0-4-2T and E/E1 0-6-0T.





Easy Build

These BR Mk 1 coach kits by Shawn Kay were on display, including a Bar Car to Diagram 100 (blue/grey).

A Griddle Car to Diagram 30 is yet to come together with a Booth Car to Diagram 32.

The VXX Bullion Van, of which five were converted from BSKs, is usually seen in blue/grey. This example is in RfD Sector livery as used by the Army for transport of ammunition.

Peter Clark

This well-known 7mm scale modern image modeller has taken over the range of rolling stock and track machines formerly produced by Roger Murray.

Several items on display included 165 Thames Turbo two-car dmu, Virgin Voyager, Tamper in Balfour Beatty livery, Railtrack maintenance vehicles (a two-car diesel unit on the basis of German CargoSprinter container flats).

A breakdown crane is coming soon but is not yet available.

Roger Murray will continue to produce signals and accessories.

Right Price Railway Company

An unfinished sample of a Thompson B1 4-6-0 was seen, but was not ready for photography.

David Andrews

David is so busy with the existing range that no new kits were ready, but there are some interesting projects in the pipeline.

Kits comprise etched chassis (nickel silver) and superstructure (brass), rolled boiler, and nickel silver, brass and white metal detail parts.

Ian Kirk

LNER 51' semi-corridor composite side mouldings were on display.

Westdale

A GUV with one-piece resin body and a BR Mark 1 sleeper have joined this well established range of kits.

Nigel Stanley Models

The new Track Ready (ready-to-run) range was represented by a Class 37 diesel at £549. Kits are also available for adding more detail (£49.00) and a second motor (£42.50).

The second loco in this range will be a Class 47, available very soon.



Top left and right: Easy Build Mk 1 Bar Car and Bullion Van.

Above: Peter Clark crane, tamper, Railtrack Multi-Purpose Vehicle (2 units), 165 and Voyager.

Left: Side Lines Thompson full brake.

Below, left: Nigel Stanley Track Ready split-headcode box Class 37 and above it the Roxey Mouldings Lyme Regis branch set underframe.

Below: Buzz MHA, MCA and HAA, and Parkside SR banana van.

Side Lines

We illustrate a Thompson Corridor Luggage Brake to Diagram 344.

Roxey Mouldings

The underframes of Maunsell coaches for the Lyme Regis branch set, at present under development, were on display, together with BR/SR rub-on transfers.



Buzz Models

Modern wagons displayed were: MBA Bogie Open (Monster Box) at £75, HAA Coal Hopper at £49.95, MHA open (Coalfish) at £35.

Also seen was a pre-production sample of a MCA/MDA (cut-down Monster Box).

Walsworth Models

On the display were a Y3 Sentinel and 'Janus' 0-6-0 industrial diesel shunter

Parkside Dundas

The Southern Railway Banana Van, ref.PS100, £24.45, is available now.





Skytrex

Humble vehicles but major news – ready-to-run wagons in O gauge.

These wagons feature plastic body and underframe, well detailed, neatly printed and made in China. They have full underframe detail, sprung metal buffers, sprung metal three-link couplings and blackened metal wheels.

Available now are Private Owner coal wagons (two names) and Coke Wagons (with extension boards, also two names) both types at £42.50 each and an XP ventilated Fruit Van at £45.00.

More wagons are to come and coaches are planned for next year.

Various aluminium bridges in 1:43, 1:30 and 1:20 scale, designed for outdoor use, were also on show, priced between £90 and £125.



Connoisseur Models

New in this extensive range of locomotive and wagon kits is a Great Central 10 ton sliding door van to Diagram 17.

D&S Models

New to the range is ref.DS224.7 NER inspection saloon, in etched brass with extruded aluminium roof and whitened metal fittings. The underframe is compensated and has sprung buffers.

A recent release is LNER clerestory roof Brake Third to Diagram 77, ref.DS187.7 at £93.50.

D&S is issuing selected examples from its 7mm scale range of horseboxes in Gauge 1 - latest is LNER ex-GER horsebox, ref.DS108.10.

For a list of 7mm and 10mm items send 50p-worth of stamps and an SAE.



Above: Skytrex ready-to-run private owner wagons and BR fruit van.

Below left: Connoisseur GC van, Wagon & Carriage Works Gauge 1 Class 08, D&S inspection van and Gauge 1 Horsebox, and Port Wynnstay kit for Festiniog Railway coaches Nos.15 and 16.

Accessories, this page from top: NMB LNWR station and water cranes plus GNR signal box; Ten Commandments ramp and coal stage; PLM Nissen hut fronts; Omen inspectors, track workers and bargee and driver figures; Duncan Models stoves and saw bench, water crane and fire devil.

Opposite page, from top: Ten Commandments wagon loads; Kemilway station furniture; MSE GW signal, and Duncan Models thresher.

WEP Models

These are etched kits for GW wagons which require wheels and transfers to complete.

New in the range are a 10-ton goods Brake Van to Diagram AA16, c.1886-1939, £50.00 and Fruit Van to Diagram Y2, c.1889-1943, £45.00.

Port Wynnstay

There is a 7mm scale narrow gauge, kit for Festiniog Railway bogie coaches Nos.15 and 16 at £42.45. It is offered in either pre- or post-1900 condition.

Wagon & Carriage Works

New to the expanding range of kits for Gauge 1 is the 08 diesel shunter at £335 including wheels and £945 ready-to-run.



Accessories

NMB Models

This range of structure kits and accessories, made from resin with metal details as appropriate, includes the following new items: GNR/LNER type 1 signal box £80, LNWR/LMS standard wooden station building £80 and £100 and LNWR and GWR water columns of stand pipe type £8 and £10.

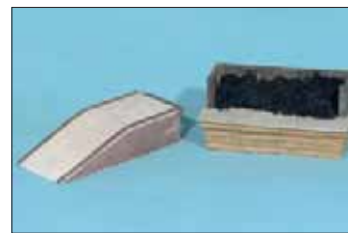
Ten Commandments

This load and accessory specialist had

new one-piece castings on show, including a stone-built Coaling Stage, Tar Drums (part load) at £1.84, large Flat Crate, assorted large Crates load at £2.81 and brick End-loading Ramp at £5.95. Ten Commandments supplies the Coal Load seen in the Buzz Models HAA hopper, q.v.

PLM Cast-Aways

New to this range of accessories are various Nissen hut fronts at £4.50 each, namely wood slatted, brick, corrugated iron and breeze block.





Kemilway

Lamps, seats and other GER/GWR station furniture, plus etches for canopy brackets and valances, are available.

Omen Miniatures

There are additions to the range of figures, cast in whitmetal, very highly detailed with lots of character, also available painted, for various eras.

From left in our photos: ref.A184 Loco Inspector (bowler hat); A185 Goods Guard; Track Workers A21 standing, A22 kneeling; A104 standing Canal Boatman/Workman wearing waistcoat; A183 Loco Fireman (leaning out of cab). Omen also offers the R series of American railroad figures, which are naturally to 1:48 scale.

Duncan Models International

The following white metal kits are new to this extensive range: Threshing Machine £50.00; Straw Elevator £40.00; GWR Water Crane £12.00; GWR Fire Devil £6.00; Saw Bench £9.00; large Pot Belly Stove £5.50; small Pot Belly Stove £3.50; small Square Stove £2.50.

Model Signal Engineering

Model Signal Engineering has revised its complete kit for a GWR wooden post signal. Now coded S7/KW1, it may be built as a home or distant signal in any height up to 26'. The price is £16.00, and the arm and fittings fret included in the kit is available separately – ref.S014/1 (£3.50).



The equivalent items are also available for the first time in 4mm scale: the complete kit is S4/KW1 (£7.00), and the arm fret S0014/1 (£1.75).



Contact addresses

Telephone numbers are given where advised.

David Andrews

20 Hillside Gardens, Woodmancote, Cheltenham, GL52 9QF. 01242 672744

Buzz Models

68 Meadow Road, Kingswood, Garston, WD25 0JA. 01923 672809

Peter Clark

92 Durham Road, Bromley, BR2 0SR. 020 8464 0696

Connoisseur Models

33 Grampian Road, Penfields, Stourbridge, DY8 4UE. 01384 371418

CRT Kits/POW Sides

Poplars Farm, Aythorpe Roding, Dunmow, CM6 1RY. 01279 876402

D&S Models

46 The Street, Wallington, Nr Baldock, SG7 6SW. 01763 288353

DJH Engineering

Project House, Consett Business Park, Consett, DH8 6BP. 01207 500050

DMR

25 Halwyn Place, Redannick, Truro, TR1 2LA. 01872 272325

Dragon Models

9 Kingsley Close, Sully, Penarth, CF64 5UW.

Duncan Models International

34 Waters Road, Salisbury, SP1 3NX.

Easy Build – via DMR

Just Like The Real Thing

222-224 Borough High Street, London, SE1 1JX. 0793 9014069

Kemilway

13 Hazel Drive, Ripley, GU23 6LQ. 01449 673390

Ian Kirk Coaches

10 North Street, Leslie, KY6 3DJ. 01592 626105

Model Signal Engineering

PO Box 70, Barton upon Humber, DN18 5XY

MSC

48A Ditton Hill Road, Long Ditton, KT6 5JD. 020 8398 2415

NMB Models

P.O.Box 102, Burnham on Sea, TA9 3WA.

Omen Miniatures

22 Shelley Road, Horsham, RH12 2JH. 01403 250851

Parkside Dundas

Millie Street, Kirkcaldy, KY1 2NL. 01592 640896

PLM Cast-Aways

12 New Street, Merry Hill, Wolverhampton WV3 7NW. 01902 339011

Port Wynnstay Models

20 Willson Road, Littleover, Derby, DE23 7BZ.

Right Price Railway Company

6 Stuart Grove, Altofts, WF6 2QZ. 01924 897660

Roxey Mouldings

58 Dudley Road, Walton-on-Thames KT12 2JU. 01932 245439

Sanspareil

Unit 4 Millside, How Mill, Bramton, CA8 9JU. 01228 670167

Side Lines

154 Nelson Street, Carlisle, CA2 5NH. 01228 521671

Skytrex

Unit 1A, Charnwood Business Park, Loughborough, LE11 2ED. 01509 233298

Snow Hill Models

5 Priors Way, Windsor Road, Maidenhead, SL6 2EL. 01628 672458

Nigel Stanley Models

PO Box 377, Epsom, KT18 5WY.

Ten Commandments

100c High Street, Cowdenbeath, KY4 9NF. 01383 610820

Tower Models

44 Cookson Street, Blackpool, FY1 3ED. 01253 623797 or 623799

Wagon & Carriage Works

P.O.Box 7814, Sleaford, NG34 9WW. 01529 469595

Walsworth Models

The Old House, 4 Shrewsbury Road, Cressage, SY5 6AA. 01952 510198

WEP Models

30 Milcote Road, Bearwood, Smethwick, B67 5BN.

Westdale Coaches & Models

84 New Road, Marlow Bottom, Marlow, SL7 3NW. 01628 482493

Bratchell's new EMU is Class 456

Bratchell Models has just launched its 4mm scale sixth multiple unit in twelve months. This brings the total so far to 165 prototype multiple units that its kits now cover. The new model, the first from this firm to represent SR third-rail stock, is the Class 456 two-car EMU, which joins the Class 321/3, 321/4, 321/9, 322 four-car units and the Class 320 three-car unit in the fleet. The 456s work services out of Victoria, Charing Cross and London Bridge. They can be seen in two- or three-unit formation and they are regularly used to support Class 455 services.

The model is injection moulded in

top-quality ABS, has flush-fit glazing, and is supplied with 00 gauge Romford brass wheels and bearings. It is also obtainable without these items, to cater for those modelling in EM and P4 gauges. (The purchaser will need to source wheels and bearings of their choice.)

The 00 version is £71.00 and the EM/P4 version is £59.00, reflecting the absence of 16.5mm wheels, bearings and couplings. The price includes UK postage and packing; overseas rates on request.

Bratchell Models, PO Box 22, Watford WD17 3WA.

New models from Townstreet

Jim Hendry has added traditional terraced houses and shops in 4mm scale to his extensive Townstreet range of stonecast buildings and accessories.

The design allows versatility in type of terrace from standard components, in full or half relief. Terrace back components are also available. The house fronts are based on structures built in Salford in 1869. Sash and case windows are included in the casting, with clear apertures for glazing etc. There is a dormer window roof option too. The house back is equally detailed, and to complete the rear scene brick backyard walling will be available soon.

The first shop in the range is a double window type, in traditional woodwork. Also available is a casting representing two smaller shopfronts with adjacent doors and common step. Naturally enough, a pub is under development.

To complete the shop a remarkably detailed one-piece casting has been prepared, depicting an ironmonger's wares. Careful painting will bring out the best in this excellent item.

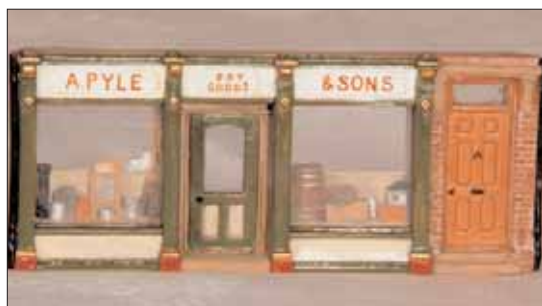
Prices vary according to full or half relief, mid- or end-terrace position and so on: for the complete set see the 56-page Townstreet catalogue (£3.80 including first class postage), but examples are:

Half relief end terrace house £11.90

Half relief mid-terrace shop	£11.85
Complete end terrace house with rear extension	£26.75
Dormer window roof	£1.00 extra
Ironmongers shopfront	£4.95
Ironmongers interior	£5.95
Two small shopfronts	£3.95

These interchangeable components should provide the modeller with much food for thought.

Townstreet, The Old School, Carnbee by Anstruther, Fife KY10 2RU. Tel (Mon-Fri, 1400-2000 only please): 01333 720226.



New venue for Hull MRS show

Visitors heading for this year's Hull Model Railway Show on 11 and 12 November are advised that the event is being held at a new venue. It is now in the indoor arena at the Costello Athletics Stadium, Anlaby Park Road North, Hull. This venue is well signposted from the A63 (M62) and A15 (Humber Bridge) main roads into Hull and is actually much easier to get to than the old venue.

Visitors travelling from Hull city centre by bus, or by train into Hull Paragon

station and then by bus should also note that the main bus station is now closed for redevelopment. The No.2 bus service (direct to the stadium) can be caught at stops in King Edward Street (adjacent to the Central Methodist Hall) and Carr Lane (outside Telephone House) which are both about two minutes walk from the railway station. For further details and dates and times of the show, see 'Societies & Clubs' or telephone 01482 503188.

Midland D.508 coach kits in 4mm

Apropos David Tillet's Midland coach conversion (RM July), Andrew Mullins of Branchlines, Exeter, has reminded us of his range of etched brass kits of body sides, ends plus clerestory roof side overlays for the Ratio models.

There is a kit (ref.4.29, £22.50) for the D.508 vehicle that covers the original toplight version, the LMS louvre

vent fitted vehicles and those with end windows for slip coach working. It includes the Ratio underframe, bogies and roof. The kits complement and extend the Ratio range, covering 33'6" six-wheel and 45' and 48' bogie clerestory stock.

Branchlines, P.O. Box 31, Exeter, Devon EX4 6NY. Tel: 01392 437755.

Welsh Highland Railway grant

The Welsh Highland Railway (Caernarfon) has been granted funding of £5m comprising £3.7m from the European Regional Development Grant and £1.3m Assembly Transport Grant. The total cost of the reconstruction is £10.75m with the remainder being from private donations.

All this will allow the remainder of the line from Rhyd Ddu through Beddgelert to Porthmadog to be con-

structed connecting with the Welsh Highland (Porthmadog) Railway, and the Ffestiniog Railway. The completed line will then be twenty-three miles long. Preparatory work will start immediately using mainly local contractors for civil engineering work.

The planned completion date is 2008 with the opening in 2009. It is reported that the present line is carrying 50,000 visitors per year.

DJH news

Owing to new distribution arrangements, DJH has been able to boost availability and reduce the prices on all Model Loco products by an average of 20% below normal retail price.

The newly revamped website was due to have been launched on October 1 with many new features.

Following the release of the Class 31, all the refinements suggest that 7mm modellers are demanding ever higher levels of realism. DJH has responded by introducing a brand new range of add-on detail packs in lost-wax brass. First releases are a fire iron set with large clinker shovel, rake and chisel bar (ref. OGD-11); a similar set but with short clinker shovel (ref. OGD-12); cab accessories, comprising bucket, firing shovel and oil cans (ref. OGD-13); scale loco lamps, complete with glazing, two per pack in LMS pattern (ref. OGD-14), GWR pattern (ref. OGD-15), early LNER (ref. OGD-16) and late LNER (ref. OGD-17) patterns; and a pack of two scale working screw couplings (ref. OGD-18).

Five new 0 gauge motor/gearbox units are issued for the 7mm scale kits as well as other manufacturers' products. These new units will give modellers more choice plus broadening the options for motorizing 'difficult' locomotives such as BR Standards, with their high running plates, and small locomotives with restricted firebox space.

DJH Engineering Ltd., Project House, Villa Street, Consett DH8 6BP. Tel: 01207 500050.

OPEN

Challis Models & Hobbies

Pat and Chris wish to thank everyone who supported them at the shop during the past twenty-five years of trading. Challis Models & Hobbies' lease expired at the end of June, when the premises were vacated.

Pat and Chris are continuing to trade at exhibitions and in a small section in the men's shop next door. This will continue until all the stock has been sold. Items for

special order will be accommodated if possible.

They had hoped to sell the business so that it would carry on, but this has not been possible. They now hope to have more time for themselves to follow their pastimes.

Challis Models & Hobbies, 52 High Street, Shepton Mallet, Somerset BA4 5AZ. Tel: 01749 343527.

Model Exchange Hobby Shop, Flint

When new yellow lines prevented customers stopping outside Mr. and Mrs. Ogden's newsagent, it was time to make changes. So at the end of June John Ogden decided, as many do, to convert his interest into a livelihood.

In the relatively short time since opening, the shop has blossomed, not only dealing with railways but cars and boats too. OO and N gauge modellers will find

rolling stock and scenic items, buildings and kits from the top manufacturers, but more than that, there is plenty of sound advice on offer for modellers at all stages of learning and expertise. In all respects, they are building a very good reputation.

Model Exchange Hobby Shop, 2-4 Station Road, Greenfield, Holywell, Flintshire CH8 7EL. Tel: 01352 713027.

Trains 4U, Peterborough

With a catchment of around 250,000 people in the area, father and son Steve and Gareth Helliwell decided to pool resources and set up a retail model train outlet at Fengate, Peterborough. It was as a result of redundancy that they both had the opportunity to venture out and set up the business. Since July when it all started, things are looking good in the spacious showroom. An added bonus is the superb access for wheelchairs that Trains

4U provides.

Inside, there are ever-growing stocks of OO, N, H0 and Z gauge items from the top makers including Fleischmann and Märklin, which indicate their intention to continue to add continental outline to the top-quality British outline products that occupy much of their airy display cases.

Trains 4U Ltd., Unit 20 St. David's Square, Fengate, Peterborough, Cambridgeshire PE1 5QA. Tel: 01733 895989.

Malc's Models, Ilkeston

Unfortunately, the phone number for Malc's Models of Ilkeston was incorrect in the October issue. It

should have been 07786 896807. Our apologies to all those who were affected.

Phoenix Precision Paints' new owner

Phoenix Precision Paints Ltd. now has a new owner. Bob Shephard, who has run the company since 1972, is to retire. Chris Stapleton, the new owner, is very interested in railways and modelling and very enthusiastic about the future of the company. The factory will

move to Chelmsford, but the telephone number has yet to be finalised.

Bob will still be active in the world of railway and model engineering and will be available as a consultant.

Phoenix Precision Paints, PO Box 359, Cheltenham, Glos. GL52 3YN.

Connoisseur catalogue

A new 0 gauge product catalogue is now available from Connoisseur Models showing the range of etched locomotive, carriage and wagon kits.

The 32-page A5 format booklet gives details of the prototype and then the kit composition and price. Each kit has a separate entry containing a photograph or illustration.

The price is 50p but Connoisseur will send a complimentary copy on receipt of an address label and a first-class stamp. Please indicate that you require the 0 gauge version as a 4mm catalogue is also produced.

Connoisseur Models, 33 Grampian Road, Penfields, Stourbridge DY8 4UE. Telephone: 01384 371418.

Hornby launches A4 and Gresley stock



The latest and much awaited models from Hornby of the A4 Pacific and range of Gresley 61'6" coaches were unveiled by the firm's Marketing Manager, Simon Kohler, alongside the prototype *Mallard* at the National Railway Museum on September 28. We will be reviewing the full range in due course and present here this little taster hot off the press.

The three brand new versions of the A4 feature a prototypically correct rigid trailing wheelset beneath the cab. Previous model Pacifics incorporated a pivoting truck here to negotiate tight model curves, but not any more; Hornby's design expertise means that these are the first model Pacifics to follow prototype practice to the letter. This development has made possible the replication of such superb fine details as the Flaman Speed Indicator, reversing lever and mechanical lubricator. To enable short radius curves to be traversed the rear wheels are supplied flangeless and simply glide over the track. For the modeller with scale curves, Hornby will be including a replacement flanged set of wheels with each model.



The range of Gresley coaches also displays exciting new degrees of detailing with separately fitted pipework, grab rails and high level of accurate and authentic decoration both inside and out. Five versions will be available in both BR Carmine and Cream and LNER Teak finish. The Teak livery is achieved by an average of 280 separate print and paint applications and the samples inspected reproduced the best Teak finished plastic models we had ever seen. Close coupling of the coaches is maintained by the swivelling NEM coupling pockets first seen on the Pullman cars.

Illustrated are BR Green liveried 60031 *Golden Plover*, cab of LNER Garter Blue 4468 *Mallard* and LNER Teak liveried Buffet Car No.21608.



Expo Narrow Gauge 2004

The Greenwich & District Narrow Gauge Railway Society will be holding its annual Expo Narrow Gauge on Saturday 23 October at the White Oak Leisure Centre, Hilda May Avenue, Swanley, Kent. ExpoNG – as it is more commonly known – is celebrating its twenty-first year and has become Europe's premier narrow gauge exhibition, with around 70 stands.

It is hoped to have 21 layouts in all the major scales and narrow gauges. The international flavour is ensured again this year with layouts from the UK, France, and the Netherlands including: in 009, the *Ditton Railway Co.* by John Thorne, *Dovey Valley Railway* by Dick Wyatt (RM April 94), *Elmgate & Thatcham Railway* by Tim Sanderson (RM contributor), *Ghylldale* by John Varley, *Lower Peak Wharf* by John Bruce, *Maranique* by Peter Gray, and *Mols Coed* by Laurie Maunder.

Moving up to 0 scale, on 14mm gauge Roy C.Link presents *NG Sand & Gravel* and there is *Skimbleshanks Mill* by Alison Gilmour. 0-16.5 is represented with *Tanllan* by Brian Hunt and *Crichel* by Roy Wood (RM June 04), and Peter Booth will be showing *Dinas Ddu* (8mm scale on 16mm gauge, RM December 03).

Larger again is *Wags Wharf* (SM32) from Geoff Evans, and the show also includes *Pinchingfield* (Gn15, 1:24 scale) by Les Coleman and Chris Ford, as featured in this issue.

In addition, there will be over 30 specialist narrow gauge traders and manufacturers, and around 15 modelling and prototype societies, plus modelling demonstrations, and the 'Shoebus Challenge' micro layout contest. Full details in 'Societies & Clubs'.

Definitely the largest and best narrow gauge event of the year!

Huddersfield Railway Modellers finish new home



The Huddersfield Railway Modellers group formally opened its new clubrooms in Stonefield Mills, Factory Lane, Milnsbridge, Huddersfield on September 11. The group lost its previous premises in Meltham due to the sale of the property last year and after a lengthy search was fortunate to secure almost all of the first floor in the

former mill building. Four months' hard work transformed the rundown site into smart new clubrooms for the 30-strong group, which now has over 4,000sq.ft. of space at its disposal. The amenities also include a library, a lounge area named after founder member Jack Yeoman, a large kitchen, and cloakroom facilities.



Layout projects in 2mm, 4mm, 7mm and an indoor 16mm narrow gauge steam railway are continuing, including *Longroyd Bridge* (see pp.633-635).

New members are welcome at all times: anyone interested can contact the membership secretary, Robert Groom, on 01484 308461 for more information.

Southwark MRC seeks new clubrooms

Southwark MRC urgently needs new premises for meetings and storage for its layouts and equipment following receipt of notice to vacate the garage it has occupied since last year when it lost its clubroom.

The Club was formed in 1986 and should have been celebrating its coming of age this year, but is instead looking for a new home.

The layouts include a large model of

Crystal Palace High Level station which was nearing completion, as well as *Hawkhurst, St. Mellion*, the viaduct diorama *Andy Arches*, and the embryonic *Hatcham Park*.

If any reader knows of suitable premises for the club's activities at reasonable cost, ideally in the Southwark, Lewisham, or Greenwich areas, please contact Ray Blanchard on 0207 732 9675.

More N gauge plans from Dapol

During the course of the next year, Dapol will release several new N gauge products.

In December this year a Class 73 will appear, eventually to be offered in eight liveries.

In 2005, there will be three designs of GWR Collett coaches, Brake, Composite, and Third, in three liveries.

May should see a Churchward 45xx 2-6-2T in four liveries with variations of operating numbers.

There will be a BEA Bogie Bolster in September in various operating decorations, and in November an M7 will be available in various liveries including BR and SR. Other models will follow in 2006. The planned release of additional 14xx plus autocoches, CCTs, and Gunpowder vans will continue. A new 7-plank end-door wagon will complement the existing range.

Dapol Ltd., Gledrid Industrial Park, Chirk, Wrexham LL14 5DG.

Right: the almost go-anywhere Class 73 electro-diesels have led long lives, and some stalwarts are still around today. 73 101 is seen on engineering duties at Charing Cross in July 1998.

Photograph: Phil Caley.

Mold charity show

Inadvertently we published incorrect information about the Charity Model Railway Exhibition at Mold, Flintshire which took place in August.

In our August issue we correctly stated that it was on Saturday August 28 only, but in the September issue an additional day, Sunday 29, was added. We hope that nobody suffered any inconvenience as a result and we tender our sincere apologies to the exhibition organisers.

The exhibition was the ninth organised by 21 year old Simon Blainey. Exhibitors came from across north Wales and north west England. There were sixteen stands with eight working layouts, three modelling demonstrations and information stands.

252 people visited the show which raised £430.88 for Christian Aid. The future plans for a show next year are, as yet, uncertain but we will publish details as and when we receive them.

Wimbledon moves

The Wimbledon MRC is the second oldest such club in the world and in January 2004 celebrated its 80th anniversary.

At the same time, the club was forced to vacate its rooms on re-development of the premises at Palmerston Road, Sutton, Surrey, but has now found a new home in Mitcham, Surrey.

Meetings are currently held weekly on Monday evenings although the club hopes to return to its regular Wednesday evening slot in the near future.

In the meantime, any modellers living in south London or north east Surrey will be very welcome at the club. Meet the members informally at exhibitions at Motpur Park on 27 November.

Bognor break-in

We were sorry to learn of a recent break-in at Trains, Models and Hobbies of Bognor Regis. Amongst the haul were three notable locomotives. Two were old Wrenn models, both mint and boxed: one was a 4MT 2-6-4T and the other an 8F, both black. The thief left the boxes behind. The other was a brand new Hornby live steam A4, *Silver Link*. Trains, Models and Hobbies can be contacted on **01243 864727**; the police crime number is **1040-23/9/2004**.



York Zero post

In the July issue we reported on plans to commemorate 150 years since the North Eastern Railway was formed, in 1854, which included the production of a replica zero milepost for York station. This will be positioned close to where the original stood on Platform Five. The unveiling ceremony took place on the anniversary of the formation of the NER itself, on July 31.

In the picture, from left to right: Reg Davies, Chairman, North Eastern Railway Association; Patrick Howat, NERA member who masterminded the entire project from planning to fruition; Rt. Hon. Lord Mayor of York, Councillor Janet Looker; and Sir William McAlpine, Chairman, Railway Heritage Trust.



Coming next month

Out Thursday 18 November

NORTH LEITH

Bob and Gareth Rowlands have ventured into the Edinburgh suburbs in 4mm – see it at the NEC.

BRIDGE OF WEIR-GREENOCK PIER

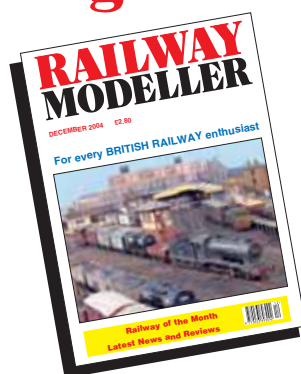
A piece of the LMS in Texas, by J.Cameron Millar.

BORTH-Y-GEST

Paul Holmes' 4mm scale narrow gauge layout will also be at the NEC.

HEMSWELL

An essay in British H0 by John Allison – also at Warley.



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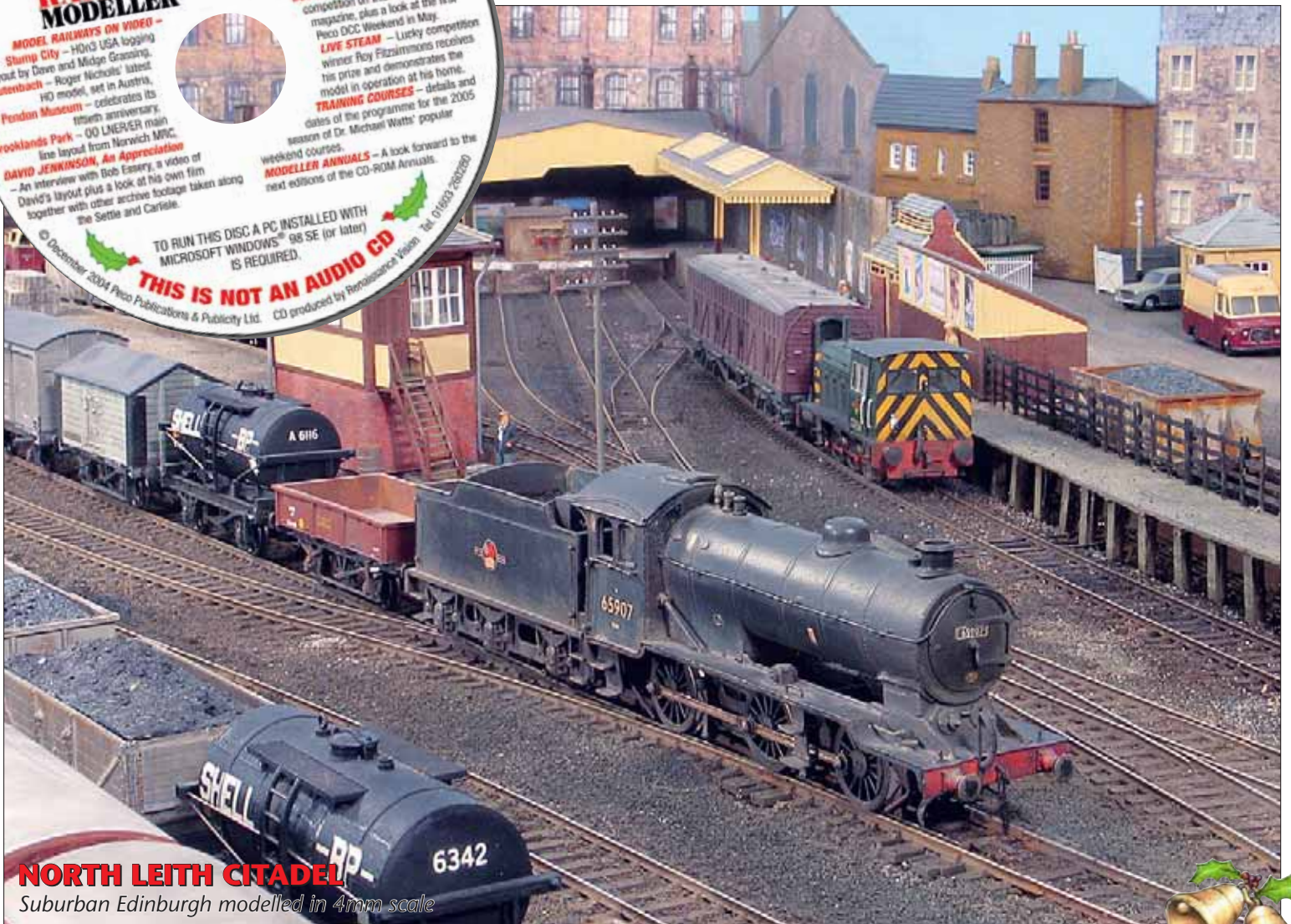
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NORTH LEITH CITADEL
 Suburban Edinburgh modelled in 4mm scale



BORTH-Y-GEST

- Festiniog Harbourside in 4mm



CAMBER

- Building a Bagnall 2-4-0T



DYFFRYN

- North Wales Valley in N



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THE CREATIVE HOBBY OF TODAY – IT'S FUN!

RAILWAY MODELLER

December 2004 · Volume 55 · Number 650

Shows you how – every month

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COVER: a J38 heads a mixed goods train through North Leith towards Edinburgh. Hunslet diesel No.D2556 backs an Airfix Siphon into the passenger platform. Photograph: Steve Flint, Peco Studio.

RAILWAY MODELLER

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Back numbers information – see Classified advertisement under 'Trade Sales Books'.

Season's greetings

At the close of another volume, it is our happy duty to wish all our readers, advertisers and printers the compliments of the season, and here's to 2005!

We are also happy to mark up another significant milestone with this issue. When RAILWAY MODELLER began in 1949 the other two model railway titles, *Model Railway News* and *Model Railway Constructor*, were well established, but sadly they are both no longer with us. *MRN* changed size and title in September 1971, after 47 volumes and 560 editions: *MRC* ended in June 1987, to total 54 volumes and 637 editions. This total we passed last year, but it seemed appropriate to wait until a good round number came along. Of course we are still young compared to our septuagenarian counterparts *Model Railroader* and *Railroad Model Craftsman*, but in this country we are proud to be the longest-running model railway magazine still in publication with its original title.

Throughout this time, part of our publishing remit has been to welcome newcomers to the hobby and especially to invite potential contributors to send in material for possible publication. We are pleased to say that our drawers are quite full of articles but we always welcome more, especially those that concern construction issues or how to overcome the pitfalls that many of us have to climb out of from time to time but can never remember in detail when we come to write the words. Quite correctly, we tend only to remember the good times, and those days when we wished we were somewhere else have long been forgotten.

This month, as in so many past months, we have pleasure in presenting several articles where the photographs are the work of the modellers concerned. These are real contributors' contributions, and go to show that RAILWAY MODELLER is the magazine that considers a wide variety of its readers' work for publication, for us all to share and enjoy.

Another free CD-ROM!

This month both RAILWAY MODELLER and CONTINENTAL MODELLER are pleased to present our latest free CD-ROM. This year there is a wonderful assortment of film and information which we hope the majority of readers will be able to access on their home computers. As mentioned last month, readers without computers are encouraged to visit their local libraries to access the CD via the computers that are usually available for a nominal fee or free of charge. See our News pages for details of how to obtain the programme of features on the CD-ROM in DVD form.

December means the Warley show!

Our 'News' section has full details of the attractions at the Warley show at the National Exhibition Centre, over the weekend of 4 and 5 December. The centrepiece of what promises to be another exciting event will be a Ffestiniog Railway Double Fairlie, *Livingston Thompson*, plus the newly-restored 'curly-roof' van. The event will commence the celebrations of the railway's golden jubilee, and included in the displays will be *Dduallt* by David & Robert Waller (see RM October 1996). This year the show will be held in Hall 1 again, which is situated very close to Birmingham International railway station. Car parking will of course be signposted.

Cup Competition 2004

Now that this volume is complete, it's time to start thinking about compiling your entry for the RAILWAY MODELLER Cup Competition for 2004. Full details and the entry form will be in the next issue.

Cheers, Len!

At the end of this year our well-known staff photographer Len Weal retires. Len's name has been on our masthead since March 1988, and prior to that he was a regular contributor of photography which has always been admired. Needless to say we will all be sorry to see him leave – we'll definitely miss his wit – but feel sure we will be hearing from him regularly as time goes by.

CONTINENTAL MODELLER

For all enthusiasts modelling overseas railways.
Published on the second Thursday
of the preceding month.



Railway of the month

North Leith Citadel

An historic Edinburgh area terminus

After finding the remains of the station by accident, **Bob Rowlands** modelled it in 00 scale.

I came across North Leith by chance, when I was in Edinburgh about four years ago, with my son Gareth. We were doing some research and taking photographs of Princes Street Gardens for a layout in N Gauge that we were constructing at the time. As we had a few hours to spare before we had to return home, we decide to visit Harburn Hobbies and also pay a visit to the Bo'ness Railway. After calling at the shop we headed in the direction of Bo'ness. This is when we got lost and ended up by the Royal Yacht *Britannia* in Leith. We turned left and stopped in Commercial Road. I looked across the road and saw a familiar building, North Leith Station. A couple of months ago I was reading an old RAILWAY MODELLER from September 1978 which featured a layout of North Leith.

The station building was now a youth club

and it was well looked after. I got out of the car and took a few photographs of the buildings. I then went around the back. Part of the canopy was still standing and the paving stones of the platform were still there but the space between the platforms was filled in to make a playground. I took a few more photographs before we set off for Bo'ness and home.

In the summer of 2002, our N gauge exhibition layout *Princes Street Gardens* was in the final stages of construction and our home 00 layout *West Bridge* was finished: both layouts were featured in RM during 2003 (June and August respectively). For my next 00 exhibition layout I was planning to build a Western Region layout based in Devon; I had been there on holiday and taken lots of photographs of stations in the West Country.

In June 2003 we were exhibiting at the Perth

model railway show. After the show finished on the Sunday we stayed overnight and decided to travel back on the Monday morning. On the way back we stopped at Edinburgh and had some lunch, took some more photographs of Waverley and headed back via Leith. That is when I decided to have another look at North Leith station and the surrounding area. I took lots of photographs of the area all around the station and that is when I decided to model North Leith and put the Western Region layout on hold.

North Leith was built for the Edinburgh, Leith & Granton Railway and was opened in 1846. It consists of a single platform with a run round loop and several goods loading platforms. A large goods shed was built on the west side with several sidings. I have not incorporated them in the layout as it would block



Left: a Cotswold C16 pulls in with a train of Ian Kirk coaches. An NB Models N15 tank waits on the goods line.

Above: a view of the goods yard looking towards Leith Docks. I have weathered the track to try to catch the run-down look of the railways at the time. The right-hand track contains an ash pit by the water crane. A small dock tank was stabled here but most locomotives were stabled on the siding behind the signal box. This shows that you don't need lots of room for a model railway. All this fits on a 6' x 3' board plus fiddle yards. With plenty of sidings, a goods depot, passenger station and a small loco depot it shows what you can do in a small space.

Right: a North British diesel shunter propels three Parkside Dundas fish vans into the bay platform. The shunter is an old Playcraft model on a DJH chassis. This is to be replaced shortly with a Judith Edge kit.

Photographs by Steve Flint, Peco Studio.

out the view and the layout would be too wide to operate at exhibitions. I have modelled the exchange sidings and the road crossing which leads to Leith docks. A small locomotive servicing depot consists of a pit and water tower. Locomotives were probably coaled from a wagon. A small tank loco, usually an ex NB Pug or J 88, was based here for shunting on the docks. The passenger service stopped in 1947 and goods lasted till the sixties. I have decided to model the layout in the period 1958-1962 with full passenger and goods services. The passenger service will be mainly a shuttle ser-

vice to Edinburgh Waverley. It will consist of two or three suburban coaches pulled by a tank loco usually a V1 /V3 2-6-2 tank loco. Classes J36, J37, J38, J83 and N15, normally hauled goods trains but St Margaret's shed often used any locomotive they had available, and a B1 has been known to have been used on a goods train.

Goods traffic to and from the docks was mainly fish, grain, timber, cattle, coal and whisky. A Pug or J88 handled shunting and dock traffic and also carried out local trip working to the nearby SCWS flour mills.

I originally planned the layout on a 5' x 3' baseboard with two 4' long fiddle yards on each end. The fiddle yards employ the cassette





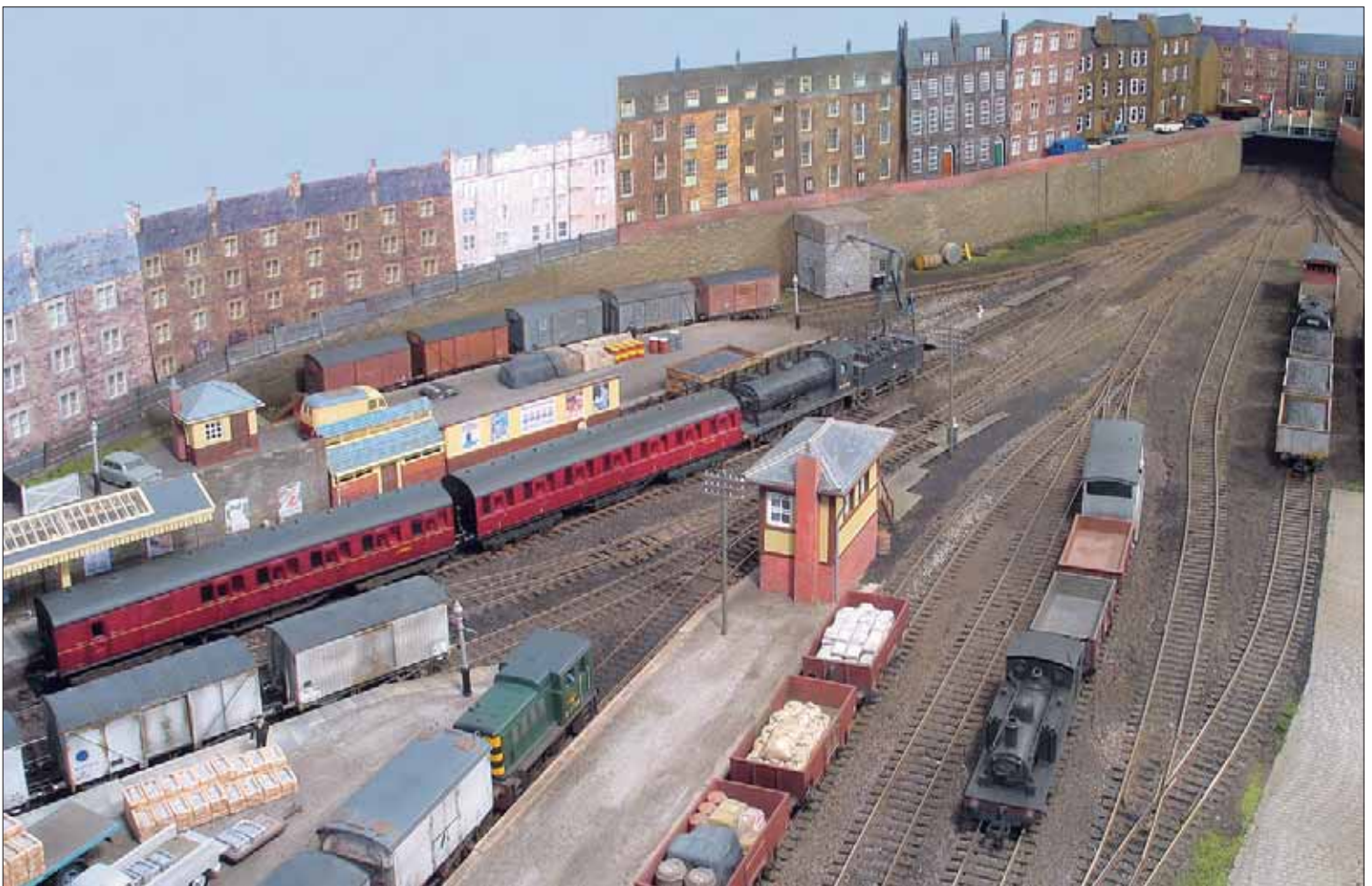
system that I used on my *Leven Bridge* layout, which consist of a U-shaped channel about a metre long, constructed from 1/2" thick plywood with a length of Peco code 100 track fixed to them. The cassettes can be used from both ends; you lift them up and turn them round. A hole drilled in each end in which a removable plastic Rawlpug is placed stops rolling stock falling off. A short length of track

fixed at the end of the fiddle yard has two rail joiners soldered on the rail ends. The cassettes slide into the rail joiners, like using Setrack; simple and efficient. I am still using the original rail joiners from 1997.

