TAUNTON'S

Fine WoodWorking®

Arts & Crafts Mantel

A project plan for building an elegant overmantel

©2009 The Taunton Press

A Mantel with a Mission
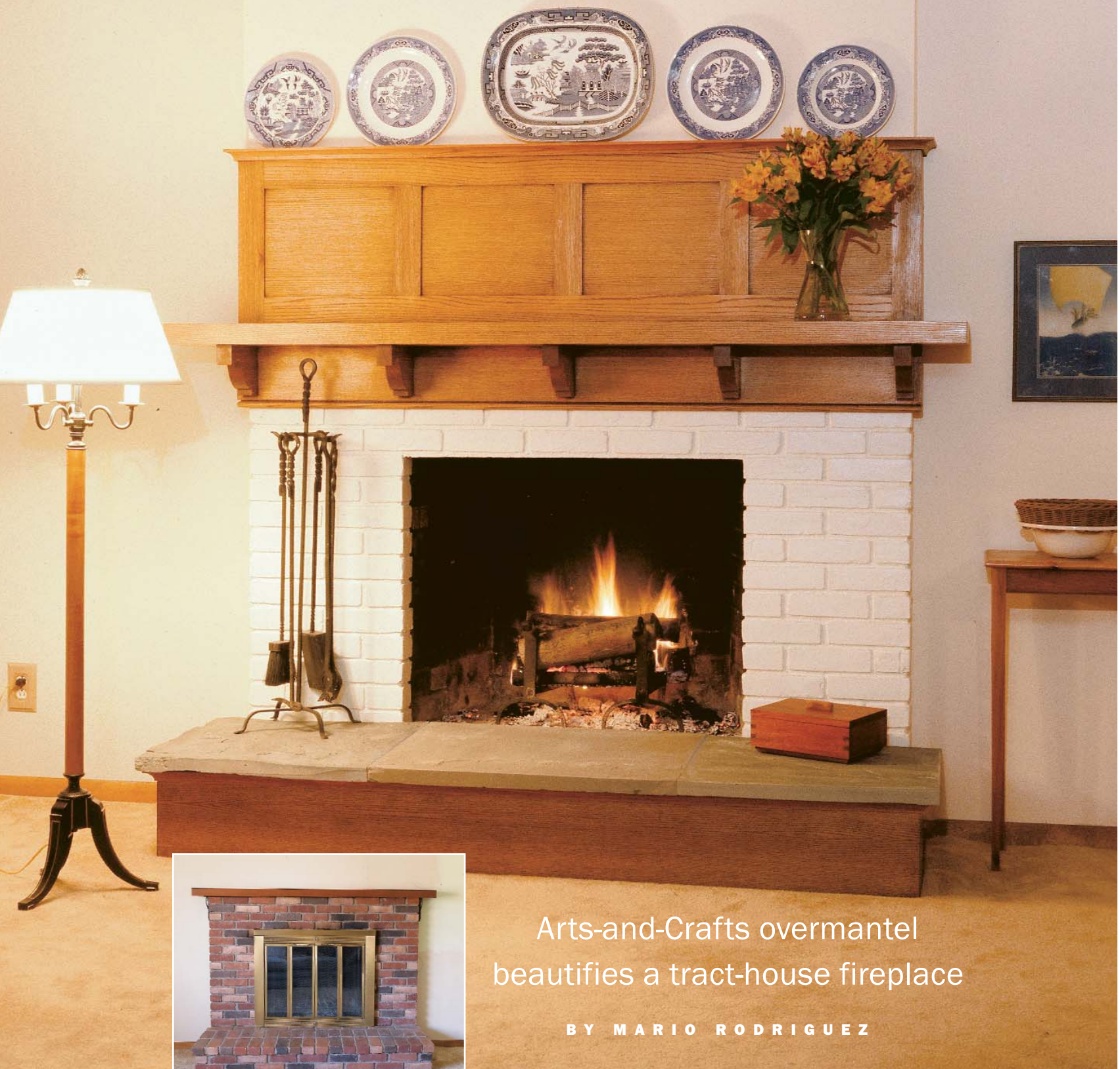
Arts-and-Crafts overmantel
beautifies a tract-house fireplace

