



Bollinger's signature decorative touch is brass and ebony inlaid around borders. His technique can be used with ease to install inlays of wood, metal or wood/metal combinations.

Decorative Floor Inlays

A simple technique with elegant results

by Don Bollinger

Soon after I got into the hardwood-flooring business, I began to look for ways to set my floors apart from those of my competitors. One method that I have used with good results is decorative inlays of contrasting wood or metal. Inlay is a relatively easy and inexpensive way of dressing up what would otherwise be a rather ordinary wood floor.

By definition, inlaying is the process of insetting one material into another. Sometimes a groove or channel is created to house the inlay, but in my opinion, this method is not nearly as stable for floor use as is using an inlay material equal to the thickness of the finish flooring. In that sense, what I do is not strictly inlay, because I build the materials right into the floor as it's being laid. Unlike traditional inlay, which is usually thinner than the host material, my inlay is as thick as the flooring itself.

One of my favorite techniques is to apply thin bands of metal and/or exotic wood to the edges of borders or headers, as shown in the

photo above. These thin lines of color contrast sharply with the surrounding flooring and are real eye-catchers. Another design popular with clients is what I call the grid. This is a geometric pattern (frequently square or rectangular) of parquet flooring bordered by metal trim and inlaid into a regular plank or strip floor. The grid is a nice touch in an entryway or as an island in the middle of a kitchen or dining room.

Choosing materials—To make border inlay, first select the wood and metal you'd like to use. I prefer brass or aluminum because they're soft, easy to cut and can usually be sanded without showing a lot of scratching and without tearing up the sanding belts, as harder metals tend to do. Some caution is advised here. Wood and metal have different coefficients of expansion and contraction. Wood moves as it picks up and gives off moisture, while metals change dimension with temperature changes. What this means is that metal in

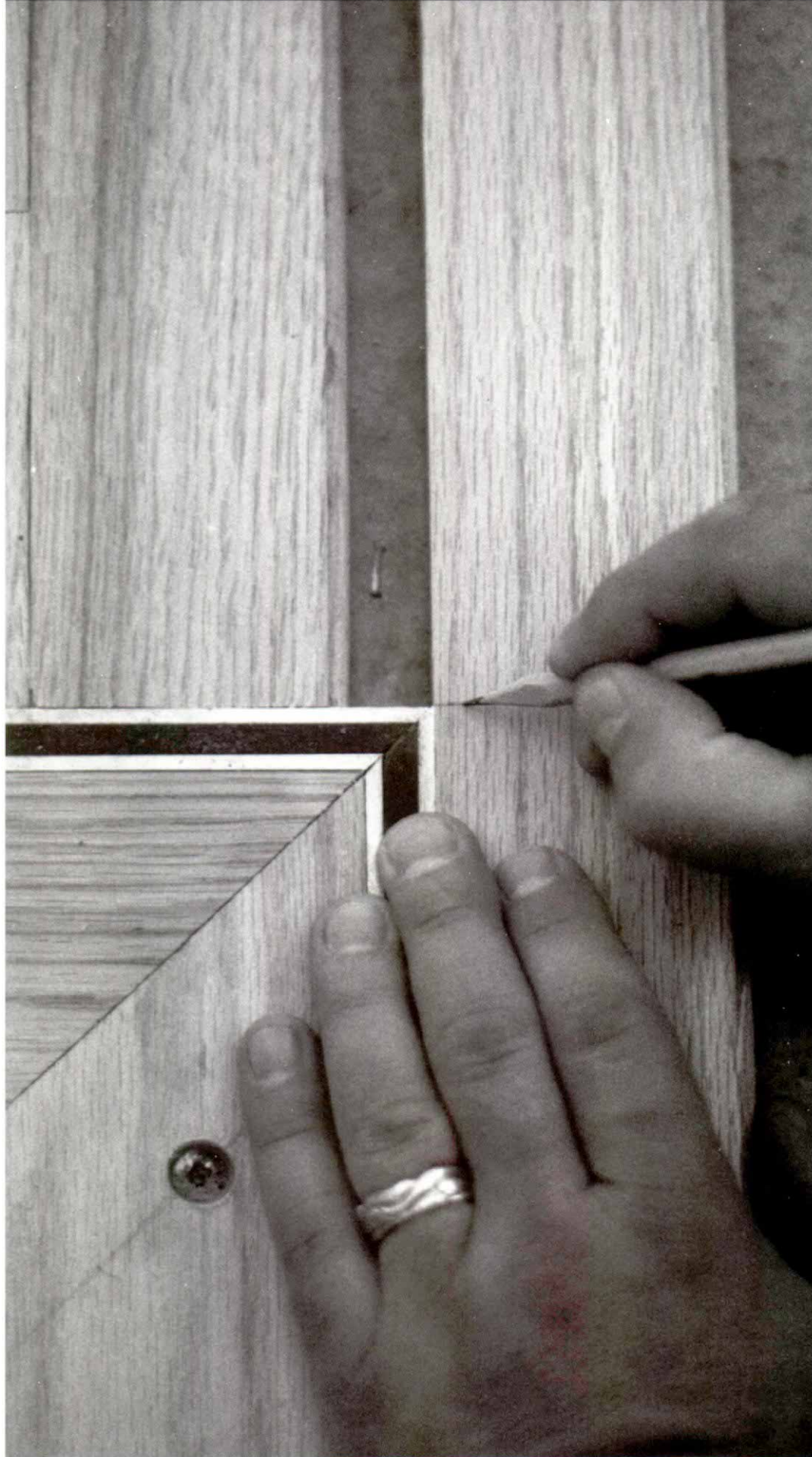
an inlaid floor will sometimes stand slightly above or below the wood surface, creating subtle ridges or grooves. There's really no way to avoid this, and I've found that it's usually not objectionable.