From the start I planned to use Peco code 75 fine scale track and points. Peco point motors operate the points. I usually manually operate points using rodding, but with no supplies

Above: a J38 pulls a rake of fish vans into the fish bay to be loaded up. This is an SE Finecast kit powered by a DS10 motor, 40:1 gears and Romford wheels. Fish vans are by Parkside Dundas and all are weathered.

Below: the J37 waits to return to Waverley after running round its train. D2706 shunts the fish vans while a Bachmann J72 heads for Leith Docks with some empties.





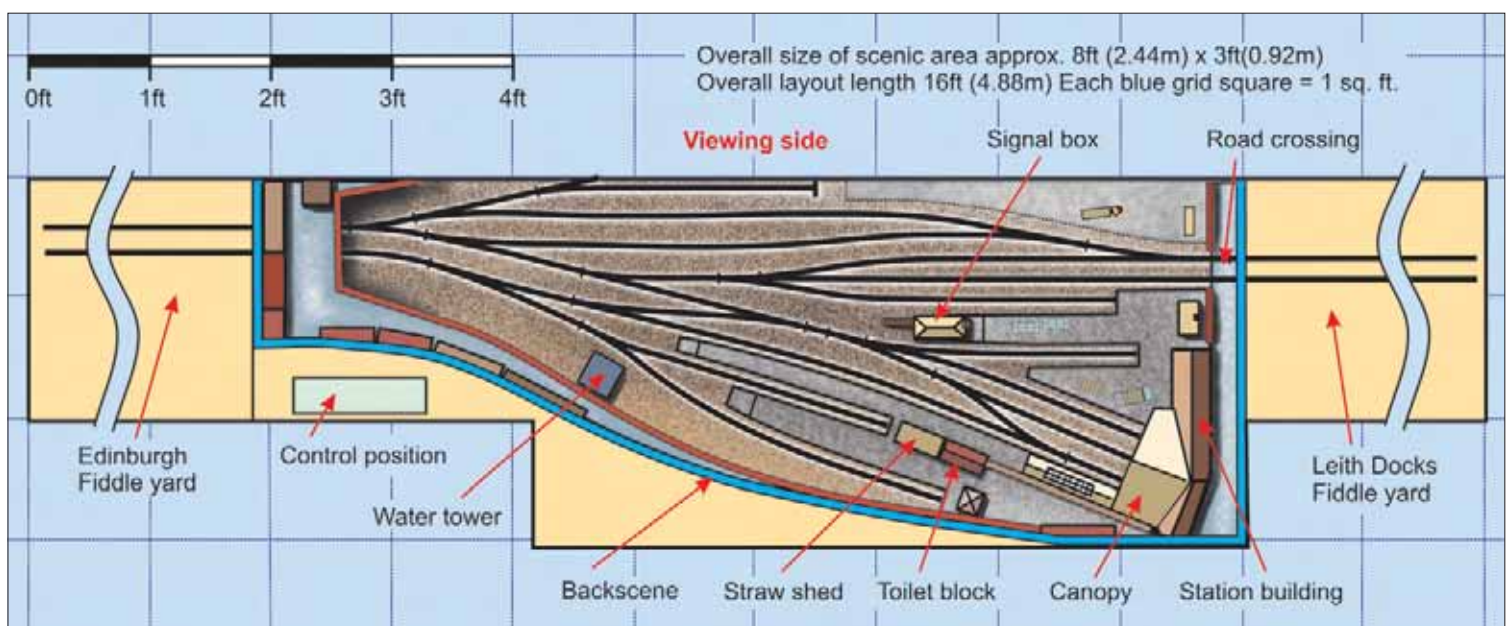
being found locally I decided to use point motors. At the time of writing I have not decided on switches or the electric pencil method of operating the point motors. One hand-held controller and one fixed controller will be used to operate the layout using cab control. The baseboards are made from a plywood top and 2" x 1" wooden battens for frames and cross braces. When planning the trackwork using Peco templates I found that some of the point motors were in the same place as the

cross braces, and rather than shortening the sidings I made them longer. A pair of the new three-way points was used, but the geometry did not quite match so a compromise was made. This meant that the baseboard would have to be made longer so a 2' square extension was made. Unusually the model is scaled longer than the original.

The station buildings are mainly scratch-built from Wills embossed sheets or plasticard. The buildings in the backscene area are a mix-

Above: J35 No.64472 heads a train of grain wagons from the docks. The wagons are a mixture of Parkside Dundas and Harburn Hobbies special editions. The J35 is a DJH kit, Hunslet shunter D2556 is an A1 Models kit.

ture of Townstreet, Biltzezi and scratchbuilt. I made some of the buildings with the help of a computer. I photographed a stone wall, then a building. Using Photoshop® I cut out the windows and pasted them on the photograph of





Left: a Bachmann J39 heads a passenger train for Edinburgh Waverley while a J38 pulls in with a local freight.

Right: J72 No.68737 heads for the docks. This is a Bachmann model straight out of the box and the weathering is superb. J83 No.68477 is readied to take out the fish vans. This is a Hornby body on a Bachmann 5700 pannier tank chassis. I hope to replace this with an old GEM kit I bought years ago when I can obtain a chassis for it.

Lower right: a close-up of Hunslet diesel shunter D2556. The weathered fish van is a Parkside Dundas kit. I use the latest Bachmann couplings on most of my models. They are small and unobtrusive.

the stone wall. This was printed out on card and pasted over a shell of a building that I had made. The platforms and raised area were made from balsa wood for lightness. The tops of the platforms were made from two layers of balsa wood, the top layer glued at 90 degrees to the bottom layer so that it does not warp. I have not used balsa wood before so I am crossing my fingers that it does not crack or warp. The balsa wood was dressed with embossed plasticard and on the platform tops I used textured paint.

I have sourced much of the layout from Scotland. Ian Kirk coaches, Parkside Dundas wagons, LGW grain wagons from Harburn Hobbies, Townstreet buildings, NB Models locomotive kits, Modelmaster transfers, and wagonloads and buildings from Ten Commandments. But the traffic has not all been one way. Dave Young from Ten Commandments took a liking to the LNER hut that we made for our *West Bridge* layout, took a moulding of it and now sells reproductions. It has been featured several times in his advertisements in RM. We have one on *North Leith*. Dave has also been looking at our signal box; it may be the subject of some future model.

Some of the locomotives that I will be using on *North Leith* are of the classes in the accompanying table. Also making appearances from time to time are classes, C16, J72, J83, Standard 2-6-4 tanks, Standard 4 2-6-0. I am also planning to use diesel shunters. Most of these locos have appeared on past layouts that I have built. I am planning to renumber and rename some of the locomotives to ones that were based at St Margaret's shed. That is why I have not put any locomotive numbers in the list. The majority of the kit-built locomotives are fitted with DS10 motors and Romford wheels.

Class	Qty.	Makers
B1	3	Crownline, Replica and Bachmann
V1 /V3	3	Bachmann
J35	1	DJH
J36	1	Crownline
J37	2	Falcon Brass and NB Models
J38	1	South Eastern Finecast
J39	2	Bachmann
N15	2	Falcon Brass and NB Models
J88	1	Falcon Brass
'Glen'	1	GEM



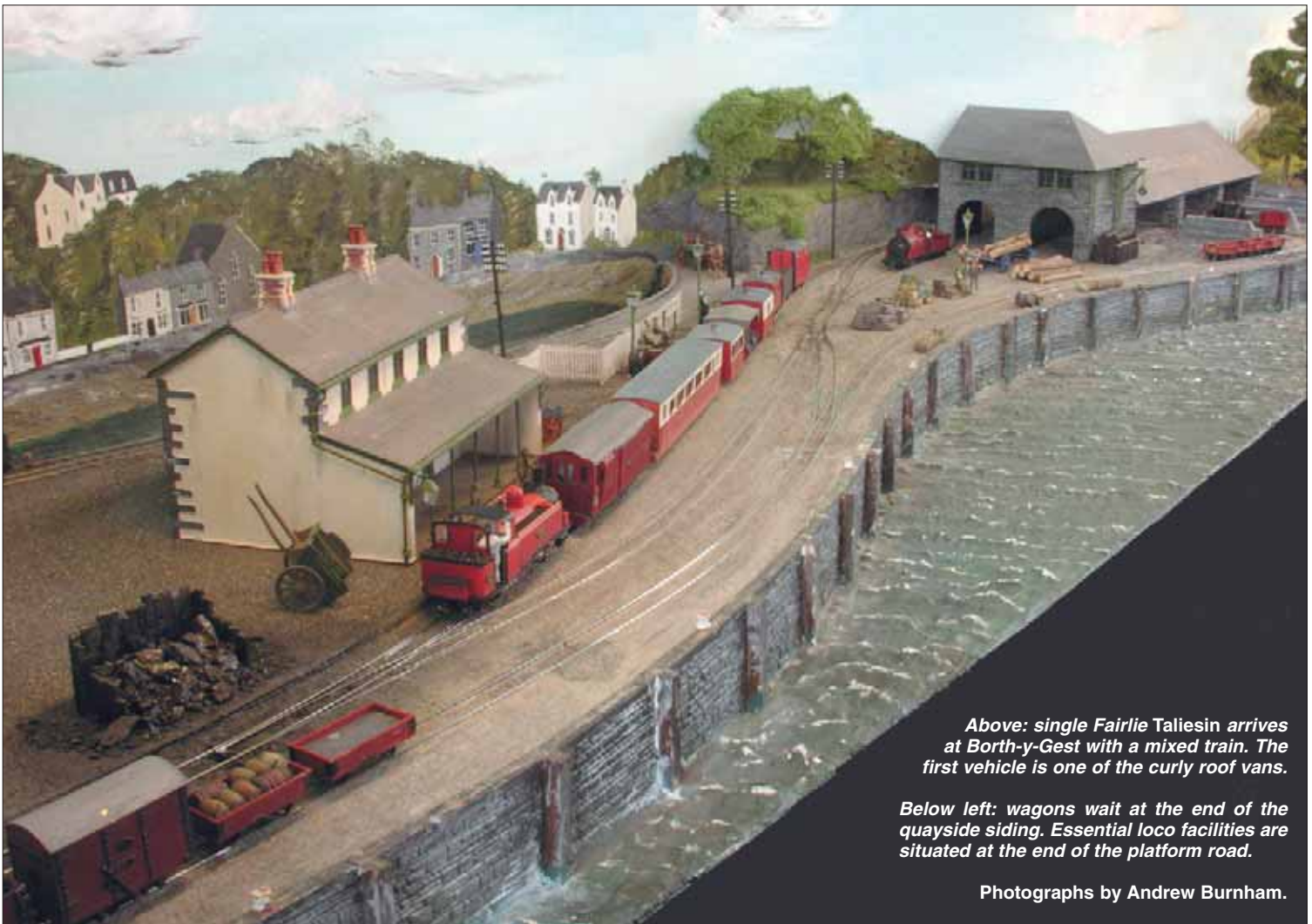
All recent models are to the RP25 standard.

North Leith Citadel will be making its first appearance at the **Warley National Model Railway Exhibition at the NEC** on 4 and 5

December. In 2005 I have been invited to Doncaster, Rainhill, Liverpool, Perth, Southport, Bolton, Warrington and Bradford (subject to confirmation). If you go to any of these exhi-

bitions I will be pleased to answer any questions about operating and the building of *North Leith*.





Above: single Fairlie Taliesin arrives at Borth-y-Gest with a mixed train. The first vehicle is one of the curly roof vans.

Below left: wagons wait at the end of the quayside siding. Essential loco facilities are situated at the end of the platform road.

Photographs by Andrew Burnham.

Borth-y-Gest

A 4mm fine scale narrow gauge layout



Paul Holmes built this North Wales 'might-have-been' as an experiment in fine scale standards.

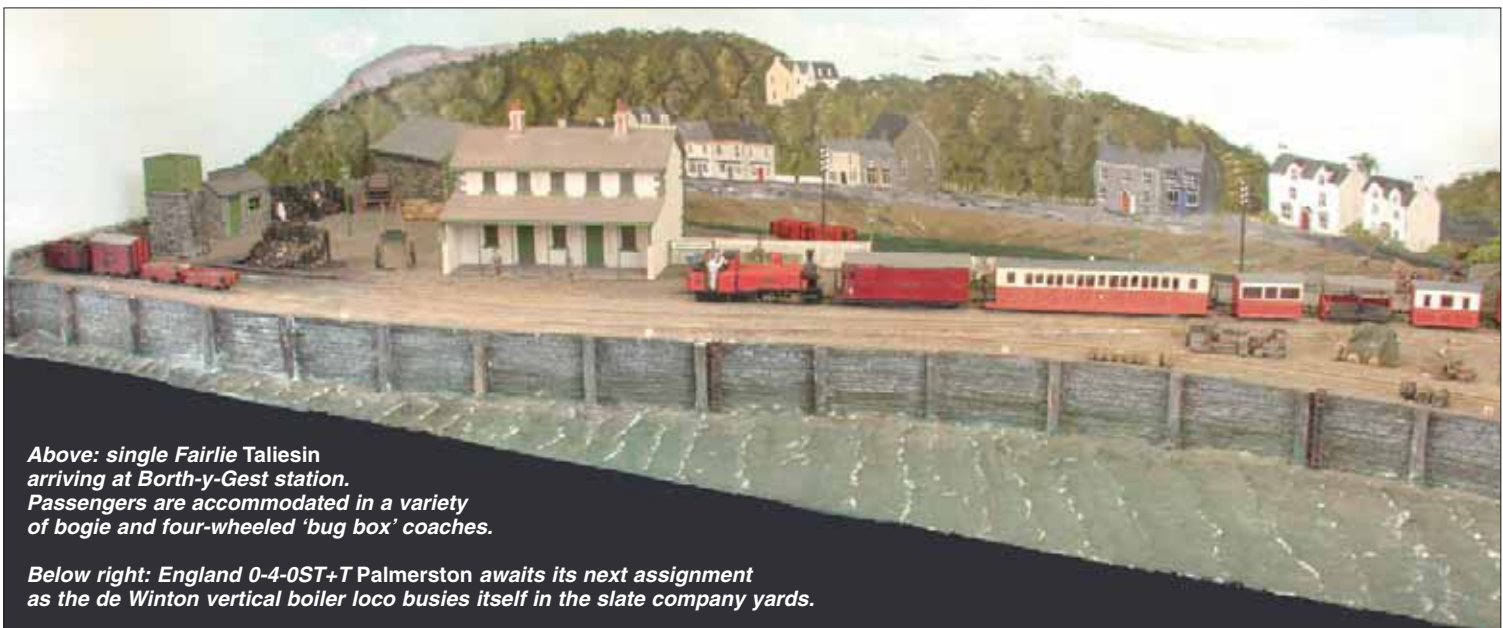


Many articles have started with the phrase: "This model railway started life as a test track for my..." – well, here is another one!

Back in 1980 I had an idea to build a Festiniog (as the spelling then was) layout. The difference was to be that I would model it to Scalefour standards. To that end I started to build models of *Little Giant*, in the 1888 rebuilt condition, and coaches 15 and 16. The loco body and tender body were scratchbuilt in nickel and I practiced turning on my then newly-acquired Unimat lathe by machining the wheels and fittings – all to exact scale standards. However, work ground to a halt, as in 1980 I was unable to find a supply of gears, and the chassis never ran. The loco was nevertheless carefully stored, complete with the set of lathe-turned drivers and the Faulhaber coreless motor, awaiting the day of completion. The carriages too remained partially completed in plasticard for the best part of twenty years!

My interest in the Festiniog and North Wales lines goes back further still, as seems to be so often the case, to family holidays in the 1960s. We witnessed the push towards Tan-y-Bwlch and Dduallt as avid junior members of the FR Society. We rode in the four-wheeled bug-box carriages behind the newly-acquired *Linda*, *Blanche*, and the Alco, and of course were always most pleased when the loco was one of the double Fairlies.

My teenage layout was a combination of 00 and 009 but narrow gauge interests waned and I progressed to EM and then P4 – a model of Shipston-on-Stour, Great Western, in the late 1920s. Then for ten years a new house, young family, and the usual other commitments halted all modelling. However, the desire to build something Festiniog remained and a house move six years ago provided the impetus to pick up the soldering iron again and look at a fresh project.



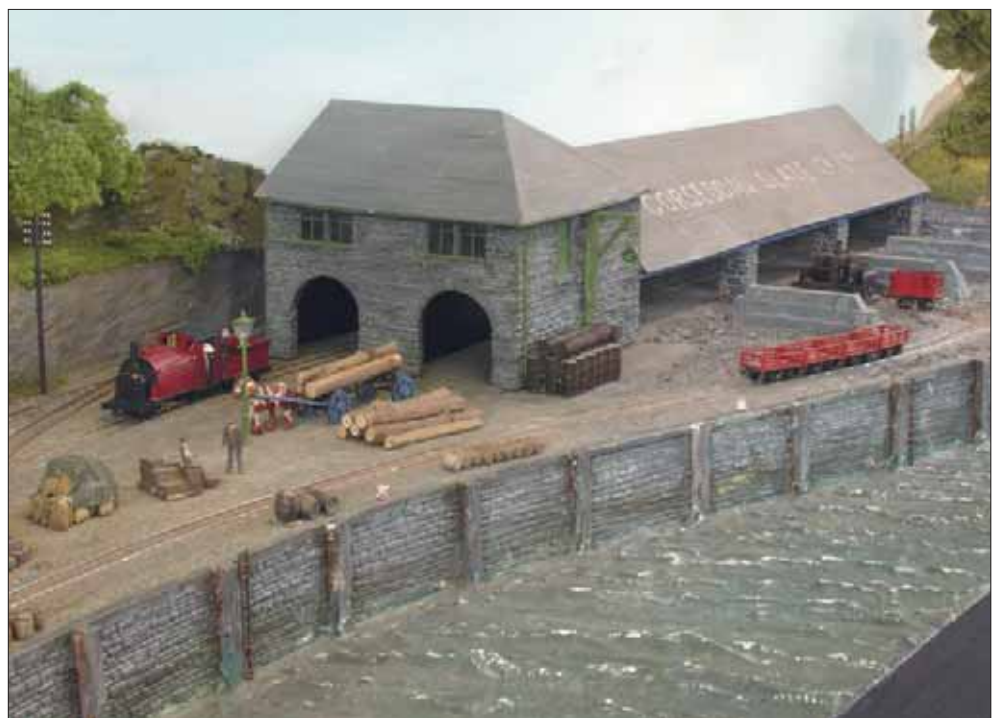
Above: single Fairlie Taliesin arriving at Borth-y-Gest station. Passengers are accommodated in a variety of bogie and four-wheeled 'bug box' coaches.

Below right: England 0-4-0ST+T Palmerston awaits its next assignment as the de Winton vertical boiler loco busies itself in the slate company yards.

The intention is to build a layout featuring two of the Festiniog 'main line' stations, but first a little test piece was planned. As is so often the case, this layout is that test piece, and the main layout has only just been started – the first baseboard and track is now under construction. However, back in 1997, I needed a small layout to try out new ideas. There are very few 1'11½" gauge layouts built to P4 standards and various concepts were untried. I did not really know if I could work to such fine dimensions, and a set of workable standards needed to be formulated and tried.

Historical background

Thoughts turned to a suitable prototype to model, and I remembered reading about the early Croesor Tramway in the Boyd books on the Festiniog. On July 25th 1865 The Croesor and Portmadoc Railway was granted an Act of Parliament obtaining powers to extend their line south from the wharves at Portmadoc to Borth-y-Gest and north to Beddgelert, thus regularising the privately-owned Croesor Tramway. At the same time powers to run passenger trains and use steam locomotives were granted. Exactly seven years later, on the same date, the Gorseddau Junction and Portmadoc Railway was granted powers to run steam locomotives too, whilst the old Gorseddau Railway was re-laid to 2' gauge from its original 3'. The North Wales Narrow Gauge Railways, meanwhile, built their line from Dinas Junction, four miles southwest of Caernarvon in the 1870s. The initial line terminated at Rhyd Ddu, latterly renamed (South) Snowdon station, with a branch to the Bryngwyn quarries. Again numerous plans were laid and Acts passed granting powers that were never exercised! The NWNCR had plans to create a network of 1'11½" lines around North Wales. Branches would have stretched across to Betws-y-Coed and down to Beddgelert where connection and probable amalgamation with the Croesor Tramway would have been made. Most readers, unless they are well versed in the early schemes that burgeoned in and around the North Wales



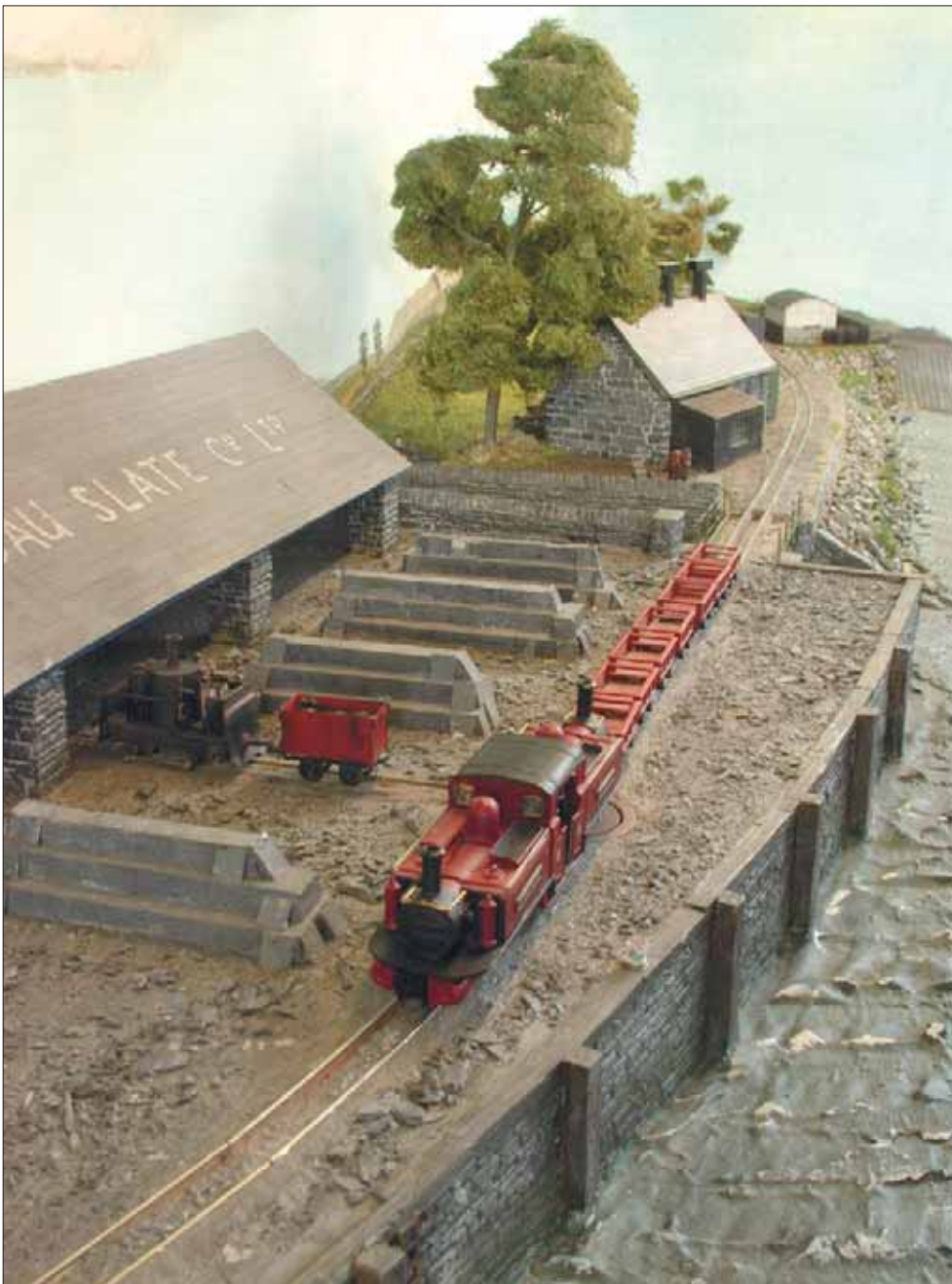
slate industry, will never have heard of these projects that were prevalent in the mid to late 19th century, but these, if built, would have resulted in the line that was eventually built in 1923 – and called the Welsh Highland.

Just suppose that the extension to Borth-y-Gest had been built. All the 2' gauge lines that eventually formed the Welsh Highland ended up merging with the FR on the harbour at Portmadoc, and if the Croesor had built the line around the headland from Portmadoc harbour to Borth-y-Gest, then both the FR and the Gorseddau lines would have had running powers into the station. Borth-y-Gest was, by the latter 19th century, already a minor centre for shipbuilding. A small number of sailing vessels, mostly schooners, were built there for the local slate trade.

Thus was born the 'might have been' that became the layout of Borth-y-Gest. The date is 1888-89, a time when the newer locos like the FR's final double Fairlie, *Livingston Thompson*,

had just been introduced, and two of the early 0-4-0 England engines had just been rebuilt as saddle tanks but others, like *The Prince* and *The Princess*, had not.

In my scheme, we suppose that the Croesor had built their extension, and the Gorseddau Slate Co.Ltd. had their main slate wharf on the site (thus justifying a model of their sole steam engine, a diminutive de Winton vertical boilered locomotive). If we assume the lines to Beddgelert had been built as planned, then the NWNCR would have had their line from Dinas to Portmadoc by 1888, and the natural terminus would have been the newly developed port at Borth-y-Gest. There would then have been a triangular junction on the wharves at Portmadoc, west of the Britannia Bridge, where the line from Borth-y-Gest might have merged with the line leaving the Cob, running on to Croesor and Dinas beyond. I could thus justify building some NWNCR stock in addition to the FR vehicles!



Setting

The harbour at Borth-y-Gest lies in front of the village, and is situated just around the headland from Portmadoc harbour. I have imagined that the line ran out from the harbour at Portmadoc, in front of the cliffs but behind the imaginary slate warehouse of the Gorseddau Slate Co. The station is built on a wharf that might have run across the bay, creating a breakwater for the harbour behind. The wharf, as at Portmadoc, would have been formed from the ballast dropped by incoming slate ships before loading up with Welsh slate, bound for the rest of Britain and also northern Europe. Some thought was given to the aesthetics of different shaped wharves and a sweeping curve seemed a good idea, with tracks sweeping through – so much more interesting and (hopefully) prototypical than a boring rectangle. There is a spur running back from the main line along the coast to the loco shed and to the remote gunpowder store. Gunpowder was also brought in by ship in barrels and stored separately, to be loaded into special timber-lined iron closed wagons; these were the only private owner wagons on the FR.

Construction

I personally find that layouts look much better if presented as a diorama, and this is no exception. The layout is now 8' by 2' in size and sits at around 3'9" from floor level. The backscene rises some 15" above track level, so it is difficult to look over from the back, but I find this gives a better overall effect. The layout is then framed with a pelmet containing the lighting units. The idea of using a proscenium arch is of course lifted from the stage, but after all we are aiming to present a bit of theatre. The backscene is painted with an emulsion sky scene and the harbour and village were painted in acrylics. Photos were lifted from various internet sites of the real Borth-y-Gest village and I used artistic license to remove any buildings more modern than the late 19th century before painting the scene in situ using artists acrylic paints.

Baseboard construction is of the all ply school, with a mix of 4mm and 6mm ordinary

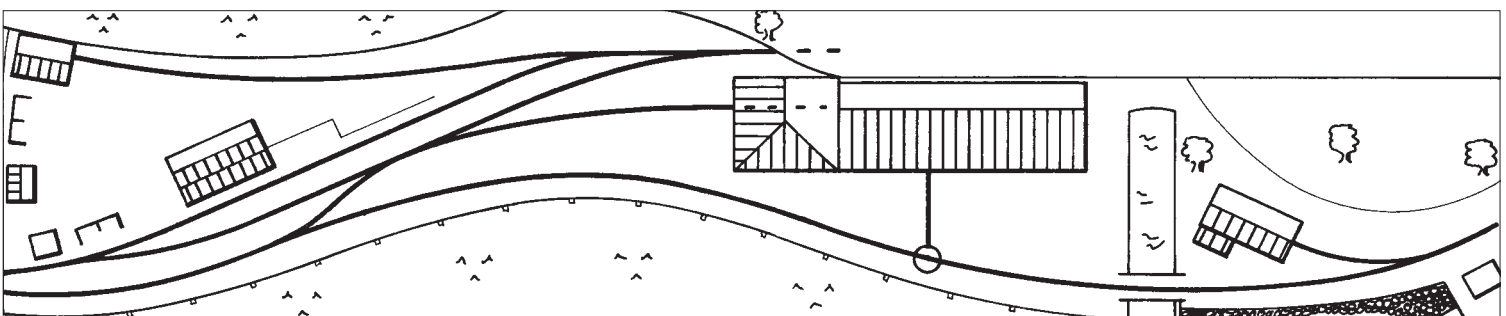
Fine scale narrow gauge standards

My first attempt at devising a set of workable standards used the P4 figures with 11mm knocked off the track gauge, and everything else remaining the same. However, this is wrong. As the narrow gauge prototype is in effect a scaled-down version of standard gauge practice, scale narrow gauge is of necessity scaled down too. After building the first loco, *Livingston Thompson*, to P4 standards with Gibson P4 wheels, and building points to match, it soon became evident that

all was not right. I then happened on the 4mm Finescale Narrow Gauge Study Group of the Scalefour Society and discussed the matter with Lynden Emery, editor of the newsletter. New standards were thereafter produced, based on those used by the 2mm Association. Table 1 is the result. I now use 2mm Association wheels, regauged to a back-to-back of 6.9mm, still running on 7.83mm track. Suitable gauges have been made, although I rely more heavily on my digital micrometer than the track gauge.

Table 1 – wheel and track standards

Gauge	7.83mm
Back to back	6.9mm
Tyre width	1.3mm
Flange width	0.25mm
Flangeway	0.5mm
Crossing clearance	7.33mm



ply, with joints strengthened with 20mm square planed softwood. All panels are glued and pinned and virtually no screws have been used. As the track level is some 50mm above the 'sea level' the construction took a little forward planning but is not particularly complex. The backscene forms an integral part of the construction.

Track

Festiniog rail has evolved over the years, from very early lightweight rail fixed to stone sleepers up to the double-headed rail in use by the 1880s. The rail in common use by this era had a rail height of 4 1/4" and a width across the rail running surface of 2". I did look at using 2mm Association rail, but the running surface is too narrow, and the rail height, at 1mm, is too low. Although the rail I used on this layout – Peco Z gauge code 60 flat bottom – is strictly speaking wrong as it is flat bottom in section, this does not matter because throughout the Victorian period photographic evidence confirms the fact that the track was totally ballasted over. Both the sleepers and the rail base are completely covered in stone, and the rail running surface is the only part visible. The code 60 rail is a good match in this dimension.

Track is all laid on the usual base of cork sheet - not as quiet as a flexible base, but much more rigid. Standard gauge copperclad sleepers are cut in half (totally out of scale but eventually invisible) and glued down with Evostick. Rail is soldered as usual and points were made separately beforehand. Problems were encountered with tiebars, and these have proved the most unreliable of my ideas, especially under exhibition conditions. The basic problem is that the tiebars on the prototype are of course steel rods connecting the point blades together. In 4mm standard gauge, especially in 18.83, many modellers use prototypical units, which have to be insulated of course. But in 7.83 there is really inadequate room to insert such touches – in my book anyway! I have used tiebars under the sleepers and made out of 1/32" ply with pins soldered to the point blades made from veneer panel pins. The holes in the ply have become wobbly and the solder joint between pin and rail is inadequate and has led to failures.

For the new layout under construction, the tiebars are still buried beneath two adjacent sleepers, but now made from C&L copperclad material, which is fibreglass based rather than paxolin. The copper is stripped off and then holes accurately jig drilled at 6.7mm centres. The point blades are then soldered to a 3mm x 3mm L-shaped piece of bent 0.5mm piano wire which is soldered along the length of the tip of the blade using Carr's black label flux, which bonds to steel but has to be washed off. The projecting 3mm of wire is then fed down between two closely spaced sleepers and into the tiebar and retained in place with a tiny washer cut from 0.5mm inside bore brass tubing. So far this is proving to be a better method, but I do not know how to replace the ones on *Borth-y-Gest* without ripping up the entire track bed! I suspect this will continue to be the Achilles heel of the layout.



Above: the Gorseddau Slate Company's premises.

Left: Festiniog double Fairlie Livingston Thompson lifts a short rake of empty slate wagons from the Gorseddau wharf.

In addition, examination of photos shows that the sleepers are nowhere in evidence, even on pointwork – but 4mm stock will not run through gravelly track like the prototype does, so great care needs to be taken in clearing ballast from flangeways. Initial experiments with home-made point motors using solenoids from Farnell were not very successful either, so most points now use Tortoise® motors.

Electromagnets are buried under the track to operate the DG couplings.

Ballasting was a difficult task, left for some time because I hate doing it at the best of times. Fine granite ballast was used, but after laying it looked wrong, both in colour and in texture. I realised from looking at photos that the ballast should really be stone of around 1" and down, i.e. stones down to dust size particles are present in the mix. Model ballast tends to one size graded chippings. Therefore, after applying the stone carefully, the track was flooded with PVA diluted with water and a little washing up liquid. After it was dry the flangeways were cleared using a jeweller's screwdriver and then all the ballast scrubbed with a larger screwdriver to give the impression of that worn powdery effect. The entire track was then painted over the course of several evenings with washes of dilute acrylic paints to lighten the ballast and give a varied colour finish.

Lighting

The lighting in the pelmet is with fluorescent tubes: I know a lot is talked about colour temperature and these tubes, but my feeling is that as long as the painting is done in the same light and not under bulbs or daylight, then the effect will be right. Problems can occur if models are painted under different lighting conditions. I have noticed the greatest effect on crimson lake red, which appears darker and more purple under fluorescent strip than incandescent bulbs, under which it appears a brighter red.

The layout has a pelmet, as mentioned earlier: the lighting units are from B&Q and meant to be fixed under kitchen unit pelmets. They are provided with 'plug and play' sockets for this purpose and are ideal for layout lighting. Although they are mains voltage, on *Borth-y-Gest* they are wired totally independently to their own plug and so there can be no confusion whatsoever with 12 or 16 volt systems. Not only is the light emitted more even than that from spotlights, but they run cool. In the past I have had disasters with spotlights, which soften plastics and cause expansion of trackwork.

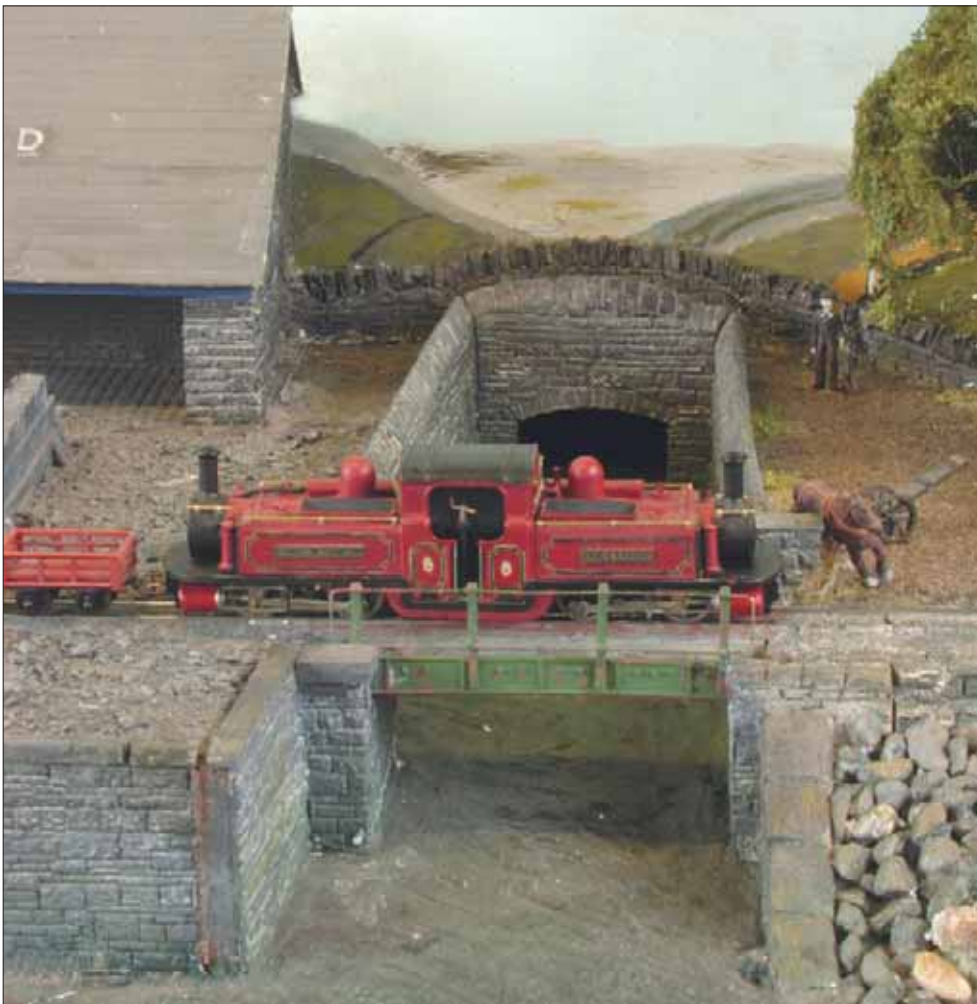
Control

Control is with a pair of Gaugemaster controllers wired through a common return system to the section switches and point switches – the inbuilt switches in the Tortoise® point motors switch the common crossing polarity. A colourful track diagram contains bi-colour LEDs indicating track power and point selection, a fun wiring situation!

More recently a Pentroller has been used – the difference in smoothness of operation is quite remarkable. This unit was used exclusively at the Scaleforum in Leatherhead in 2002 and then at Chiltern Narrow Gauge and performed faultlessly.

Structures

Structures are all scratchbuilt from card or plastic. The station building is based on the station at Tan-y-Grisiau and made from mounting card, treated with shellac in the form of button polish. The goods shed, slate warehouse, and water tower are from Wills scenic plastic sheets, as is the dockside. The loco shed is card covered in DAS clay. I have used a variety of materials in order to experiment for the full layout to follow. I have found the Wills sheets good, but the plastic is so thick it is difficult to cut. My preference has always been for card, and when used carefully DAS gives a good impression of both cut and random stone.



Left: Livingston Thompson shunts slate wagons at the Gorseddau wharf. The different styles of walling are shown to good effect.

Below: Livingston Thompson on shed. To the right, at a discrete distance, is the gunpowder store shed, with one of the special vans used for transporting the explosive parked nearby.

One has to take care that the stones are cut carefully into the wet clay and that after partial drying any heaped up edges are pushed back and the faces slightly roughened to give a hewn appearance. I also have a long standing hatred of plasticard and its tendency to warp. This seems to happen either immediately after construction or months or even years later. Some people do not seem to have the problem, but I am still mistrustful. The original carriage built for this layout, one of the two bogie coaches Nos.15/16, was made in plasticard back on 1980. It has warped around the underframe area below the end balconies – it now has to be placed on the track the right way

round so as not to show on the ‘public’ side!

I wanted to experiment with dry stone walls, in order to develop a technique for the full layout. The technique used was an adaptation of others and I feel works quite well. A piece of DAS was rolled out with a rolling pin onto a kitchen chopping board to around 1.5 to 2mm thickness (take care to ask the domestic authorities, or hide your work!). Before it sets, scribe heavily through with a Stanley knife at 3-4mm intervals – no need to be too careful, except with your fingers! When almost dry, probably the next morning, again smooth off the rolled-up edges. When fully set snap the piece into strips. Individual ‘stones’ were then

snapped off the strip and the wall built up using a mortar of cheap PVA glue with a little black acrylic paint added. A short length of wall can be built up surprisingly quickly, and as the wall can only be seen from the front the slight variation in depth does not matter. The top course of stones was set as upright pieces. When thoroughly dry, the wall was painted with thin washes of acrylics in a black/white/yellow ochre mix, with added greens and blues to give a weathered lichen covered effect. Sparing use of dark mortar means that there are no nasty lines appearing where the paint does not soak in and the stones are picked out in subtle shades of varying colour. The stones are probably a little overscale, but I do not think that matters, as the effect is definitely one of a dry stone finish rather than a coursed wall.