BY MARIO RODRIGUEZ

Some friends of mine live in an attractive but indistinguishable Ranch-style house. Built in the 1970s, it's a typical tract house, produced cookie-cutter style to fit a tight budget and a streamlined modern lifestyle. They loved the house when they bought it, but they always knew there were a few things they would want to improve. First on their list was to do something with the plain brick fireplace and raised hearth in the living room.

When they came to me looking for a nice wooden mantel, it took some time to find a design that matched the house, the furnishings and the owners' tastes all at the same time. The raised hearth was originally intended to make a cozy fireplace perch. A nice idea, but it brought up a design problem I've never had to deal with before: Exactly what kind of mantel do you install on a raised hearth fireplace?

After looking through a number of books and a lot of experimenting at the sketch board, I decided a simple wrap-around mantel in an Arts-and-Crafts style would work nicely. A wrap-around mantel would enhance the horizontal sweep of masonry, not fight with it. I also considered ease of construction and time and materials. With a little planning, I'd be able to construct the majority of the mantel in my own shop and install the whole job with only a day's work in my friends' living room.

The design I settled on calls for a simple four-panel overmantel and a 2¼-in.-thick mantel shelf. I wanted the mantel to appear well-balanced and symmetrical, so I designed the shelf to rest on five brackets that are all directly in line with the stiles on the overmantel.

A bluestone slab on top of the hearth would be an attractive way to cover the brick, and a wooden skirt around the raised hearth would hide the masonry, tying the hearth and mantel together visually. I didn't want anything to detract from the design or distract the viewer, so I chose rift-cut red oak, both solid and plywood. This combined the rich, rough surface of oak with an inconspicuous dead-straight grain.

I was able to speed the construction process by doing most of the work in my own shop and reducing the number of cuts I had to make for the joinery (see the photos above). I used plywood with a solid frame to make up the four-panel overmantel. For the rails and stiles, I used ¾-in.-thick red oak, milled with a ¼-in. plow, ¾ in. deep and centered on the inside edges of the frame. This one groove acted as both a mortise for the stub tenons and as the groove to hold the panels.

For the ¾-in. stub tenons on the ends of the rails and short stiles, I used a tablesaw to cut the shoulders and a bandsaw to cut the cheeks. Then I installed a dado blade on the tablesaw to cut rabbets into the ½-in.-thick plywood panels. All the joinery was cut with only a few machine setups. The frame-and-panel overmantel slipped easily together for glue-up in the shop. The plywood re-

QUICK FRAME-AND-PANEL JOINERY

Single groove does double duty. *A groove plowed with a dado blade serves as both the mortise for the tenons and the groove to hold the panel.*

Stub tenons make it plenty strong. *With the shoulders cut on a tablesaw, a bandsaw completes the stub tenons on the ends of the rails and short stiles.*

Fast rabbets with a dado blade. *The panels are rabbeted with a dado blade. The frame-and-panel overmantel is glued up before it leaves the shop.*

turns were mitered to the end stiles for a cleaner, more seamless look. I used biscuits to align and secure them in place.

A plywood mantel shelf is lightweight

If I had used a 2¼-in. slab of solid red oak for the shelf, it would have added considerable weight. Instead, I used two layers of ¾-in. red-oak plywood with ¾-in. plywood strips as spacers. The use of plywood also eliminated cross-grain movement or shrinkage, which could be considerable so near a source of heat.

I cut two identical pieces to make up the top and bottom of the shelf. One of the spacers is placed flush with the front of the shelf; the other is inset ½ in. from the back. Leaving this room on the back edge reduced the amount of material I'd have to trim to get a snug

fit when the shelf was installed.

