BY CHARLES PETERSON

Inlaying a floor medallion

A safe rout. *It's smart to mark the medallion's location before you begin to install the flooring. It's an easy way to avoid driving nails where they might make contact with the router bit.*

n the 20 or so years that I've been installing wood floors, I can't bear to throw out scraps, especially from the more beautiful, exotic wood species that I've been asked to use. Instead, I turn these scraps into the focal point of any hardwood floor. I recently dug into my scrap pile and used wenge, cherry, and maple to create a star medallion for an entry hall.

Assemble the medallion

There aren't many rules for making a floor medallion. I always start with a full-scale drawing, labeling the wood species for each part. Most of the medallions that I make follow a pattern with a lot of similar shapes and sizes.

The medallion pieces must be cut accurately. The fastest, safest, most accurate method for cutting is with a crosscut sled made to fit your tablesaw. These sleds are easy to make ("Tricks of the Trade," left). They also are extremely accurate, and more important, they help to keep fingers safely away from the sawblade.

When all of the medallion pieces are cut, I assemble them into a single unit. If the medallion is made from ¾-in. stock, I glue together the pieces and apply clear packing tape over every seam. Thinner stock (such as the material that I used for this project) can be glued to ½-in. Baltic-birch plywood. Either way, the completed medallion then becomes a layout tool.

Install the floor first

The easiest way to install a floor medallion is to rout out a hole in the flooring, then drop it in. If the medallion is for a new floor, I lay out its position on the subfloor before the flooring goes in. Because I install the flooring first and then cut out for the medallion, I make a bold reminder to the guy with the nailer (me) not to nail in the

A TABLESAW SLED FOR SAFE, ACCURATE CUTS

The sled's plywood base rides on hardwood runners that fit snugly in the tablesaw's miter-gauge grooves. Tall front and back fences are screwed to the base at a right angle to the kerf made by the blade. Here, a 45° angle guide is added for miter cuts.

ASSEMBLE THE ROUTER TEMPLATE AROUND THE MEDALLION

The medallion is repositioned after the flooring is installed. Template blocks are cut and numbered around the perimeter of the medallion. Double-face tape holds the blocks in position, and each block is glued to its neighbor. One block is left out so that the medallion can be removed easily.

Double-face tape

Masking tape

Template block
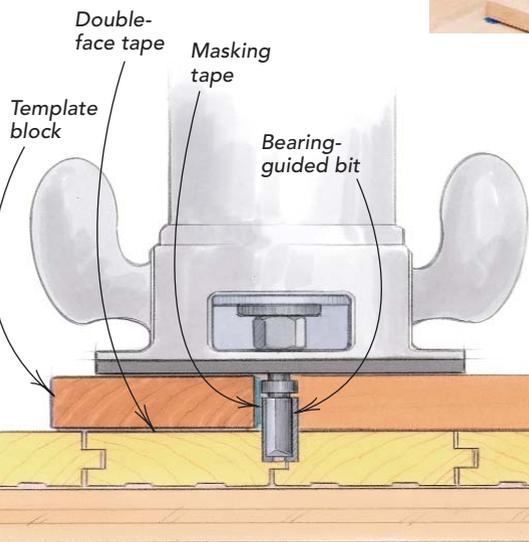
Bearing-guided bit

Template blocks guide the medallion cutout

Template blocks installed with double-face tape guide the router to cut the hole for the medallion. A straight-fluted bit with a top-mounted bearing does the cutting. Layers of masking tape smooth the inside of the template and decrease the size for a tighter fit.

Don't cut all at once. *Several shallow passes with the router cut through the flooring safely and easily. Above, a crew member holds a vacuum to keep dust and mess to a minimum. After the final cut, the waste is removed (photo right).*

field of the medallion (photo top left, p. 142). As the boards go in, I also like to glue any butt joints that fall near the medallion.

If the medallion is going into an existing floor, I position the medallion, then find all the nails in the field with a magnetic nail finder. If a nail falls in the way of my cut, I usually can move the layout slightly to avoid hitting it.

The router template is built in place

When the floor is complete, I reposition the medallion on the floor. Because medallions are seldom perfectly symmetrical, I trace around the perimeter of the medallion and use index marks (on the floor and on the medallion) to make sure that I can reposition the medallion exactly.

Next, I cut blocks that fit tightly around the medallion for the router template (photos above). If I can get away with it, I tack the blocks directly to the floor. With this maple floor, nail holes would have been visible, so I attached the template blocks with double-face tape instead. For a smooth router cut, the blocks must remain stationary. So I also joined the template pieces to each other with glue. Because the template pieces fit tightly around the medallion,

Drawing: Dan Thornton

Cutting corners. A corner chisel squares off rounded corners left by the router bit.

don't attach the last piece until you lift the medallion free.

Rout in several shallow passes

To make sure of a tight fit for the medallion, I applied several layers of masking tape around the inside edge of the template. Then I drilled holes in the floor at several spots inside the template to help with starting the router.

I make the cuts with a pattern-cutting bit. This straight-fluted, carbide-tipped router bit has a top-mounted bearing that rides on the inside of the template (drawing, p. 144). The first cut should be less than ¼ in. deep so that it just exposes the top of any nails I may have missed. If necessary, use a nail set to sink any nails safely out of the bit's path.

I make three or four passes to cut down to the subfloor, then remove the waste. A cor-

ner chisel squares off the rounded corners left by the router (photo left). Before test-fitting the medallion, I make sure all the edges are clean and smooth, and that the hole is clear of debris.

I glue the medallion in place using urethane wood-flooring adhesive like Franklin 811 or Bostik Best (photo bottom left). As a last resort, I have used a plywood subfloor adhesive. Do not use a liquid-nail product; it is too rigid. I tap the medallion into place with a hammer and a wood block, and I weight it down until the glue is dry. A few passes with a floor sander level the medallion with the surrounding floor.

Charles Peterson is busy installing medallions and borders in every floor of his Gales Ferry, Conn., home. Photos by Roe A. Osborn, except where noted.

Glue and tap. Subfloor adhesive that stays flexible after it sets holds the medallion (photo above). A wood block cushions the hammer as the medallion is tapped into place (photo right).