Conclusion

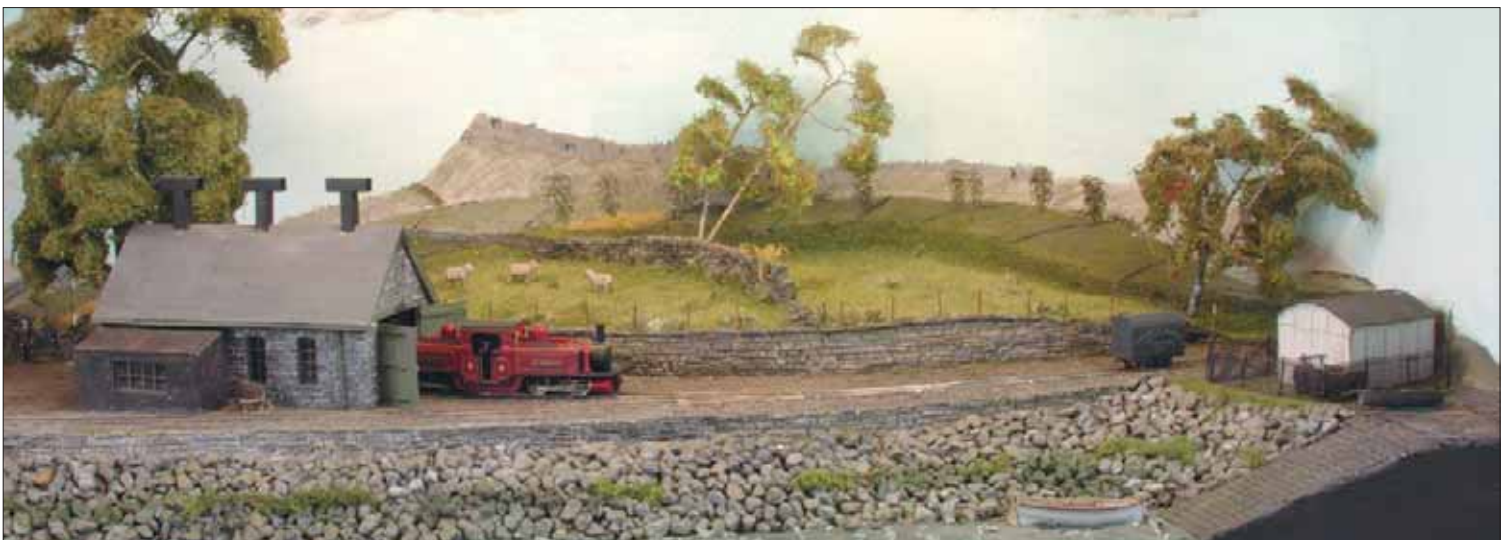
As a test bed for ideas, the layout has been very useful. I have tried to recreate the atmosphere of a Welsh coastal port in the late 1880s and will leave readers to decide whether this has been successful. P4 narrow gauge can work and I think the extra effort is worthwhile. I have found a few problems that have been reconsidered before commencing work on the big layout.

I have a hankering to build a schooner to sit in Borth-y-Gest harbour – perhaps the *Cadwalader Jones*, an 80' two-masted vessel actually built at Borth-y-Gest in 1878.

To come – details of the locos and stock.
In the meantime, see the layout at the NEC.

More information about the 4mm Finescale Narrow Gauge Study Group can be obtained from Lynden Emery, 13, Endyke Lane, Cottingham, East Yorkshire, HU16 4QD.

lynden.emery@tesco.net



LNER J17 0-6-0 for 0 gauge

Built from the DMR Products kit

Charlie King modelled No. 65580 as running within a few months of withdrawal.

Introduced in 1900 by the Great Eastern Railway for medium goods traffic the locomotives that became Class J17 on the LNER rank among those relatively anonymous workhorses that plied their trade in the shadow of their more glamorous sisters employed on passenger work.

The original GER engines were two similar classes rebuilt by the LNER into one class, J17, during the 1920s. Unusually for the LNER the Belpaire firebox version of the original locomotives became standard. From then on the history and development of these engines is relatively straightforward and all but one, which was destroyed in an air raid in 1944, made it into the British Railways period with several lasting to the end of steam in East Anglia in 1962. The last survivor, No.65567, has been preserved and is part of the NRM collection at York.

A short history of the class is included with the instructions and there are several good photographs of them at work in various steam photo albums covering the East Anglia region. One of the aspects of modelling that I enjoy is prototype research and although RCTS *Locomotives of the LNER* Volume 5 which covers this class is an obvious reference, copies are getting hard to come by. However, I can recommend that intending builders obtain a copy of the Isinglass Drawings of the J17 (Catalogue No.445) and *Locomotives Illustrated* No.142 that features the ex-GER 0-6-0s and which contains prototype information and some fine photographs of these engines at various periods in their history.

The kit requires wheels, motor/gearbox and couplings to complete. I used Slater's wheels and a Mashima 1833 motor coupled to an ABC gears VM2 gearbox in this model. This combination can be set up to drive the rear axle with



the motor positioned vertically into the firebox.

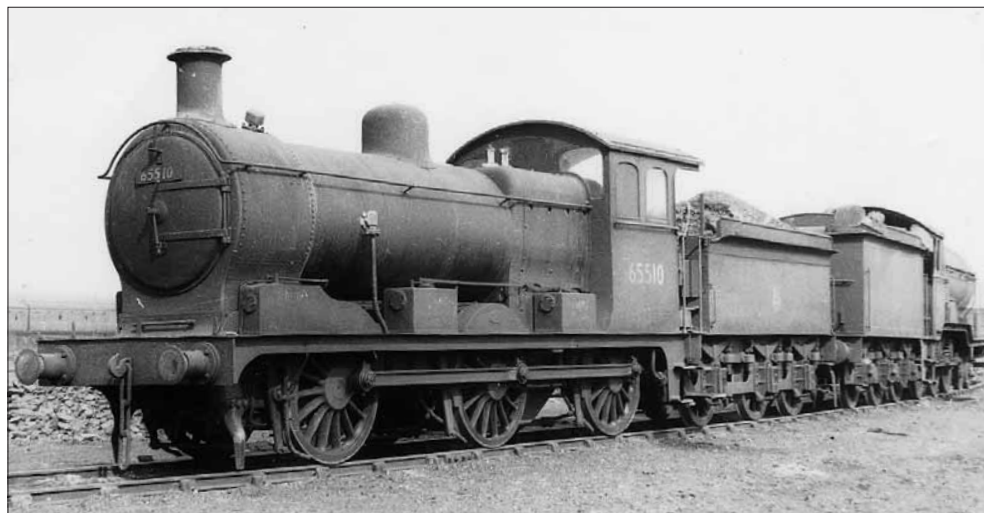
The kit itself is the usual combination of nickel silver loco chassis, brass body and tender plus mix of white metal and lost wax brass detail castings. Instructions are sheets of text with exploded drawings plus a selection of detail digital photographs taken of the preserved locomotive. This is the second kit that I have built recently that has included this interesting and useful addition to instructions and with the increasing use of digital photography it is something of which we may see more in the future. The instructions are quite good but will repay reading through carefully especially as some of the detail aspects of the kit are not described that clearly. Having had a go at instruction writing myself, I know how hard it

Above: viewed from the back, the detail of the model shows up well in this photo. The loco is modelled with the tender almost empty but with the usual spillage of coal behind the tender backplate. It is a pity that the cab interior cannot be seen as the level of detail is very good.

Model photographs by Trevor Cousens.

Below left: J17 No.65510 has a D16/3 for company at Stratford shed on 20 March 1955. Built in 1900 and rebuilt in 1928, the machine was photographed in the month it was withdrawn from BR service.

Photograph: Frank Hornby.



is to cover everything and this is where your own research really comes into play.

The quality of the materials used in this kit is high. The castings which are a mix of white metal and lost wax brass are without blemish and require only a little bit of cleaning up. The main parts of the kit are done to a very high standard, the parts fitting together without further work beyond a bit of fettling where they were joined to the fret. However, some of the finer detail is not so well done by comparison and the substance of this article concentrates on alerting the intending modeller to where I have made changes and upgraded detail work.

Construction begins with the chassis. Test fitting showed that the slots in the side frames were longer than the tabs on the spacers. This in itself is not a particular problem but holes rather than slots are etched in the spacers to align with the chassis to body fixing screws and these have to line up accurately. I got round this by setting the chassis aside and making up the basic footplate assembly first



by soldering the fixing nuts in place on the footplate, then adding valances, buffer and drag beams. The front spacer, which has two fixing holes, can then be screwed in position, inserting a piece of paper between it and the footplate to make sure that it is not possible to solder them together. One of the side frames can now be lined up with complete accuracy and soldered in place. The second side frame can then be attached and the whole operation repeated for the rear spacer. The alignment of the frames is aided by the buffer and drag beams as well as by inserting the axles into their respective holes so that a sight can be taken along the chassis to ensure that all is square and true.

The third spacer, part 7 in the kit, is an elongated 'U' shape. I chose to cut the bottom out of this leaving a narrow frame to retain stiffness but principally to allow a representation of the inside motion to be fitted. This was made up from bits of scrap etch and wire and is no more than an 'artist's impression' of the motion. This is a personal thing but I dislike seeing a gap in between the frames when I know that there should be something there and equally the original design of the spacer filling the gap completely is no better. I have not described how I made the representation of the inside motion as I understand from DMR that appropriate parts will be included in future kits.

The instructions advise the use of 0.9mm wire from which to suspend the brake hangers. The holes in the side frames on my kit were well in excess of this dimension as were the matching holes in the brake hangers themselves. I opened out both sets of holes and used 1.5mm brass rod instead which gives a more realistic appearance. In reality locomotive brake gear had to be substantially constructed given the stresses placed on it when the brakes were applied. I also used thin brass

strip culled from scrap etch to represent the brake pull rods rather than the wire supplied.

A noticeable feature of the chassis that is omitted is the sand pipes. These are made up from 0.9mm wire and are positioned 22, 70, 130mm from the front and 12 mm from the back of the chassis. The rear wheels have two sets of pipes, one being for reverse running. The centre pair of sand pipes can be soldered to the back of the brake hangers to give them stiffness. The front pipes sit outside the brake hangers and whilst on the prototype these are fitted to support brackets, on the model I soldered them directly to the brake hanger. The front and rear pair of sand pipes are also supported with brackets made up from thin split pins bent round and soldered to the inside face of the side frames.

The remainder of the chassis is constructed as per the instructions and once wired up and tested, with in my case wiper pick-ups operating on the top of the wheels, it can be put aside to allow work on the body to progress.

Having already built the basic footplate, I now added the wheel splashes. I built the front ones off the model and then attached the complete assembly. I also added the distinctive beading that fits round the joint between splashers and footplate. This was a feature of all GER engines and I made this up from 1mm x 1mm 'L' section brass from the K&S Special Sections range with the ends made from 1mm strip from the same source.

I chose to build the smokebox, boiler and firebox assembly next. These go together with ease, construction being helped by thoughtful design and the fact that the Belpaire firebox wrapper comes pre-formed which makes construction of what can be a tricky part of the model easy. Similarly the cab goes together without difficulty but the floor and its supports sit back from the front as this was cantilevered backwards on the prototype. This is not imme-

diately clear from the instructions but is readily apparent on the Isinglass drawing. I always detail the cab sides and front while they are separate pieces, as it makes construction and cleaning up much easier. Check photographs because some engines had the cab beading and handrail turned outward and both this and the straight option are in the kit. The inside of the cab is well detailed but the inside splashers (parts 28) need to be trimmed back by about 3mm to clear the backhead which, I understand, should be more correctly referred to as the firebox front!

Once the main body is together I added the detail, most of which is straightforward. However, the sandboxes need some additional work. The rear ones need to be narrowed slightly to sit tight up against the sides of the firebox, the centre pair have no backs and when the model is viewed from a low angle it is possible to see this. There is plenty of scrap etch that can be used to make backs for these sandboxes and that bit of extra work just finishes them off properly.

Although the kit provides some superb castings for the sandbox lids there is no representation of the connections between the operating rods and the paddles inside the boxes that were supposed to shake the sand down. I made these up out of some 0.9mm wire and some tiny washers I found in the bits box. These might be 16 BA washers or some of those that used to be supplied, maybe still are, with 4mm Romford wheel crankpins.

Instructions about setting up the rodding to the sand boxes are a bit vague. Strips of etch are provided for the rodding but frankly I found these to be poorly done which is out of context with the main parts of the kit. On the side away from the reversing lever the sandboxes are linked with a flat rod in a vertical plane. This rod is 'joggled' to clear the tops of the sandboxes. It is shown in the Isinglass



Above: so grimy that only its number is visible on its flanks, No.65564 stands cold at Stratford shed on 27 September 1960.

Photograph: Frank Hornby.

Left: based on the real engine coming to the end of its days, this photograph of the model of 65580 shows how well the kit captures the appearance and proportions of the prototype.

drawing and it also shows up in photographs, such the one on page 27 of *Locomotives*, and I made this rod with more of the K&S 1mm brass strip. On the other side with the reversing lever, it would seem that some engines, as referred to in the kit, had the sandbox rods made up from round section which was forked at the ends to connect with the various operating levers. On the other hand photographs would seem to indicate that some engines had flat rods in a horizontal plane more in keeping with GER practice on other classes of locomotive. You have to make your own choice on this one and I went for the option of the flat rods.

The mechanical lubricator is again a quality lost wax casting. I drilled through this carefully with a 0.7mm drill so that I could pass thin 28swg copper wires through to represent the pipe runs. This operation is not as difficult as you might think so long as time and care is taken. I also bent and soldered a strip of brass to the bottom of the lubricator to represent the bracket upon which the real thing sits. This makes fitting the lubricator to the footplate just behind the front splasher easier too. The pipe runs are shown on one of the digital photographs supplied with the instructions and if the copper wire is gently heated to take the springiness out of it, it is quite easy to form the various bends required.

The valve chest cover, sometimes called a 'piano front' because of its shape, is provided in the kit as a piece of etch that is too short. I have made several models of other classes of ex-GE locos all of which have this feature provided as a casting as it is an awkward shape to form. I made a cover by forming a piece of annealed brass over a length of 9mm dowelling although anything of round about this diameter would do. To make this job easier it is better to use a piece of material that is over-size that gives you enough metal to hold onto

while you form it. Also it is easier to hold for drilling the two holes needed to carry the short piece of handrail that was there as an aid to opening the cover. Once you are happy with the shape, it can be cut back to the size required.

Adding the lamp irons, buffer stocks, handrails and boiler fittings completes the engine and we can turn attention to the tender construction which begins with the chassis. This is straightforward but I opted not to use the compensation system provided. I chose to elongate vertically the centre axle hole to allow the centre pair of wheels to move up and down by about 1mm in total. I have successfully used this method on other tenders and it allows just enough flexibility to cope with uneven track. The tender body could not be easier with the flares on the sides being pre-formed, saving the modeller another potentially awkward task. As with the engine, the main parts are very well done and go together without difficulty but again I found myself having to up-grade some of the detail parts.

The tender beading is offered as an etched detail part or half-round section brass. The etched parts in my kit were different lengths and this has to be corrected with some brass strip fitted and filed down to size. I thought that the half-round strip provided was a bit over large and if I were to do another one of these tenders I would use 0.7mm brass wire which I have used to represent the beading on other tenders and which seems to me to be about right.

The tool boxes on top of the tenders are easy enough but the brass for the lids does benefit from being annealed to make forming the curve easier. I added details like hinges and the lock from bits of strip. These are another part that might have benefited by being done as a casting. One final point with the tender is fitting the buffers. The position of the side frames makes springing the buffers a tricky operation. This is not the fault of the kit but more of the prototype and I have met the same problem with GER tenders from other manufacturers. There are two ways of solving the problem. The first is to replace the Slater's buffers provided with the kit with a set of Alan Gibson GER buffers which of course adds to

the cost. The other alternative is to open the holes in the buffer beam sideways slightly so that the tail of the buffer shank will just clear the inside of the tender side frame. The 10BA nut that is used to retain the buffer spring will need to be filed down so that it can be held in place with tweezers and the buffer shank screwed on to it. It is a fiddly way of doing things but it works. Applying a little oil will help the buffer to slide freely. I believe that DMR will be supplying a set of buffers from a different manufacturer in future that will help to overcome this problem.

After a thorough clean, painting is carried out with satin black car spray over grey primer. The other colours, red buffer beams, brass safety valves etc and copper pipework are picked out using Humbrol paints. Smokebox number plate, shed plate, maker's plates and tender plate are from Guilplates and transfers are Fox. After spraying with a light coat of satin varnish the model is set aside to harden thoroughly, at least a week, before weathering.

I had decided to base the model on a colour photo of 65580 taken within a few months of withdrawal and in poor external condition. Most of this was done with an airbrush using Precision paints underframe grime, brake dust and Humbrol gunmetal with touches of matt black and bauxite added to more rusted areas by dry brushing and stippling to give a texture. Applying this degree of weathering requires a photo of a loco in the condition that you are trying to simulate to act as a control, and lots of patience. It is important to allow weathering coats to dry before adding any more as they are applied very thinly and do not always reveal their true colour until thoroughly dry. It is also important to resist the urge to spray on one more coat or have 'one more dab' with the brush. This is the point at which you stop and put the work aside for a few hours. I tend to do weathering jobs during the working week as I can often find a few minutes in the morning and then have no choice but to put the model down for the rest of the day.

I have always had a soft spot for this particular class of engine, indeed the first kit I ever built many years ago now was a BEC Kits J17 which ran on a Triang Jinty chassis. The DMR kit is a different animal altogether and captures the proportions of the prototype locomotive very well. Overall, much thought has gone into the design and the incorporation of features such as the pre-formed firebox and tender sides eases the construction of these parts considerably. Improving on the detail is not an arduous task and enhances an already good model that I am sure will find a home in the collection of anyone who models the railway scene in eastern England in 7mm scale.

DMR Products, 25 Halwyn Place, Redannick, Truro, Cornwall TR1 2LA.

The author will be demonstrating techniques described in his RM articles at the Warley show (at the NEC) this month and will have some of the actual models on display. See 'Societies & Clubs'.

Bridge of Weir – Greenock Princes Pier

A post-war impression in 00, with a hint of N

A Scottish railway scene recalled with affection and selective compression by J. Cameron Millar.

Bridge of Weir is a typical commuter village in the Central Belt of Scotland, about 15 miles west of Glasgow. In the latter part of the 19th Century a group of local businessmen became interested in connecting the village to the railway system as it then existed. In 1861 they formally proposed a line, pooling their resources in order to push the necessary bill through Parliament. The plan was to connect Bridge of Weir by rail via Elderslie to nearby Johnstone (served at that time by the illustrious Glasgow & South Western Railway) and thus, via the GSWR, eastward to Paisley and Glasgow (St. Enoch), and southward to the Ayrshire coast.

The bill was passed in Parliament in 1862, and the proposal came to fruition two years later in the form of the Bridge of Weir Railway Company, which opened a station (initially a terminus) in the village in 1864, connecting to Johnstone via a single line. However, even by the time of opening, the small BWRC had already negotiated a take-over by the GSWR, which took place the following year. The GSWR then quickly re-sited the station about 200 yards to the south, turned the original station into a goods yard, and doubled the line between Bridge of Weir and Johnstone. All this necessitated major earthworks, construction of a retaining wall, and some realignment of the approach road from the east.

About this time, the GSWR entered into negotiation with the Greenock & Ayrshire Railway Company, and an extension was built



from Bridge of Weir, taking the line all the way to the coastal town of Greenock on the southern banks of the Clyde estuary, via Kilmacolm, Upper Port Glasgow and Lynedoch. Impressive stone viaducts were also constructed to carry the line across the river Gryffe at Bridge of Weir, and the steep ravine at Glen Devol, high above the town of Port Glasgow. The GSWR then took over this section of the line from the G&A, and built an imposing terminus at Greenock Princes Pier, which opened in 1895. Thus the GSWR now had a line from Glasgow to Greenock via Paisley (Canal Street) to connect with ocean liner and shipping services,

and with which it could compete directly with the rival Caledonian Railway's coastal route from Glasgow (Central) to Greenock (Central) via Paisley (Gilmour Street) and their waterfront station at Gourrock.

After the grouping in 1923, this line and the CR route were absorbed by the LMS. Some rationalization of services did take place, but both routes from Glasgow to the Clyde coast remained open for business all through the big-four years, and for the first eleven years under the auspices of British Railways from 1948 to 1959. But by then, in common with so many other lines in Britain, the rise of road



Above: the Ranfurly Hotel. This structure, which in reality by 1948 had been converted to flats and shops, has been modelled in low-relief, but despite this necessary compromise I feel the Scottish baronial home-style that architect Robert Raeburn intended has been captured quite well. The model was made mostly from artist's board, but the towers were made from dowel of various diameters, topped with paper cones. Regrettably, the eastern end of the structure (to the left of the photograph) was destroyed by fire a few years ago. I myself heard some rumours of arson. The entrance to the station building, visible in the foreground, was bricked up in a most ugly manner in 1978 after removal of the footbridge when the line was singled.

Left: BR Standard Class 4MT 2-6-4T No.80136 at Bridge of Weir with the morning up boat train for Glasgow St. Enoch. Immediately behind the loco (from Bachmann) is the TPO (from Hornby).

Opposite: close-up views of the offshore fishing vessel Lorcan and of the puffer Marcia D, tied up at Greenock Princes Pier. The latter vessel is named after the lady in my life.

Photographs by the author.



transport in the form of lorries and the private car was incurring serious revenue losses. Further, the sharp curves and steep gradients on the old GSWR route did nothing to convince the British Railways Board of a need to retain this line at its level of operations at the time. Some form of consolidation was inevitable. Thus the rot commenced in 1959 when the section between Greenock Princes Pier and Kilmacolm was closed to regular passenger traffic, but retained for goods traffic, and occasional boat trains. However, things became significantly worse when the axe fell six years later in 1965; Greenock Princes Pier

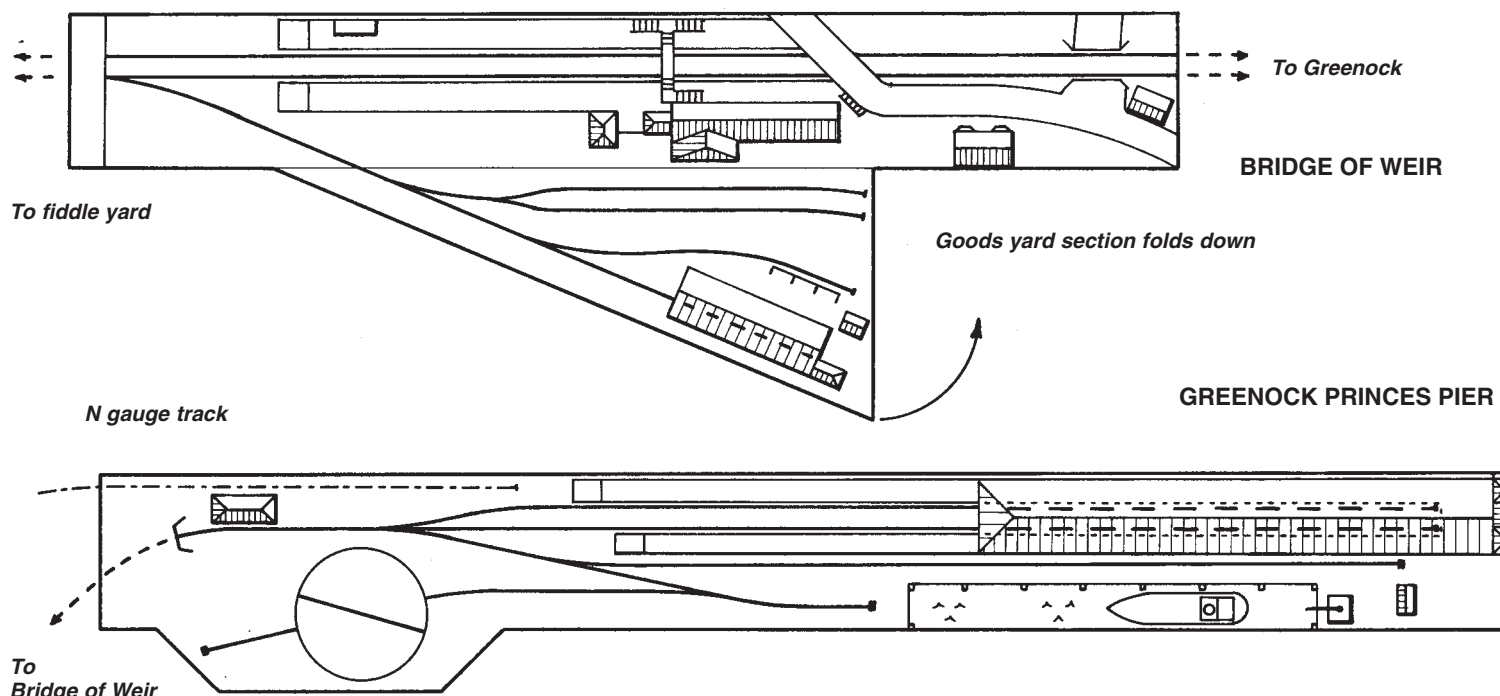
closed for good, as well as all stations west of Kilmacolm, the latter then becoming a terminus. The goods yards at Bridge of Weir and Kilmacolm stations were also closed.

The unfortunate decision was taken a few years later to allow the British army to blow up Glen Devol viaduct (to this day the ruined masonry still lies where it fell). Happily however Gryffe viaduct at Bridge of Weir remains intact. The portion of the line from Kilmacolm to Glasgow continued to run, although by now it was operated by DMUs. But predictably, revenue losses continued, and in 1978 the section of the line from Elderslie Junction to

Above left: LMS Ivatt 2-6-2T No.1202 waiting for the starter with a local train from Greenock Princes Pier to Paisley Canal Street.

Above: LMS Pug 0-4-0 No. 11232 shunts two coal wagons and a fish van down the quayside at Greenock Princes Pier. The train for Paisley Canal Street is standing in the background at Platform 1.

Kilmacolm was singled. This resulted in the closure of the down platform at Bridge of Weir station, as well as the removal of its waiting room (leaving an unsightly scar in the sandstone retaining wall) and the station footbridge (with an ugly bricking up of the original retaining wall footbridge access port). Many viewed this disfiguring of the once-attractive GSWR station as an act of corporate vandalism. Services soldiered on for another five years, but pressure for closure intensified, despite strong opposition mounted by the local populace of Bridge of Weir and Kilmacolm. In fact I remember attending one such meeting as a teenager and witnessing the anger and outrage being vented by many people who wished their line to continue. But it was a lost cause. The last train was run by BR in January 1983, after which time the line from Glasgow to Kilmacolm was closed.





Left: LMS 'Crab' 2-6-0 No.13098 on the turntable at Greenock Princes Pier. The interior of the signal box is visible in this photograph. Behind the locomotive on the turntable is another 'Crab' 2-6-0, this time the Farish N gauge version (No.42806) in BR livery, shunting a Peco guards van. The N gauge models are included to give an illusion of distance.

Below left: the Austerity J94 0-6-0ST station yard shunter posed with an LMS livery conflat wagon alongside one of the fleet of Glasgow Corporation double decker buses. It is the latter form of public transport that now serves the village community, the last train having departed in January 1982.

Below: time-warp to 25 years in the future. A view of the station from the car park that I specifically remember, showing part of a BR 3-car DMU. The steps leading up the side of the retaining wall were cannibalised from a Hornby footbridge.

A number of years later the line from Glasgow was partially reopened, running to Paisley Canal Street. But the original GSWR elevated wooden station buildings there were by this point demolished, and the goods yard closed. The present station at Paisley Canal is barely worthy of the title, being nothing more than a platform incorporating a plastic bus shelter-type structure, and is now of course a terminus. Some private homes occupy the trackbed to the west of the station, looking for all the world as if they were shunted into position. The line however is presently electrified with 25kV overhead catenary wires, and so EMUs run here very briskly from Glasgow Central. But altogether I feel the board of directors of the GSWR, had they been somehow whisked forward in time seventy years or so, would have been depressed and saddened to learn of the future of their line from Glasgow to Greenock Princes Pier.

The station building at Bridge of Weir continued to exist in a dilapidated state for another 20 years. Finally however in 2003, by now in a highly unsafe condition, it was demolished, although not before I enjoyed the opportunity to wander through it with a camera, drawing pad and tape measure in hand. At the time of writing, the goods yard buildings still remained, although in somewhat run-down condition, as part of a coal company that has continued to trade for over 100 years, long after cessation of goods yard services.

The model

Bridge of Weir and Greenock Princes Pier stations are modelled, each as a diorama, connected to a fiddle yard representing the section of the line east to Glasgow. $\frac{3}{4}$ " board is used throughout, and the model breaks down to conveniently sized sections facilitating its removal. The two dioramas are linked by a short section of track, which functions as a storage area.

Space was an issue as the model had to fit in a single-car garage, which also had to remain functional for car storage, as here in the Dallas/Fort Worth area tennis ball-sized hailstones are not unknown. Thus selective compression was necessary. In addition, the section incorporating the goods yard at Bridge of Weir is attached to the rest of the layout via brass hinges, and can be folded to a vertical downward position, after removal of buildings, locomotives and rolling stock. This creates more room for the car, which is pulled into the garage each time the National Weather Service for North Texas issues an advisory regarding a thunderstorm, flash flood, or a tornado. How often I remember people in Britain complaining of the weather, but sometimes I reminisce about the mildness that we so often do not experience here. Even as I write (early August) the temperatures outside range from 95 to 104 degrees F (35 to 40 deg.C).

I wanted to build the model of Bridge of Weir station to represent the double track run-

ning as I remember it, but with the enhanced operational possibilities offered by inclusion of the goods yard, and the period being set far enough back in time such that regular steam services could be portrayed. I also wished to depict something of Greenock Princes Pier station while it was still in regular use as it represented the natural end-point for the line and a logical destination for the trains, thus affording the opportunity for modelling a terminus station with harbour facilities. Additionally, I have a penchant for both the Big Four and the early days of BR. Thus the model was set in early 1948, just a few months before the end of the LMS, so that LMS locomotives and stock could be run alongside recently out-shopped locomotives and stock in the new (and perhaps unpopular) British Railways livery. Oftentimes I wonder just how the LMS men took to their company being nationalised, or for that matter how in 1923 the GSWR men took to their company being absorbed by the new fangled, giant and faceless LMS. To some, the notion of a workable merger with even just the Caledonian must have seemed heretical.

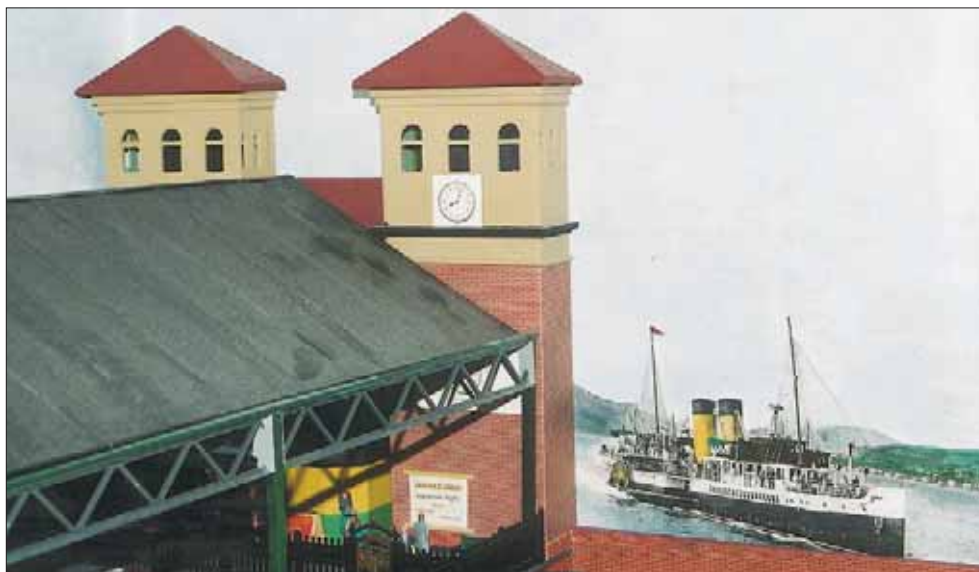
Selective compression at *Bridge of Weir* meant bringing the road overbridge to the east considerably closer to the station than the half-mile or so that it actually was, although it forms a convenient scenic break to the fiddle yard. To the west of the station the main road running through the village has been severely foreshortened, running to the rail overbridge,



Right: an impression, due in part to space restrictions, of the concourse at Greenock Princes Pier station. I have tried to suggest the existence of a fully functional pier side behind the station by representing a little of the extensive station buildings in low relief. The vessel depicted in the backscene arriving at the main pier is none other than the famous Clyde paddle steamer Jeannie Deans.

Below: view of LMS 'Crab' 2-6-0 No.13098 coasting down the gradient towards Bridge of Weir station with a passenger train for Glasgow (St. Enoch).

Below right: the Railway Tavern, photographed while receiving another delivery of beer. In the distance, BR Standard Class 4MT 2-6-4T No.80136 is crossing the adjacent rail overbridge with the up boat train. As a school-boy I remember passing frequently on foot under this bridge on my way home from primary school.



adjacent to the *Railway Tavern*. On the other side of the main road a single tenement block takes the place of an entire terrace of tenements that actually exist at this location. The stone ramp carrying the main road from the girder over-bridge crossing the western end of the station platforms is steeper than in reality. But despite these necessary compromises, I feel the final result still captures something of the ambience of this part of the village.

For the terminus at Greenock Princes Pier I was less concerned about recreating the station as it actually existed since I have no memory of it – it was closed when I was but a babe in arms – and in any event space was so restricted that I had sufficient area for a token impression only. I apologise in advance to all those who remember the station as being somewhat different from, and substantially larger than, my version. All I have done here in truth is to create a small station masquerading as a large station. By construction of a compressed representation of the station buildings (which in reality were considerably more extensive) in low relief I have attempted to create the illusion of a passageway running from the main concourse to the imaginary pier-side behind, but in reality nothing but the garage wall exists there.

The station throat at Greenock breaks conveniently to the backscene through a tunnel mouth located in a representation of steeply rising hillside which does exist at this location

in reality. It is true that the track running uphill from this station to Lymedoch did pass through several tunnels but even the nearest to Princes Pier was not as close as I have depicted on the model. But again, issues of space and the need for compression dictated that construction proceed in this manner.

Turntable, track and electrics

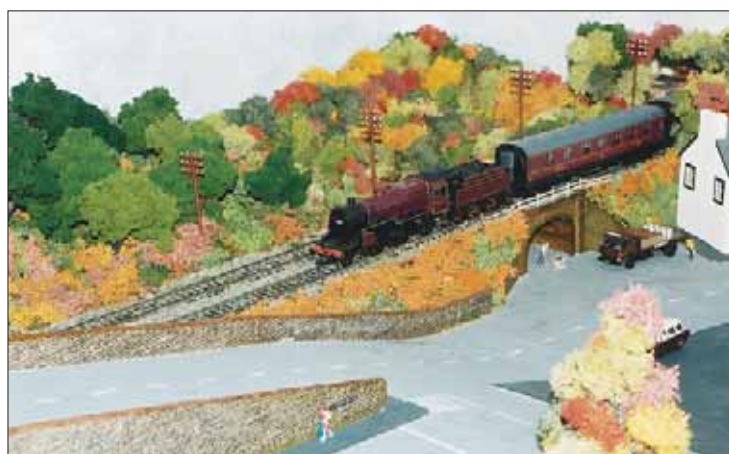
Also, without any knowledge on the matter whatsoever I have invoked modellers' licence and assumed that a turntable existed at this station. Whether one would have actually been employed much is questionable given the extensive use of tank locomotives on this line during the immediate post-war period, although there was a turntable at the nearby ex-Caledonian terminus at Gourock. Other locomotives however just might have been turned, especially when considering the unpleasant experience of running tender-first back up to Glasgow (a journey of at least an hour's duration) against icy wind and drizzle, so prevalent in western Scotland. I have walked the route all the way from Paisley Canal Street to the former site of Princes Pier station and can attest to the strong cold winds atop the hill overlooking the river Clyde from Upper Port Glasgow.

The turntable I have is a Peco well-type, but at 76' is probably a little longer than anything that would have been necessary here as no large (eg 4-6-2, 2-10-0) locomotives ever ran to

this station, but I like it and it adds another dimension to operations.

Track is flexible Peco Streamline or Atlas, code 100 rail. All points are Peco Streamline, there being a mixture of Electrofrog (Bridge of Weir station yard) and Insulfrog (Greenock Princes Pier). Some of the track has had the sides of the rails painted rust colour, but this job has yet to be completed. Ballasting was achieved with granite chippings (Bridge of Weir) or cinders (Greenock Princes Pier) held in place with the usual 50:50 mix of PVA adhesive and water, with a drop of washing-up liquid. All very normal.

Control is all from a single Tech II Loco-Motion 2500 controller incorporating the option of inertia simulation, which works especially well with the excellent Bachmann locomotive mechanisms, although careful judgement of stopping distances is required. Only one train can be run at a time but as the present track plan does not facilitate multi-train running this is not a drawback. Points and uncoupling (tension lock couplings) are operated manually, although I intend eventually to install point motors. The platform and siding ends at Greenock Princes Pier incorporate isolated sections, controlled by switches, of sufficient length to stable any locomotive, thus a train brought in by one locomotive can be taken out again by another, the first then being released to run to the stabling point. I am old enough to remember this type of operation at





Left: the down platform waiting room at Bridge of Weir. I was obliged to build this model using dimensions obtained from the scar left in the retaining wall upon removal of the real waiting room in 1978, and vague memory. If ever I obtain a photograph of this structure I will rebuild it. The village cenotaph is visible in the background.

Below left: the eastern end of Bridge of Weir station building.

Below : the brick out-building at Bridge of Weir station.

Glasgow Central station, back in those far-off days when passenger services were operated using real locomotives.

Locomotives/rolling stock

00 gauge locomotives and rolling stock are all either by Hornby, Bachmann or Lima. My N gauge stock is either Farish or Peco. Seeing daylight between corridor coaches is one of my foibles, and so all have been fitted with gangways made from folded paper. They are not realistic enough to stand close inspection, but conversely do not involve the need for close-coupling the stock. They are held in place with Blu-Tack and so it is possible to remove them without any damage to the coach bodies.

Although most locomotives and stock are correct for the period, I also have a Hornby 3-car Class 110 DMU (BR blue/grey), a Mark 1 full brake (BR blue/grey), a Civilink 45 ton VDA closed van, and a Class 08 shunter (Lima). Sometimes I find it amusing to run my modern stock through the scene, as they are more in keeping with what I actually remember, although they do seem somewhat incongruous when set against the water cranes and period road vehicles!

Scenery

There is nothing remarkable about the scenic work on this layout; many of the usual techniques have been employed. The station plat-

forms and all buildings (except the Harbour Master's hut on the pier at Greenock, which is by Ratio) and bridges are scratchbuilt from stout card, paper and balsa or obechi wood. Several buildings are lighted by grain of wheat bulbs from the interior. Stone and brick is represented with Metcalfe embossed card or by scribing followed by judicious weathering.

At Bridge of Weir the rather baronial-looking structure directly behind the main station building, modelled in low-relief, now known as Castle Terrace, was once the *Ranfurly Hotel*. Designed by the Scottish architect Robert Raeburn, it opened its doors in 1882, but on account of consistently poor business it was closed before the outbreak of World War 1. After ceasing to be a hotel, the building was then used to house homeless people, and later became a billet for wounded soldiers. Following that, from 1920 to 1925, it was a private school. It then lay empty at various times before eventually being converted into shops and high-priced flats. It is said that Queen Victoria herself once expressed an interest in staying here. Although the layout is set in 1948, many years after the hotel's closure, I chose to depict the building in its former incarnation as a hotel, assuming that it had remained open over that time period. I did this simply because I felt it looked much better this way than as the terrace of shops and flats that it is now.

The tenement block, also at Bridge of Weir, features individual rooms as well as two

shops. Clearly visible in one of the back rooms of this structure is a double bed. Signals of the LMS upper quadrant variety, all of which work, are by Ratio (Bridge of Weir station yard) or mostly scratchbuilt from plasticard, plastic rod, brass wire and Ratio plastic laddering (Greenock Princes Pier).

The backscene consists of a sheet of sky-blue coloured wallpaper laid up against the wall behind the model. At Greenock, pictures of individual buildings were painted using watercolours on artist's paper and were then cut out and stuck in place. Road vehicles are from the excellent white metal range by John Day and all are of the correct vintage for the scene. At Greenock Princes Pier station the hydraulic buffers are scratchbuilt from card (concrete bases), old ball point pen barrels (hydraulic cylinders), and 2" steel nails to represent the pistons and buffer heads themselves. They are functional, being sprung using the original ball-point pen springs. The removable overall roof was built from stout card, obechi wood strip, and plastic girders (Plastruct). Lighting is provided at this station in the form of grain-of-wheat bulbs suspended from the girders under the overall roof, and illuminated platform lamps.

The signal box at Greenock was built from stout card and obechi wood strip. It was inspired by the ex-GSWR box at Elderslie Junction, closed in 1985, which at one time I used to pass by quite regularly while riding on DMUs. It features a lighted and detailed interior, the levers (correct number for the station layout) fashioned from some scrap lengths of iron fencing. The water in the harbour at Greenock Princes Pier was made from many layers of varnish brushed copiously on top of a sheet of wood sanded and painted very dark



Right: LMS 0-4-0 shunting locomotive No.16030 at Bridge of Weir station yard.

Below: the goods shed at Bridge of Weir. This building was constructed from stout card and covered with strips of obechi wood, rendering the structure very strong.

Below right: front view of the tenement block which occupies the site opposite the Railway Tavern. This was constructed from wood, card and plasticard, and features a detailed interior. The outer card shell was scribed, painted and weathered to represent sandstone.

green, almost black. Tied up in the harbour are two vessels depicted as waterline models; the puffer *Marcia D* (named after my fiancée), and the offshore fishing boat *Lorcan*. The *Marcia D* was scratchbuilt from card, balsa, scraps of plastic and a few Billing Boats fittings. It features a detailed wheelhouse interior and an opening hold loaded with coal. *Lorcan* by contrast is a converted plastic kit, originally a Lindberg® Tuna Clipper in 1:100 scale but which was modified to 4mm scale by raising the superstructure and after-deck, blocking out stairwells which were visibly too small, and adding a funnel, extra railings, and new larger doors.

As an experiment in forced perspective, and as a suggestion of something more of the active railway environment which existed at Greenock in 1948, I have laid a section of Peco Streamline N gauge track hard up against the backscene, directly behind the stone wall immediately beyond the end of Platform 1 at Princes Pier station. By adjustment of the relative height of the rail to the top of the wall, and by consideration of the scale of the painted buildings in the backscene itself, I have attempted to suggest the illusion of distance via placement of a Farish N gauge locomotive and a few wagons (Farish, Peco) at this location. The track is wired and hooked up to a controller, so slow backwards and forwards running is possible, suggestive of shunting off in the distance somewhere. There is an extension out to the auxiliary fiddle yard (disappearing from the scene behind the signal box) connecting *Bridge of Weir* to *Greenock Princes Pier*, so stock can be exchanged once in a while, enhancing the illusion. Thus I now have somewhere to display a little of my N gauge locomotives and stock, although I have found



this type of approach works far better when present as a suggestion only, especially in restricted space layouts such as this one. In addition, precise considerations of perspective cannot be stressed enough when attempting this – the slightest incongruity (trains running too high/low behind wall, backscene buildings too large/small, inappropriate viewing angles, etc.) will destroy the illusion.

Operation

Trains are run in sequence in order to simulate an appropriate timetable. I do not have a copy of any timetable that was in operation at the time for this line, so a modicum of intelligent (or unintelligent, perhaps) guesswork has been employed. Services consist variously of a morning parcels train, a morning boat train with TPO (Hornby), and various passenger trains throughout the day interspersed with goods (coal, fish, other freight) services. Wagons and vans are dropped off at Bridge of Weir goods yard or the pier-side at Greenock and shunted periodically. The eastern end of Bridge of Weir station is equipped with the Hornby TPO mail bag non-stop pick-up apparatus and drop-off bin. Whether these actually existed at this location I have no idea but they seem to fit the picture, especially if boat trains really did incorporate a TPO and did not stop here. They are not currently operational however as the Hornby actuator ramps (which also look somewhat unsightly) interfere with

the smooth running of certain locomotives. After arrival with the boat train, the TPO is detached and turned before going back to Glasgow with the returning train. This is necessary as the mail pick-up and set-down apparatus on the Hornby version are both located on the same side of the coach body, but at Bridge of Weir the mail bag set-down bin sits opposite the pick-up hook, on the other side of the double track.