With the shelf built up to a thickness of 2¼ in., I glued plywood spacers on each of the returns that extend back to the wall. When the shelf was dry, I edged the entire lamination with red oak cut to a light ⅛ in. thick on the tablesaw. When the glue had dried, the overhang was carefully trimmed flush to the plywood with a block plane, then scraped and sanded.

Cut everything ahead of time

The mantel skirt is made of ¾-in. red-oak plywood, mitered at the outside corners and later nailed into place. I prepared the wood for the mantel skirt, but I did not assemble it in the shop. By leaving the skirt in parts, I could easily scribe the returns to the wall before they were attached.

I knew that there would probably be a conspicuous gap between the masonry and the skirt's bottom edge. I also knew that the exposed plywood edge of the skirt would have to be covered. A simple and attractive way to deal with both problems was to attach a quirk-and-bead molding along the bottom edge of the mantel skirt. I used a ¾-in. beading bit to run off two 8-ft. pieces from clean, straight-grained oak. This allowed me a little more than I'd need.

For the cornice molding, I used a simple 1⅝-in. cove molding from a local lumberyard. This type of molding is usually a stock profile and shouldn't be difficult to find.

Because of their prominent position, the brackets on this mantel must be well executed: clean square edges and smooth flowing curves. Aside from the installation, they're probably the most demanding part of this job. The method I use ensures crisp edges and reliable curves (see the photos on p. 74).

The skirt around the hearth does more than just cover the bricks: It's the key to connecting the hearth and mantel visually. The hearth skirt is also made of ¾-in.-thick red-oak plywood mitered at the corners and tacked over cleats that are screwed to the brick. With the plywood for the hearth skirt cut to size, my work in the shop was almost done.

Finish before mantel is attached to the wall

Finishing can be a slow and tedious process if you wait until the whole piece is assembled and installed. The process goes much
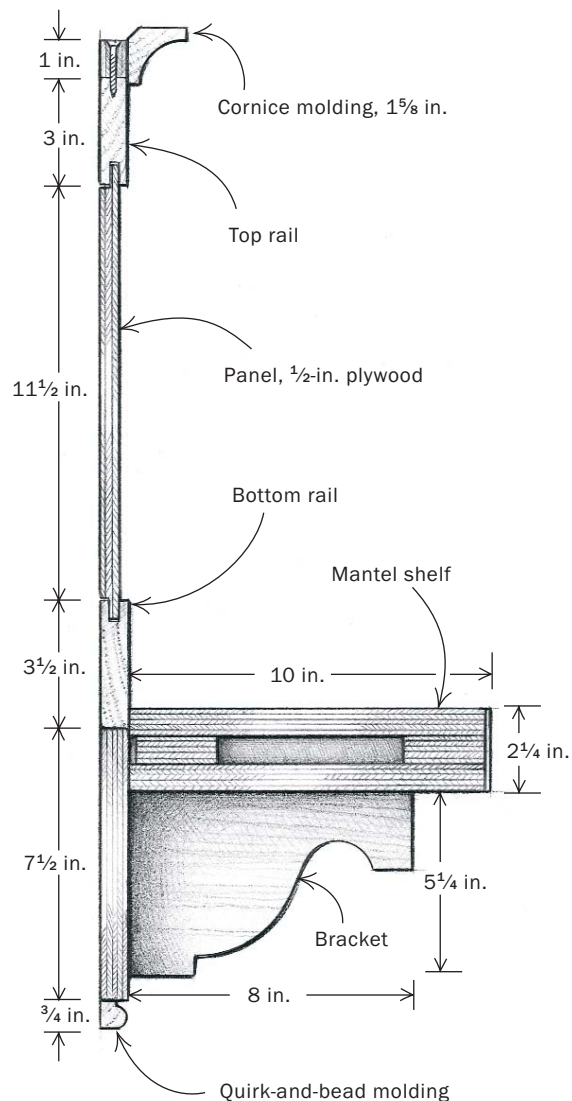
PREPARATION IS KEY TO SUCCESS