Buy bar stock about $\frac{1}{16}$ in. thick to $\frac{1}{4}$ in. thick and as wide as the flooring is thick. If you have to cut the bar stock, brass and aluminum can be safely sawn on a bandsaw fitted with a metalcutting blade. Ebony, rosewood, padauk, purpleheart, walnut, cherry, mahogany and maple make nice inlay woods, although you could use any species with the color contrast you like. Saw the wood into strips that look good with the metal you intend to use.

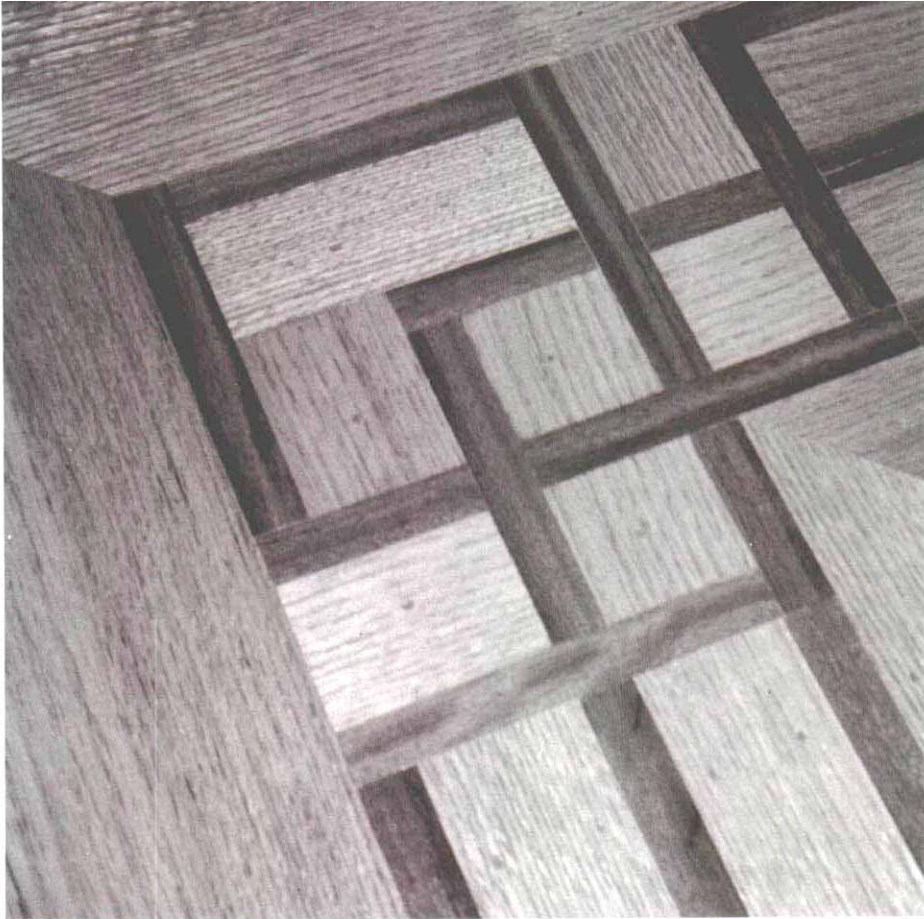
I recommend developing patterns from scraps of wood and metal the actual size you plan to use. These can be dry laid in test patterns. You might even apply finish to see how the various metals and wood will look together—some woods tend to bleed onto adjacent wood during sanding and/or finishing. For bor-