Summary

Despite the enforced space constraints, the model has brought me much enjoyment, facilitating the running of whichever types of train take my fancy, and, in a manner of speaking, bringing this section of the line back to life.

I am too young to remember anything on this line except DMUs but I am now able to see the effects of an LMS 'Crab', Ivatt 2-6-2 Tank, Fowler 0-6-0, or a Standard Class 4MT hauling a goods train or rake of Stanier coaches, running through a facsimile of a railway landscape with which I was once so familiar. The goods yard at Bridge of Weir I remember only after all of its track had been lifted, but now I am able to enjoy shunting at this location with my favourite steam locomotives. Researching Greenock Princes Pier station has been very pleasing and informative.

Altogether I have found building and operating this model to be a most satisfactory experience.



Hemswell in H0

A Lincolnshire branch station modelled in 8' x 1'3"



John Allison uses copperfoil 'wiring' and other unorthodoxies on this portable layout.

I have noticed a certain repetitiveness in some layout articles, so I will try to confine myself to the unorthodox methods I have used. The fictitious history is that the Great Central wanted to provide an alternative route to Lincoln from Kirton in Lindsey, serving the long line of villages clustered at the foot of the Lincolnshire escarpment. There are fifteen of them. The GCR got as far as Hemswell when the Great War broke out. End of story, except that the reopening of Hemswell airfield in 1937 brought new life to the unfinished branch. In the sixties steam was on the way out, and the small engine shed became redundant, and was taken over and fenced off by the RAF.

First unorthodoxy is that the layout is to British outline H0. That is 3.5mm to the foot, correct scale for the Peco track. This gives a very close approximation to 4'8½" gauge, instead of 4'1½" in 00. That's a good start, now for the baseboard. This is my now standard ¾" balsa for top surface and side members, supported by crosspieces of ½" square balsa, inset into the side members. Further ½" square crosspieces add strength to the bottom of the side members. All surfaces receive two coats of sanding sealer, followed by two coats of clear varnish. The front fascia is gloss painted mid-green. There are two baseboards, each 4' x 15" (122 x 38cms), held together by draw-bolt catches from Squires.

Reference to the track plan shows that a reversal is required to reach the platform and the goods yard. This adds interest to the operating. I got the idea from happy memories of Woodhall Junction, where trains reversed to take the Horncastle branch, and again when rejoining the main Lincoln-Boston line.

Coupling/uncoupling

Since undertaking H0 I have standardised on the continental loop couplings, which someone has described as impossible to use for

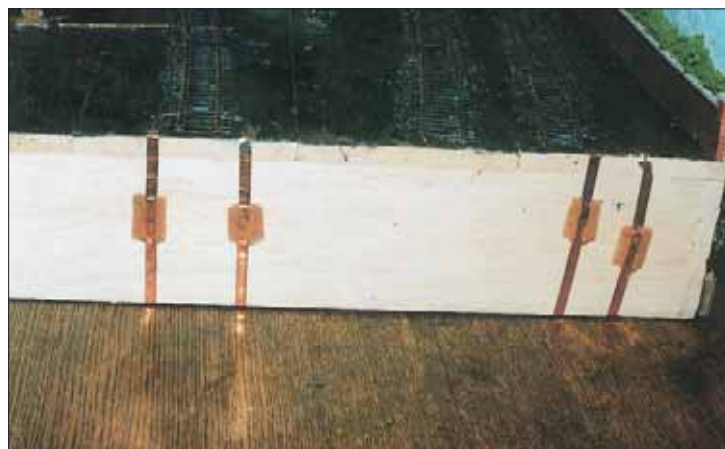


delayed uncoupling. He is wrong. All my layouts are of the shunting type, where stock is never turned. I found that the loops sometimes jammed instead of coupling, so I took the steel loops off one end of each wagon, leaving just a plastic hook. This greatly improved reliability of coupling. About this time I was using Dingham couplers on my 0 gauge stock. These also are single ended, with a latching hook. I turned this idea back to front by latching the loop. This is done by fitting a very small magnet into the wagon end. When the loop is lifted it does not touch the magnet, but is held up by the magnetic field. The loops have a 'tail' as standard, and this can be raised by a lifting ramp. There are three of these on *Hemswell* (see plan for locations). They are made as follows:-

- 1: A small rectangle of tinplate is soldered to the end of a square tube. To assist this process a brass pin is driven through the centre of the tinplate into the tube.
- 2: A larger square tube which is a sliding fit for the small tube is driven through the baseboard in the centre of the track.

- 3: The small tube is inserted into the larger tube.
- 4: A length of wire bent back on itself to form an inverted T is fixed to the bottom of the small tube.
- 5: The tinplate is painted dark brown to match the ballast.
- 6: A knitting needle is inserted through a hole drilled in the fascia opposite the ramp, and held in place by Meccano collars either side of the fascia.
- 7: The inner end of the needle is held in position by a loop of wire screwed to the underside of the baseboard, close to the inverted T of the ramp.

The ramp is now ready for use. When the wagon is in position, gentle downward pressure on the fascia end of the needle lifts the ramp, which in turn raises the loop until it is latched by its magnet. Release the needle, shunt the wagon to its required position, and it will remain uncoupled. When convenient a touch of the shunter's pole will return the loop to the operating position. Note that delayed uncoupling is not dependent on the ramps.





Left: Mavis and Tom converse while Bert checks the new timetable. Don has recovered from his broken leg. Portable steps ready for the next arrival.

Above: the C12 ready to depart. The two coaches have a close coupling and a foam corridor connection. Note the Enparts van (rebuilt Fleischmann) parked at the end of the parcels bay.

Above right: Dave and Alf discuss important matters while the Class 15 chunters by.

Loops can be lifted and latched anywhere with the shunter's pole. I like to do with my hand what is still done by hand on the prototype. Once I was watching one of the acknowledged best layouts in the country. It used 3-link couplings. All that one visitor could say about it was, "There is no excuse for not using auto-couplings!" To which I would reply, "There is no excuse for being so hidebound about something that you cannot appreciate a fine layout". On *Hemswell* some of the uncoupling is done remotely and some manually – so, if you are hidebound, go away!

To my mind, nothing looks more like a point moved by lever and rods than a point moved by lever and rods. In my case the rods are Plastruct plastic covered wire, which can be threaded through intervening tracks without causing short circuits. It is not prototypical, but I find it acceptable. Some of the levers are on a very ancient Hamblings Addalever frame. Others are by present day Gem, some of which products date right back to G.E.Mellor. By the

Far left: underside of the coupling ramp.

Left: interboard foil. Note foam to ensure good contact. Only two connections are needed for the two tracks from the headshunt.

Right: the gate, open...

Photographs by the author.

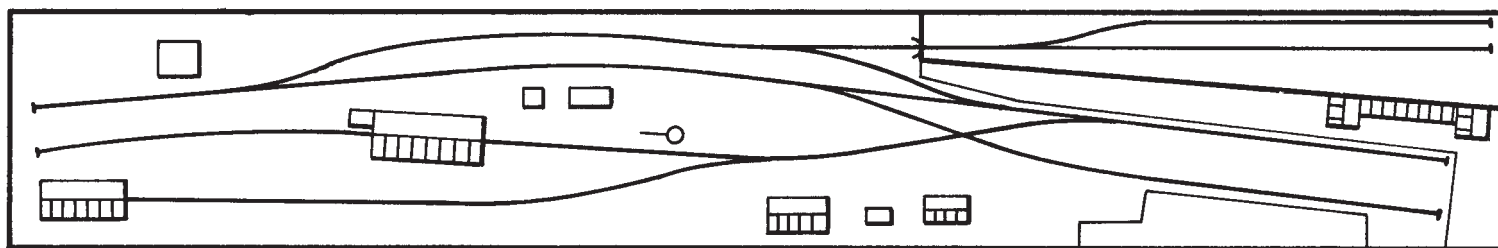
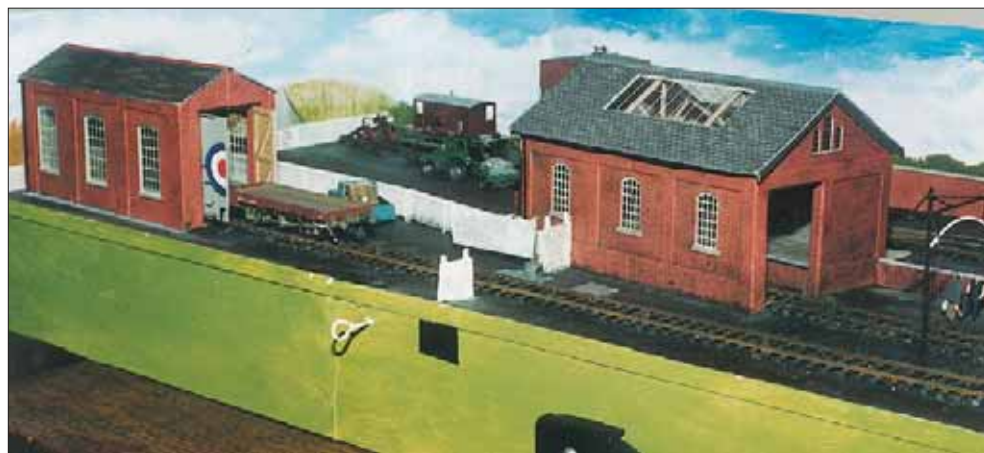
same token, nothing looks more like a signal worked by lever and wire than a signal worked by lever and wire or thread. My two signals are so old that they have Meccano stamped on them. One sits on a huge casting that concealed a solenoid, but I didn't want that because the movement is too fast. The signal is now operated by lever and Gem Mercontrol wire in tube. I decided to mount this signal on the platform and cover the casting with the platform. It was only after I had set up the signal that I discovered the platform would have to be low to allow room for the counter weight. This reminded me that at Hampton Load on the Severn Valley Railway I used to haul about a set of steps for part of the platform lower than the rest. I remembered also that an excursion train to Stourport soon after the war was parked on a siding, so had to have steps for access to the coaches. Accordingly I made four sets of steps for my platform. There is a separate platform for parcels and fruit, and this is normal height.

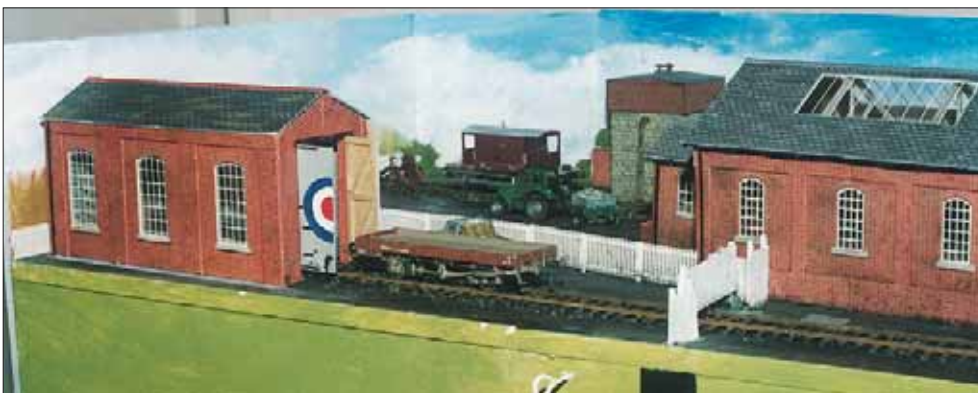
Most of the buildings are adapted Metcalfe. The station building is three-quarter relief which I prefer to half-relief as you can see that

the roof ridge *is* a ridge. The signal box is scratch built, using features from several small boxes. It is an empty shell, with the Addalever frame as far inside as it will go and still allow room for fingers. This is visible to spectators, because operating is from the front. One of the advantages of this is that folks can see how you work things, which I hope adds to the interest. The lamp hut is removable, as it covers a tiny ex-WD spirit level. There is one on the other board, covered by a small shed with a hinged roof.

The gate

There is a gate in the fence round the RAF shed (ex-engine shed). This is motorised by a Meccano geared motor, obtained from Frizinghall Models. It is officially a 12 volt motor, but it will move nice and slowly off two AA batteries. I originally intended to use microswitches to stop the gate, but decided to simplify by using the microswitches as on/off switches, one to open the gate, the other to close it. I leave it to the good sense of the operator to stop the gate. There is a certain amount of 'give' in the gate.





Left: ...and the gate, shut.

Below left: crane control and battery. Uncoupling knob on left.

Below: copperfoil 'wiring'.



Another Meccano motor swings the yard crane left and right, controlled by a DPDT switch biased to off. This needs to be slower than the gate and, believe it or not, that superb Meccano motor will operate slowly on one AA battery!

I have not so far mentioned the backscene. This is mainly hand painted, plus a couple of buildings cut out from a local colour supplement advertising properties. I find that coloured newsprint has a dullness that is excellent for backscenes. Mine are mounted on sheets of card cut from large boxes, and stiffened by strips of beading. The top and front edges are finished off by strips of thin card, which gives a finished look to the layout.

Stock

For those who fancy the challenge of H0, all the stock is rebuilt Lima, Fleischmann or Roco, or scratchbuilt. To reproduce British brake gear I use thin cored solder hammered flat and glued with clear Bostik or cyanoacrylate. I have four Bo-Bo diesels, all on slightly adapted American chassis. These are superb runners, as also is the Roco Dutch Class 11, which needs a little alteration. This class of shunter was still in use on BR up to the early 70s. Not quite so good, but improving is a Bachmann J72 rebuilt as a J73. Three of the Bo-Bos have scratch built bodies, using tinfoil, plastic and balsa. The fourth is a Lima Class 33. This is actually too wide. I have seen some laboriously cut in half and narrowed, but decided it was not worth the effort. I also have a C12 4-4-2T made for me by Barrie Stevenson and Nick Tilston. It's a beaut.

Most of the figures are by Preiser, but I wanted some seated, so visited the model shop. I could only get some by a well known British

firm, and quite frankly they were awful. Each one was painted all one colour, except for hands and feet, and hats which looked like no hats I have ever seen. They were all bolt upright, symmetrical, and looking straight in front of them. People don't sit like that. Just visit a station, and you will see what I mean. In the end I broke one chap's leg and straightened it, filed his cap and repainted all his clothing. After that he did look like something human. Come on, you British mini-sculptors, you can do better than this!

'Wiring'

One other unorthodoxy is the wiring. There is very little of this, if you mean wire. Most of the electrical connections are done with self adhesive copper strip. This can be obtained from Squires of Bognor Regis. It is advertised as useful for dolls' houses, but I have used it for years for model railways. My basic method is to lay two long bus bar strips on the underside of the baseboard, one labelled +, the other -. This labelling can be done on the strips themselves, with an indelible marker. If necessary



you can kink the foil round corners. All wire connections are kept as short as possible, from track or switches to the nearest bit of bus bar. Where additional strips of foil are needed, they can be joined to the main one, making sure that the join is soldered. If you wish strips of different polarity to cross, a small piece of insulating tape prevents short circuits.

Inter-board connections are made by more copperfoil, with a piece of foam under one of each pair to ensure automatic good connection when the boards are joined with no multipin connectors or dangling leads. I have used this method to make connections to parts remote from the operating point, such as dead sections, signals, etc. Note that, where required, copperfoil can be applied to the underside of the side members, even if these rest on tables. A simple momentary on/off switch can be made with foil and a short length of phosphor-bronze strip. I have not used great looms of wire for many years – but I have used many yards of copperfoil!

The controller is a Modelux panel type, installed on the baseboard fascia. The 18V input for this is from a Gagemaster Combi transformer which plugs directly into the mains. The 18v lead plugs into a power socket on the fascia. If necessary an extension 18V lead can be used. This has the dual purpose of reducing the number of oddments to be carried and avoiding trailing mains leads under the layout. The socket and extension leads were from Squires of Bognor.

I have the greatest admiration for track level photos, which show how realistic our models are, but I have preferred to show the layout as it would be seen by spectators, and as I see it when I am operating. Distance hides a multitude of sins!

I'm no engineer, but I have enjoyed attempting H0, not least for the satisfaction of knowing that the scale is right for the track.

Finally a word of thanks to Joe Challingsworth, Dave Ashworth and Phil Stevens who have been my fellow operators and taxi-men for many years.

Hemswell will appear at the NEC in December. See 'Societies & Clubs'.



Rye & Camber Tramway

Bagnall 2-4-0T

John Golding modelled *Camber* in 1:20 scale to run on 45mm gauge track.

The 3' gauge Rye & Camber Tramway was conceived and constructed in a remarkably short space of time. A group of prominent citizens – the majority of whom had businesses in and around the old Sussex Cinque port of Rye – proposed the tramway's construction in January 1895 and The Rye & Camber Tramway Company Limited was duly registered on 6 April 1895. Track laying and construction of the necessary buildings commenced without delay, the first passengers making the 1³/₄ mile journey from Rye to Camber just fourteen weeks later!

The railway (not really a tramway at all, in spite of the company's choice of name) was built under the direction of the famous light railway engineer Holman F. Stephens, who at the time was just 27 years old. Commencing operations on Saturday 13 July 1895, the railway's sole source of motive power upon its opening was a small 'Concord' Class steam locomotive, of 2-4-0T configuration, supplied by W.G. Bagnall & Co. of Stafford, to works No.1461.

Costing the princely sum of \$404.7s.6d, the locomotive was delivered on Friday 12 July 1895 and started earning its keep the very next day, hauling the R&CT's then only coach (a composite bogie carriage also supplied by Bagnall & Co.) back and forth between the Rye terminus and Camber station. (This station was later renamed Golf Links when the track extension to the new, but rather primitive Camber Sands station was completed in 1908.) Appositely named *Camber*, the locomotive is reported to have been described as 'a singularly pretty little engine' during an early meeting of the R&CT board. Delivered in a smart green livery, lined out in red, the loco was originally set on the track with its chimney facing towards Camber. Shortly afterwards, for a reason which appears to be unrecorded, the loco was turned and spent the rest of its working life facing towards Rye.

Noticeable outward features of *Camber* were the hinged covers over the slide bars, little ends and connecting rods, an extra to Bagnall's standard design. These were added

to the specification in an attempt to keep the fine coastal sand blown by the prevailing westerly wind from scouring the mechanism.

The R&CT only ever had three stations, all of them having platforms on the same (easterly) side of the track. This meant that the passenger vehicles, of which there were eventually four – two bogie coaches and two 4-wheeled open wagons, only needed passenger access from one side. Not long after delivery, to protect the crew from the seemingly ever-present wind and sand, *Camber* acquired a rudimentary door to the lower part of the left side (windward) cab entrance. Occasionally, to protect the footplate crew even further in inclement weather, a rough and ready canvas screen was erected to shield the upper part of the left side cab entrance as well.

As time went by, the single engine and coach proved inadequate to cope with the growing numbers of golfers and caddies who wanted to journey to the new golf club on the east bank of the river Rother, and the fishermen on their way to Rye harbour by way of the



ferry that was rowed back and forth across the river. Later, holidaymakers and day-trippers would also swell passenger numbers, as they made their way to the increasingly popular seaside resort of Camber Sands.

A second, somewhat smaller bogie coach was ordered from a local builder, the Rother Ironworks Co Ltd, in 1896. This vehicle, of 25-seat capacity, was also known as the 'Jones' carriage, after Mr E.P.S. Jones, the foreman carpenter who oversaw the bulk of its construction. The two bogie coaches remained the line's only passenger-carrying vehicles until after the First World War, when their capacity began to be supplemented at busy times by two four-wheeled open trucks. These were unsprung ex-Great War ammunition wagons, originally lined with leather-faced padding. The R&CT had them fitted with low-backed hard wooden seats, each wagon notionally being capable of carrying twenty passengers, in five rows of four abreast. These wagons were surprisingly popular in the summer months, and several photographs taken during the early 1920s show rather more than the prescribed number of happy day-trippers crammed on board!

The slightly larger and more powerful *Victoria*, another 2-4-0T locomotive from W.G. Bagnall & Co., joined *Camber* in 1897. These two steam engines then shared the load until 1924, when the third and final locomotive to be purchased by the R&CT arrived – a small four-wheeled petrol tractor, built by the Kent Construction Company Ltd (see RM March 2004).

Few outward changes occurred during *Camber's* years of service; among the most prominent of these were the two holes cut into the front buffer beam around the turn of the century to improve access to the cylinders and rod-ends. *Camber* was returned to Bagnall's for repairs in 1926, at which time it lost its lined green livery, returning to service in plain black, with the name *Camber* (now complete with a full stop!) painted on the tank sides. The loco was again returned to W.G. Bagnall & Co in 1931 for a full rebuild as works No.2313. The loco continued in occasional service for a few more years, although it was worked much less intensely than before. Wear and tear – and not a little neglect – began to take their toll. During this period *Camber* was patch-painted in an *ad hoc* man-

ner, eventually becoming all-over scruffy black, bereft of either lining or name. A further overhaul of *Camber* was proposed in the mid 1930s, but this plan was shelved due to lack of funds, and the fact that the Kent petrol locomotive was proving quite adequate for the task and was much more economical to run.

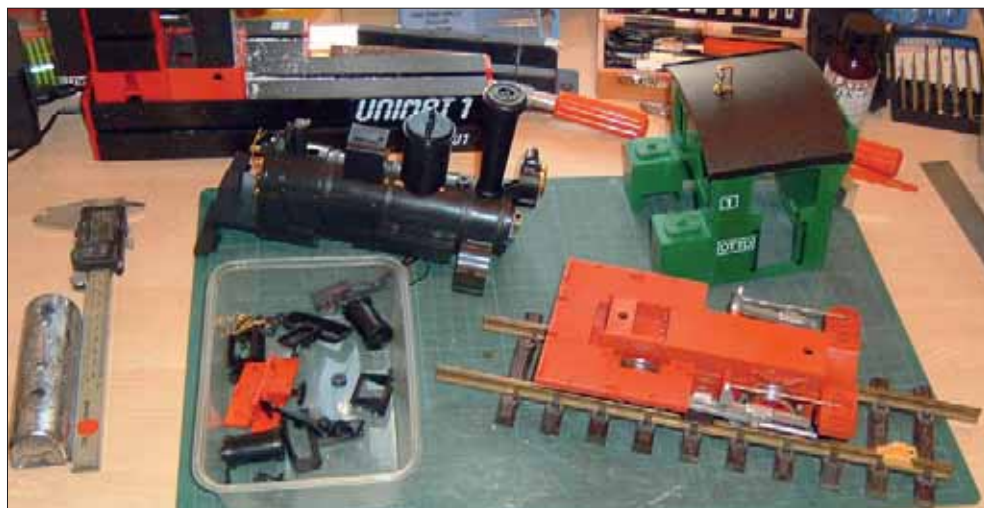
Growing competition from road transport continued to make inroads into the R&CT's passenger revenue, and as the 'thirties progressed the two Bagnall steam engines saw increasingly less use. *Victoria*, in need of a general overhaul, was scrapped in 1932 as it was deemed uneconomical to carry out the necessary refurbishments. A small portion of *Victoria* survived for a time, as her brass spectacle plates were salvaged and used in the construction of a new full-width cab for the four-wheeled petrol locomotive. *Camber* remained operational for just a little longer, principally in the role of supporting the now preferred petrol loco on high days and holidays. *Camber* was photographed in its shed – still largely complete – in 1946, but it had not been steamed in many a year. The R&CT was finally wound up in 1948, by which time *Camber* had disappeared forever, having been sold for scrap in the previous year, and broken up in Rye.

Planning the model

Having completed models of the four-wheeled petrol loco and the Bagnall composite bogie coach, the time had come to produce one of the two steam engines. I decided upon the eponymous *Camber*, as I felt that it had slightly more charming an appearance than its younger and bigger sister *Victoria*.

I don't have ready access to metalworking facilities, so I modelled the engine's superstructure mainly in plasticard. This enabled construction to take place on a piece of kitchen worktop that I have installed under the window of our smallest bedroom, which presently serves as my workshop-cum-study. The finished body would be mounted on a proprietary mechanism, so that I had the reassurance that whatever liberties I took in building the bodywork, I could at least be fairly confident that once completed it would go!

The prototype loco had coupled wheels of only 1'8" diameter – just over 25mm in 1:20





scale. The driven wheelbase was also very short – it scales at only 46mm against the 3' of the prototype. I looked around for some time, but couldn't find a mechanism remotely resembling what I wanted. My eye fell again on my Lehmann Toytrain® *Oho* loco that I keep handy for visiting children to drive on my G scale garden railway. I had considered robbing this loco of its excellently engineered power plant once before, when I built the model petrol loco. It was reprieved then, because in the nick of time I found a suitable alternative power bogie to use. But would the Toytrain® chassis be any use now? The 31 mm diameter driving wheels were a scale 4" too large, and the wheelbase scaled up to being more than 2' overlong. Could I live with such compromises? The answer is yes, as I feel that the overall impression is what really counts. I am content to produce a plausible-looking model with all key features at least present and in proportion, if not entirely correct. As will be seen later, a rivet-counter I am not.

But was this all academic? The Toytrain® loco's connecting rods drive the rear pair of wheels; *Camber's* drive was to the leading wheels. Accepting this error would be taking one liberty too many, even with my relaxed attitude towards strict accuracy. Wait a minute though – suppose the chassis was installed backwards? The connecting rods would now, properly, be acting on the front pair of driving wheels. If the cylinders were removed and refitted on the rear of the chassis, and the slide bars changed sides, the configuration would be correct. The addition of a pair of leading wheels in a homemade pony truck would complete the conversion of *Oho's* wheel arrangement from 0-4-0 to 2-4-0. Utilising the Toytrain® mechanism to build a credible representation of *Camber* now seemed to be feasible so finally, it seemed, construction could begin.

At this point *Oho* got an unexpected eleventh hour reprieve. Visiting Glendale Junction in Deeping St James, my eye fell upon a special offer – a complete Lehmann Toytrain® starter set plus a free Toytrain® caboose for £100. I reasoned that if I bought the set and sold off the unwanted pack of LGB™ track, the LGB™ controller, the two wagons, and the additional free caboose through the members' sales stand at the next G Scale Society annual show, I would recoup much of the cost of the set, leaving me with a brand new engine – *Oho's* identical twin

brother *Otto* – at a nett cost of around £25. When I bought the set, Caroline in Glendale Junction asked me if it was a present for a nephew. You should have seen her face when I replied, 'No, it's a present for my razor saw!'

Converting the chassis

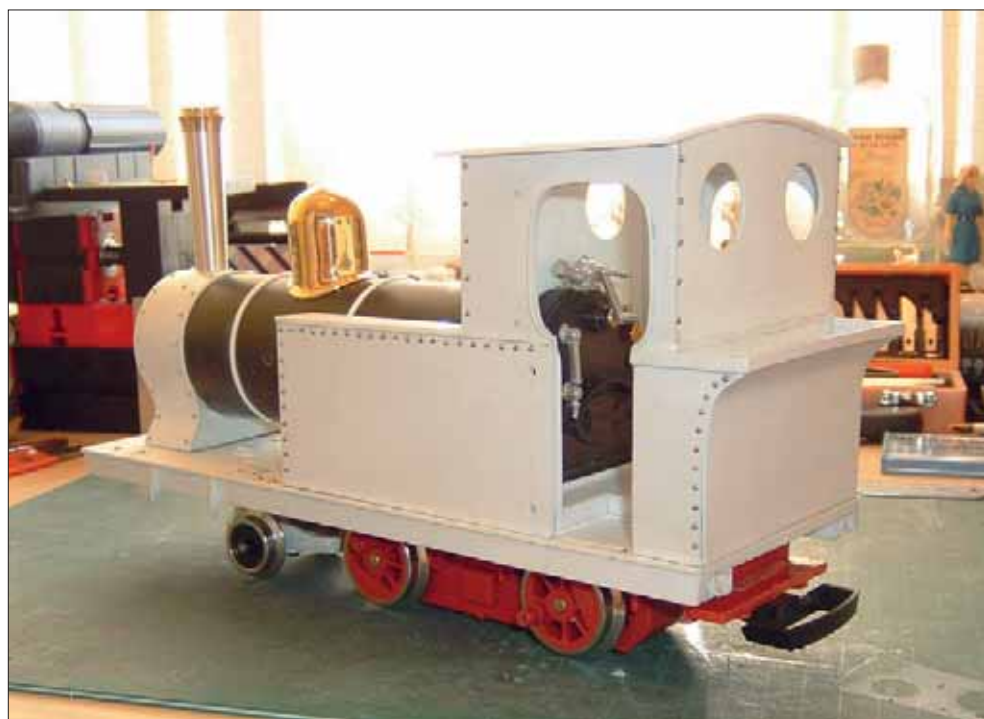
First, all the easily removed fittings were unplugged, unclipped, or unscrewed and stored safely away for possible future use – these included couplings, footsteps, bell and whistle etc. Coupling rods, brake gear, motion bracket, slide bar and connecting rods followed. The cab comes off complete after removing a few self-tappers, as does the boiler assembly. The boiler contains a substantial metal weight; this was removed and set aside for possible future use. There is an electrical connector on top of the motor block that provides power to the lights; this was unplugged. Finally the cylinders were unscrewed and removed, leaving just the bare powered chassis to be worked on.

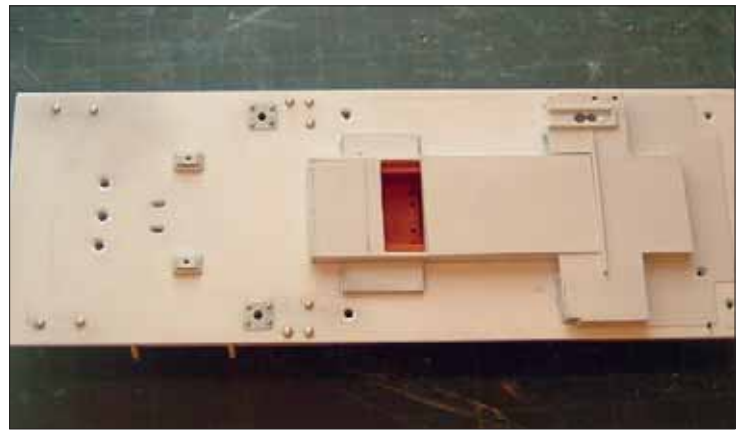
The plastic used for the Toytrain® footplate/motor block unit is coloured red, and I wanted a black underframe. I decided to strip out the motor, gears, wheels and pickups. (This, if you follow suit, is where you might just invalidate the maker's guarantee!) Seriously, this exercise is not too daunting; all the parts

come out very easily and if you make a sketch or take a couple of digital photos you should have no difficulty putting it all back afterwards. Just make sure that you keep all the parts safely stored in a closed box until you need them again. I popped the wheels back into the chassis at this stage, so that I could have a freewheeling platform to use whilst I experimented with the design details.

Next, it is time to get your razor saw out. (You will definitely nullify the warranty at this stage.) The Lehmann® loco is quite wide; I wanted a narrower cab and footplate, so my first step was to take about 8mm off each side of what had been the cab floor. The front buffer beam went next, and then the two moulded brackets that had previously held the inclined cylinders. These were saved for reuse at the other end of the about-to-be-constructed footplate.

A rectangle of 2mm thick plasticard was cut to the required size of the footplate. This then had three cut-outs made into it. I suggest drilling holes in the corners and then breaking out the pieces after scribing the plasticard. I tried to cut out the apertures using the jigsaw attachment on my Unimat, and found that after I had carefully cut all along my marked lines the sawcut had very neatly welded itself back together behind the blade! The larger,





central cutout was to clear the motor block; two smaller ones were made to be a press-fit for the cylinder brackets. A further rectangle of the same material was then laminated to the first; this one replicated the cut-out for the motor, but did not have the two small apertures. This became the top surface of the footplate. The footplate was further strengthened underneath with square hollow section plastic extrusions, and then two new motion brackets were manufactured and solvent-welded into place. Finally, a low box-like cover was made to go over the top of the motor block. This had a small aperture in it to allow the electrical plug to be re-inserted later to supply power to the smoke unit.

The leading truck was manufactured next, once again from laminated plasticard. I decided upon using a spare LGB™ FRR wheelset; this has 20mm diameter metal disc wheels. The axle outer journals were removed with a slitting disc; the axle now runs in a groove cut into the bottom of the truck and is retained in its place by a screwed-on keeper plate. To improve current collection I installed a pair of LGB™ plunger pickups, bearing on the wheel backs. Finally, to make sure that the assembly stays firmly on the rails, I have fitted a steel weight at the leading end. The completed

pony truck is pivoted on an M6 screw mounted in a hole drilled through what had previously been the rear of the Lehmann® motor housing, but has now become the front.

The cylinders, slide bars and motion were re-installed, and the chassis, now with a 2-4-0 wheel arrangement, was push-tested along a length of Peco G-45 track. Remarkably, everything operated smoothly first time, so I moved on to manufacturing the hinged side sheets that conceal the motion from public gaze. These are just pieces of 2mm plasticard of the required shape, fitted with small handles so they can be lifted, and hung under the footplate with hinges made from microstrip. Cut-down dressmakers' pins serve admirably as hinge pins, retained in place with a tiny drop of superglue.

The two buffer beams came next. Those on the prototype were heavily riveted, so I simulated these using tiny, round-headed, hammer-drive pins, pushed into pre-drilled holes in pieces of 2mm thick plasticard. Further holes were drilled to take safety chains and the cosmetic centre couplings. (For operational use, the original LGB™ couplings have been retained.) The buffer beams were then solvent-welded on to the footplate at each end, taking great care that they were both central

and square. Once in place they were reinforced from behind with additional pieces of square hollow section Plastruct.

The boiler assembly

The superstructure consists of two major parts – a boiler assembly and a cab/tank assembly; I started with the boiler. In my parts box was a lovely brass steam dome intended for a Roundhouse *Lady Anne*. I had been waiting for some time for an opportunity to use it; it was the radius of the base of this dome that determined the diameter of my boiler – unfortunately this is a little oversize to true scale. I found during a trial fitting exercise in several DIY outlets that it sat perfectly on a piece of B&Q 2" diameter drainpipe. I carefully selected an unscuffed length and now have enough in stock for a further seven or eight boilers! By a happy chance, this diameter of drainpipe almost perfectly matches that of the Toytrain® firebox front, so this was separated from the rest of *Otto's* boiler and glued onto the piece of drainpipe using Bison hard plastic glue.

The smokebox wrapper was formed by first making two identical supporting brackets of the correct profile, and then gluing them to the bottom of the section of drainpipe. A strip of 1mm thick plasticard was then progressively bent and solvent-welded to one side of the brackets, around the boiler, and down to the other side of the bracket. After trimming, the hollow base was packed with laminated strips of 2mm plasticard into which self-tapping screws would eventually be driven, to hold the boiler down onto the footplate. Next, boiler bands of half-round 2mm microstrip were glued into place.

As a favour, a local engineering firm kindly turned up an excellent representation of *Camber's* neatly tapered chimney for me, out of a piece of aluminium alloy rod, working to a sketch I had supplied. This was drilled to take the Seuthe No.6 smoke unit I had decided to use (yet another item out of the 'keep to be used one day' box!) and was threaded at the base to suit an M8 nut. The other end was machined to accept a nice brass GVT chimney cap purchased from Ron M. Grant. The chimney was then fitted into the top of the smokebox and retained with a nut and a plasticard washer; this has a specially curved top surface to match the diameter of the inside of the drainpipe. Great care was taken to ensure that the chimney was absolutely perpendicu-



lar, and then some Milliput was sculpted into a neat collar for the chimney base.

Next, an M6 screw was embedded centrally in another lump of Milliput and then pushed hard down inside the *Lady Anne* dome, to leave about 15mm of the screw protruding. This screw would eventually retain the dome in place on the boiler top. The smokebox door wasn't attached just yet, as I would need access to the inside of the boiler at a later stage, both to retain the chimney and dome in place by means of nuts and shaped washers on the inside, and to run the wiring through. A series of holes was drilled in line along the boiler top to suit the positions of the chimney, dome and safety valves; two more holes went into the boiler sides to accept the dummy white metal clack valves. A couple of access holes were then drilled into the underside of the boiler where they can't be seen. One was required to reach the dome's retaining nut for tightening; the other is for the smoke unit's power supply cable to pass through.

The cab and side tanks

The outline of the cab and tank side was marked out on a sheet of 2mm plasticard. This was then cut out – mostly by the scoring and snapping method. The shape was then placed onto another piece of plasticard and traced around. The second side was then cut out, and the two clamped together whilst they were finished identically to size, using a Stanley knife and a file.

Using the same material, the two hollow side tanks were built up next, leaving an aperture in the bottom of each so that ballast weights could be installed later on. Then the cab front and back sheets were marked out and cut. A pair of 22mm diameter holes were cut in each cab sheet, ready to take the spectacle rings. All pieces were then joined to form the basic cab/tank assembly, with Plastruct angles being used on the inside to reinforce the joints.

Forming the bunker back sheet was a little fiddly as it had to be curved, solvent welded, and kept symmetrical, all at the same time. Small lugs were installed inside the cab in the rear corners to receive the ubiquitous self-tappers that would later keep it fastened to the footplate. A pair of laminated plasticard pads were installed inside the front of the side tanks, to take further retaining screws inserted from the underside of the footplate.

I wanted to keep the centre of gravity above the four driving wheels, so I was unable to reuse the Toytrain® ballast weight. To make up for the consequential loss of down force, I got the same kindly engineering company to make me up a set of additional weights in mild steel. Two went into the boiler, centrally above the driving wheels. (These were originally a single cylindrical weight, but stupidly I permanently fitted the chimney and superglued its retaining nut in place before remembering to put the weight in, so I had to go back and ask for it to be cut into halves lengthwise so that the two pieces could be slipped in under the obstruction inside the boiler, one at a time!) Two more custom made steel weights were



then installed, one into each side tank. These were sealed permanently into place by gluing strips of plasticard across the apertures. A last steel weight, complete with a machined cut-out to clear the coal-hole, was fitted into the bunker space. This weight was intended to counteract the effect of the overhang above the non-supportive pony truck.

In order to simulate rivets, a series of tiny holes was drilled around the tank and cab sides, and the cut-off heads of dressmakers' pins were inserted. Most were press fits; one or two of the holes turned out to be oversized, so in these cases the pins were retained with superglue. The same method was also used for creating the prominent lines of rivets around the smokebox wrapper. This was a fiddly and time consuming job; I have to confess that there are not anywhere near as many rivets in the model as there are in the prototype.

Holes were drilled in the tank tops to take cast whitmetal tank fillers; further drillings were made to accommodate handrails on the cab sides. A roof for the cab was made up next – just a piece of curved plasticard with an interior reinforcement that was made a snug press fit into the top of the cab. The last job on this sub-assembly was to make the solitary door that was a feature of the left side of the cab. I decided to allow it to be opened, so the top of the door was attached to the rear of the cab entrance using a split pin and 1.5mm dia. brass rod for the hinge. A further piece of the brass rod was used for a pivot pin at the bottom of the door, locating into a hole drilled into the footplate. The door is kept shut by an oversized but effective slide bolt device, manufactured from scraps of plasticard. This is mounted on the inside of the door, and is operated by means of a brass pin that protrudes through a guide slot to the outside surface.

Painting

When I first started modelling, I made the mistake of thinking that minor blemishes in surface finish would be covered up by the primer. Primer does not do this; what it does do is emphasise and highlight every scratch, imperfection and flaw

There is no escaping doing it properly; the surfaces need to be finished with fine emery or a well-worn Scotchbrite pad. Imperfections need to be searched for under a good light, filled, and rubbed down. Your fingertips are remarkably sensitive, and can detect surface blemishes of just a couple of tenths of a thousandth of an inch. If you can feel it before you paint it, you will definitely be able to see it after you have painted it!

All the plasticard sub-assemblies and the much-modified Toytrain® chassis were washed in warm soapy water and rinsed thoroughly. They were left to air dry on the draining board for several hours, and then placed on an old towel in the airing cupboard overnight to ensure that no dampness remained. The next day they were given a light rub over with a lint-free cloth, dampened in white spirit to remove any traces of lanolin. The Toytrain® chassis was masked so that no paint entered the motor case, and then spraying of all the sub-assemblies commenced with an all-over light coat of Halford's grey primer.

The inside of the cab/tank unit was masked and the outside surfaces sprayed with Halford's Ford Meadow Green gloss. After this had hardened, the inside was finished in Rover white diamond. The boiler was also sprayed green; it was then masked off whilst the smokebox and firebox received a coat of Halford's satin black, as did the Toytrain® chassis. The footplate assembly is also in satin black, except for the buffer beams which are finished in bright red.



Assembly

I started this part of the exercise by reassembling the motor, wheels, skates and pickups into the chassis block. Confidently, with the rebuilt unit resting upside down on the bench, a few volts were applied to the pick-up skates – nothing happened! I took the cover plate off and carefully re-checked the assembly order against the sketch I had made – all the parts were apparently in the right place, so why wouldn't it go? After several minutes of checking and rechecking, it finally dawned on me that I hadn't plugged in the four-pin connector to the top of the motor block; as this has links soldered across each pair of pins to supply power to the motor, its omission was somewhat critical! The connector was hastily plugged in, and to my relief the power plant immediately kicked into life and ran just as well as it had before I interfered with it.

I went on to fit the brake gear; originally this was in a bright chrome finish but now looked much more acceptable painted in satin black. The two outside cylinders were glued into place in their sockets on each side of the footplate assembly, and the two motion brackets screwed into their newly fabricated mountings. Slide bars, coupling rods and connecting rods followed, and with some weight placed over the wheels this assembly was run up and down a short test track a few times to make sure that there were no tight spots in the motion. All seemed well, so I moved on to the boiler assembly.

The *Lady Anne* brass dome was fitted on to the boiler top, retained on the inside by an M6 nut. I checked that it was in line with the already-fixed chimney and applied a couple of drops of superglue to the thread to ensure that there would be no future movement. The

smoke unit was pressed into the tapered chimney until it was held firmly; the cables for this were then connected to a pair of wires from the four-pin connector that plugs into the top of the motor block, via an inconspicuous hole in the bottom of the boiler. A small slide switch was incorporated into the circuit to disable the smoke unit when not required; this was fitted discreetly behind the front buffer beam. A second pair of wires was run through the boiler and down a hole drilled through the smokebox saddle, to meet the additional current pick-ups mounted on the black-painted pony truck. This was then locked in place using a pair of M6 nuts and a spot of superglue.

When all this was complete and the circuits tested, the smokebox door was fitted into place. A Roundhouse whitmetal item has been used, glued to a disc of 1mm plasticard of a diameter to suit the outside of the boiler. This, in turn, had a 2mm thick disc attached that matched the inside diameter of the boiler, thus making it a light press fit when painted. I chose not to fix it permanently in place, in case I ever need to regain access to the wiring inside the boiler. The whitmetal smokebox dart was set at a nice looking 'time' (about 25 past 7 looks right to me), then attention turned to the other end of the boiler assembly. The firebox front was detailed with hand-painted white metal and brass fittings, and at last the boiler assembly was ready to be attached to the footplate.