Starting from scratch. To make this design work, the area above the fireplace was built out flush with the brick. A 2x4 frame was attached above the fireplace; drywall and mud made it a workable wall. All the stud positions were marked, and measurements were taken to make sure the mantel went up without a hitch.
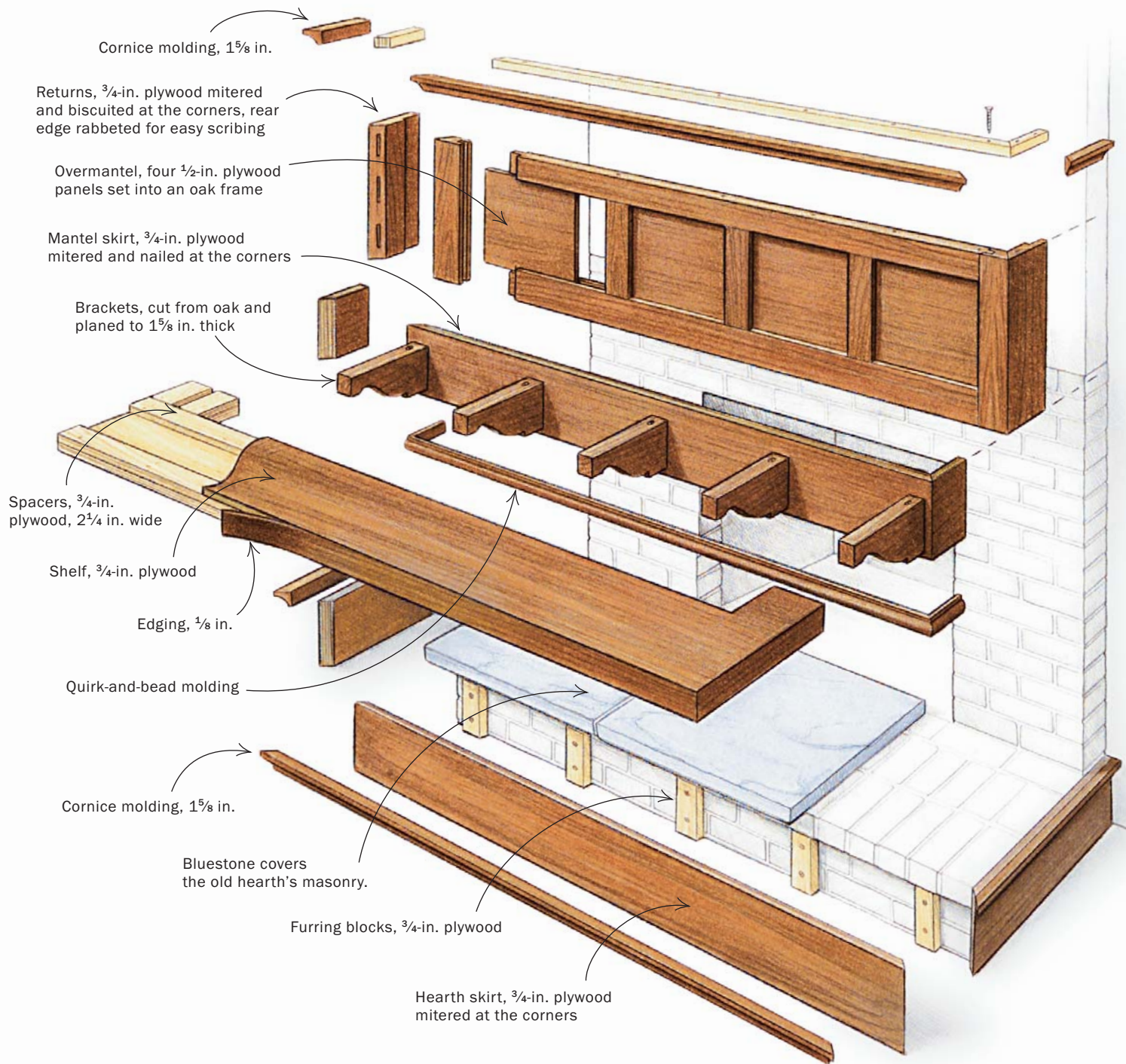
ARTS-AND-CRAFTS STYLE OAK MANTEL

This mantel was designed to revive an old fireplace with a raised hearth. The use of a straight-grained wood draws attention to the design. Small details like a repeated cornice molding tie the hearth and overmantel together visually.