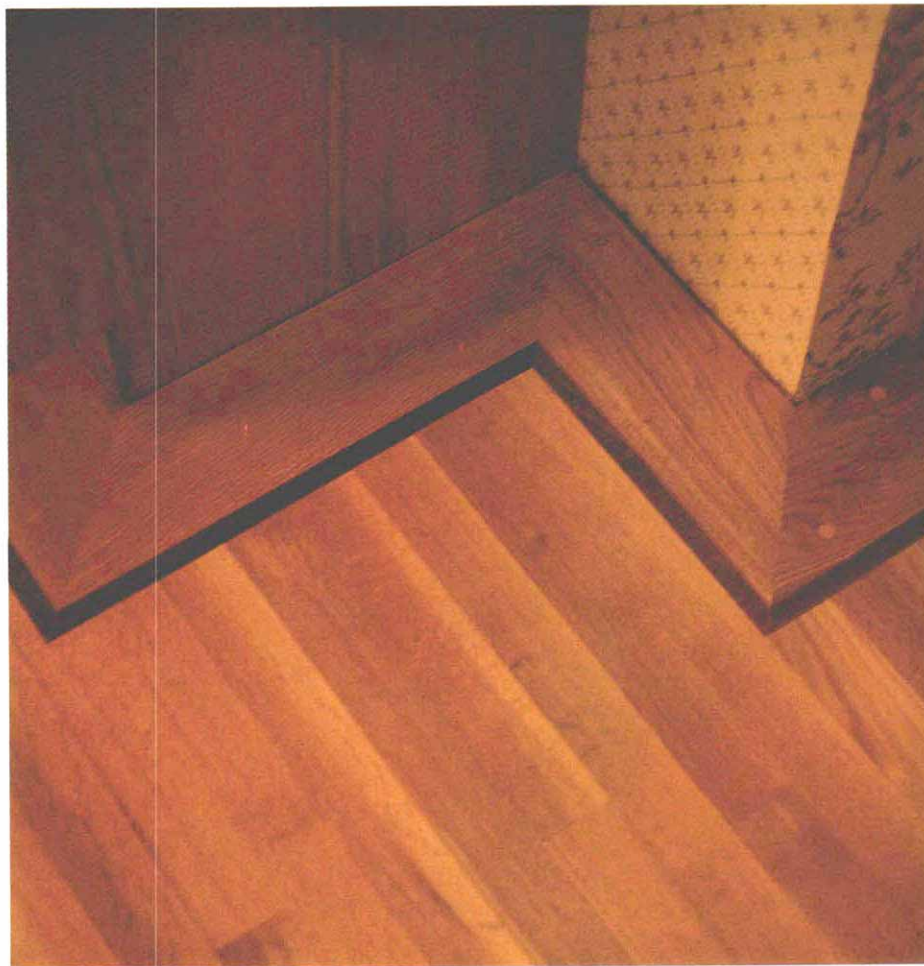
Combination wood and metal inlay should be made up in strips and attached to the flooring or borders on site, with brads (photo above). Bore a hole slightly smaller than the brad's diameter. Flat-head, square-drive screws fasten the border to the subfloor (photo below).



The holes will later be filled with wooden plugs and pared off with a chisel. Once the border and inlay are secure, the rest of the floor can be fitted to them (photo above).



The decorative inlay shown above, a Greek key, is built up as the floor is laid. The inlay is the same thickness as the surrounding flooring. In the photo below, walnut inlay is shown framing a full-room border.



der inlay, I make up the border and inlay in lengths slightly longer than I think I'll need.

Installing the inlay—The inlay is fastened to the edge of the border with brads, as shown in the top left photo on the previous page. The nail holes must be predrilled with a bit slightly smaller than the nail's shank diameter. Clamp the inlay to the border piece, drill on about 4-in. centers, and nail. You might think that epoxy would be a better way to fasten the inlay. It will work, but beware: the heat of subsequent sanding and/or wood movement may break the bond, and there's no easy way to fix the joint if it opens up.

Once the inlay is attached to the border, you can fit the border to the floor. (I prefer to install or at least dry fit all the borders before installing the field of the floor.) Square-drive screws secure the borders; the counterbored holes are filled later with plugs. I use a chisel to pare the plugs flush with the floor surface.

A chop saw fitted with a carbide blade will cut the wood and the metal cleanly, although the cut may need a little touch-up with a file or sandpaper to remove metal burrs. Later, when the floor is sanded, a little touch-up with fine (150-grit) sandpaper will remove the most obvious scratching.

Inlays don't necessarily have to follow a border pattern; they can take on a shape of their own. Using a thin metal inlay around squares of parquet creates a nice effect. This approach requires an extremely rigid and flat underlayment, because parquet tends to deflect more than a strip or plank floor. The subflooring/underlayment combination should be at least 1½ in. thick and set on joists 16 in. o. c. or closer. Because ⅝-in. parquet is too thin to edge nail, I recommend a flexible epoxy adhesive for the metal and a solvent-based adhesive for the parquet. To hold the metal in place while the epoxy sets, tack a metal fence temporarily to the floor and use wedges to clamp the joint.

Border patterns made from combinations of different species are still done now and again, although their heyday was during Victorian times. Greek keys or French knots consist of full-thickness patterns inlaid into a strip or plank floor. These are more readily done in square-edge flooring that can be face nailed or glued. T&G strips complicate the procedure.

The Greek key shown in the photo above was made up of individual pieces of contrasting wood, and the field of flooring was laid up to the pattern. If you really want a durable pattern, rather than face nailing, install a slip tongue or spline into grooves cut in both the pattern wood and the flooring field. This requires a lot of extra work, but it will pay off in a stronger joint. And if you really want a distinctive floor (and don't mind three times the work), border the room's entire perimeter (photo left). □

*Don Bollinger is a wood-flooring specialist in Seattle, Washington. This article was excerpted from his book *Hardwood Floors*, available this fall from The Taunton Press. A companion videotape is available.*