The boiler unit was retained in place at the front by the two self-tappers already mentioned, and then the cab/tank assembly was dropped into place and screwed down, trapping the rear end of the boiler in position. At last it was beginning to look like a railway locomotive! A brake standard and reversing

quadrant were attached to the cab floor, and a couple of pressure gauges mounted on the cab front. A driver was glued into position; a shovel and a heap of real coal on the floor completed the inside of the cab. Moving to the exterior, brass handrail knobs were fitted on each cabside, to accept handrails of 1/16" brass wire. Brass spectacle rings from Ron M. Grant were glazed with discs of clear acrylic, trepanned out of squares stuck on the faceplate of the Unimat, using double-sided tape. These were then fitted into the previously cut holes and retained with a spot of superglue. A cast brass whistle was installed in the cab front, then whitmetal centre couplings were fitted to the buffer beams front and rear, above the LGB™ originals. Last items to be fitted were two pairs of Brandbright safety chains, press-fitted into holes drilled in each buffer beam.

The hinged covers over the slide bars and connecting rods were next to be fitted. It seemed a great pity to conceal all these moving parts as they looked pretty good when in motion! Then a pair of whitmetal cab steps were attached under the footplate using small self tapping screws. Various bits of external plumbing and rodding were added, then *Camber* had its identity confirmed with custom made etched brass nameplates and oval maker's plates from Glendale Junction. These were carefully fitted using a fine run of superglue. You only get one chance to get this right on a newly painted model, so I carefully measured the tanks and bunker sides, and marked out where they were going, using strips of masking tape. Finally, the bunker was topped up with a load of real coal, and at last *Camber* was ready for testing.

Performance

Contemporaneously with the building of *Camber*, I constructed a model of the 'Jones' bogie coach and also one of the open four-wheeled passenger trucks. As I had previously constructed a model of the R&CT's Bagnall composite coach (see RM May 2004), I was able to test the loco by getting it to haul a prototypical train around my garden railway.

The reliable Lehmann® mechanism had no problem starting the train, even on a moderate gradient. The set of new ballast weights are slightly heavier than the original single weight, so adhesion was not a problem. I had some initial concerns regarding the road holding of the new pony truck, but these were unfounded; the weight on the leading end keeps it firmly on the rails whilst passing through 1st radius LGB™ pointwork. The Lehmann® four-coupled mechanism was always a good reliable slow runner in any case; the additional current pick-up from the leading wheels can only enhance this and, now with four pick-up points per side spread along a length that is almost double the loco's original wheelbase, *Camber* runs unhesitatingly through my dead-frog turnouts at a scale walking pace.

The prototype locomotive was only intended to run at around 10 to 12mph, but it is reported that it could reach 20mph 'if flogged'! As is usual with models, the 1:20 scale *Camber*



can exceed this velocity by a factor of three or four. A downside of running the model loco at slow scale speeds is that the smoke unit doesn't get up to temperature; unfortunately the little engine needs to be fairly whizzing around to generate a decent plume of smoke. Maybe next time I'll try one of the LGB™ 5 volt smoke units, if I can figure out how to wire it up.

As far as haulage power is concerned, my version of *Camber* is easily capable of managing a scale length train around the garden layout, even with its modest gradients and 1st radius curves and points. On level track, it can start its train without slipping with an additional three LGB™ four-wheel coaches coupled to the rear. As the loco is meant to be operated on the indoor layout I am building of Rye station, which features a level track bed, no significant curves and Peco G-45 points with much kinder radii, I am satisfied that the completed model is fit for purpose.

Wrapping up

First, what were the costs? If £25 is accepted as the true outlay for the donor loco, and this is added to around £5 worth of plasticard, the basic costs are not too high. However, if the expenditure on couplings, dome, safety chains and whistle etc. are added up, proprietary fittings contributed at least another £25 to the bill. Spray cans of primer, and black and green top coats come in at £5 each, and I suppose another £5 should be allowed to cover solvent, superglue and masking tape. That's around £75 outlay in total, for a hand-built

model that is possibly unique in its class. I didn't keep a precise record of the time put in to build *Camber*, as other projects were being worked on at the same time. I guess that it took me around 120 hours to complete the loco, albeit at a very leisurely pace spread over several weeks of dark evenings and wet weekends.

Secondly, has it turned out how I wanted it to? Although it performs well and occupied



me pleasantly for several weeks whilst building it, I am somewhat unsure of my overall opinion of the finished model of *Camber*. Whereas the prototype was a diminutive engine; the overscale compromises I have made with the wheelbase and boiler diameter have resulted in a chunkier-looking model that has a presence about it that is somewhat out of keeping with the character of the prototype. On the other hand, it is able to cope comfortably with a full-length train and no doubt will give sterling service when the layout is eventually completed. My earlier model of *Rye* is also over scale in some of its features, so the two locos look OK when posed next to each other.

A final comforting thought is that most people I've met have never heard of the long-defunct Rye & Camber Tramway, and I've never seen another model of *Camber* in any scale, so I hope that there aren't too many people around who could point out everything that I know I've got wrong!

The author is a member of the G Scale Society. In addition to the annual 'G-Rail' show and AGM, the society has a number of friendly local area groups which organise garden visits and trips to exhibitions and preserved railways etc. Members also receive a quarterly full-colour journal. To join the G Scale Society, contact membership secretary Peter Jackson on 01952 406002 or visit: www.g-scale-society.co.uk

Photographs by the author.

Scale drawings

Procor 102-ton bogie tank wagon

Modern liveried petrol tankers examined

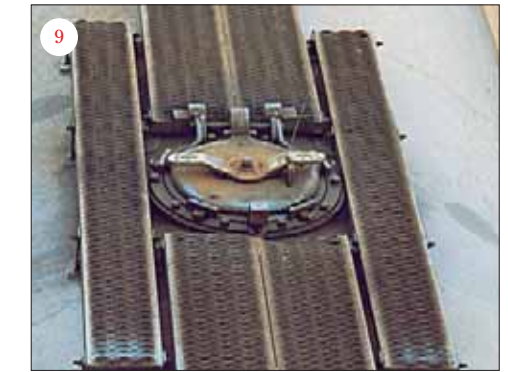
Colin Craig draws and describes these wagons, which would make colourful additions to layouts.

Nominal 100T bogie railtank designs for the transportation of oil, petrol and chemicals first appeared in the mid-1960s. The vehicle featured in this drawing is a later example to design code TEA030A, built c.1981 by Procor and fitted with Schlieren pattern bogies. The batch, Nos.PR85300-PR85316, are hired to Murco and currently operate in trainload formations out of Milford Haven (Robeston), serving two destinations.

The first is the Murco distribution point at Westerleigh, north of Bristol. The route taken is via the South Wales main line, Gloucester, then south to Yate and onto the short freight only branch to the terminal.

The other distribution point is at Theale, just south west of Reading on the 'Berks & Hants' route. Some reference books also suggest that they have been used out of Lindsey Oil Terminal, Immingham, though photographic

evidence is scant. They appear to undergo heavy maintenance at Marcroft works in Stoke, so it is quite possible to see single vehicles on the move in the Midlands. Formations are a mix of tanker types and liveries, not all of which carry the distinctive Murco red livery: plain black or grey older TEAs from a variety of sources are used, as well as Tiphook (now GE) TDAs in Murco livery. This allows modellers to mix types without conflict.



Although these tanks appear to be limited to the geographical areas outlined above, modellers' licence would enable their supposed use almost anywhere between the traditional industrial conurbations in the UK. Main line and freight only branch layouts are therefore the most likely candidates to feature them in an authentic setting.

The wagons do not appear to have carried the colourful red, white and blue livery since

construction, although a photograph in *Working Wagons Volume 4* by David Larkin (Santona Publications, ISBN 0 9538448 4 6), of PR85312 taken at Cardiff shows this livery in June 1992. Originally they were probably grey with an earlier style of Murco logo (see photograph in *Private Owner Wagons Volume 2* by Andrew Marshall (Metro Enterprises, ISBN 0 947773 16 9)).

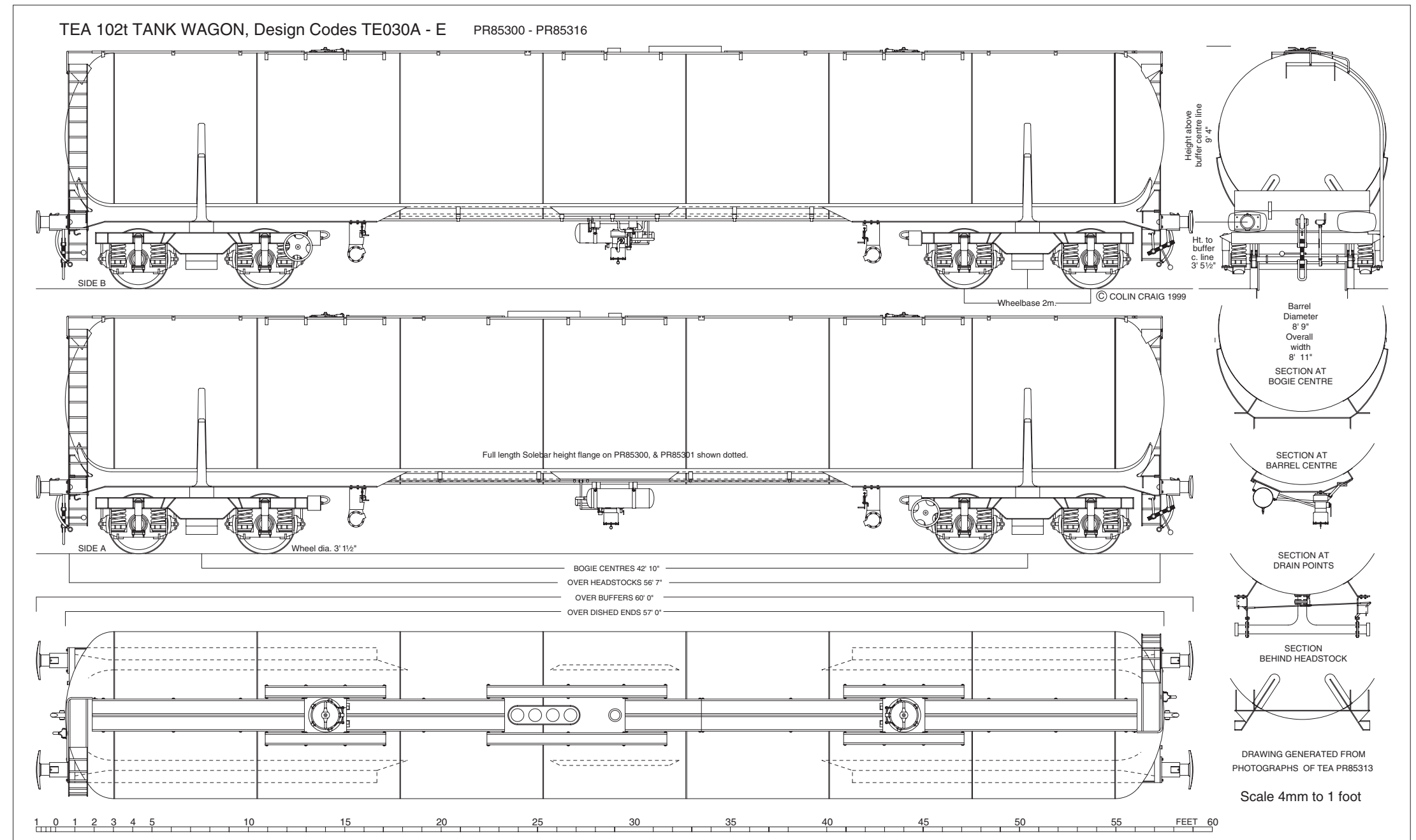
To model them in 4mm scale, the Lima

ready to run example is a good starting point as it includes many detail features of the prototype. Although currently long out of production, models can be obtained second hand at swapmeets and suchlike.

The most significant alteration would be that of replacing the bogies with the Schlieren type, available from **S Kits, 16 Barrow Road, Sileby, Loughborough, Leicestershire, LE12 7LP.**



Photos 1-6 show PR85313, captured on film at the Westerleigh distribution terminal.
 2: discharge pipework detail.
 3: buffer over-ride protection plate (fitted to most vehicles).
 4: side view of Schlieren pattern bogie fitted with additional dampeners.
 5 & 6: air brake detail.
 7: end view of PR85313 at Hereford, showing ladder access detail.
 8 & 9: tank roof vents and filler cap detail.
 Photographs and drawing by the author.



Dyffryn

A North Wales valley scene

Modelled by **John Parkinson** in N gauge.

This small working diorama based on the upper reaches of the Conwy Valley line marks my return to British outline modelling after a gap of some seven years, during which time a lot of water has gone under the proverbial bridge, never mind the ones over the rivers Conwy and Lledr, the one by the stretch of line by Roman Bridge and Dolwyddelan which was my main inspiration!

Previously I had modelled North Wales scenes in 00 and N, having lived in Snowdonia for the last 17 years, but then I was drawn to the vast scope for scenic creativity afforded by the American West. I was a little anxious about having withdrawal symptoms from canyons and trestle bridges, but my friends assured me it was time for a change, and it seemed appropriate, as empty nesters who have just retired to a small terraced house in Blaenau Ffestiniog. The 'we' of course includes my wife Chris, who even agreed half the roof space would be devoted to storing my layouts and modelling stuff! And of course I was now perfectly placed to do my own photography instead of relying on others, never having visited America personally.

At the outset I must make it clear that I am what the Americans call a 'scenery nut'; my technical skills are limited, which is why Dave has been an invaluable friend and assistant, as he possesses these in abundance. If I have any ability, it is in creating evocative scenes with landscapes and scratchbuilt structures, and this is my main focus. I make no apology therefore for any prototypical or historical inaccuracies; indeed, I have only used my research as a very rough basis for what has turned out to be a much more generalised version of a North Welsh valley. In case your Welsh is rusty, *Dyffryn* – in Northern Welsh, as opposed to *Cwm* in South Welsh – means 'valley'.

Also, for the sake of operational interest, the line had to be doubled, and a siding and branch line added, which could incidentally lead to an extension at a future date. Not to speak of other modifications, to which I will return shortly.

Inspiration

As already indicated, the layout was inspired by a short stretch of the Conwy Valley line from Roman Bridge to Dolwyddelan, but the way my layouts 'evolve' it is no longer recognizable as such; even selective compression would only have allowed one or two of the featured elements. With a layout this size, it is possible to include a mere fraction of what my imagination would like me to build. I suppose my trouble is that I want to model everything I see, so I inevitably end up with having to be ruthless in leaving things out. At the same time, I want the things I do include to be detailed and reasonably authentic. Maybe I got away with more while doing the American layouts, as not so many people could pinpoint inaccuracies!

The items taken directly from the locality are the river, the ruined castle and a detached house just outside the village of Dolwyddelan, as well as a row of houses actually in it, and Roman Bridge station itself.

I made the rock faces a much more prominent feature; you could say I moved some upstream from near Betws-y-coed, where there is a gorge, and some downstream from Blaenau Ffestiniog, where rock faces abound.

The larger house on the hill is a fairly accurate version of *Lasynys*, a renovated building near Harlech, once the home of a famous Welsh bard. One other house, next to the station, has its prototype in Beddgelert, and the one near the pig farm is from Barmouth. As

with the signal box, its brick walls had to be whitewashed to conform to National Park regulations, but currently the owners are in dispute with the council over the proximity of the pig farm, which did not have planning permission! The row of cottages at the front are typical of the area which is another way of saying that I can't remember where I photographed them!

I was initially tempted to model the Ffestiniog in 009, which I've also been researching but in the end I decided at least for the time being to stick with the scale I know best, and in which I won't have to make or kitbash engines, which is definitely not my forte.

Baseboard and track

The baseboard is built on a frame of 2" x 1" wood, 5' x 2'6", to which I added plywood pieces shaped to form the trackbed and level ground, leaving space for the river, the bed of which is supported by hardboard underneath the frame. The front and sides are built up with hardboard and more 2" x 1", and a pelmet with a built-in fluorescent strip light slots in to complete the front when being exhibited, but is removable for transporting. It's exactly the same as my American *Rocky Ridge* layout (see CONTINENTAL MODELLER August 04), and I've made a removable lid so one can be stacked on top of the other in transit.

Below left: the layout under construction showing the card lattice and polystyrene.

Below: the next stage, with filler-soaked sheet forming the hard shell.

Above right: a general view of the completed layout.

Photographs by the author.





The piece of hardboard which forms the backscene only starts 4" up from the base level, to give access to the hidden tracks which run underneath the hillside (see plan).

The only real design problem was the cross-pieces, which had to have grooves chiselled out for the river bed. If you can see where the river is not quite level, just don't remind me about it!

Being hard up as usual, I used cheap flexi-track, but the points are of course Peco medium radius insulfrog. The two on the viewing area are operated by Peco point motors from underneath. These were actually wired up by me! – but with the connectors to the control panel and testing carried out by Dave.

All the joints are soldered as well as having joiners, but my skill with the soldering iron means some may need attention soon!

Structures

I'll deal with this aspect before the scenery, because that's the order in which I do it. Once

I have rough plan of the area I'm modelling and a (long) list of the possible structures which might fit, I sit down at my 'workbench', an old writing desk with a self healing cutting board and my portable modelling toolbox in front of the TV with the CD player to one side, and spend the long winter evenings scratch-building models, some of which get selected for the next project.

The models are mostly made from mount-board or framing card, whichever name you prefer, faced where required with (mainly) Slater's Plastikard, thinner card, and paper, with Downesglaze windows.

I use Slater's plastic rodding and micro-rod for gutters, downspouts, window ledges etc, as well as making my own barge-boards and the like from (very) thin card.

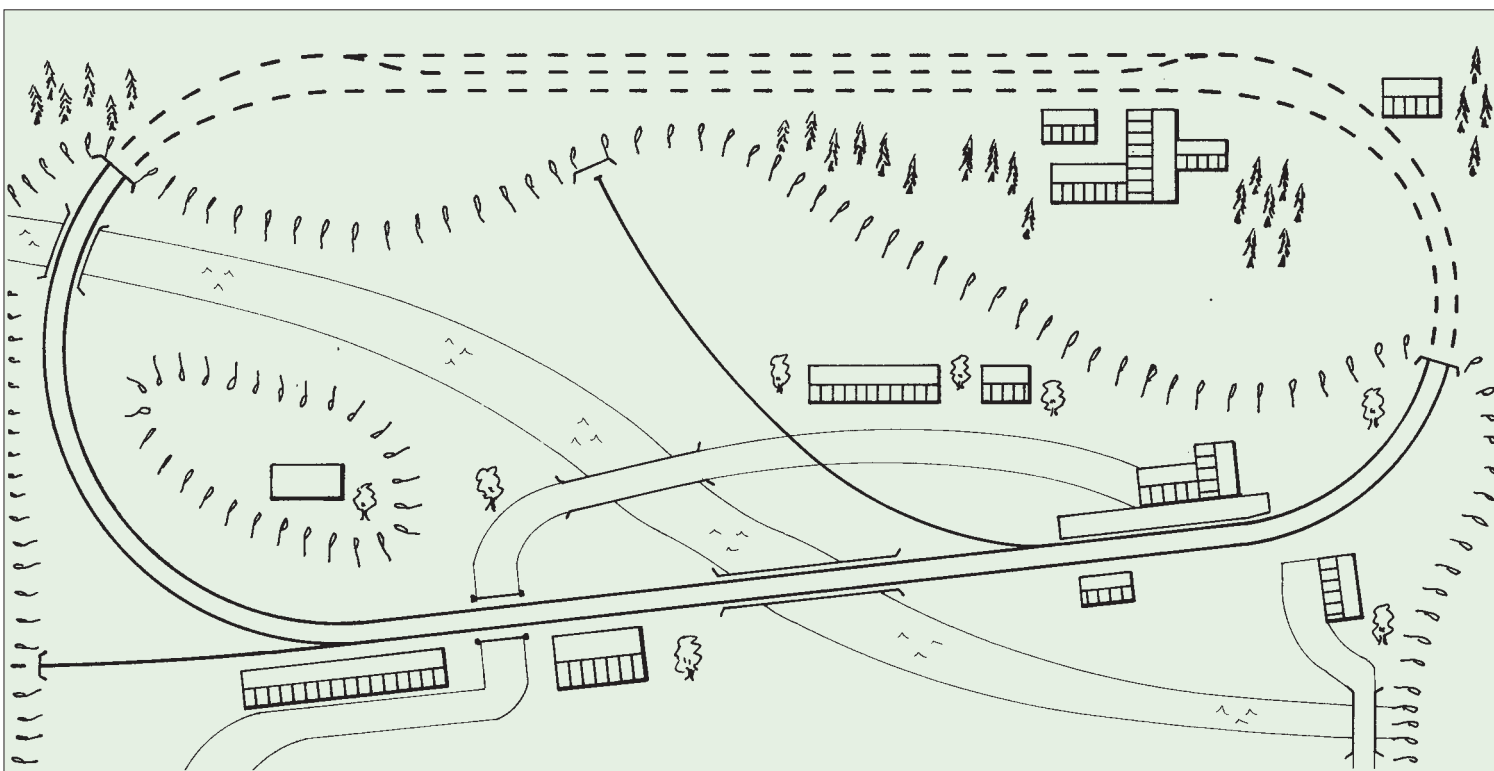
Scenery

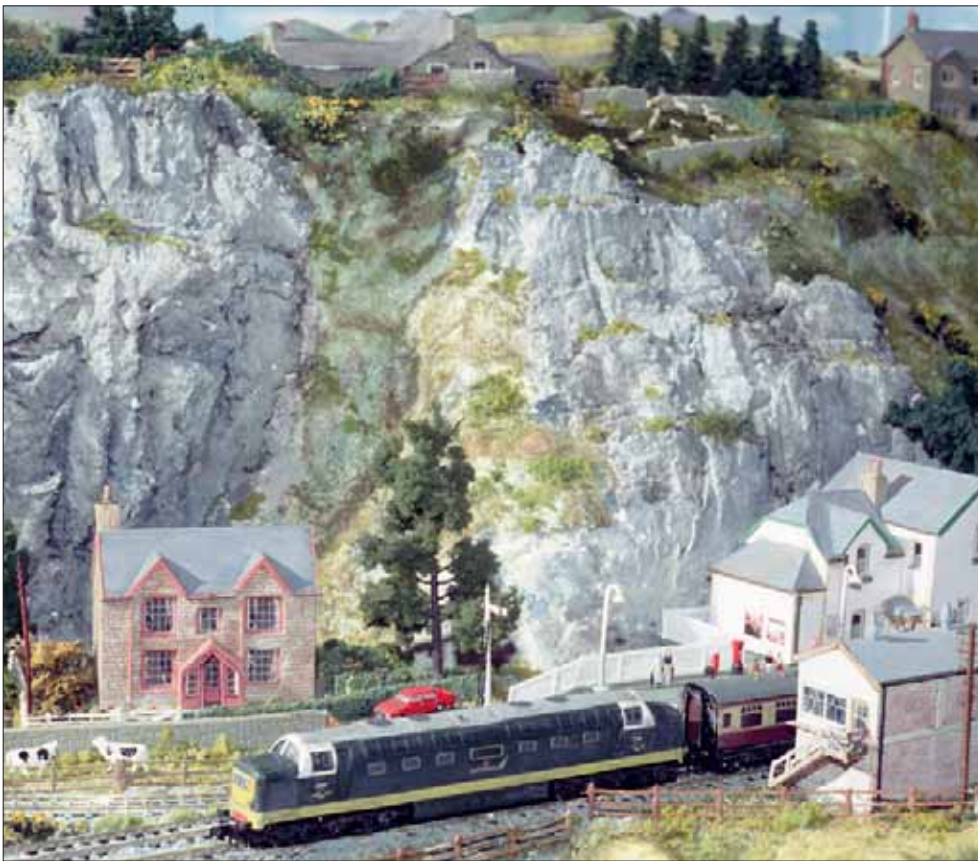
For *Dyffryn* I chose Peco Manyways backscenes, because of the commercially available ones they were the closest match

and easily the cheapest! In order to enhance them a bit, I cut out the sky, pasted it flat on the top of my backboard, then added the mountains stuck on mountboard to give more suggestion of depth.

Once I'd got a few buildings made, completed the baseboard and worked out a trackplan, I started to design roughly where the buildings might go, and how the scenery contours might look. I find it very difficult to plan in 3D; much easier to see how the actual model is evolving. Of course, it rarely turns out as I originally thought, which is why this layout for example probably has too much in the way of rock faces. They simply demanded to be made. Anyone who has seen my previous American layouts will know I have a weakness for these!

First of all, I positioned and stuck down the tunnel portals and bridges. Then the main ground contours were formed with a card lattice stapled together in situ and supported in places with pieces of polystyrene packing. In the case of the hill on which the castle ruin





Above: the Bachmann/Farish 'Deltic' passing Roman Bridge Station with a passenger train of carmine/cream coaches.

Below: the centre of the layout, showing the houses near the station. Construction of the rock faces is described in the text.

stands, the polystyrene was sufficient in itself. This was then covered with pieces of old sheet wetted and dragged through a roller tray of spray filler, and left to harden.



Next, some touching up and hole-filling was necessary. I use a brush and spray bottle for this, as indeed for colouring.

The rocks are made from Sculptamold, my favourite modelling material, which I have found so easy to mix and shape over the last few years. As already indicated, I got a bit carried away this time; I especially wanted to create these local rocks, after having made representations of the 'Rockies' for so long. They are coloured with shades of grey, dabbed on and

sprayed from the top down to let the paint flow naturally, and highlighted with India ink, administered in the same way. I should add that I use tester pots of emulsion for almost all my painting but for the grey I add black powder paint to white or off-white emulsion, of which there's usually a can in my house decorating box.

Next I cut out pieces of dyed lint for the fields, some lighter and smaller for next to the backscene, others larger as I worked towards the front. Once they were positioned and stuck down, I coloured the basic ground with shades of green and brown.

I made the more distant stone walls from Milliput, rolled out, flattened, cut, shaped and engraved. This took ages! The larger scale ones are mountboard, faced topped and edged with Plastikard, which were a bit easier, but I had to augment these with kitchen scourer hedging and various makes of fencing. Some are not strictly correct for the prototype, but there are limits even to my patience!

Then came the texturing, with Woodland Scenics turf, foliage clusters, polyfibre, Heki *Grasfaser*, various makes of scatter, and real sand and gravel.

The trees are mainly Heki; the sheep are Model Scene, and were very fiddly to 'plant', especially as I'd mislaid my tweezers – or were they the ones on loan from the manicure department?

The waterfall and river are made with 'clear' bath sealant, coated with varnish. I was going to seek one of the new types of 'water', but did not get hold of any before I was ready, and anyway I had temporarily run out of funds.

It does give the impression of rushing water, more for white-water rafting than a rowing boat, but it's too late now, though I may try to dig it out and replace at a later stage. When my wife first saw it, she enquired tentatively as to which way it was flowing, but at that stage I hadn't made the waterfall very obvious, ie not much bath sealant and no white paint, both of which are now present in abundance. So it's from left to right looking from the front, just in case you were wondering!

There are two explanations for the bricked up tunnel; one is for younger viewers and involves naughty engines, the other concerns serious subsidence after flooding. There was a flood recently, both in reality and on my model, which meant re-making and ballasting the line. The ballast still hasn't settled in properly, causing speed restrictions. It had been suggested that I could re-create part of the washed away embankment, but I had little enough space for the track to run, let alone unusable track hanging in mid-air!

I know this section is already about as long as the rest of the article put together, but I must just mention the gorse; foliage clusters with added scatter and dabs of yellow – I was rather pleased with the result.

Rolling stock

Having traded all my British N gauge stock in for American engines and boxcars, flatcars etc., I'm having to re-acquire some suitable British items as and when finances permit and

Right: the Class 101 DMU approaching Roman Bridge station with Dolwyddelan castle on the right, and the waterfall behind.

Below: the hillside with Lasynys, the old bard's house.

Below right: a view focussing on the pig farm and surrounding structures.

new ones come on the market. When Richard Coy heard I was making a new British layout (set in the sixties I should have said earlier), he kindly donated some of his old stock he was no longer using, including the 2-car green DMU, which Roger Clear has expertly motorised for me with an American Lifelike chassis he had to convert to fit. Anticipating a beneficent father's day I have also purchased a new Bachmann/Farish Class 37 (at least I thought it was. Now I'm informed it's a 'Deltic' which didn't actually run on this line) and three blood and custard coaches which I hope were still in use in the early green era. I'm also hoping that a new Class 20 or 25 will appear on the market before too long, but not before my birthday!

Conclusion

Dyffryn is already booked for several shows this summer and autumn, though nobody has seen it yet! I hope they're not disappointed! It will be accompanying *Rocky Ridge*, my most recent American layout. The two form a matching pair in design and presentation, but a sharp contrast in the scenery they depict.

Meanwhile, back at the drawing board, I'm considering possible future projects; either another N gauge diorama based on somewhere in Snowdonia, or a 009 slice of the Ffestiniog Railway. Dave has suggested I model the slate workings at Llanberis, where we now exhibit annually at the slate museum, but I'll have to think very carefully about that, as it's way off my usual sort of stuff.

Anyway, my thanks to Dave for his technical assistance and help at shows; also to Gerry, another co-operator, my brother Steve and others who've supported me around the country, and of course my wife Chris who apart from not minding me spending so much time modelling and exhibiting has even joined in on occasion herself.





Plan of the month

Quintessentially Llangollen

A cameo-sized scheme for this attractive ex-GW location

Neil Rushby supposes that the railway to this now preserved station never closed, and public train services continued to run into the 1980s and beyond.

Throughout our lives we make a bewildering number of choice. Some we do instinctively, our sense of danger seems to be a built-in reflex; others take a great deal of thought and application of logic before we arrive at a conclusion. Mostly though, our decisions occupy a fuzzy middle ground between these two extremes. With railways and modelling, we all know what we like, but try to quantify what that is, and it all gets a bit vague. When I visit exhibitions, I find myself mentally categorising the layouts on display, overheard conversations tend to suggest that others do the same. Some layouts I like, some I find stunning and some just don't do it for me.

Now, I have always been fascinated as to why other people choose what they choose, in much the same respect perhaps, as the popularity of green vegetables is a mystery to me! However, I thought it might be more produc-

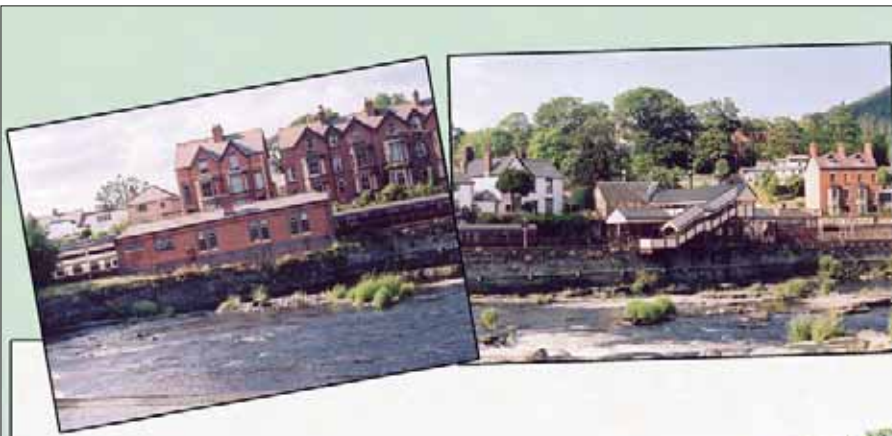
tive to look inwards, to do some self-analysis, and examine my own preferences to see if I could learn anything from them. In attempting to define the characteristics of layouts that I found pleasing, it became clear that the two qualities to hit the spot were, originality and visual interest. Conversely, I was not too concerned about operating potential or displays of extreme engineering machismo. So putting theory into practise, I have over the last few years endeavoured to give these two key characteristics priority in all that I have designed or built.

It is fairly easy, once you know what you want to achieve and what compromises you are prepared to make, to engineer them into a freelance 'might-have-been' layout. But it can appear more challenging if you have your heart set on a prototype location. I hope to show that this need not be the case.

Above: the view of Llangollen station taken from the overbridge at the east end of the site, showing the delightful setting of the prototype. This preservation view shows two operating eras for the price of one, on the left, dieselisation '80s style, on the right '60s style. DMUs worked into Llangollen between 1958 and 1963 on excursion traffic, but the Wickham unit would not be a likely proposition, though it has been restored beautifully.

Photographs by the author.

Visual interest has little to do with conventional prettiness, urban or for that matter rural grot can hold far more interest than chocolate box charm. The darkness on the edge of town has a drama all of its own; steelworks, scrap yards and sidings where the rust never sleeps, tap into the imagination and curiosity we had in childhood. If you want to model a prototype location and excite the eyes, then choose a



By joining two images together on a computer using image manipulation software, it is possible to give an impression of how this design would look if built. The white houses in the middle of the scene have been cunningly overlapped and removed, and do not appear on the model for reasons of space. This technique can be used with any prototype location to judge the effects of selective compression. A point to note in relation to Llangollen is that the trees which mask the waiting room and help conceal the left hand exit on my plan appear to have been cut back in this photo, though they are present on earlier photos.



subject that has lots of visual interest. A visually dull prototype will undoubtedly result in a visually dull model. After extolling the virtues of the ugly or down at heel in my previous article, *Slaithwaite Mills* (RM October) I have somewhat contrarily chosen a conventionally 'pretty' prototype as the focus of this plan. In my defence the *Slaithwaite Mills* design I worked through last time was freight only urban and industrial, I wanted to put passenger working on the agenda this time.

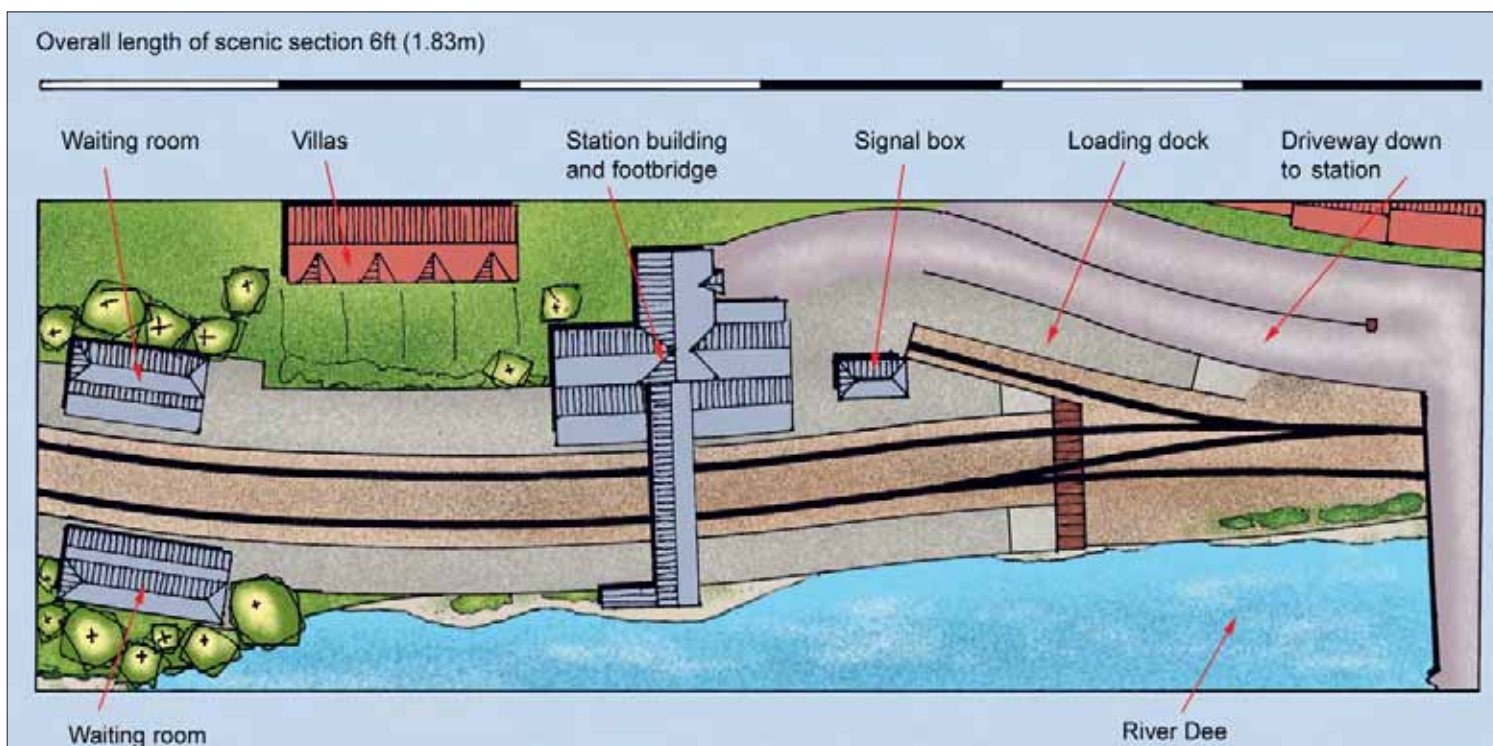
A distinctive location

Very few stations have a location as distinctive as Llangollen, perched above the rushing river Dee, but below the more tranquil waters of the Llangollen canal. It is a true small town station, free of industry and creeping suburbia, with a backdrop of lush green rolling hills. The station has a great deal going for it; the location is stunning. Firstly, we are faced with a choice of how to present the layout, which view should we frame? Although the vista from the

station across the river with the town centre in the background is attractive, I decided to present a more conventional design with the river to the fore, the railway taking centre stage and the wooded hillside to the rear.

Below: looking eastwards towards Ruabon, both the station footbridge and the river bridge can be seen. Notice the lush greenery in the background a vital part of the atmosphere of the Dee valley.





To keep things small, only the eastern end of the station is included in the design. The scene is framed by the bridge over the railway and river Dee to the east (right), and a stand of trees and the waiting rooms to the west (left). The goods yard and excursion platforms are excluded: in this way the visible portion is kept down to a highly manageable 6' x 2'; a realistic proposition for the average space starved modeller.

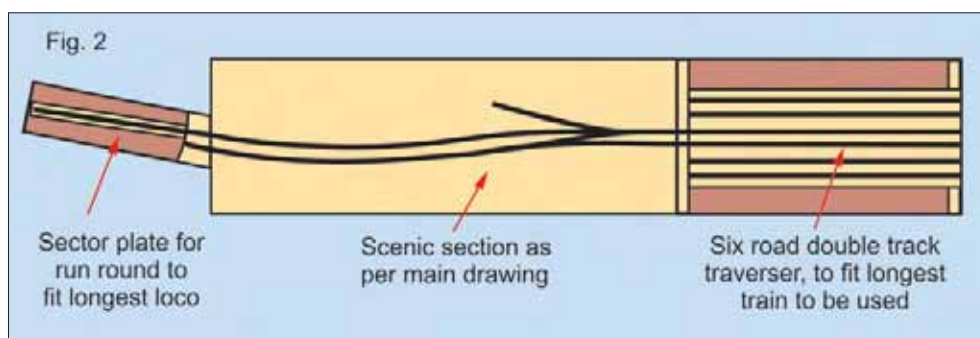
With such a stunning setting, and having infrastructure that has hardly changed over the years, Llangollen easily fulfils the first requirement for me – that of visual interest, with a timeless beauty thrown in as a bonus.

Tinkering with history

OK then, that has got the 'good looks' sewn up, but what about my other main factor, originality? If Llangollen is modelled as a straight copy of the original, what is to stop someone else doing the same; how do we avoid the 'Ashburton syndrome' – multiple models of the same prototype?

In the way that we apply imagination and creativity when designing a 'might have been' layout, we can do the same to our given location; although constrained by the physical location, we can tinker with time. Llangollen has a fixed history, opening in 1865, closing to passengers in 1965 and freight in 1968, before re-opening under preservation in 1981, but what if we change these events?

Although we will be exercising creativity, it should be tempered by credibility. Logic and precedent can guide our supposition and lend realism to something that never existed. As a fan of the post Beeching, pre-privatisation era in Britain's railway history, I have a head start. The mass closure of lines in the 1960s is a handy jumping off point for those who seek to impose changes on reality. Though lines fell under the axe, there were some surprising survivors; it is a favourite ploy of mine to



postulate what may have happened if more routes had been spared.

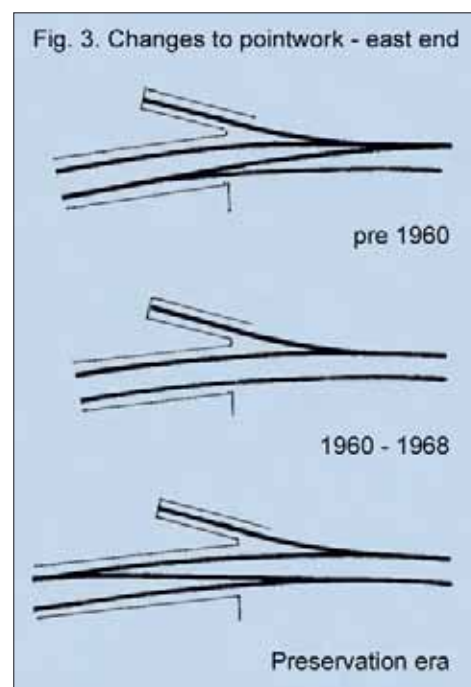
Thus, my version of Llangollen supposes that the route west to Bala and Barmouth had closed, but that traffic east to the rest of British Rail at Ruabon was sufficient for the retention of that section of the line.

This development doesn't stray too far from the truth, as in the last few freight-only years Llangollen was the end of the line, the tracks to the west having been lifted. The layout would be fed from hidden storage at the Ruabon end of the station, with a smaller hidden facility at the Corwen end to allow for locos to run round and for the representation of freight deposited in the yard at the west end of the station (see fig. 2).

The one anachronism that I have allowed myself is the pointwork at the east end of the plan, it is a throwback to the 1950s and earlier. I believe that in the early '60s the track was rationalised and the crossover taken out, as there was a suggestion during the freight only years that the line to Ruabon was to be singled. I suspect that if the freight only services had remained for any length of time, singling would have happened. Under preservation, the crossover was reinstated but as a leading rather than a trailing one. However, I have control of history, so you see the version before you! (See fig. 3.)

Train services

Further distortion of fact naturally leads to the retention of passenger services. If the line from Ruabon to Llangollen had remained open, then, considering the population density of the area, I believe there would be a strong case





for retaining a passenger service. Certainly far more unlikely prospects have managed to cling on over the years. I would guess that hourly DMUs to Ruabon, with some services extended to Wrexham or Chester would form the bulk of regular passenger services. Llangollen being a tourist hotspot may well have found itself as the destination for loco hauled specials, again a plausible scenario, though as the plan stands, only about four/five Mk 1s could be accommodated.