Cornice molding, 1⅝ in.

Top rail

Panel, ½-in. plywood

Bottom rail

Mantel shelf

Bracket

Quirk-and-bead molding

1 in.
3 in.
11½ in.
3½ in.
10 in.
2¼ in.
7½ in.
5¼ in.
8 in.
¾ in.

faster when things can be laid out flat in your own shop before you have to be careful with someone else's walls.

After all the parts were sanded with 220-grit paper, I applied a light honey-colored oil-based stain by Minwax (Ipswich pine) with a 2-in. brush and wiped up drips with a rag. When the stain was dry, I coated all the parts with two light coats of orange shellac. This gives the oak a very rich color with a slight orange cast. If your taste runs to a cooler shade of oak, you can use blond shellac instead of orange. To get a satin finish, I gently rubbed out the shellac with steel wool between coats.

Rubbing out woodwork usually results in cut-throughs—spots on the sharp outside corners where the color and finish have been rubbed through by the steel wool. To repair these spots, I ran a medium-brown furniture marker along the exposed edges,

Cornice molding, 1⅝ in.

Returns, ¾-in. plywood mitered and biscuited at the corners, rear edge rabbeted for easy scribing

Overmantel, four ½-in. plywood panels set into an oak frame

Mantel skirt, ¾-in. plywood mitered and nailed at the corners

Brackets, cut from oak and planed to 1⅝ in. thick

Spacers, ¾-in. plywood, 2¼ in. wide

Shelf, ¾-in. plywood

Edging, ⅛ in.

Quirk-and-bead molding

Cornice molding, 1⅝ in.

Bluestone covers the old hearth's masonry.

Furring blocks, ¾-in. plywood

Hearth skirt, ¾-in. plywood mitered at the corners

THREE STEPS TO PLACE A MANTEL

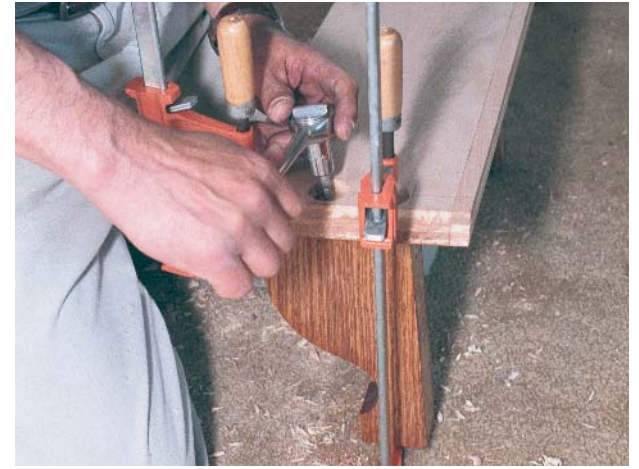**Overmantel slides onto the wall.** *With the overmantel shimmed level, driving a few screws ties it to the wall.*

Skirt abuts the overmantel. *Shims guarantee that the overmantel and skirt meet flush.*

Shelf fits easily onto the brackets. *Using reliable measurements in the planning stage ensures the shelf seats itself perfectly level.*

A single lag bolt secures a bracket in place. With the bracket clamped at a perfect right angle to the skirt, the author has two free hands to secure a lag bolt from behind.