Freight, I imagine, would be a continuation of those services that Llangollen received in its last years, mainly traffic from Carters seed factory, local coal deliveries and some general merchandise. Although not stretching credibility to assume this carried on for several years, it is a pattern that would be unlikely to continue beyond the 1980s or up to the present day. Those of an ultra-modern persuasion would have to forego the delights of conventional public goods traffic, although if we assumed that the line west remained open, timber, nuclear traffic or MoD workings might just be conceivable as through freight, along with the old standby of engineer's trains.

Although my supposition is that the line stayed open, other changes that swept the rest of the rail network over the intervening years would have occurred here as well. In particular, changes to the infrastructure would have occurred. Across the station area, corporate image signage would have manifested itself, (though there were survivors of the old regional pattern in existence well into the late '70s), steam era anachronisms, such as loco watering facilities would have disappeared, as would the gas lamps, all as part of a continuing modernisation process.

These changes are not evident in the accompanying photos, as they show the station in its preserved form of course. After British Rail came Regional Railways and then the privatised Train Operating Companies, all making their mark on the signage and other elements of the infrastructure. However, I have not gone as far as to imagine that the delightful buildings were demolished, as happened in so many locations. My design assumes that

most of the structures remained in what is a visually sensitive location, but stops short of preserving a full retro atmosphere (as at Hebden Bridge station in West Yorkshire)

Above: the view of the station from the bridge over the River Dee. It can be seen that the footbridge cantilevers precariously out over the river. With the Wickham unit hidden, it's easy to imagine how this scene could have looked in the early 1980s.

Below: it's a hot summer's day twenty years ago; the 11.05 arrival from Wrexham ticks over in platform 2. Ten minutes before departure it will reverse over the crossover at the station throat before setting back into platform 1... Sorry I drifted off for a moment or two there! Really, this sums up what playing about with time is all about: seeing this blue and grey unit idling in the platform last year set into motion my 'what if' train of thought. The station signs and lights would have been modernised, but other than that the scene is exactly as it might have looked had history been different.

because this best reflects what happened elsewhere in the real world. It is the typical that convinces, the mundane which lends realism; if you are going to tell a lie, tell a believable lie!

Finally, be aware that messing about with a prototype location is not an easy way of dodging research. To create a convincing scene, you still need to know what the prototype looks like, what its history was, and how developments affected other similar locations so that you can apply these to your chosen one. For those wishing to take this particular design forward and find out more about the locality I recommend the book *The Llangollen Line – Ruabon to Barmouth* by W.G. Rear and N. Jones (Foxline Publishing, ISBN 1870119 10 X). To learn more about the railways in my chosen period, I recommend *Modelling the British Rail Era* by I. Fleming, S. Flint, K. Gibbons and J. Taylor (Santona Publications, ISBN 0 9507960 8 5). And for those connected to the internet try – www.gary-brookes.com/lid159.htm





The Hyde & Seaque Tramway

A varied selection of trams in 4mm scale

Philip and Gwen Smithies built this urban tramway as a joint project.

It's difficult now to say what rekindled my childhood interest in public transport. Perhaps it was a holiday in Llandudno a few years ago, during which I travelled by train down the Conwy Valley Line, along the coast to Caernarvon by bus and up the Great Orme by tram. What I do know is that a few years ago, I was looking regularly at the 388. and 625. sections of local libraries. I picked up two particular books one weekend – *Narrow Gauge Adventure* by P.D. Hancock, and *How to go Tram and Tramway Modelling* by David Voice.

I was hooked. I had to build my own layout and it had to have trains, trams and buses. It also had to have a continuous run and it had to be in 00. Someone as hamfisted as myself could never cope with N gauge. Incidentally, I'm one of that rare group of people who can gain an equal amount of satisfaction from seeing a Deltic, a Balloon or an SC4LK!

Practical considerations soon brought me down to earth. There was only a limited

amount of space available at the time (6'6" x 1'6", to be precise): something had to go! It was becoming increasingly clear that a continuous run for a model railway in 4mm scale was incompatible with a board width of 1'6" and, sadly, I had to ditch plans for the railway, although I was determined that layout number two would have one.

So a tramway it was to be. I'd built some railway kits as a child, and didn't think that building tramway kits would be a problem. What were to be the tramway's main features, given the size restrictions? Trams can negotiate 6" radius curves, so in a width of 1'6", a continuous run was possible. This, I was to discover later, was mistake No.1. Blackpool trams need a minimum radius curve of 8". The tramway had to look as if the scenery was there first; it had to be set in the present day, which required inventing an appropriate history and geography, and it had to carry a variety of vehicles.

Planning

Four problems now remained:

- ☛ I was hopeless at woodwork. I did once succeed in building (if 'succeed' is quite the right word) a stool in woodwork at school many years ago, but it fell apart when the cat sat on it. However, my brother-in-law was a cabinet maker so perhaps he'd build a baseboard. He did, many thanks, Gary (J.K.Evans, Heswall – best in the business).
- ☛ I couldn't solder very well, which meant that the overhead would have to be deferred – probably indefinitely.
- ☛ I didn't think I'd ever be able to build scenery.
- ☛ My wife, Gwen, wasn't even aware of my plans. I'd gained the impression from contributors to RM that wives were sometimes the biggest difficulty of all.

I broached my ideas to Gwen tentatively, and braced myself for an explosion which never





Top far left: Middleton Bogie at Hyde terminus.

Left: Edinburgh 35 at Hyde Market Place.

Below far left: Hyde High Street.

Below left: Feltham passes visiting London Metrobus in the High Street.

Above: Manchester Pilcher and London 290 near Hyde Wood.

Above right: trams passing at Hyde Church.

came. She had apparently fancied for a long time building a model village, and thought the whole idea was marvellous. The duties were established. I would be responsible for baseboard, track, electrics, roads and overhead, and Gwen would be responsible for the scenery.

Planning the actual layout was more difficult than I expected – in fact, I had made very little progress until I had a dream one night about a village called Hyde, which had both tramway and castle. That dream formed the basis of the layout which we built, although the castle had to be sacrificed because of lack of space.

Have any other modellers built layouts which have been based on dreams?

History

The layout itself portrays the Hyde end of the Hyde & Seaque Tramway. It connects the large and thriving historical seaside resort of Seaque with the small town of Hyde. The trams terminate outside Hyde Park, one of the most visited gardens in Britain.

The tramway was originally operated by the Hyde & Seaque Tramway Company until taken over by Seaque Corporation in the early years of the century. Following deregulation, in the late eighties the system was privatised and reverted to its original name. It owes its survival to two main facts – it connects the main tourist attractions and the hotels, and it is almost entirely on reserved track, except for short sections in Hyde.

The tramway is now approaching its centenary, and preparations for the celebrations are well under way. The company borrowed a number of trams from museums, and painted a large number of its second-hand trams, purchased from other undertakings which closed during the fifties and early sixties, into their original liveries.

The fictitious history does enable any tram in any colour to be operated, and the parallels with the Blackpool tram system should be apparent.

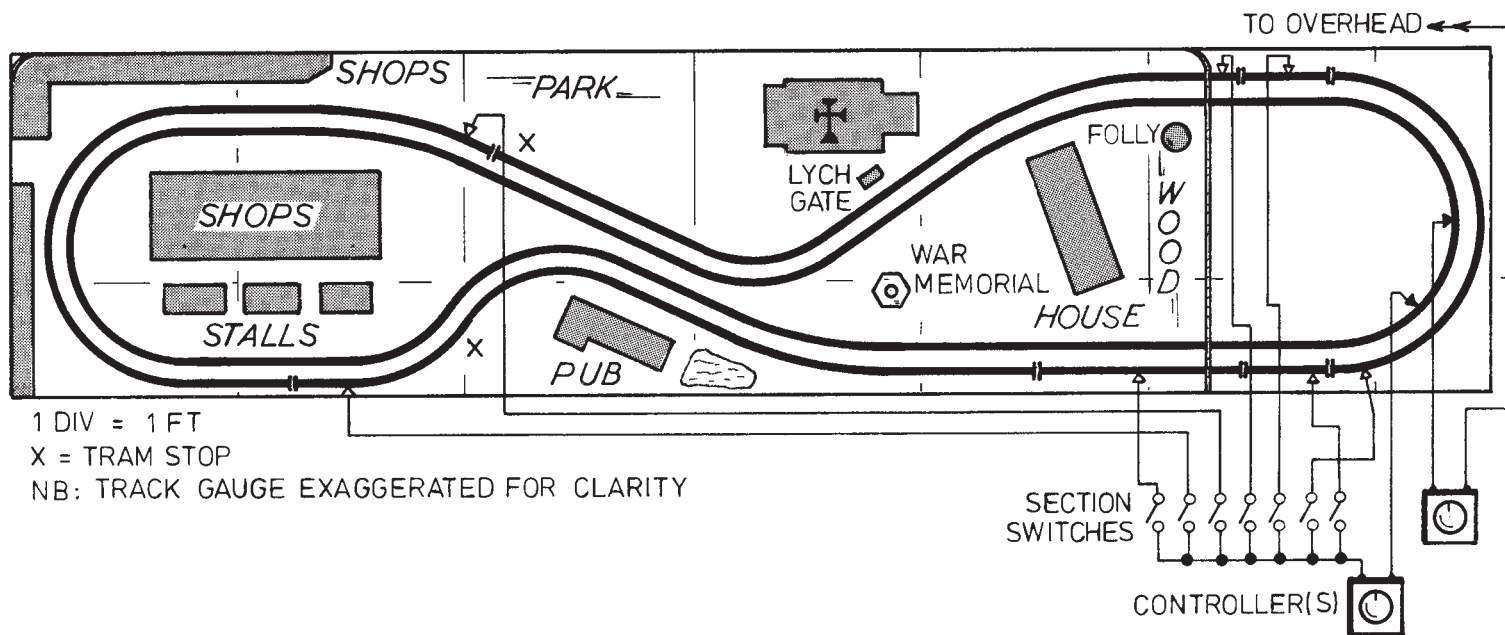
Baseboard, track and electrification

The baseboard was built (by my brother-in-law, Gary) according to the usual methods of 2" x 1" softwood framing, with cross pieces at 9" or 12" intervals in two sections, each 3'3" long, held together by coach bolts. When we moved to more spacious accommodation recently I took the opportunity to add a short extra board to allow for a larger fiddleyard.

The whole thing is covered with insulation board: this was mistake No.2. I should have used something less flimsy. When I tackled the overhead recently, the actual fitting of the traction poles proved very difficult. I had to glue some pre-drilled squares of plywood under the insulation board to provide firm anchorage for them. Next time, I'll use something firmer.

Other than that, the overhead, made by Tramalan, proved remarkably easy to assemble. However, it requires some soldering which, in my experience, requires two pairs of hands. The second pair was provided by Gwen.

The track is Peco flexible, curved to shape, cut and pinned. As the sleepers are covered by road surface, the fact that they are all skew-whiff doesn't matter; they can't be seen, and the running of the trams isn't affected. The





road surface was made by placing pieces of scrap wood, 1/8" thick, round the outside of the tracks. Thin card was placed over the track, held in place temporarily by hand, whilst I went over it pressing down with a wooden ruler. This left the outline of the track marked on the card, which was then cut, glued and painted (Humbrol 67). The track stands slightly above the road surface, unlike the prototype, to facilitate track cleaning.

The track is split into seven sections to allow six trams to be on the layout at any one time, operating off the two-rail system. Additionally, some trams are built to run off the overhead/inner rail and can operate completely independently of the others. Although two trains never normally run immediately behind each other, two trams often do so, and it requires skill to drive them, so that one doesn't crash into the back of the other. It's great fun, but highly irregular, to run two trams towards each other on the same section of track and watch the faces of the spectators!

Scenery

Gwen Smithies writes: once the track had been laid and the roadway finished, my part of the work began. Most of the buildings were already completed while I was waiting for the chance to do my bit. The position of each building had been planned but the fine detail was to emerge as work went ahead.

I had collected the materials over the preceding months; paints, scenic materials, backscens and Superquick buildings. With a carefully-concealed sense of apprehension, I began.

The backscene came first. Hardboard of an appropriate height to provide a back-drop to the church spire was tacked to the baseboard, and then covered with lining paper. The Peco backscens were then applied with wallpaper paste, giving a smooth finish. I ensured that the 'corners' at the back of the layout were curved, which helps to avoid shadows on the sky when photographs are taken.

The 'escape' to the fiddleyard came next. I had not, at that stage, seen a layout which used woodland to disguise the escape, but Phil assured me that trams had travelled through woodland near Middleton in Leeds. A pre-cut

Left: Feltham passes children's playground on its way to Seaque.

Right: ex-London Transport 290 leaves Hyde Market Place.

Photographs by the authors.

'shelf' of card was stuck to the hardboard on the right of the layout, about 6" above board level. It was supported with wooden blocks. Pre-cut card was also stuck between the shelf and baseboard to make the 'front' of the wood. 'Tree-tops', made from lichen, were glued to the shelf, and low relief trees, made from twigs and lichen, were glued to the 'front' of the wood.

The two places where roads led into the backscene were helped out by painting them the same colour on both layout and backscene, and applying cut-out trees and cottages (from magazines) to blend our buildings more fittingly.

The buildings were all put on using a modular approach. I cut a balsa base the same shape as the area required, and completely modelled that particular section before proceeding to the next. Pavements were made by simply sticking paving papers over the edge of the balsa base. Certain amounts of swearing were necessary here when fitting them round the pretty curves which some blasted town planner had deemed appropriate.

Additional height, where it was needed, was gained by building up with thicker balsa or DIY filler. Dead-flat layouts are so boring! Grass was made from scatter materials over wood glue, and sand was used for gravel paths. More scatter materials, cork, Woodland Scenics and brickpapers gave the finishing touches to each module. The ponds were made by using craft resin poured into holes in thick balsa, carefully sealed beforehand with varnish, and painted muddy brown.

While not wishing to give away all my hard-won secrets, here are some hints which other modellers may find useful:

- ☛ Detail is important. Real buildings have creepers growing up them. There are muddy patches on paths, and lichens and mosses in damp places. All can be made with scatter materials or painted with

watercolours. Oil colours are too strong for this purpose.

- ☛ Decide what the season is and stick to it. At Hyde, it is early autumn. Although some trees are in autumn colours, there are still plenty of flowers in the gardens.
 - ☛ Figures can make or break a layout. I have used the excellent Preiser figures throughout. They have realistic poses and can be placed to make natural looking groups. I used a box of standing figures and a box of seated figures, both of which required painting, and several boxes of ready-painted figures for key parts of the layout, such as the church. These were far the most expensive item in my budget, but certainly worth it in terms of interest to the viewer. There are also cats, dogs, swans and ducks!
 - ☛ Make sure something is happening everywhere you look. A man on a ladder painting a sign, a gravedigger at work, children playing, lovers kissing – all these are here. There is plenty going on in the backyards, too!
 - ☛ Ensure that the scenery merges well into the backscens. I've mentioned the importance of maintaining the same road colours, but paths lead naturally from the village to the backscene, as do trees and hedges.
- Perhaps the most extraordinary thing about making *Hyde* is the way in which it took on its own character as work progressed, so that at times, it dictated how things should look. I can truly say that I have never enjoyed making anything so much, so, come on wives, if you can't fight that layout, improve it!

Conclusion

We have found the construction, operating and photographing of the layout enormously satisfying, and are now planning layout number two which, we hope, will avoid the mistakes made in number one.

This layout will feature all the things that we were prevented from including in layout number one because of lack of space. It will be a narrow gauge railway, a main line railway, a castle, a sea-shore, an abbey, well, that's the plan. Somehow, these things take on a life of their own once you get started.



...an exchange of railway modelling ideas for beginners of all ages

Layouts for kids

When asked to build a 'train set', give some thought to what is required

R.G. Tye has some useful suggestions.

My neighbours asked me to build a train set for their young son. A TRAIN SET! Don't they know that I build Model Railways?

But wait a minute – many a railway modeller will have been asked at some time to build a 'train set' for a young child, a thought that might spark fear in the hearts of experienced modellers. Yet if our prized hobby is to continue and not be the exclusive domain of the geriatric we need a continued interest throughout the population. Many of us will wish to help our younger relatives and offer them the years of pleasure and interest we have had from railway modelling.

The history of model railways is clearly rooted in toys, originating in the crude representations of engines and trains which date from the time when railways were the new technology and began to dominate the world.

All new technologies have toys as their spin-offs, for example, cars, aeroplanes and spacecraft. One current craze is for robots, witness the models from the BBC series 'Robot Wars'. Toys are an essential for the proper development of children and their creation and use should not be despised.

Railways, however have been around a long time, and as they have a durable interactive nature, have attracted an interest beyond a childish interest in control and movement. The adult modeller has interest in technology, history, control and art, in that he (usually he) constructs a place, a diorama, to represent an idealised world.

Children too, enjoy fantasy worlds, but their view is different from an adult's. Children do not care for fine detail – they are not 'rivet counters' – rather they are impressionists. Children are also impatient by adult standards, but enjoy repetition. To build a train set for such people successfully needs careful consideration.

One of your first considerations must be language. Almost certainly the child will be used to the motor car, and may refer to a double track as two lanes, a siding as a parking place, and will not know the difference between a train and a locomotive. Coaches and wagons may be called trailers. Don't worry, some gentle repetition from you will correct this in a few days, and the child will become proud of its specialised knowledge. A similar problem may

occur with the child's use of the metric system, universally taught at school, but not much used by modellers of British historic 'imperial' railways. Remember that the distance between two points stays the same no matter how it is described, so if the child asks 'what is an inch?', see it as an opportunity to teach the history of measuring systems.

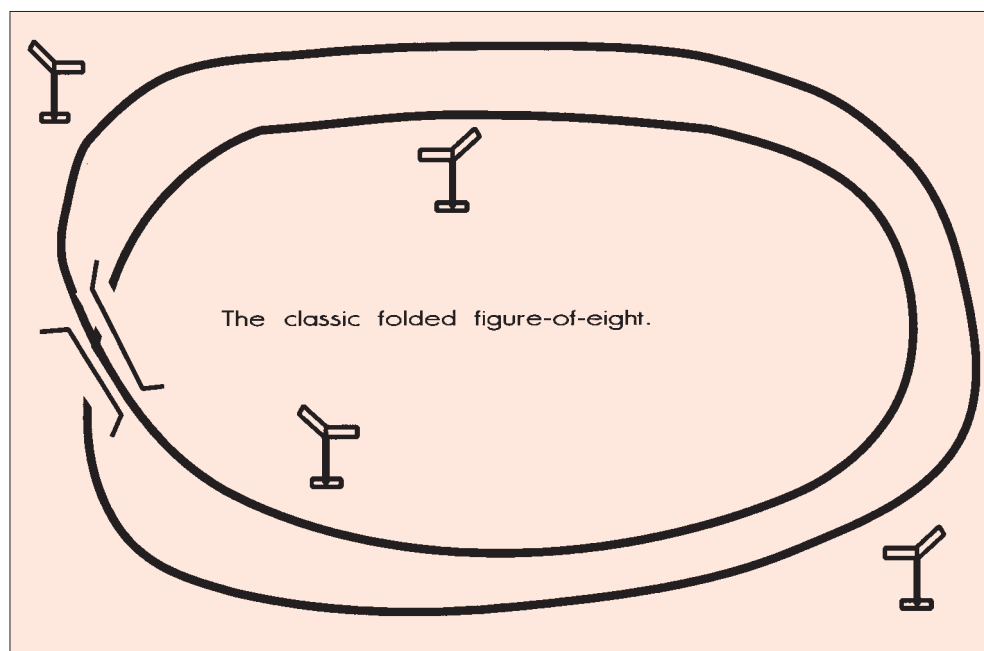
Small children will not have the dexterity needed to re-rail something as small as N gauge, and 0 gauge will be expensive. 00 gauge, 4mm scale is a suitable size, and there is a lot of it about. Considering that the stock may well become damaged, and prototype running is not paramount, my advice is to buy second-hand ready-to-run, and regard the rolling stock as disposable. Tension-lock couplings are robust and reliable, but whatever system you employ stick to it, as the child will be annoyed if trains do not couple. As the child ages, and begins to appreciate that the railway can represent a real situation, they will begin to appreciate improved models and take care of them.

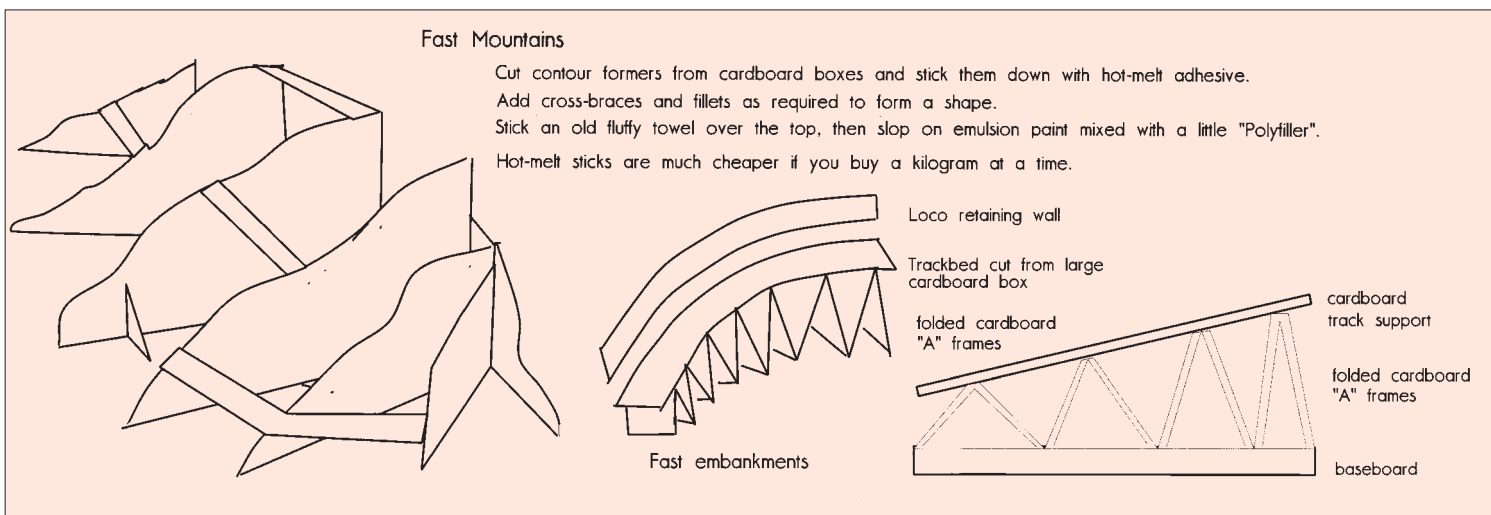
Designing the track plan

In order to get a lot of tracks in a small space, tight curves will be needed, and although Peco track is flexible, getting small radii is easier if you use preformed rails such as Setrack. For good running I use mostly Electrofrog points as locos are less likely to stick.

Remember, a small child cannot reach far, so measure (surreptitiously) the child's arm, and size your board with that in mind. Choosing table height is a compromise between your need not to have an aching back and the child's need to be able to see. Smaller layouts, of a size you can carry, may be placed on low trestles or tables and raised when required. When larger baseboards are used, supported by integrated legs, I provide a platform for the child to stand upon. Remember also that if a train falls off the track it has to be reached without destroying the scenery.

Small children like their trains to run round and round, and with only two speeds – stop and full speed. A 12 volt car lamp bulb in series will limit the speed and help keep the





train on the rails; experiment until you find one that suits.

Modellers know that the tail chasing oval is rare in reality, being limited to circle lines under big cities like London and pleasure lines, but children love them, and like it even more if there are two trains which can race. If one line crosses another on a bridge, that is superb, so do consider a folded figure-of-eight.

Uncoupling is best done by hand with a suitable spoon-like lever. As the child is running the railway, they will see nothing wrong in doing the jobs railway staff would do, and will find the interaction fun. Remote control of points can also be difficult if the child cannot relate the appropriate lever. Often it is better to let the child look at the point, observe the position of the switch rails and change it by hand (finger). Older children will be happy with remote control, but even then it is a mechanism that can (will) go wrong. Local point operation is simple, reliable and comprehensible. Let the system develop to remote control as the child ages.

Your layout will need sidings. A small child will not cope with the complexity of shunting, and will want simply to 'park' trains. Try to arrange the sidings to hold a complete train and if you have three trains, have three parking places. I try to include a special place for *Thomas* and perhaps *Clarabel*, as the smallest children will always ask about them.

Make the electrical system as simple as possible because you do not want it to go wrong. Most switching can be accomplished by using the points as isolators. Try to limit the rest to just one or two switches, for example a branch line can be switched in or out. If the system can be wrongly switched you may be sure the average child will find out how. Give some thought to your controller, make sure the knob is big and easily manipulated, and especially check the reversing switch if fitted; these can be very fiddly and frustrating for small hands. Modern controllers are generally safe, but particularly if you use any old systems, be sure to check for electrical safety.

In order to survive the attention of small children the scenery must be either very robust or very cheap. A tunnel is essential. I opt for cheapness and use cardboard contour formers cross-braced together with hot-melt adhesive

and covered in painted cloth. This can be quickly repaired if the child leans upon it. Although some buildings, particularly station platforms, are solid wood, most are plastic or pre-cut card models, which are strong enough, can be repaired with some more glue and a little paint, and at worst simply replaced. A scenic re-building program may be run in parallel with the child's development.

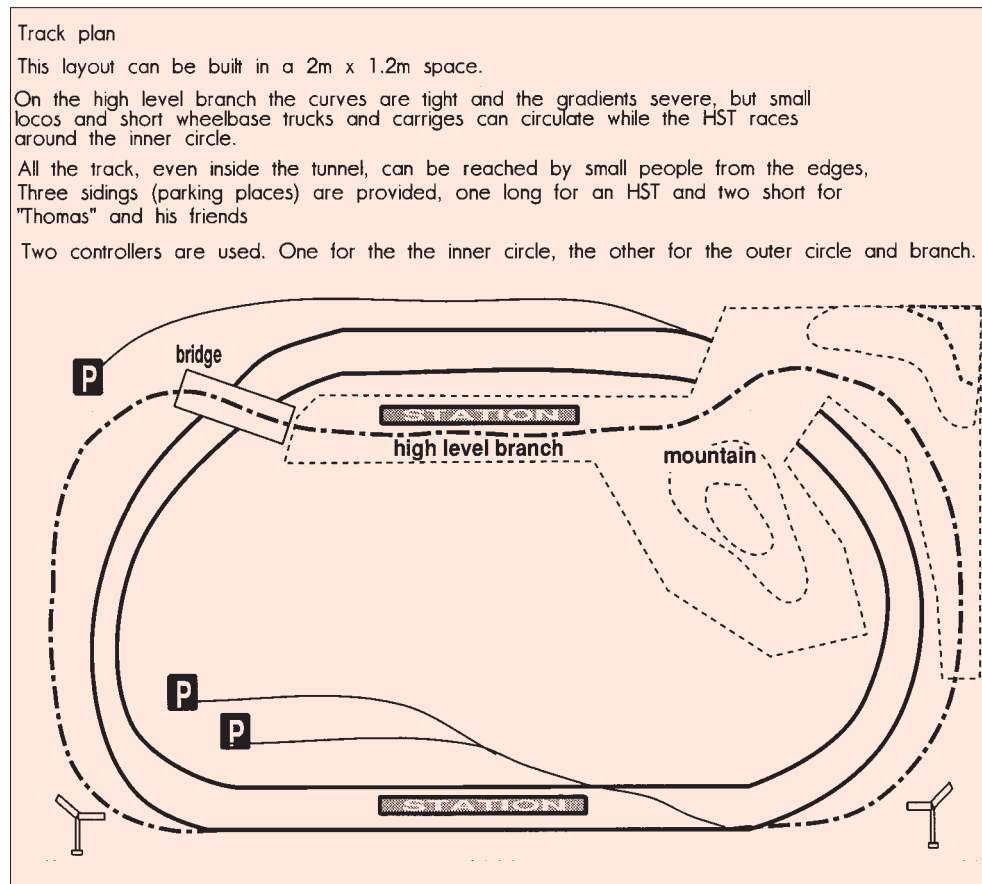
The fashionable Key Stages now used in schools can be used as a guide to what a railway can offer to a child as they develop.

Seven year olds at Key Stage 1 will benefit from experience of dexterity and control, and will learn patience and how to share with their friends. At Stage 2, we can introduce 10 year-olds to building, scaling and history. When the child reaches 14, Stage 3, he/she may be studying CDT at school and be able to wire electrical systems, run timetables, and study the his-

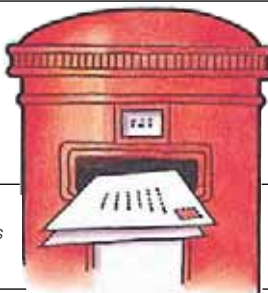
tory of lines and buildings. At Key Stage 4, 14 plus, we will probably lose them for a while, but the seeds have been sown. Wait a few years and they will turn from obnoxious teenagers back to reasonable people, but with an abiding interest in trains and models.

And finally

Make it run. Keep in mind that you are building for a child, and it is frustrating for a child to be repairing or fiddling all the time. It is frustrating if the trains keep falling off the track and for a small child to have to call you to make the railway work. It is boring if you are pedantic about detail, and a child may not wait while you play at modelling. Make it simple, make sure the trains will stay on the track and the railway runs! Let the child enjoy the railway as a toy, and wait for the appreciation of modelling to grow.



READERS LETTERS



We cannot consider for publication any letter not accompanied by the writer's full name and address, although we do not publish the latter except in the case of appeals. All correspondence to contributors must be addressed to them c/o RAILWAY MODELLER, Beer, Seaton, Devon EX12 3NA.

FROM CRAWLEY MRC

We felt that we had to reply to Brian Stubbles' letter published in the October 2004 edition. Thank you Brian for your kind comments, they are much appreciated.

When we first started our exhibition we thought long and hard about the commitment given by both our own members and of our visiting exhibitors. Visiting exhibitors are giving up their whole weekend (ours is a two-day exhibition) for the benefit of our society. Obviously we reimburse all expenses but we cannot compensate for their travelling time and absence of family. It therefore seemed only polite to give everyone as much help and consideration as possible.

When a visible layout arrives there is someone to greet them unlike many exhibitions we attend! (I can recall one where the Exhibition Manager had returned home and no other club members had arrived save the one we traced for the information.) We then provide a team of people to unload the layout if required, the same is provided at the close. The same facilities are provided for traders. It says something for this approach in that we invariably get offered layouts from the same source without any prompting. I believe the expression is 'As ye sow, so shall ye reap'.

Once again, thanks Brian but it is only common courtesy, not rocket science, in getting it right. Come along and see for yourself on 2-3 April 2005. BARRY MURSELL, DOUG STEPTOE, PETE SELBY
Crawley MRC

S&B PRODUCTIONS – ANY LEADS?

Some time ago you kindly published my letter requesting help with the construction of Underground stock using the Hamblings Litho sheets. The response was great. I received a copy of the firm's blueprints as well as a complete set of roof mouldings and part of a floor moulding which was enough for me to ask a local wood

merchant to run up some more. I have already written to each person and thanked them. This letter is just to say thank you in general and to let you know that I have been able to build a three car set following Hamblings' old methods.

Another point that someone out there may be able to help me with is the following: at a swapmeet I obtained a set of wagon underframe parts which were cast and had fitted sprung axleboxes. They are quite well made and to scale. The price on the box is six shillings and threepence inc. purchase tax so that dates it to the late 1960s. The firm was called S&B Productions of 3 Orion Buildings, South Norwood, London SE25. Does anyone know what became of the firm and did it make any other products, as the parts I have seem well ahead of their time.

A third item with reference to the letter in the October edition from Steve Page quoting Cyril Freezer. Wally Mayhew, whose fine scale 0 gauge *Stratford St Andrew* featured in the *Model Railway Constructor* in the 1960s was once asked why he was running GER stock alongside LBSC. The reply was 'I run what I like and whose ... railway is it anyway?' This has always been my answer to the critics; live and let live is my motto. PAUL HYDER

GWR SUPER SALOONS

I was most interested to read Jonathan Joseph's excellent article on GWR Super Saloons in the October 2004 edition of RAILWAY MODELLER.

Whilst he is right that these splendid coaches are not available in ready-to-run form for 7mm modellers, MSC Models introduced an etched brass 7mm kit at Guildex in September this

Below: as Jonathan Joseph's article on Super Saloons mainly focussed on King George, here is a shot of the other one resident on the South Devon Railway, No.9116 Duchess of York.

Photograph: Peco Studio.

year. The kit represents the coaches as originally built in 1932 and includes full interior fittings with partitioning, tables with lamps and both types of armchair.

A full set of transfers is available separately, including the names of all seven coaches.

Only wheels are needed to complete. The kits are available by mail order from MSC Models, 48a Ditton Hill Road, Long Ditton, Surrey KT6 5JD (020 8398 2415) at £125.00 plus £8.00 for p&p. A display model can be seen on our trade stand at major Gauge 0 Shows.

I hope this will be of interest to readers.

R.C.V. CORNWELL,
Director, MSC Models

DEL PRADO PARTWORK STOCK

I am interested in attempting to scratchbuild some rolling stock to complement the collection of Del Prado *Locomotives of the world*.



I would like to obtain drawings of Mk 3 coaches, modern DMU/EMU types and Virgin Voyagers. Any readers' assistance would be welcome.

ROBERT NEWBOLD,
36 Dempster Court, Church Street,
Nuneaton, Warwickshire CV11 4AT.

LEAMSIDE STATION

My next 00 gauge railway will be that of Leamside station, which was a handsome country station in the north east, near Durham. Can anyone provide me with photographs, timetables etc. to enable me to make a start? At present all I possess is one picture of the station in 1910.

DOUGLAS COLLINS,
29 St. Cuthberts Drive, Sacriston,
Durham DH7 6XE.

EMU SLIPUPS

The November edition of RM unfortunately contains two errors about EMUs.

Concerning 25kV AC types, in his article about Harlow Mill Robert Peters mentions that BAA owned Class 322 initially ran the Stansted Express service. Whilst the 322s carried BAA branding, and whilst I have read that BAA would dearly like to take over the service, the service was introduced by BR – Network SouthEast sector I believe. Upon privatisation it was first run by WAGN and now the singularly named 'one'.

Concerning the 750v DC types, in the news item about Bratchell Models' Class 456 kit it is stated that this EMU can be seen in two and three car formations. The Class 456, never the most inspiring type of unit used south of the Thames, is and always has been a two-car unit.

COLIN DUFF

We should have stated 'two and three unit formations' – Ed.

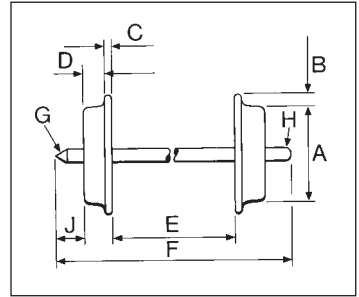
Left: a Virgin Voyager inside Central Rivers maintenance depot. See the request for drawings above.
Photograph: courtesy Virgin Trains.

Below: 'never the most inspiring type of unit used south of the Thames' surely puts Colin Duff in the box seats for the RM Understatement of the Year award... One of the class is depicted on South London line duty at Wandsworth Road on 30 October 1997.
Photograph: Frank Hornby.



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HAA merry-go-round coal hopper in N from Peco



The long-heralded HAA merry-go-round coal hopper in N from Peco has now been released, and thereby fills the gap in the ranks of modern wagons for 9mm gauge left by the cessation of production of the Minitrix example some years ago.

The concept of merry-go-round coal transport dates to early 1964, when British Railways and the Central Electricity Generating Board signed an agreement allowing for the supply of coal by rail to the new generation of power stations then under construction. The coal was to be handled in bulk from pit to unloader in bespoke air-braked wagons with automatic discharge facilities, no shunting except for removal of 'crippled' wagons, and the locomotive remaining coupled on the rake of wagons throughout its diagram. The first application, in 1965 was in Scotland, running the six miles between Monktonhall Colliery and Cockenzie Power Station, both being newly-built installations (by the National Coal Board and CEGB respectively) situated near Edinburgh. The practice spread country-wide: a year later the three large stations constructed at Eggborough, Ferrybridge C and Drax were designed to receive 20,000,000 tons a year in a slick loading and unloading operation.

Nearly 11,000 wagons were built, mainly at the BR Works in Shildon, weighing 46 tons gross and with a 32-ton capacity. An 18'3" wheelbase and heavy-duty air braking allowed maxi-

mum speeds of 45mph loaded, and 50-55mph empty. The galvanised interiors boasted six full-width bottom doors which, coupled with the carefully-thought out shape of the body, allowed rapid load discharge and minimal if any residue. Almost any locomotive fitted with air brakes could haul the wagons, though typically, to enable automatic unloading to be carried out at a speed of 0.5mph, special slow-speed controls were designed and fitted to the locomotives dedicated to this traffic. Depending on the period, these included 20s (in pairs), 26s, 47s, 56, 58, 60s and latterly the 66s.

Today the situation is rather different, with the ascendancy of gas-fired power stations, and the transportation of imported coal in high-capacity bogie hoppers, but the unsung HAA hoppers (as they were coded under TOPS), though reduced in number, are very much still around.



The complex shape of the prototype has been captured very well on the model, with the subtle changes of direction modelled correctly. The prototypes are 26'3" over headstocks; the model scales correctly to 54mm. The solebars have excellent pipework detail, and the prototypical arrangement of two unloading actuators on one side, and the final one on the other. The HAAs feature diagonally opposed air brakes, the other two wheels being hand braked: the air actuating reservoirs are correctly at the left-hand end of each solebar. Body and cradle boast fine rivet detail and panel joints.

Plastic wheelsets with pinpoint ends, moulded in slippery engineering plastic, roll smoothly in the neatly represented roller bearing axleboxes. We have been unable to stockpile sufficient wagons to assemble a prototypical length train on the Seaton Junction layout here at Pecorama, but we would reckon that the types of diesels in the Graham Farish range that will be used on these trains should handle three dozen (the usual number in a train) with ease. The model weighs 10g, and although no specific coal load insert is yet available in the Peco range (one is understood to be under development), adding some suitably fine coal – no large lumps for power station use! – on a shaped polystyrene base should not compromise the wagon's running qualities.

The first liveries available are the

pre-TOPS original, with HOP AB branding, and Railfreight versions.

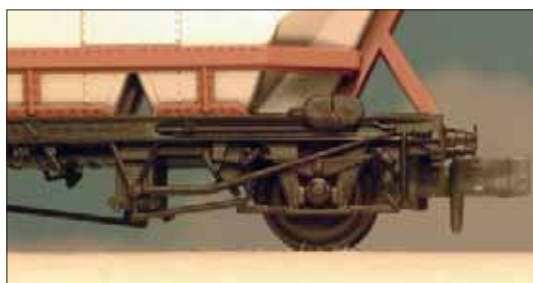
These finely detailed miniatures ought to be on the shopping list of all modelling the post-1965 scene: certainly the first few runs have proved very popular indeed.

For N

MANUFACTURED BY
Pritchard Patent Product Co.,
Underleys, Beer, Seaton, Devon
EX12 3NA.

PRICE
Ref.NR-300, £11.25

WHEEL DATA
B. 0.8m, C. 0.4mm, D. 1.7mm,
E. 7.3mm.



New Gresley 61'6" corridor coaches in 00 from Hornby

The long-anticipated LNER Gresley 61'6" stock in 00 from Hornby has now arrived: the first of the five body designs to land on our desk is the all-first, in BR crimson & cream finish.

The model represents (1943) No.11018, one of a batch of three built 1937 to Diagram 1. These coaches were 9'3" wide over handles, as distinct from the Diagram 2 all-firsts which were 9' wide. Other types in the Hornby programme cover corridor third, corridor brake third, buffet and sleeping cars.

9'3" over handles is 37mm in 4mm scale: the model is within 0.5mm of that to our Mk 1 eyes, which is close enough for a mass-production model. Placed on the relevant Nick Campling drawing in *Historic Carriage Drawings volume 1* (Pendragon, ISBN 1 899816 04 6) the bodyside matched up very closely. The tumblehome – or lack of it – caused some interesting comment in the office: from some angles it does not appear to be very apparent, giving the vehicle a slab-sided appearance which may be correct for this particular diagram. Until we have had the chance to examine the others closely it is best to refrain from any hasty judgement.

Small details abound, such as the standing-proud door and adjacent grab handles; fine roof vents and filler pipes. The solebars feature brake piping along the corridor side, and correctly the footboards are continuous on



the compartment side but only present beneath the corridor side doors. This, the clipped circular buffers and the angle iron rigid underframe trussing were developments during the carriages' lives over the continuous footboards both sides, oval buffers and turnbuckle underframe trussing of the originals.

The bogies show excellent relief, with brake shoes in line with the wheel treads. They have slimline tension lock couplings on sprung mounts, as with the Hornby Pullman cars, but on the Gresley coach the couplings are detachable ones in NEM coupler boxes, enabling any of the continental close-coupling devices to be substituted, and also the Bachmann semi-permanent pipelike coupler supplied with

its range of Mk 1 coaches. The bogies are not fitted with pickups, unlike the Hornby Pullman examples.

Painting and lining are very good, with neat lettering especially on the windows of the no smoking compartments. The corridor handrail has been printed neatly across the flush glazing on that side of the coach. The glazing piece also contains the four clips which engage into holes on the underframe. If you need to access the two-colour moulded interior (blue seats, brown 'wood' elsewhere) for the installation of passengers, first remove the bogies, which clip into the bolsters on the underside of the underframe, then take care releasing these glazing clips as the plastic is brittle.

Whatever the rights or wrongs of the

tumblehome, this model is light years ahead of the previous Hornby Gresley coaches, and will be a fittingly good sight behind the soon-to-be-released A4 Pacifics. We await samples of the other types – and the teak versions – with great interest.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies Ltd., Westwood,
Margate, Kent CT9 4JX

PRICE
Ref.R4179, £25.00

WHEEL DATA
B. 0.7mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

Great Western Dia.A30 auto trailers in N from Dapol



Dapol has expanded its N gauge range with the archetypal Great Western carriage: an auto trailer, smartly in advance of the 14xx 0-4-2T which is anticipated very soon.

Specifically, the models represent Diagram A30 vehicles, ten of which were turned out between December 1932 and April 1933. They were 62'8" long overall, ran on 9' bogies and could seat 72 (including 8 in 'emergency seats' in the van). They found work all over the GWR auto-trains' sphere of operations, including Cornwall, Oxfordshire and South Wales. They survived until the early 1960s, and No.194 is preserved in the care of the Great Western Society.

Dapol has released three versions: No.187 in as-built GWR finish with crests and twin gold waist stripes; No.W192W in early BR crimson & cream; and W196W in late BR lined maroon (although we understand maroon A30s were unlined). Dapol has captured the look of the real things very well, and even small details such as the two uppermost handles beside the driver's door are where they should be. The bodyside and roof are sepa-



rate mouldings which when unclipped allow access to the neatly moulded interior of seating (correctly transverse or longitudinal as required) and the four bulkheads. The glazing, slightly disappointingly, is not flush and rather thick, so we doubt that 72 model pas-

sengers could be fitted in comfort...

The bodyside steps – which on the real things could be extended via linkage from the guard's van to allow access to the trailer from ground level – are flanked by neat formed metal handrails. The 9' wheelbase bogies



are those employed on the Dapol 'brown' stock, the Siphons G and H, which were reviewed in the February issue along with the 'B Set' coaches. Conventional sprung N gauge couplers are fitted.

Fans of the Great Western (we believe there is a scattering...) will welcome these attractive models with alacrity. There could well be a fresh burst of minimum-space layouts employing these fine coaches and the awaited 'fourteeners' which, although they were not the vehicles' exclusive companions, they seem to look best with auto trailers.

SAMPLES SUPPLIED BY
Dapol Limited, Gledrid Industrial Park,
Chirk, Wrexham LL14 5DG.

PRICES
GWR (ref.NC-009),
BR crimson & cream (ref.NC-011),
BR lined maroon (ref.NC-010),
£13.99ea.

WHEEL DATA
B. 0.5mm, C. 0.7mm, D. 1.3mm,
E. 7.4mm.

More Bachmann 40s in 00, and Graham Farish 40s in N



More Class 40s have emerged from the Bachmann warehouse wherein also resides the **Graham Farish** N gauge enclave: they come hot on the heels of the split-box green example reviewed last month.

In 00, the other two body types displayed in the 40 family have appeared, namely disc-headcode 40 075 in blue and centre-headcode D368 with small yellow warning panel. The former comes supplied with a full set of open and closed (semicircular) discs; the latter sports codes 4E33 at the No.1 (radiator fan grille) end and 1A37 at the other end. Both represent headcodes that have either been wound casually into near-alignment, or have

vibrated out of position during the locomotive's run. These are characteristic of the real things, and a nice touch on the model.

We shall not dwell on the incorrect cantrail grille arrangement (see last month) on D368; suffice it to say that 40 075 is correct in this regard.

In all other respects the models are uniform with D325: they look good, and run well. Both include the frost grilles, which we have not fitted here to show the well detailed and accurate body-side grille and bracing.

40s also make a welcome reappearance in N, representing the disc-headcode variety as of old. The improvements appear to have been centred on

the mechanism (smooth, quiet and responsive) as the discrepancies in the nose shape *inter alia* are still present. (For a detailing article that works around this, and provides much other food for thought, see R. Farrell's article in the February 1993 edition.)

Liveries/identities are 40 052 in blue, and post-preservation D306 *Atlantic Conveyor* in green. The latter echoes a previous release from GF of this machine back in the mid-80s: it is a fittingly poignant reminder of the merchant ship of that name which was lost in the Falklands. The loco's nameplate, in the traditional merchant vessel wheel style, has been printed very well in such a small scale.

For 00 and N

SAMPLES SUPPLIED BY
Bachmann Europe PLC,
Moat Way, Barwell,
Leicestershire LE9 8EY

PRICES

D368 (ref.32-475), £62.95
40 075 (ref.32-476), £62.95
D306 (ref.371-175), £73.95
40 052 (ref.371-176), £73.95.

WHEEL DATA

00 – B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.
N – B. 0.5mm, C. 0.5mm, D. 1.8mm,
E. 7.4mm.



Diesel exhaust smoke from FCT



Harvey Godber at First Class Trains has turned his passion for exhaust effects in models to diesel locomotives. He has developed a set of components which, with some input from the purchaser, will provide effective exhaust for a variety of loco types.

The 'guinea pig' in our photograph is a Lima Class 37: models from this firm and the older types from Hornby seem to be easier candidates in which to fit the unit, as the smoke tubes need to be mounted in a housing from plasticard (to be built by the purchaser). The instructions supplied with the unit give details as to the shape this housing should take: it should enclose the smoke unit to prevent its output from leaving the diesel anywhere other than through the exhaust ports, and it must

provide a mount for the small motor and fan supplied with the kit. This fan, when wired to the motor, will activate when the loco moves from standstill, thereby giving the characteristic burst of exhaust of the real things.

Of course the kings of smoke were the 'Deltics', but with the hefty motor block in the Bachmann model filling a large part of the interior, fitting a unit (to produce the well-remembered white clouds of exhaust) may prove trickier.

For 4mm scale

AVAILABLE FROM
First Class Trains, 221 Galmington
Road, Taunton, Somerset TA1 4ST.

PRICE £14.50.

Noch ballasted foam underlay

Gaugemaster is marketing under its own label in the UK the excellent ready ballasted foam underlay produced by the noted German scenic suppliers Noch.

It is aimed at modellers who want realistically ballasted track without the bother and mess of time-consuming traditional methods.

The underlay is made from soft Moltopren flexible polymer foam strip moulded to fit most flexible or sectional 00 track, giving the correct depth of ballast with an evenly shaped shoulder each side. Real granite is bonded to the shoulder and the top, the sleeper recesses naturally being left clear.

Moltopren is an electrical insulator, resistant to oil, grease, and thinners; the foam structure helps to reduce noise.

The ballast strip is supplied in five metre rolls with full instructions, which include suggestions on how to treat turnouts and crossings. It is fair to say



this is the weak point (pardon the pun!) of any prefabricated ballast system; this one seems more adaptable than many, and the visual effect on plain track is quite convincing.

Care should be taken when handling and flexing the ballast strip as it readily sheds the granite chippings – perhaps an inevitable result of remaining flexible: any more adhesive and it would be too rigid. The 'runaway' ballast can simply be collected and used to patch any gaps. Once in place, the ballast strip does seem to be stable, so there should not be a problem with stones becoming detached and fouling mechanisms.

For 00

DISTRIBUTED BY
Gaugemaster Controls,
Gaugemaster House, Ford Road,
Arundel, West Sussex, BN18 0BN.

PRICE
ref. GM200 (5m roll) £10.95.



More Dapol limited run private owner wagon commissions in 00

The Barry and Penarth Model Railway Club has commemorated its silver jubilee with five private owner wagon commissions from Dapol, of which there are about 100 of each produced. There is lime wagon 'Llanharry Limestone', and 7-plank opens 'Leadbeter', 'T.L. Williams', 'Barry Coal' and 'Davies Brothers', the last two being plain black with white lettering. They are £6.75ea (Williams wagon £6.50), plus the following for P&P: £1.75 for one wagon, £1.90 for two, £2.20 for three or four, £2.90 for five and £3.40 for six. Please make cheques payable to the Barry and Penarth Model Railway Club.

Simon Evans, 15 Jubilee Crescent, Skewen, Neath SA10 6TP.

The Kitmaster Collectors Club has commissioned from Dapol another private owner wagon, using the ex-Wrenn 5-plank as a basis. The Co-Op in Raunds, Northamptonshire, had a



small fleet based at the Midland station: the town was where the Rosebud Kitmaster models were produced. A certified run of 100 models has been produced, and the wagons are priced £7.95 each plus £1.95 P&P. Please make cheques payable to 'Kitmaster Club'.

The Kitmaster Collectors Club, 109 Head Street, Halstead, Essex CO9 2AZ.

TOYS2SAVE Collectables has continued its theme of commissions with local connections, namely a run of wagons in the livery of local trader W. Fairclough: two running numbers are available, in quantities of just over 200 each. Price £7.50 plus 50p P&P.

TOYS2SAVE Collectables, Marsh Mill, Craft Village, Thornton-Clevelys, Blackpool, Lancs. FY5 4JZ.

Harburn Hamlet walling in 4mm



New to the Harburn Hamlet range of stonecast scenic accessories in 4mm scale are these stone walling sections.

These ingenious components are flat-bottomed (allowing them to sit on a level sub-base) but have contoured stone block detail: scenery is simply built up to follow suit, thereby hiding the lower sections of the walling. Two interchangeable packs are available: dry stone walls, contoured (ref.CG208) and dry stone walls, contoured, extensions (ref.CG209). Two 125mm wall sections are supplied in each pack.

Harburn Hobbies' items, including the Hamlet scenic accessories, are distributed to the trade by the Pritchard Patent Product Co., Underleys, Beer, Seaton, Devon EX12 3NA.

For 4mm scale

AVAILABLE FROM Harburn Hobbies, 67 Elm Row, Edinburgh EH7 4AQ.

PRICE £3.95ea.

Mill Lane signs



Richard Bardsley, a well-known contributor to these pages, has available a selection of fictitious road haulage company designs in N to suit the Graham Avis 45' box trailer. The computer-generated designs are printed on glossy photo paper, and are intended to be cut and stuck to the Avis base, for which full instructions and advice on building the trailer are given. The sets include long vehicle plates, or unlettered alternatives.

A full colour printout showing all 12 designs is priced 50p post free.

For N

AVAILABLE FROM Mill Lane Sidings, 7 Mill Lane, Rainford, St Helens WA11 8LW.

PRICE 75p per pair, P&P 35p. Please make cheques/POs payable to R. Bardsley.

Etched brass frets for house builders in 4mm

Scale Link has recently produced three new frets for modellers building 4mm scale houses. Each has been etched crisply in 8thou brass, and each displays a wealth of fine detail.

The first set (ref.SLF131) is of fifteen doors representing various periods, all suitable as front doors, but some could also be used for side or back applications. Some fanlights are included for positioning above doorways and slots are etched for door furniture (not included).

The second fret (ref.SLF132) is of windows. The casement frames have hinged sections which can be set open or closed. The sash windows can be set in any position.

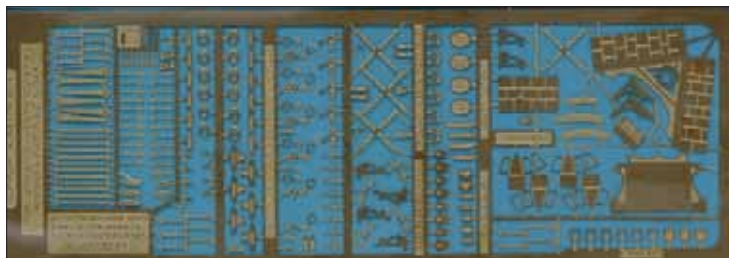
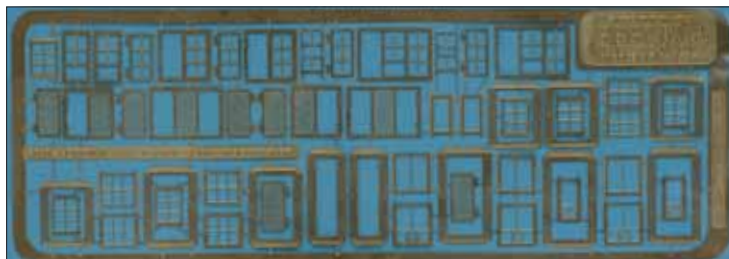
The final fret (ref.SLF133) is of beautifully detailed door furniture; hinges, letterboxes, knockers, nameplates, catflaps, latches and three porches among other items.

These neat components will prove a boon to structure modellers.

For 4mm scale

AVAILABLE FROM Scale Link Ltd., Unit 19B Applins Farm Business Estate, Farrington, Blandford DT11 8RA.

PRICE £9.15 each plus £1.50 inland P&P.



Fleischmann Train Navigation system for DCC-operated layouts

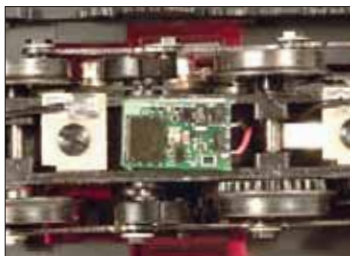
Fleischmann has issued the new digital Train Navigation system that was announced as part of its programme at the Nürnberg trade fair earlier this year.

The system is a means of two-way communication: it lets individual items of stock fitted with pickup from the track and a digital decoder (not necessarily only locomotives) report their identity, position, and status to the digital controller, and receive specific instructions from it. These commands can be specific both in terms of the items of stock and the location, thus different locos can be instructed to do different things at the same place. Any item of stock can also trigger commands for, and respond to commands triggered by, other items of stock – so, for example, a train arriving at a station might prompt the departure of another.

Train Navigation is independent of the control system, so can be used to drive either DCC or FMZ decoder fitted locos – or indeed both.

So what does the system comprise?

A transmitter (ref.6832), a small neatly assembled circuit board (13.5mm x 9mm x 2.5mm), has to be fitted to the underside of each item of stock to be controlled. The small size means that it can even be used on N scale stock. It can be attached with double-sided sticky pads (supplied), and should be on the centre-line and high enough to clear any obstructions in the track – but not too high. Two cables (11cm long as delivered) must be connected to the track pickups, in parallel with the feed to the decoder, following the colour code.



There should be no problem fitting the transmitter to most 4mm scale items (our picture shows one under the Fleischmann H0 scale model of a German Class V60/360 0-6-0 diesel shunter), but in N the major consideration with most motive power will be ground clearance; hence no doubt the suggestion that it might be mounted on an adjacent piece of (permanently coupled) rolling stock.

The receiver (ref.6833) is a small plastic-cased module, designed to be mounted out of sight: it has four screw terminals to attach the two sensors, and a socket for the Loco-Net cable. The circuit is powered via this cable and needs no external supply; it draws about 25mA.

The sensors are 5mm diameter infra-red LEDs which are installed simply by drilling the appropriate size hole on the centre line of the track at the required location. The LEDs are held in place by a simple mounting collar. The leads to the receiver are 60cm long. The LEDs should fit in N (right), 00/H0 (far right), or larger gauge track. They are relatively unobtrusive once installed.



A printed card template is provided for drilling the necessary holes for N, H0, and H0 Profi tracks. This relies on the modeller's accuracy, and the card does tend to give a rather 'woolly' edge to the holes – a moulded plastic or etched metal template might have been better, but in practice if the LEDs are on the centre-line and between adjacent sleepers this seems to be sufficient. (Naturally, the template refers specifically to Fleischmann track: modellers using different sleeper spacings or working in EM/P4 gauges will need to make their own.)

Loco-Net cables to link the receiver to the Twin-Center digital controller are available in 215cm (ref.6887) and 60cm (ref.6888) lengths; there is also a connecting joiner (ref.6889) to extend them. The Twin-Center is equipped with two matching sockets: if it is required to connect more receivers, a five-into-one adaptor (ref.6836) is available. For large and complex installations, these can be cascaded: the system can handle up to 4,095 receivers.



There is also the necessary Handbook (ref.6893), with text in both German and English. (The translation seems good, and any initial lack of clarity is due to the complexity of the subject rather than linguistic shortcomings!) There is a quick start routine to get you up and running, followed by fully detailed sections on all aspects of installation, programming, and operation, with step-by-step instructions and worked examples. At first glance it may look daunting, but each procedure is in fact easy to follow.



The various elements can be purchased separately, but there is also a start-set (ref.6831) consisting of two transmitters, two receivers with four sensors, two 215cm Loco-Net cables, and the handbook: this seems an excellent and economic way of learning about how the system works and what it can do.

So what can it do?

At the simplest level, an individual instruction can be executed when the loco passes the sensor: turn the lights on or off, sound the whistle (in sound-equipped locos), slow down or stop, and so on. Because the instruction is individual, and the location unique (the receiver is programmed with a digital address, just like a loco or an accessory), the next TN transmitter-fitted loco to pass the same sensor might be instructed to do something quite different.

If the sensors are placed in pairs, the system can convey directionally sensitive commands. They can also be used singly for simple commands.

The transmitter can be programmed with a category as well as an individual address so that it will recognise and respond to certain global as well as specific commands.

The instructions can be single commands, or linked sequences.

They can also relate to other decoder-fitted equipment – so the loco can change points and signals, or modify the performance of other locos. So, for example, a train approaching a station might pass over a sensor that then calls up the appropriate pre-determined route, sets the signals and points, and decelerates the train. If necessary, a second sensor could convey the actual stop instruction at a precise point, and also set the points and signals for another train to depart – and trigger it to do so. The next arriving train could be routed into its own dedicated track, as programmed. Shuttle service is possible, as a time

lapse function is included, plus block signalling with integrated control. One begins to see how complex automatic operation can be achieved, if required, without the use of a computer. This is track occupancy indication plus.

The Twin-Center stores all the instructions, and chains of instructions. (There is a programming protocol which determines the sequence and precedence, the details of which need not concern us here). No mention is made of any limit for memorising these instructions, though the unit must have a finite capacity.

The Train Navigation system can administer up to 16,382 vehicle addresses, divided into 9,999 for locos and 6,383 for rolling stock.

To use the Train Navigation system with the Twin-Center, it must be running software version 1.100; the original units were delivered with version 1.000, and an update is available (along with installation instructions and a survey of the new features) from the Fleischmann website –

www.fleischmann.de
or www.fleischmann.co.uk

(Clicking the software update highlight here takes you through to the German site, where the text is available in either German or English.)

Train Navigation can also be used with the basic Lok-Boss DCC controller, with restrictions: speed and function commands are recognised, but accessories cannot be controlled, and thus automatic operation is not feasible.

In many ways, like a digital control system, Train Navigation is difficult to evaluate because it has so many possibilities, and much will depend on the situation to which it is applied, and imagination of the user. Suffice to say that it seems to make possible some aspects of operation that previously only could be imagined.

For all scales

MANUFACTURED BY
Gebr.Fleischmann, Postfach 910148,
D-90259, Nürnberg, Germany.

UK SALES AGENT
John Hills, Fleischmann UK
Marketing & Distribution,
Riverside Studio, 40 Brook Lane,
Ferring, West Sussex, BN12 5JD.

PRICES T.B.A.



Hornby rolling road test bed for 00 locomotives

Tucked away in the Hornby Live Steam accessories is a very useful item for all 00 gauge modellers, whether using the innovative real steam technology or not. This rolling road – the GWR called the Swindon one the 'Home Trainer'! – will allow newly-purchased locomotives to run-in before deployment on the layout, or a constructor to check that all is well during and after a kit-built locomotive's assembly.

The bed of the rolling road is a smart piece of brushed metal 355mm in length, 45mm wide and 15mm deep. It sits on four rubber feet to prevent unwanted movement under load. At one end a section of ballast base 170mm long contains two spring clips to accept wires from the controller, and a length of track 150mm in length. The ballast and sleepers are moulded in black plastic. Along each side of the



bed is a groove, in which slide the three metal roller housings, which are each anchored in the required places by turning the locking screws finger-tight. Front bogies/trucks are supported on an adjustable support, which is screwed into a slot 80mm long.

The whole presents a very stylish appearance, which is finished off by

Hornby-branded plastic plugs at each end of the bed. (One of these plugs must be prised off in order to install extra rollers – correctly to the insulated and non-insulated sides – available separately, ref.R8209.)

In operation the test rig does all that is required of it, namely allow models to run at ease on roller bearing rests.

Our only criticism would be that these supports must be adjusted relative to a locomotive's wheelbase individually (in other words each support is not linked to its counterpart on the opposite side) and therefore, lacking any calibration marks, the supports must be aligned by eye – not the best assurance of precision positioning.

Often we reviewers comment that a loco would improve 'when run-in'. Well here's the tool for the job.

For 00

SAMPLE SUPPLIED BY
Hornby Hobbies Ltd., Westwood,
Margate, Kent CT9 4JX.

PRICES

Rolling road (ref.R8203), £30.00
Additional pair of rollers, £TBA.

Limited run Lincoln Corporation wagons in 00

B&H Models of Lincoln has a certified limited run of 500 three-packs of private owner wagons, commissioned from Bachmann. The models are in the livery of Lincoln Corporation Gas Department, a reminder of the times when most major settlements had their own power plants, which needed supplies of coal to keep them going.

The 'Blue Riband' models are very well finished, the town badges especially so, and have individual numbers.



For 00

AVAILABLE FROM
B&H Models, 13 Corporation Street,
Lincoln LN2 1HL.

PRICE

£25.00; P&P £2.00 extra.

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.

New Branchlines drive trains



One of the many popular lines in the Branchlines range is the collection of gearbox kits from New Zealand manufacturer North Yard, available in single-stage and two-stage reductions. Their narrow – 5mm – width and enclosed design are particularly well liked.

To enable these products to be used in situations where the gearbox needs to be close to the motor, Branchlines has had a batch of Mashima 14/26 flat can motors made specially with a 20mm motor shaft at one end, so that these gearboxes can be attached. The motor was chosen as it has the maximum power of any of the 14mm series, has good slow running qualities and will fit most steam and diesel outline locos. The shaft at the other end of the motor is 10mm long, allowing the fitment of a flywheel if there is room.

Branchlines is offering two packaged combinations, with full instructions for each, in the following configurations:

1. Mashima 14/26 long shaft motor + single stage North Yard box + 14mm brass flywheel (£26.00);
2. Mashima 14/26 long shaft motor + two-stage North Yard box + 14mm brass flywheel (£27.50).

The components are available separately: motor £12.50; single stage (36:1) box £10.95; two stage (36:1) box £12.50; 14mm brass flywheel £2.75. Optional 16mm flywheel £2.95.

AVAILABLE FROM
Branchlines, P.O.Box 31, Exeter,
Devon EX4 6NY.

PRICES in text. UK P&P £1.75.

Hughes/Fowler 'Crabs' in 00



Bachmann has released its latest two versions of the LMS Hughes/Fowler 'Crab' 2-6-0s, the first version of which was reviewed in our May 2003 edition.

The models represent LMS lined black No.2715, and weathered BR lined black No.42942 with early emblem. The quality of this weathering – if you like that sort of thing – seems to get better with each application.

These 'Crabs' are mechanically up to the exacting 'Blue Riband' standard of their predecessors, and run well.

For 00

SAMPLES SUPPLIED BY
Bachmann Europe PLC, Moat Way,
Barwell, Leicestershire LE9 8EY.

PRICES

LMS No.2715 (ref.32-178), £75.95
BR No.42942 (ref.32-179), £79.95

WHEEL DATA

B. 0.5mm, C. 0.5mm, D. 2mm,
E. 14.5mm.



Book Reviews

Ryde by Steam Vol 1

Andrew Britton
Medina Books, 1 Landor Road,
Warwick CV34 5DU.
215mm x 295mm 80pp
Hardback £15.99
ISBN 0-9548507-0-X

This book is the first in a series of colour albums recalling the last days (pre-1967) of regular steam operation on the railways of the Isle of Wight. Many of the photographs are generously given a full page. Photographers include R.J. Blenkinsop, Roy Hobbs, Dr J. Mackett, A.E. Bennett, G.S. Cocks, H.P. Mason, I.E. Whitlam.

Stations and locations seen in the collection include Ryde Pier Head, Esplanade and St John's Road, Smallbrook Junction, Brading, Yarbridge, Sandown, Shanklin, Wroxall, Ventnor, Ashley, Haven Street, Whippingham, Newport, Medina Wharf, Mill Hill, Cowes. Signal box interiors and diagrams are not forgotten, but a map of the whole system, simple as it was, would have been useful for readers not so familiar with the island.

The pictures are well chosen and captioned, and without exception interesting and atmospheric. The compiler has left the very best to the last page, a remarkable 1965 study of Cowes station by Roy Hobbs. Chickens range freely in the foreground. In the middle ground two boys inspect No.24 *Calbourne* about to depart for Ryde, while in the not-too distant background the SS *United States* is bound for New York.

Bulleid and the Turf Burner

Ernie Shepherd
KRB Publications, PO Box 269,
Southampton SO30 4XR.
275mm x 210mm 99pp
Softback £17.95
ISBN 0954203585

Readers may be familiar with the 'Leader-like' Irish turf burning locomotive CC1 (withdrawn 1963) but many more, including the reviewer, will be less familiar with its predecessors, particularly ex-GS&WR Class K3 2-6-0 No.356. This latter engine bore the brunt of the earlier turf burning experiments under the direction of O.V.S Bulleid at Inchicore from 1951.

In this book there are several good photographs and a diagram of this extraordinary machine, and the scratchbuilder who chose it as his subject in whatever scale could surely guarantee that his efforts would never be usurped by even the most adventurous kit manufacturer. Much the same could be said of CC1 and again, drawings and photographs are here to tempt the unorthodox constructor.

The author tells his complex tale with great thoroughness and scholarship, and strikes a balance between the equally fascinating aspects of the story – technical, political and social. Some of the personalities involved, not



least O.V.S. himself, are well worth 'meeting'. Quite incidentally we learn that Bulleid's company car with CIE was a Chevrolet Bel Air. Bet he didn't have one of those when with SR.

Some thirteen appendices include various early reports and the results of test runs of both 356 and CC1 between 1953 and 1957.

The final Appendix shows a data sheet relating to the General Motors EX Type diesel locomotive which, of course, turned out to be the road taken by CIE and other European railway administrations in the long term.

The Power of the A2s

Gavin Morrison
OPC, Ian Allan Publishing,
Riverdene Business Park,
Hersham, Surrey KT12 4RG.
280mm x 220mm 113pp
Hardback £19.99
ISBN 0 86093 588 4

In his introduction Gavin Morrison cites a single-chimney Peppercorn A2 as being the finest of all the Pacifics ever to have run on the railways of Britain. Thumbing the relevant section of this fine new addition to the OPC 'Power' series it's hard to disagree. Certainly this writer has always felt that of all the racehorse names applied to LNER locomotives, the A2s had the best-sounding: *Irish Elegance*, *Pearl Diver*, *Sun Chariot*, *Hornets Beauty* and *Tudor Minstrel* to name but five. If Desert Orchid had lived in those days, his name would surely be on an A2. But we digress...

This book is understood to be the first to cover all the Pacifics under this classification from the Thompson and Peppercorn years. For completeness' sake, some fine views are included of the Gresley P2 2-8-2s that were reconstructed as the A2/2 Pacifics.

As with previous titles in this series, each locomotive in the class is illustrated copiously, along with dates to and from traffic, shed allocations and renumbering detail. The photographs are mostly the traditional three-quarter views, from a variety of well-known names (naturally, including much of the author's own fine output). Chief exception to this rule is a marvellous Michael Mensing pan photograph of No.60539 *Bronzino* on p.109. Locomotives are seen at work or on shed, in steam or waiting for the

Above: two LNER 2-6-0s for the price of one, with K1/1 No.61997 MacCailin Mor on shed at Fort William on 16 August 1959 in company with K2/2 No.61791 Loch Laggan.

Photograph: the late Les Pickering, courtesy Bob Brown.

scrapman's torch, but all will be of use for modellers, especially as they will be able to glean details germane to each machine. (No two of the P2s in original format were identical...)

This enjoyable album left only one question unanswered in this reviewer's mind, one that has been taxing him for years. Is No.60530 *Sayajirao* pronounced SAY-A-GI-RAYO or SAY-A-GEE-RAYO? Or SAYARG-IRAYO, or... Thank goodness they preserved *Blue Peter!*

The Metropolitan Railway

David Bownes
Tempus Publishing Ltd., The
Mill, Brimscombe Port, Stroud,
Gloucestershire GL5 2QG
234mm x 165mm 128pp
Softback £12.99
ISBN 0 7524 3105 6

This book spans the life of the 'Met' from construction in 1863 to the advent of LT in 1933. Author David Bownes, who is the Senior Curator of photographic and 2D collections at the London Transport Museum, includes in the Introduction section a map of the Metropolitan Railway in 1932. The map both compresses the distance between Baker Street and Verney Junction and emphasises the potential pleasures of the area such as golf courses and open ground. This was part of the move to encourage the working population of London to live in a more leafy environment and use the newly developing transport system.

The concept of the new Metropolitan transport system was devised in the 19th century. The first, Victorian-style oval-shaped picture in the 'Building the Railway' chapter shows a purposeful Charles Pearson who was the driving force behind the existence of the Metropolitan Railway. The chapter follows the pioneering building methods and the developing style of architecture. The accelerating rate of change is apparent and the impression is that parts of society changed almost as much in the 1860s as it did in the 1960s.

As the network expanded northwards and westwards, towns like Uxbridge and Amersham became more closely linked to London life. Engineering methods were burgeoning too. The introduction of electrification was a radical change and we see shots of the four-rail system still used on London Transport today.

Even with the merging of railway companies and regions, the Metropolitan Railway kept its identity. A notional area called Metro-land evolved and, in time, London Transport became dominant. The Metropolitan name, of course, lives on.

This pictorial book captures the atmosphere of the times very well. Many of the buildings are still in use and would be recognised today by those who were young in the 1930s. The contemporary graphics and posters are charming too. Page 108 advertises 'At last – A quality house at low cost – £695 freehold'. Does the concept of 'affordable housing' sound familiar?

Self-contained and satisfying to read, David Bownes' book is also a good springboard for further reading and research.

LNER 2-6-0s

Peter Waller
Ian Allan Publishing, Riverdene
Business Park, Hersham,
Surrey KT12 4RG.
190mm x 240mm 80pp
Hardback £14.99
ISBN 0 7110 3061 8

This album is the latest in the publisher's *Working Steam* series. It deals with the ex-LNER Moguls of Classes K1, K2, K3, K4 and K5 as they were running in BR service in the 1950s and 1960s.

The collection of some 85 excellent colour photographs is preceded by an historical and technical introduction to these classes and commentary on the uses for which they were designed and to which they were put. In fact more than 340 2-6-0s were built over forty years to the design of Gresley, Thompson and Peppercorn. The pictures show the engines at work in the following areas; Great Eastern, Great Central, North Eastern, and Scotland. In the last-mentioned territory, the grandeur of the scenery naturally comes as a bonus in some of the shots.

The LNER 2-6-0s have perhaps not had so much 'press' coverage as some other locomotive types, and this collection of colour pictures will surely appeal to all enthusiasts and modellers of the Eastern and Scottish Regions.

Iron Roads North of Leeds

Michael Pearson
Waygoose, Park View, Tatenhill
Common, Staffs. DE13 9RS
297mm x 210mm 56pp
Softback £5.99
ISBN 0 9545383 5 8

This slim publication is exactly what it says on the cover; it is a guide to

scenic railways in Yorkshire, Lancashire and Cumbria.

A great deal of thought has gone into the layout and presentation. Each page is functional and a delight to the eye. The standard of photography is both technically very competent and artistically well considered. The majority of the pictures are full A4 landscape format, but smaller insets add variety to illustrate specific points. The accompanying captions contribute just enough.

The book is divided into sections that flow in logical order along the line that is thoughtfully displayed in the Route Planner inside the front cover. The numerical references on the planner relate to the very pleasing coloured maps that are in each section; this makes it easier to form a continuous mental picture of the route, putting each location into context.

Michael Pearson's no-nonsense writing style adds to the flavour of the north-country atmosphere. Sometimes hard railway facts are softened with fascinating asides. The example of Carnforth station and its use in the 1945 film *Brief Encounter* demonstrates this idea.

The Gazetteer gives concise thumbnail descriptions of the locations covered, supplying advice about eating and drinking, shopping, walking, connections and things to do. This makes the book an invaluable companion to include in your rucksack.

Almost at the back is an Information section which gives guidance for walkers, cyclists and train travellers, plus a list of useful contacts and some titles for further reading. The topography chart of the Settle & Carlisle graces the inside back cover. Opposite this, a shot of a station gate with the sign that says 'Please close the gate' provides a fitting finish to this 'Iron Road' series book that can be read from cover to cover or dipped into with equal value to the reader.

Western Main Lines Worcester to Hereford

Vic Mitchell and Keith Smith
Middleton Press, Easebourne
Lane, Midhurst, West Sussex
GU29 9AZ

233mm x 168mm 96pp
Hardback £14.95
ISBN1 904474 38 1

The 120 photographs and captions in this Middleton Press publication span several decades. They show the similarities and inevitable differences that helped to form the character of the line as steam gave way to railcars then Sprinters. In addition to the line linking the cities in the title, the book covers the branches to Leominster and Gloucester as well. The main line is of course still part of the national network, but the two branches suffered a slow decline towards complete closure.

The opening sections set the scene with a geographical setting and a historical background preceding examples of passenger service timetables from 1925 to 1963.

Area maps of significant features allow the reader to get a good idea of

the location and surroundings. The historic monochrome photographs are of good quality and collectively form a full biography. The best value is gained by studying the finer detail in the pictures; the cars, the dress of the people and the architecture.

The captions provide essential background information and bring out the points of interest in an economical and easily digestible style.

Those familiar with the area will have plenty of treats to savour, whilst those who are yet to discover its heritage will find much to stimulate more interest.

The Newton Abbot to Moretonhamp- stead Railway

Anthony R. Kingdom
& Mike Lang
ARK Publications (Railways),
Forest Publishing, Woodstock,
Liverton, Newton Abbot, Devon
TQ12 6JJ.

148mm x 210mm 320pp
Softback £12.95
ISBN 1 873029 09 8

There is a great deal in this book! The combined efforts of the two authors have produced a definitive work about a once vital, picturesque, but at the same time, modest railway that was the only means of daily transport for many in the area.

In fairness, it is not possible to do full justice to the contents of 320 pages in relatively few words. The Introduction paves the way to a fascinating journey in which the reader is taken, as if travelling on a train, from Newton Abbot to Moretonhampstead during the 1950s. The scenery, features of the line and the changes that occurred are documented in a way that brings to life the decade that was the last for many lines. This line, however, lived on.

Having made this virtual journey, the next section about the history of the line makes even more sense. It is divided into phases and draws on contemporary railway documents for some very enlightening text. Quotations are well selected and used as stepping stones to take us through the decisions, financial and policy wranglings and to introduce the personalities that moulded the railway until it opened and beyond.

It is remarkable how much detail is included about the opening day of the railway even down to who made the arrangements for tea.

Much life went on adjacent to and surrounding the railway; a vivid picture is painted of the lives and livelihoods of those whose focus was on the local industry that associated itself with the new transport system.

Nationalisation was a word welcomed by some and dreaded by others. Its effect was felt deeply and the time from 1948 to 1959 was just as much a landmark for this small country line as it was for the major routes. A clever mixture of salient facts and more subtle consequential effects is presented about this stage in the line's life. The partial closure of the line altered its character in many ways. The book takes the reader to 2004.



Copious illustrations, all in black and white, provide compelling visual evidence to support the powerful text. Some ancient photographs are of amazing quality despite their age and reveal secrets of Devon life over several decades. The historic maps of the country along the line are worth comparing with a current Ordnance Survey map. Much has changed, much has not.

The timetables of branch workings and the appendices containing operating practices, personal memories and much more add yet more authority to Kingdom and Lang's work.

It is both a reference book and a very enjoyable and informative read in whole or in part. It could take a long time to read and absorb thoroughly, but the flavour of and the knowledge about the railway will stay with the reader for years.

Video Reviews

Steam in Scotland

CineRail, P.O. Box 10,
Birkenshaw, Bradford BD11
2BQ.

65mins £19.95

The late W.J.V. Anderson was one of the great railway photographers of the steam era (a collection of his work was reviewed in RM June this year): as well as using a stills camera he was an accomplished cinematographer, as is borne out by this enjoyable tour around central and eastern Scotland in the 1960s.

The Perth area is covered in the first section of the programme, with a variety of locos in view. Pacifics of both LMS and LNER types are on show, along with more workaday classes. Locations further afield include Gleneagles and the Crieff branch (with A4s on their final years of service at the former) and action on the short branch to the famous golfing resort.

Further east, the extensive Wemyss Private Railway network gets wide coverage, with views of the many collieries served by this railway. Additionally, in Mr Anderson's own 'back yard' we see shunting in progress at the family-run paper mill, of which Mr Anderson was chairman.

Railtours add extra spice *en route*, with an ex-Caley 4-4-0 at Forfar rounding off a most enjoyable hour's viewing.

The tape is also available as a DVD at the same price, which includes postage and packing.

A further collection of Mr Anderson's footage is in preparation, for launch next spring.

Cards & Calendars

The Somerset & Dorset Railway Heritage Trust has issued a fine new calendar. It contains a collection of 1955-vintage monochrome shots from Ivo Peters, selected by his son Julian. The informative captions are supplied by Mike Arlett. The depicted scenes are between Bath and Templecombe, and include all the required components, such as the *Pines Express*, double heading, heavily loaded trains and Ivo's Bentley (in the background of April's photograph).

The photographs stand out well against the green surrounding background of the calendar, the whole production being of excellent quality. A description of the S&D Joint Railway is on the back of the front cover and details of the S&D Railway Heritage Trust are on the back cover.

The proceeds from the calendar will go to help restore Midsomer Norton Station to its early 1950s style.

The calendar is £4.95 + 50p P&P from **S&DRHT Sales, 4 Wilshire Avenue, Hanham, Bristol BS15 3QS**. Make cheques payable to 'S&DRHT Sales'.

A new Christmas card featuring a watercolour from the brush of Eric Leslie is available from the **Lynton & Barnstaple Railway**.

The picture, which is set in 1934, shows Manning Wardle 2-6-2T *Lew* at Woody Bay, with a train bound for Lynton.

It helps to celebrate the return of passenger trains to Woody Bay station in July 2004. Many visitors have enjoyed the ride through the Exmoor scenery and it is anticipated that steam will replace diesel in 2005 for many of the services. The reconstruction of a bridge is also under way which will make it possible to extend the track.

The new cards are obtainable at £2.50 for a pack of five cards and envelopes, plus 50p P&P from:

David Tooke, 3 Torrs Walk Avenue, Ilfracombe, Devon EX34 8AU. Tel: 01271 862930.

Warley show at the NEC 2004

Hall 1 at the NEC, Birmingham is again the venue for this year's Warley exhibition during the weekend of December 4 and 5. This is the 37th annual show and has the largest ever selection of high quality layouts and trade exhibitors.

Admission is from 1000 to 1800 on Saturday and 1000 to 1700 on Sunday; early entrance (0930 both days) is offered to advance ticket holders.

The exhibition moved to Hall 1 last year and benefited from the 14,000 square metres of hall space, making it the premier model railway event in the UK.

In response to the requests of visitors, more catering and rest areas have been provided as well as increased space for the exhibitors.

The show will be opened by Sir William McAlpine who is a long-time railway enthusiast and patron of the Warley Model Railway Club.

This year's show features include seventy-six working layouts in all the popular scale/gauge combinations, plus some less common. Many are new or extended. Six layouts are from outside the UK to add to the variety and colour including exhibitors from

Eire, France, Holland and Germany.

The Scandinavian Railways Society will celebrate its first ten years with a model railway of each Scandinavian country, slide presentation and displays. Germany is represented by Franz Stellmaszyk who will show his models that have featured in the Guinness Book of Records.

130 trade representatives will make it the largest model trade gathering in the UK. Big name sponsors namely Bachmann Europe, Graham Farish, Midland Counties Publications and Peco will be alongside Hornby, Dapol, Fleischmann and Heljan amongst many other manufacturers and suppliers. Demonstrators, static models, junior modellers' corner and the winner of the RAILWAY MODELLER 'Right Away' Award will be there.

The Bachmann Trophy will again be awarded to the best 4/3.5mm scale layout, and the Calvert Trophy for the best N gauge one. Trophies will also be presented to the best modern image and the best 7mm layouts.

Full details of the exhibition are in 'Societies & Clubs', available via the internet on www.warley-mrc.org.uk or call 0121 532 8277.

Cover CD-ROM in DVD format

In recent years (and 2004 is no exception) we have included a free CD-ROM with the Christmas issue as a gift to readers. The disc, full of articles, previews and features, is enjoyed by all those with a computer. CD-ROMs work in most of today's computers, but not everyone is equipped a PC.

DVD players are in many living

rooms now so we have reissued most of the CD-ROM in broadcast quality DVD form. There is extra footage in the David Jenkinson appreciation and Pendon, more than is on the CD.

The DVDs are available in time for Christmas from the Peco Technical Advice Bureau at £10.00 plus £1.00 UK postage. Telephone 01297 21542.

BRCW-built Bulleid stock from Comet

Comet Models announces the first of a new range of 4mm kits; the semi-open brake third from the BRCW-built Bulleid three-car sets. The corridor composite and the other version of the semi-open brake third will follow.

After the Second World War, the Southern Region had such a need for new coaches that its own workshops could not cope. In 1946 orders were placed with the Birmingham Carriage and Wagon Co. for 24 three-coach sets. This was later increased to 35

sets. These were delivered from the end of 1947 and the order was completed in May 1949.

The first ten sets consisted of one of each type, but subsequent sets were of just composite and two brake thirds in which the coupe was replaced by a full compartment.

The KS16 Bulleid semi-open brake third with coupe kit D2124 is £34.00.

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE. Tel: 0121 242 2233.



Dogfish ballast hopper in 00 from Heljan



Thanks to the courtesy of Heljan, we have been able to examine a pre-production example of its new Dogfish ballast hopper in 4mm scale.

Most readers will be familiar with the overall shape of the squat 24-ton engineers' vehicles on their travels around the network, so we present here a couple of detail views. The hopper exhibits very fine reinforcing fillets, and the hopper actuating handwheels and handrails are excellently reproduced.

We understand that work is continuing on this project, to bring the model closer to a scale representation, but these tasters will prove very appetising for many. Heljan expects to have production versions available soon, probably in time for Warley.



The six identities to be offered remain as those mentioned in our October news pages.

Heljan (UK), P.O. Box 474, Peterborough, PE8 6FF.

Acquisitions by Freestone

The Townscene, Bilteezi and MerCo ranges of background scenery sheets, card kits and modelling accessories will now be manufactured and distributed by Freestone Model Accessories. These product ranges were previously controlled by Ken Stubley, formerly of The Engine Shed Ltd., Leytonstone.

The Townscene range covers industrial landscapes and countryside scenes in 00 and N. This is a high quality system for imaginative and unique settings.

The Bilteezi range of single-sheet model kits and scenic background

sheets have a unique appeal, and have been around since the 1940s.

The MerCo brand name dates from the 1930s, but their colour litho sheets, still have great appeal to collectors and scratchbuilders looking for something different. Also manufactured under the MerCo brand name is a range of rub-down transfer lettering.

New products are already planned in all three ranges.

Freestone Model Accessories, 28 Newlands Mill, Witney OX28 3HH. Tel: 01993 775979.

Cup Competition 2004 reminder

Now is the time for you to sift through this year's issues of RAILWAY MODELLER and CONTINENTAL MODELLER to select the best articles from 2004.

It is your choice! Everyone's vote counts. The articles with the most votes win. So send in your selection with, preferably, the Cup Coupons from the back of each month's magazine. You are then guaranteed an entry into the readers' draw. First Prize is £300, in the form of vouchers to be 'spent' with advertisers in the magazines. The

lucky winner will also receive a framed Jonathan Joseph drawing of an M&GN 4-4-2T, the article on which will be published in the February 2005 RM. Second and third prizes will be £150 and £50-worth of vouchers. The cup is awarded to the contributor of the winning article.

You can choose any kind of article and that, of course, includes *Right Away* contributions from those new to the hobby. A separate cup is awarded for the best *Right Away* article.

SHOP NEWS

OPEN

CDS Models, Warrington

It is always sad to report a crime connected with our hobby. CDS Models, 34 Church Street, Warrington was burgled during the night of October 9 and lost stocks of approximately fifty locomotives. The haul seemed to be specifically targeted; no rolling stock was stolen and no other items apart from a small till float.

The missing items include twelve Hornby 8Fs, nine assorted Black 5s, several Duchesses and

Princesses, Q1, A3 and 2-6-4T locos in smaller numbers (some singles). Approximately half a dozen Bachmann locos: Class 24 (green), Standard 5, Standard tank also went, plus a few diesel and electric locos too (Classes 56 and 90). Amongst these locos was a Hornby *City of London* limited edition and a Bachmann Class 25 *Tamworth Castle* limited edition.

The police have been informed. Crime number 199/10.

Signal Box Anstey jubilee trip

On Monday October 4, Maureen and Malcolm Godfrey hosted a day on the Great Central Railway to celebrate twenty-five years of trading at The Signal Box.

The guests, numbering almost a hundred, were taken by vintage coach to Rothley Station where Black 5 45305 took them to Leicester North and then the full length of the line to Loughborough. During the return trip 'Leicestershire platter' was served for lunch. A raffle also took place on the train to win a footplate ride.

For those unable to attend, a visit to the Leicester MES was arranged for the following day. There was the opportunity to ride on some 3 1/2", 5" and 7 1/4" trains and some lucky guests had a



Photo: Keith Wreath

chance to drive a loco.

The Signal Box is renowned for its extensive range of transport DVDs and videos, both as a wholesale supplier and retailer, as well as being a top model shop.

The Signal Box, 1 Albion Street, Anstey, Leicestershire LE7 7DD. Tel: 0116 236 2901.

Central Models & Hobbies, Leicester

The family business used to be all about babywear, but after thirteen years a new challenge was needed. So eleven years ago, Simon Brown set up Central Models & Hobbies with the help of his wife and father.

Trains share the display space with radio-controlled and petrol-engined cars and other models in their new shop premises; a place where lorries used to be repaired.

The lighter, more airy shop is directly behind the old premises

and offers a very pleasant area to select models and discuss the hobby. The Browns completely renovated the old lorry workshop themselves which, in itself, is quite an achievement. It now houses stocks of many of the popular brands of trains, scenic products and track in N and 00 gauges.

Central Models & Hobbies, 2 Winchester Avenue, Blaby Industrial Park, off Blaby bypass, Leicester LE8 4GZ. Tel: 0116 277 3013.

T.&F.M. Grover, Northallerton

Tim and Frances Grover have run their business for thirty-five years now in the market town of Northallerton. The double-fronted shop boasts a large area devoted to photography, a hobby that can be a very good companion to railway modelling; it makes great subject matter.

The two-storey shop has a significant toy department that features 00 and N gauge stock from the top manufacturers. The model railway side of the business has thrived recently which has prompted the Grovers to invest significantly in the hobby.



Visit Tim and Frances to add something extra to your layout and dust off that camera too!

T.&F.M. Grover Ltd., 216 High Street, Northallerton, DL7 8LW. Tel: 01609 773334.

New industrials from Judith Edge Kits

We recently had the opportunity to inspect some further samples from the steadily expanding range of loco kits produced by Judith Edge Kits. The kits are etched in 15 thou brass and require motor, wheels, gears and buffers to complete.



The first photo shows a 'Vanguard' 0-4-0 Diesel Hydraulic built onwards from the 1970s by Thomas Hill (later RFS) at Kilnhurst: they were basically a development of the 0-4-0 Sentinel with the same Rolls Royce engine and chain drive but a larger cab and better engine accessibility. The kit is designed to fit on a Black Beetle motor bogie (wheels shown on the sample are incorrect pattern used to assemble the test etch), and retails at £40 (+ £1.50 p&p).



The Hunslet 204hp 0-6-0 Diesel Mechanical test etch is built with Romford wheels to represent the first one of the production line, *Avenue 1*, for the coke works near Chesterfield (nameplates for *Avenue 1* to *5* are included). The price is £44 (+ £1.50 p&p). The same design was used for BR Nos.D2550-73, which became Class 05. (The later 05s, D2574-2618, will be the subject of a future kit.)

A finished version of 'Taurus' (a test etch of which was shown in our January 2004 news) is shown finished in BR green with Romford 00 gauge wheels and the recommended



Mashima 10 x 24 motor and 50:1 gear-box. Price £48.00 (+ £1.50 p&p). The original was built by the Yorkshire Engine Co. in 1962 as a 600hp heavy shunter/trip freight loco. It had an ingenious transmission which started the loco using one engine and then fed in the power from the other engine as speed increased. It underwent extensive trials on BR for several years in a number of locations but no further orders were received, the company ceased trading in 1965. One other loco was built to 5'6" gauge for a Spanish contractor which was eventually taken into RENFE stock and now resides in a museum in Madrid after working successfully for many years.

Future products from this manufacturer include the Steelman Royale (not illustrated), for release later this year, which is a further development of the Vanguard, this time with cardan shaft drive and disc brakes. Again it is designed to fit on a Black Beetle motor bogie.



The Yorkshire 'Janus' 0-6-0 Diesel Electric, widely used in industry from 1956 to the present day, should be in the catalogue next year, followed by two more diesel electrics; the early EE/Hawthorn Leslie 0-6-0s (supplied to the LMS and the GWR in the 1930s, eventually BR 12000/1 and 15100) and another Yorkshire industrial, the DE2 0-4-0.

The latest North Eastern Railway electric loco, the Newport-Shildon Bo-Bo, announced in January should be available at the time of writing. (A further kit will be produced later to cover the BR rebuild of one of these locos - No.26510, the Ilford Carriage Works shunter.)

All the above refers to 4mm scale but the firm is already expanding into other scales with some of its existing kits. The NER ES1 Bo-Bo will soon be available in 7mm scale, and the Sentinel 0-6-0, the NBL/Paxman 0-4-0s and the Barclay 0-6-0 are available in 3mm for TT gauge. JEK can also supply etches only for the Hunslet 0-8-0 in Gauge 1 and the Ruston & Hornsby 165DS in H0.

Judith Edge Kits, 5 Chapel Lane, Carlton, Barnsley, South Yorks., S71 3LE. Tel: 01226 722309.

LBC decals pass to Fox Transfers

From October 1 2004, the livery transfer business of the Little Bus Company has been acquired by Fox Transfers. Fox has printed many of the items in the LBC range and the relationship between the two companies goes back to the mid-1990s.

The change of ownership will enable Tony Asquith of LBC to concentrate on the development of the justly renowned kits, leaving Fox to develop the transfers alongside the railway-based ranges.

Also included in the sale is the range of non-bus livery transfers established by Brian Latham of Roadscale Models. These will be of particular interest to modellers, as the range includes British Railways and British Road Services road vehicle symbols and crests. The prices will be held until at least July 31 2005.

Fox Transfers, 4 Hill Lane Close, Markfield Industrial Estate, Markfield, Leicestershire LE67 9PN. Tel: 01530 245618.

Prizewinners at Expo Narrow Gauge '04



The twenty-first Expo Narrow Gauge, staged by the Greenwich & District Narrow Gauge Railway Society at the White Oak Leisure Centre in Swanley on Saturday 23 October, was deemed a great success, with fine and varied selection of layouts on display.

The David Lloyd Trophy, presented in memory of the late former editor of *CONTINENTAL MODELLER*, and effectively awarded to the layout judged 'best in show', went to Roy Wood for his 0-16.5 *Chichel* (RM June 2004).

The Reinier Hendriksen Award, presented in memory of that gifted Dutch modeller by a group of his friends to the layout that most embodies his scenic modelling approach, went to John Bruce for his new 009 layout



Above left: Roy Wood (left) receives the David Lloyd Trophy from David's successor as editor of *CONTINENTAL MODELLER*, Andrew Burnham.

Above: John Bruce (right) receives the Reinier Hendriksen Award from Chris O'Donoghue.
Photographs: Len Weal, Peco Studio.

Lower Peak Wharfe (which we hope to feature in RM in due course).

In next month's RM we will present a survey of new narrow gauge products seen at the exhibition.

New home for Twickenham club

The Twickenham & District Model Railway Club now (effective October) has a new clubroom on the Whitton/Hounslow border. The address is Kerswell Hall, Wills Crescent, Hounslow TW3 2JF.

The new room has plenty of space for the club to expand. It also benefits

from level access and has on-site parking.

The club meets on Friday nights and full details including a map and travel information can be found on the club's website tdmrc.org.uk or contact the secretary Paul Raven-Hill on 01932 783253 or p_raven_hill@hotmail.com

Record attendance at Wilmington

On October 9 & 10 the Wilmington model railway exhibition enjoyed a record attendance of nearly 1400 visitors. The total raised for charity was also better than ever at more than £6000. Much help was gained from some very generous donations from a number of suppliers of modelling goods. The charities that will benefit from the fundraising are the Demelza

House Children's Hospice and The Railway Children. After all the pledged donations are received, the total should be around £7000.

The ninth exhibition is already being planned for October 8 & 9 next year, so if you would like to exhibit a layout or if you are a trader who would like to attend, please contact the Reverend Richard Arding on 01322 220561.

Another wagon aids the *Medway Queen*

Last year saw the first production of Dapol special edition wagons, in the fictional livery of the New Medway Steam Packet Company, in support of the restoration project for the paddle steamer *Medway Queen*. Two batches were produced with the running number 19 and were sold out very quickly. A third and final batch of this design, with the running number 24, has been commissioned and is now available; 1924 being the year in which the ship was constructed.



Medway Queen served in peace and war until withdrawn in 1963. The ship is famous for having made 7 trips to the Dunkirk beaches during the evacuation in 1940 when she rescued 7000 men. After withdrawal, neglect and even a sinking or two the old ship is desperately in need of dockyard attention. The preservation society has been battling for years to raise the necessary funds and every wagon purchased will contribute to this worthwhile project.

The wagons are available with white lettering (shaded black) on green, black and bauxite bodies. Approximately 60 of each colour have been produced and they are available at £8.50 each (plus £1.50 per order for post and packing) from **Richard Halton, 21 Lakeside, Earley, Reading, RG6 7PG**. Cheques should be made payable to "Richard Halton" please.

Stafford show advance tickets on sale

Advance tickets for the above event are now available. The Stafford Railway Circle 2005 Exhibition is on Saturday and Sunday February 5 and 6 at Stafford County Showground. It will fill two halls with twenty-three layouts and more than thirty traders. Ticket prices are: adults £4.50, con-

cessions £3.50, children £2.50 and family £12.50. They can be obtained by sending a SAE with a cheque payable to 'Stafford Railway Circle' to Terry Robinson, 21 Bakewell Drive, Stone, Staffs ST15 8YR.

The closing date is **January 15 2005**.

Connoisseur Models 4mm catalogue

Jim McGeown of Connoisseur Models has issued a new catalogue detailing his 00 gauge/4mm scale range. The 24-page A5 publication is packed with full details of the etched carriage and wagon kits plus locomotive component packs.

Each kit has a separate entry containing a photograph or illustration followed by a brief description of the pro-

TOTYPE and details of the kit composition and price. The catalogue is 50p, but if you would like one, just send a 1st class stamp for a complimentary copy. State that you require a 00 catalogue because Jim also produces a version covering the 0 gauge kits.

Jim McGeown, Connoisseur Models, 33 Grampian Road, Penfields, Stourbridge DY8 4UE. Tel: 01384 371418.

Colonel Stephens Society donations

Up to £1000 will be made available by the Colonel Stephens Society this year in donations to heritage projects. This brings the total sum donated by the society to £2700 over the last five years. The Colonel was the man who brought viable light railway transport to so many obscure corners of England and Wales.

A number of substantial sums were sanctioned for several worthy railway causes including the Rother Valley Heritage Trust, to contribute to bridge restoration work, the Welsh Highland Railway Ltd. to restore an ex-War Department Baldwin 4-6-0T currently on long-term loan from the Imperial

War Museum, and the Narrow Gauge Railway Museum for signage work.

A further sum was set aside for the Colonel Stephens Museum at Tenterden to help acquire items for its collection. The committee also awarded a sum towards the relocation of a yard crane that came from Shrewsbury Abbey station; the crane now stands at Coleham Pumping Station Museum, Shrewsbury.

If you would like to join the Colonel Stephens Society, contact:

David Powell, Gateways, Bledlow Road, Saunderton, Princes Risborough, Bucks. HP27 9NG. Tel: 01844 343377.

Missenden Abbey 2005 – sold out!

As a result of the publicity of the 2005 Missenden Abbey Railway Modellers Weekend, all the places were sold out in record time. There is now a waiting list in operation, but it is a long list, so those who try for a place now may well be unlucky.

The dates for the 2006 weekend, however, are finalised as March 17 until Sunday 19. Bookings for this ses-

sion will open from May 2005. In addition to the usual tutors Bob Alderman, Ian Rathbone, Mike Sharman and Tim Watson, Tim Shackleton will attend. Tim is well known for his conversion of ready-to-run models to finescale standards.

Contact Christopher Langdon on 01923 854784 or cjlangdon@chrasco.co.uk

Harburn Hobbies and the boys in blue

Last year, crime writer Ian Rankin set a challenge to local companies in Edinburgh. The event was called 'The Rebus Quest', named after his famous fictional detective character John Rebus. It was staged to raise funds for Capability Scotland, a charity that supports the disabled.

A number of competing teams of four were given the following tasks: collect clues on a timed treasure hunt in and around Edinburgh's Old Town, design a Rebus book cover and write sleeve notes, answer questions in a quick-fire quiz of Rebus facts and general knowledge and raise funds for Capability Scotland.

The prize was for the winning company's name to be written into Ian Rankin's next book, *Fleshmarket Close* (published by Orion Books) and a nominated person to be a character in it. Boss of Harburn Hobbies, Robert Baird (left of picture, with Ian Rankin)

was nominated by Andy Elliott and the rest of the team, and they won the prize. They could make him a goodie or a baddie; they chose baddie!

On page 149 of the book, Harburn Hobbies duly appears and Robert shows up in chapter 6 – buy the book and read all about it!

Robert and the Harburn Hobbies team would like to thank their customers, colleagues and friends for helping to raise a significant amount of money for Capability Scotland.



New Alphagraphix card structure kits

Irish shops are often identifiable by just the proprietor's surname and the cheerful style of paintwork used to decorate the frontage.

Alphagraphix has captured the flavour of an Irish street with three new 7mm scale low-relief card kits. These accompany the firm's extensive range of Irish railway rolling stock and structure kits. They are printed in full colour on high quality card and they certainly add character to the scene on Irish 7mm scale layouts.

Gleeson's Electrical shop, derived from a prototype in County Clare, features twin, mirrored shop units with the proprietor's name in both English and Irish.



Phelan's Railway Bar is a small pub where you can also get groceries. O'Brien's Bakery is another that originates from County Clare; it has also diversified into other goods such as

bottled gas, videos and ice cream.

The kits contain a selection of Irish advertising posters and enamelled signs which add variety and distinction to the appearance. Modellers of British scenes can make use of the sheet of alternative shop names produced by Alphagraphix for £1.50.

Each kit is £4.00; please add 10% of each order value for P&P.

Alphagraphix, 23 Darris Road, Selly Park, Birmingham B29 7QY.



Waiting shelter in 4mm from Townstreet

A platform shelter/waiting room is the latest cast 00 scale model from Townstreet.

The shelter is available in either brick or stone finish. They are approximately 3 1/2" x 2". The walls and base are cast in one piece but the roof, which is in two half-castings, is for the modeller to fit. The slate roof panels show rafter ends under the guttering which is typical of this style of building and provides a little woodwork to carry the colour of the company or region

modelled. Inside is seating and two waiting passengers.

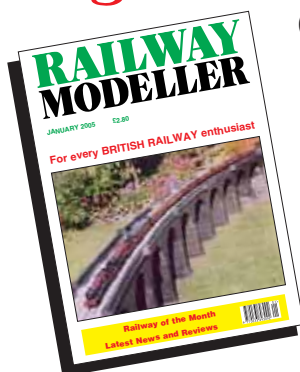
The whole model is easy to paint and the windows can be glazed with squares of clear plastic.

The price is £12.95 plus £2.30 postage. The latest Townstreet catalogue, which shows many other buildings in both brick and stone is £3.80 post paid.

Townstreet, The Old School, Carnbee by Anstruther, Fife KY10 2RU. Tel: 01333 0226.



Coming next month



Out on Thursday 16 December

TRENT VALLEY

Peter Edmondson based this N gauge LMS layout on Tamworth Low Level.

DEELEY VIADUCT

Refurbishment of this landmark O gauge garden railway model, by Don Neale.

STRUCTURE MODELLING 2

Paul A. Lunn develops the Hornby R8002 goods shed in 4mm scale.

LNWR 4-4-0s

'George Vs' and rebuilt 'Precursors', drawn and described by Ian Tattersall.

Modern era wagons from Genesis Kits

Genesis Kits has released some new cast pewter metal kits 4mm scale for the modern era.



The BR 30ton Bogie Bolster E is shorter than the Bolster A. They were introduced in 1961 and converted for special roles and departmental use. Price £16.00 + £1.50 P&P.

The BR HTV 21-ton Hopper wagon is supplied with split axle boxes, but square or roller bearing types are available on request. The kit requires 12mm wheels, axles and bearings. Price £9.50 + £1.50 P&P.



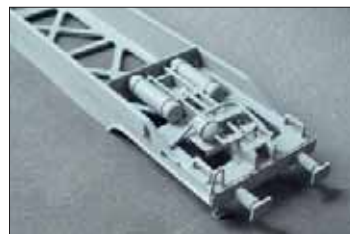
KQA/KTA Container Pocket wagon. This container wagon can carry one 40' or two 20' containers (containers not included). The kit requires four

12mm wheels, axles and bearings. Price £19.00 + £1.50 P&P.



Sealion/Seacow BR 40ton Ballast Hopper wagon, riveted or welded version. Sealions were developed from the Walrus in the 1970s. Seacows, apart from about twenty-seven were of welded construction. The riveted version kit is supplied with Gloucester bogies, but Y27 bogies can be supplied. The welded version has Y27 bogies. Price £16.00 + £1.50 P&P.

Genesis Kits, Waveney Cottage, Willingham Road, Market Rasen, Lincolnshire LN8 3DN. Tel: 01673 843236.



Denis Moore

We regret have to report the death of Denis Moore, President of the de Havilland Model Railway Society. He died aged 82 on September 6 following a long battle with cancer.

He started his aeronautical engineering career as an apprentice with Armstrong Whitworth at Coventry, building Whitley bombers. In 1961 he was responsible for inaugurating the de Havilland Model Railway Society. He was instrumental in the design and construction of the club's well-known Yorkshire theme 00 layout *Havill Junction* (RM August & September 1993) where his artistic abilities can be seen in the millstone grit buildings, canal, terraced housing and trees.

The Society's later layout *Middleton in Teesdale* also benefited from his skills. Denis was also the President of

Chiltern Model Railway Association. Nothing gave Denis more pleasure than to encourage younger and less able modellers who he knew would be tomorrow's modellers.

We offer our sincere condolences to his family.

Below: part of the station and townscape on Havil Junction, built by members of the DHMRS.

Photograph: Len Weal, Peco Studio.



Subject Menu

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Layouts

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Locomotives

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Wagons and Coaches

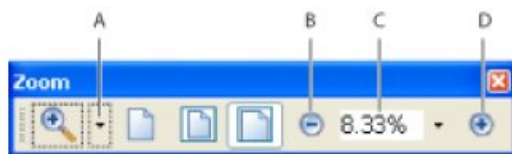
The complete Adobe Acrobat help file can be accessed through the menu bar. These are just a few extracts to help get you started.

Subject Menu

Use this menu to move around the publication. It contains subject links which will lead you to pages where you can access specific articles.

When you are over a link the Hand tool will change to a pointing finger . Click the left mouse button and you will be taken to the relevant article.

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Click the Zoom In or Zoom Out button on the toolbar, or select a magnification percentage from the toolbar menu. *(Try the page width setting)*

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To retrace your path within the Annual use the green arrow buttons at the bottom of the screen to move forwards or backwards between the articles/menus you have recently viewed.

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Movies may take a short while to load as they are quite large files. The speed at which they will load will depend upon your computer.

When the Movie is playing you may pause it or move to another part of that programme by using the controls at the bottom of the picture. To exit the Movie screen, click the 'X' in the top right of the Movie window.

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Click the Search bookmark. Type your query in the box and press Search. If you wish to use the Index Search, click Advanced Search, select the index (CM 2004 Index or RM 2004 Index).

Printing

Go to the page you wish to print and select the Printer icon on the toolbar. Alternatively select File > Print. Remember to choose which pages you wish to print or everything will be printed.

Additional Files

If you explore the disc using Windows Explorer you will find a folder entitled Goodies. This contains updates for Acrobat Reader 6.0 and also the latest version of Acrobat Reader 7.0 (for those with Windows XP and Windows 2000 only). There is also a file containing Windows Media Player 9 if you wish to update from an earlier version and some tips on keeping your PC virus free.

Buildings and Construction

2 mm

Carriage Shed

Great Western style goods shed

4 mm

Extending Etton 3

Extending Etton 4

Extending Etton 5

Goods Office for Elmgate

Inspiration

Instant Lock-ups

North Eastern Structures in 4 mm scale

Victoria Square

Water tank

HO

Hemswell

Gauge 1

Modelling Buildings for Gauge 1

General

Building a baseboard

Baseboard construction

Simple Garden Railway Structures

Station & Yard gas lamps

Storage of club layouts

West Highland station building

Garden Railways

Tan-y-Bryn Railway

Standard gauge G scale

Ten Tors Express

Well under way in SM32

Garden Railways in G45 & SM 32

Garden Railways on a shoestring

Lineside Hut

Simple Garden Railway Structures

Vale of Rheidol 2-6-2T in 16 mm scale

Right Away

Alexander County Railways

Common Lane Wharf Part 3

First Steps in 0 gauge

Have a Go

Hillside Street station & Hillside Pass

Layouts for Kids

Less space, low cost

Marston

No excuses!

North Seaton Coal & Goods Wharf

Samtown - change for Taidville

Structure Modelling

Locomotives

2 mm

Great Western might-have-beens

4 mm

Loco building on the cheap - 1
Loco building on the cheap - 2
Loco building on the cheap - 3

Bitza Sulzer
Great Eastern J17
Loco building on the cheap - 4

7 mm

34056 Croydon
Finishing the Tower Prairie
Goods Trains from the Steam Era

Lady Margaret
LNER J17 0-6-0
Maunsell Z class

16 mm

Vale of Rheidol 2-6-2T in 16 mm scale

1:20

Rye & Camber 4w petrol engine

Rye & Camber Tramway Bagnall 2-4--0T

General

Atkinson-Walker geared locomotives
Home town Pacific

Industrials at Bromley by Bow

Plan of the Month

Basingstoke
Gillingham (Dorset)
Glasgow Queen Street
Harlow Mill
Kingdom's Crossing
Mallaig

Modelling Staines West
Quintessentially Llangollen
Ruabon
Slaithwaite Mills
Stanton Gate
Wandsworth Park

Railway of the Month

Aireworth
Bishop Wearburn
Green End
Hellifield
Hollies End
Hudson Road NER

Kings Green Wharf
Moorcock Junction
North Leith Citadel
Ravensworth Junction
Ruabon
St Denys

Scale Drawings

A Pair of Class 20s
Atkinson-Walker geared locomotives
Brake van E5 of the Isle of Man Railway
Great Western style goods shed
GWR Super Saloons
LMS Fowler Class 4P 2-6-4T

LNWR 42' radial coaches
LNWR Heavy Hauler
NER 20 ton well wagon
PROCOR 102-ton tank wagon
Proposed North Holderness Railway 0-6-0T
West Highland station building

Wagons and Coaches

Bagnall coach
Economy wagon construction 2
Freelance well wagon
Garden Railways on a shoestring
GWR Super Saloons

LNWR Push-pull Driving Trailer
LNWR 42' radial coaches
Midland 48' brake composite
Procor 102-ton bogie tank wagon

Product Reviews

The 00 Works, PO Box 22, Hastings, East Sussex TN34 2TG

Ready-to-run Adams Radial 4-4-2T in 00

1E Promotionals, KRS Model Railways, 14 Brickhill Road, Heath & Reach, Leighton Buzzard LU7 0BA

Dapol Private Owner Wagons
Dapol Private Owner Wagons

1E Promotionals. G E Models, Platform 2, North Norfolk Railway, Sheringham, NR26 8RA

Dapol Private Owner Wagons
Dapol Private Owner Wagons

Geoffrey Allison, 90 Cheapside, Worksop, Notts S80 2HY

Bachmann 4 mm private owner wagons

Astolet Model Rwy Circle, Fair View Cottage, Guildford Road, Normandy, Surrey GU3 2AS

Dapol A T Locke wagon

Avalon Line Models, 11 Hood Close, Glastonbury, Somerset BA6 8ES

9 mm gauge ready to run chassis

B&H Models, 13 Corporation Street, Lincoln LN2 1HL

Bachmann 7-plank wagons
Bachmann Tank Wagons
Limited run Lincoln Corporation wagons in 00

Bachmann, Moat Way, Barwell, Leics LE9 8EY

4575 Class Small Prairie in 00
A4 and V2 in 00
A4 in weathered condition in 00
Bachmann 40s in 00
BR Class 55 Deltic in 00
BR Standard Class 5 with 1F tender in 00
BR/Drewry Class 04 shunter in 00
BR/Sulzer Type 4 (Class 45/46) Peaks in 00
China Clay hoods in 00
Churchward 45xx in 00
Class 20s in 00

Class 42 Warships in 00
Class 55 Deltics in 00
Class 08 in 00
English Electric Type 1 (Class 20) in 00
English Electric Type 4/Class 40 in 00
Hughes/Fowler 'Crabs' in 00
Peppercorn A1 Pacific in 00
Plasser & Theurer track machines for 00
SR Queen Mary brake in 00
Super Voyager in 00
SWT-livery modern DMUs in 00
Three- & two-car Class 158 DMUs in 00

Ballards, 54 Grosvenor Road, Tunbridge Wells TN1 2AS

Dapol Bennett & Carter wagon
Dapol Crystalate billiard balls 7-plank wagon
Peacock Bros & Harris wagons

Barry & Penarth MRC, Simon Evans, 15 Jubilee Crescent, Skewen, Neath SA10 6TP

Dapol Private Owner Wagons

Bideford & Instow Rwy Group, 68a Hanson Park, Bideford, Devon EX39 3SB

Steam-era posters in 4 mm

Branchlines, PO Box 31, Exeter, Devon EX4 6NY

Drive trains
Small flat can motor

Bratchell Models, PO Box 22, Watford, Herts WD17 3WA

Class 320 EMU kit in 4 mm

Buffers Model Railways Ltd, Colston Cross, Axminster, Devon EX13 7NF

Colliery coal wagons
Dapol commissions

C & L Finescale, Longridge House, Cadbury Camp Lane, Clapton in Gordano, Bristol BS20 7SD

Board protectors & iron

Cambridge Custom Transfers, 206 Nuns Way, Cambridge CB4 2NS

BR Type AFP container transfers in 4 mm

CDA Electronics, PO Box 701, Beaudesert, Queensland 4285, Australia

Colour light signals in N

Comet Models, 105 Mossfield Road, Kings Heath, Birmingham B14 7JE

Locomotive components in 4 mm scale

Command Micro Systems, Hampton House, Courtlands Road, Newton Abbott, TQ12 2JA

Sound Modules from Remtrak

Crafty Computer Paper, Swinburne Mill, Great Swinburne, Hexham NE46 4DQ

Plain transfer paper

C-Rail intermodal, Moren, Roome Bay Avenue, Craile, Fife KY10 3TR

Transfer sheets for 4 mm scale containers

Dapol Ltd, Gledrid Industrial Park, Chirk, Wrexham LL14 5DG

Great Western Dia.A30 auto trailers in N
N gauge GW coaches and 'brown' stock
Recent releases in 4 mm scale

John Day, 104 St Peter's Close, Moreton-on-Lugg, Herefordshire HR4 8DW

Historic commercials in 4 mm scale

Deluxe Materials, Unit C3, German Road, Bramley, Hants RG26 5BG

Scenic Rust

DMR Products, 25 Halwyn Place, Redannick, Truro TR1 2LA

Br Mk 1 coaches in 7 mm

ETS, Kittle Hobby, PO Box 5, Ystalyfera, Swansea SA9 1YE

LMS-liveries tinsplate Garratt in 0

Graham Farish, Moat Way, Barwell, Leics LE9 8EY

34051 and another 'spam can' in N
A3s for N
Bogie Freightliners & Oil tankers in N
Black 5s reutrn to Farish N
BR Mk 1 coaches in N
Cement Wagons
Class 33s and 47s in N
Class 4 in N
Graham Farish 40s in N
Stanier 8F 2-8-0 in BR & LNER guises in N
Train set & Jinties in N
Virgin Mk 2s & freight stock in N
Westerns & Class 25s in N

First Class Trains, 221 Galmington Road, Taunton, Somerset, TA1 4ST

Diesel exhaust smoke

Fleischmann UK, Riverside Studio, 40 Brook Lane, Ferring, W Sussex BN12 5JD

New DCC decoders
New DCC decoders
Train Navigation system for DCC-operated layouts

Flexi-Griip, 65 Grosvenor Crescent, Dartford DA1 5AP

Flexi-Grip for all scales

Gaugemaster Controls, Gaugemaster House, Ford Road, Arundel, W Sussex BN18 0BN

Noch ballasted foam underlay
Tunnel portals & sea foam tree materials

Harburn Hobbies Ltd, 67 Elm Row, Edinburgh EJ7 4AG

Harburn Hamlet walling in 4 mm
Harburn Hamlet portable toilet and flower bed
Harburn office
West Highland Mk 1 coaches in 4 mm

Heljan (UK), PO Box 474, Peterborough PE8 6FF

BR Western Region Hymek in 00
Intermediate Class 47s in 4 mm

HMRS Transfers, 8 Gilpin Green, Harpenden, Herts AL5 5NR

Lanky transfers for 4 mm & 7 mm scales

Hornby, Westwood, Margate, Kent CT9 4JX

34051 and another 'spam can' in 00
Arrow
BR Class 50 in 00
BR Mk 2d stock
BR-liveried versions of Hornby 8Fs in 00
BR-livery Fowler 2-6-4T in 00
Bulleid Q1 0-6-0 in 00
Bulleid Q1 0-6-0s in 00
Dance Hall in 00
Duchess Class Pacific in 00
English Electric Class 50 in 4 mm scale
Gresley 61' 6" corridor coaches in 00
Latest 50s in 00
Latest Class 86s in 00
Latest Black 5
Live steam set in 00
Merry-go-round hoppers & derivatives in 00
Mk 1s in 00

Recent Class 47s and Mk 3 coaches in 00
Rolling road test bed for 00 locomotives
Royal Train pack in 00
Skaledale buildings in 4 mm
Skaledale new releases
Skaledale sectional stone walling in 4 mm
Two snappy Terriers in 00
Virgin HST in 00
Weathered powered/unpowered duos & new 58
Weathered 'Pug' in 00
Western Pullman train set in 00
Western Region quintet in 00

Interlink, 66 Warepoint Drive, Gallions Reach, Thamesmead London SE28 0HN

Interlink Garden Rail System

International Models, Plas Cadfor, Llwyngwrl, Gwynedd LL37 2LA

Auhagen Girder bridge kit & paving sheets for 00/H0
Silflor tufts

Kernow Model Rail Centre, 98 Trelowarren Street, Camborne, Cornwall TR14 8AN

Special-run 4575 in 00

Kitmaster Collectors Club, 109 Head Street, Halstead, Essex CO9 2AZ

Dapol 5-plank wagons

Knightwing Models International, 1 Wood Street, Huddersfield, HD1 1BT

Static Sentinel in 4 mm
Structure kits in 4 mm

Nigel Lawton, 77 Katherine Way, Seaford, E Sussex BN25 2XP

Micro Motor

Oliver Leetham, 6 St Catherine's Avenue, Balby, Doncaster DN4 8AJ

Dapol Private Owner Wagons
Road Supplies & Construction Co Ltd wagons

Mackay Models, Studio 56/57, Sir James Clark Bldg, Abbey Mill Centre, Seedhill PA1 1TJ

Lenz LE1000A DCC Decoder

Metcalf Models, Bell Busk, Skipton, N Yorks, BD23 4DU

LNWR-style signal box and huts
Substantial main line station kit in 4 mm

Middy Trading Co, 21 Legatt Drive, Bramford, Ipswich IP8 4EU

Dapol Gt Eastern 7-plank coal wagon

Mill Lane Sidings, 7 Mill Lane, Rainford, St Helens WA11 8LW

Mill Lane signs

Model Irish Railways, 12 Lynedale Grange, Portadown, Craigavon BT63 5XB

Bogie Palletized wagon in 4 mm
New releases in 4 mm scale

N Brass Locomotives, 32 Crendon Road, Rowley Regis B65 8LE

Rolling Road for 7 mm
Speed Limit signs

R Parker, 19 Oaklands, Malvern Wells, Worcs WR14 4JE

4 mm car kits
4 mm scale road vehicle kits

Parkside Dundas, Millie Street, Kirkaldy, Fife KY1 2NL

BR 13-ton open in 4 mm scale
Insulated meat van in 0

Parkwood Models, 31 Elmwood Close, Retford, Notts DN22 6SN

LSWR 8-plank wagon kit in N

Peak Rail Stock Fund, 13 Trenchard Drive, Buxton, Derbyshire SK17 9JY

Dapol 7-plank coal wagons
Dapol Private Owner Wagons

Peco, Pritchard Patent Product Co, Underleys, Beer, Seaton EX12 3NA

HAA merry-g-round coal hopper in N

Precision Labels

Hornby Super Detail Pullman cars

Ratio Plastic Models, Ratio House, 3-4 Mardle Way, Buckfastleigh, Devon TQ11 0NR

Coaling tower in N

Red Rose Steam Society, Astley Green Colliery Museum, Higher Green Lane, Astley, Manchester M29 7JB

7-plank coal wagons
Dapol Private Owner Wagons

Scale Link Ltd, Unit 19B Applins Farm Bus Est, Farrington, Blandford D11 8RA

Etched brass frets for house builders in 4mm

Scenix, Pocketbond Ltd, PO Box 80, Welwyn, Herts AL6 0ND

Ready to plant finished buildings in 4 mm

Sherwood Models, 831 Mansfield Road, Daybrook, Nots NG5 3GF

Bachmann 4 mm private owner wagons

Signs of the Times, 63 Alexandra Road, Grantham, Lincs NG31 7AW

Signage in 4 mm scale

Roger Smith, 121 Wellsford Avenue, Solihull B92 8HB

Sand house, tarps in 4 mm

Smoky Bottom Lumber Company, PO Box 794, Cheltenham GL52 3ZW

1:35 Jeep-O-Motive kit

South West Digital Ltd, 68 Brookfield Walk, Clevedon, N Somerset BS21 6YJ

ESU Mobile Control
LDT Accessory decoder

Sunningwell Command Control Ltd, PO Box 381, Abingdon, OX13 6YB

Bachrus Inc rolling road
Digitrax DZ123 DCC mobile decoder
Digitrax Zephyr DCC start set

TMC, Marston Business Park, Tockwith, York YO26 7QF

Bachmann WR vans
Dapol Private Owner Wagons

Toys2Save Collectables, Marsh Mill, Craft Village, Thornton-Cleveleys, Blackpool FY5 4JZ

Bachmann 1-plank lowside
Dapol salt wagons
Dapol wagons

Train Control Systems, M G Sharp Models, 712 Attercliffe Road, Sheffield, S9 3RP

DCC decoder assortment

Tutbury Jinny, Tutbury Mill Mews, Tutbury DE13 9LS

Dapol 7-plank wagons
Dapol Harecastle Collieries wagon

West Wales Wagon Works, Valentine House, Brynden Close, Adpar, Newcastle Emlyn
SA38 9NP

Dapol Private Owner Wagons
Dapol Private Owner Wagons

Worsley Works, 19 Douglas Road, Worsley M28 2SR

Admiralty combination car body kit
CIE Deutz in 4 mm scale
Etched brass freelance diesel body parts
GNR(I) diagram K8 open third body kit
Scratch aid Glyn Valley coaches in 4 mm
Class 66

Book Reviews

Banbury & Cheltenham Railway Vol 1	William Hemmings
Banbury & Cheltenham Railway Vol 2	William Hemmings, Paul Karau, Chris Turner
Banbury to Birmingham	Vic Mitchell & Keith Smith
Bedford to Wellingborough	Geoff Goslin
Black Country	Paul Collins
Branch line to Wantage	Vic Mitchell & Keith Smith
Branch Lines of West Wiltshire	Vic Mitchell & Keith Smith
Branch Lines to Enfield Town and Palace Gates	Jim Connor
Branch lines to Felixstowe & Aldeburgh	Richard Anderson & Graham Kenworthy
Branches & Byways: South West Scotland and the Border Counties	Robert Robotham
Branches & Byways: Sussex & Hampshire	John Vaughan
Brecon to Newport	Vic Mitchell & Keith Smith
Britannia Pacifics	Gavin Morrison & Peter Swinger
British Railway Air Braked Stock Vol 2	Tom Smith
British Railway Goods Wagons in Colour 1960-2003	Robert Hendry
British Railways Brake Vans & Ballast Ploughs	Eric Gent
Bulleid & the Turf Burner	Ernie Shepherd
Bulleid 4-6-2 Merchant Navy Class	R J Harvey
Cambrian Lines	Rex Christiansen
Class 50s in operation	David N Clough
Clogher Valley Railway	Dr E M Patterson
Diesels in the Midlands	Derek Huntriss
Diesels in Wessex	Tony Molyneaux & Kevin Robertson
Doncaster & its Railways: the second selection	Peter Tuffrey
First Generation DMUs	Kevin Robertson
Furness Railway in & around Barrow	Michael Andrews
Gallery of Steam	Haynes Publishing
Gloucester to Bristol	Vic Mitchell & Keith Smith
Glyn Valley Tramway Goods	Bernard Rockett
Great Northern Railway	Tom Ferris
Great Scenic Railways of Devon & Cornwall	Michael Pearson
GWR Engineering Work 1928-1938	R Turret
GWR Swindon to Bath Line	Colin Maggs
Hampshire Narrow Gauge	Vic Mitchell & Keith Smith
Hampton & Kempton Park Waterworks Railway	Ron Howes
Heyday of the Westerns	Derek Huntriss
Highland in LMS days	David Jenkinson
History of the Steam Locomotive	David Rose
Hull & Barnsley Engines & Rolling Stock 1885	Martin Barker
Illustrated History of Southern Wagons, Vol 2	G Bixley, A Blackburn, R Chorley, M King

Illustrated History of the East Suffolk Railway	John Brodribb
Industrial narrow gauge stock and trackwork	Sydney A Leieux
Irish Broad Gauge Carriages	Desmond Coakham
Irish Narrow Gauge in colour	Norman Johnston
Iron Roads North of Leeds	Michael Pearson
Island Line	Ralph C Humphries
Jack the Station Cat & the Great Little Trains	Alan Cliff
Robbery	
Lifetime in Traction	Arthur Tayler
LMS Journal No 6	Compiled by Bob Essery
LMS Journal No 7	Compiled by Bob Essery
LMS Locomotive Profiles No 5	John Jennison & David Clarke
LNER 2-6-0s	Peter Waller
LNER in Transition	Michael Blakemore
Locomotive Boiler Explosions	C H Hewison
Locomotive Giggleswick	Nigel Mussett
London & North Western Railway Company Houses	R W Miller
London, Brighton & South Coast Miscellany	Keith Robertson
London's Underground, 10th edition	John Glover
LSWR at Nine Elms, The	Barry Curl
Many and Great Inconveniences	Philip A Brown
Midland Record No 19	ed Bob Essery
Midland Record No 20	Comp Bob Essery
Model Railway Planning & Design Handbook	Compiled by Steve Flint
Modelling Buildings	Malcolm J Smith
Modelling in Gauge 1 Book 1	G1MRA Books
Metropolitan Railway, The	David Bowness
Narrow Gauge & Industrial Album	Gordon & Ann Hatherill
New Romney Branch Line	Peter A Harding
Newton Abbot to Morehamptonstead Railway	Anthony R Kingdom & Mike Laing
Next Steps in Railway Modelling	Chris Ellis
Odd Corners of the GWR	Kevin Robertson
On the Rails - Two Centuries of Railways 1804-2004	Anthony Burton
Paddington Station	Steven Brindle
Pictorial Supplement to LMS Locomotive Profile No 5	John Jennison & David Clarke
Power of the A2s, The	Gavin Morrison
Power of the Castles	R C Riley & Peter Waller
Princess Royal Pacific	David Hunt, Bob Essery & Fred James
Private Owner Wagons	Keith Turton
Railway Archive No 5	ed Neil Parkhouse & Ian Hope
Redlake Tramway & China Clay Works	E A Wade
Ryde by Steam Vol 1	Andrew Britton
Scotland East & North	Roger Siviter
Scottish Region colour album No 1	George C O'Hara
Scottish Steam	Keith Verden-Anderson & Brian Stephenson
	David Wragg
Southern Railway Handbook	Ian R Smith
Steaming On: locomotives in the National Railway collection	
Story of the Q1s	John Scott Morgan
Story of the Southern USA Tanks	H & C Sprenger
Swindon to Newport	Vic Mitchell & Keith Smith

Taunton West
Western around London
Western Steam Farewell
Worcester to Hereford

Roger Siviter
Kevin McCormack
Darren Page
Vic Mitchell & Keith Smith

Video and DVD Reviews

Branch Line to Burnham	Transport Video Publishing	VHS
Class 67	CineRail	DVD
Mainline Memories	Heritage Media Digital Productions	VHS
N Gauge Society Journal CD-ROM	N Gauge Society	CD-ROM
Portraits of Railwaymen in the 1940s & 1950s	Panamint Cinema	DVD
Shakespeare Route - The SMJ	Hillside Publishing	VHS
Steam in Scotland	CineRail	VHS/DVD

Layouts

O / 7 mm

Blakecaster - Part 1
Blakecaster - Part 2

Crisbar
Filbridge

Goods Trains from the
Steam Era

Harlyn Road
Longroyd Bridge

North Seaton Coal &
Goods Wharf

Otterburn
Otterburn Part 2

OO / 4 mm

Alexander County Railways
Bonis Hall Farm

Borth-y-Gest
Bridge of Weir

Brooklands Park

Burngullow

Castle Quay

Common Lane Wharf
Part 3

Cornish China Clay

Hel-yn-Bach

Green End

Hellifield
Hellifield part 2

Hillside Street station &
Hillside Pass

Horrabridge

Hudson Road NER

Hudson Road NER - Part 2

Hyde & Seaque Tramway
Kingdom's Crossing

Marston

Middlesborough

North Leith Citadel

Outwell Village Depot
Ravensworth Junction

Samtown
Sandsend

Sedgemoor Road

St Jude

Stanton Gate

Tupdale - 1

Tupdale - 2

Tupdale - 3

White Sands Bay

OO9

Wood End

O-16.5

Chrichel - part 1

Cockayne & Sons sawmill

Hollies End

1:24

Pinchingfield

16 mm

Tan-y-Bryn Railway Waterworks siding

16.5 mm

Blagdon Goods

3 mm

Aireworth

EM

Ascott-under-Wychwood Rhosnewydd Junction Trafalgar Yard
Pendon Museum 1954-2004

N

Aberporth	Moorcock Junction	Staines West
Benfordby	Norsham Road	Stapleforth Main Line
Bishop Wearburn	Ridgeway	Stonebrigg
Bridge of Weir	Ruabon	Wandsworth Park
Dyffryn	St Denys	
Kings Green Wharf	St Denys - 2	