BRACKETS WITH PERFECT CURVES

The eye notices when a curve is not exactly circular. *Using a Forstner bit gives the author a true and reliable curve.*

A tablesaw keeps the edges square. *A tablesaw and a crosscut box are used for an exact cut on the bracket's square ends.*

A fresh blade and a steady hand. *The rest of the outline is finished on a bandsaw fitted with a fresh ¼-in. 6-tpi blade. After completing the outline of the brackets, a series of rasps, files, scrapers and sandpaper produces a smooth surface free of any machine marks.*
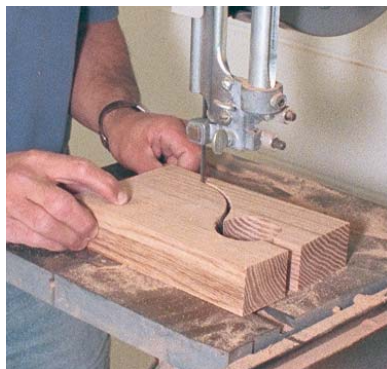
quickly blending them in. The mantel could be installed and this finish left alone, but by applying a glaze after installation, you see a real transformation in the room (see the box on the facing page).

Tap-Con screws make installation easy

With most of my work already done, the mantel went into place quicker than I thought it would. Figuring that the top surface of the mantel shelf should be about 53 in. from the floor, I marked the wall to help me place the overmantel's bottom edge. Along the top edge of the overmantel, I screwed a strip of ¾-in. plywood. The strip allows me to use a narrower top rail and limits cross-grain movement at the joint. The plywood strip will also flex, so there is no strain or pressure on the solid top rail when the overmantel goes onto the wall.

Next I centered the brackets under the overmantel stiles and attached each with a single countersunk lag bolt from behind (see the top right photo above). A single bolt will secure the brackets to the mantel skirt but will still allow them to be pivoted slightly.

Hanging the mantel skirt is a critical step in the installation. If the skirt doesn't go up perfectly plumb and level, the shelf will have either a forward or backward pitch. I inserted shims behind the skirt and directly underneath each bracket to ensure that the placement was just right. With the brackets pivoted out of the way, a few Tap-Con screws tied the whole unit into the wall.

Those Tap-Con masonry screws were key to a simple installation. I've used the bright blue screws before on another mantel installation and was surprised at the simple two-step procedure. Instead of using lead or plastic anchors, Tap-Con screws only require one simple pre-drilled hole before driving the screws home. Once home, they hold tight, and nothing short of a pry bar will loosen them. But they can be easily withdrawn with a screw gun if

The brackets twist away. *When the skirt slides over the brick, the lag bolts allow the author to twist the brackets for easy access to a hidden spot to sink a screw.*

A screw locks the bracket. *After the skirt is tied to the wall, a screw is driven at 45° to hold the bracket permanently in place.*

Shelf is attached from underneath. *The shelf goes onto the brackets, and an inconspicuously placed screw keeps it there.*

something has to be repositioned or removed.

I snugged the tip of the ¾-in. plywood skirt to the bottom edge of the overmantel and secured it with four Tap-Con screws. These screws are hidden when the mantel shelf is in place. I made sure the brackets were all level and ran a screw diagonally from the top of the brackets into the mantel skirt to give them extra strength.

The shelf was designed to extend 5 in. beyond the corner of the overmantel and 10 in. from the overmantel face. It should fit without much trouble around the overmantel and onto the shelf brackets. I used a plane and a 2-in. chisel to trim the inside of the shelf for a snug fit against a wall that wasn't completely square. A few 1½-in. #8 screws driven through the bottom side of the bracket were used to hold the shelf tight.

I attached a few furring blocks to the hearth's masonry with Tap-Con screws so that I'd be able to nail the skirt in place. The ¾-in. plywood skirt had already been mitered and cut to the right width in the shop, so I only had to make sure everything fit. I trimmed the ends of the returns with a jigsaw to get a tight fit against the

molding on the wall. Glue and a pneumatic nail gun with 1¼-in. finish nails secured everything.

Applying the molding made the whole thing come together. I used the same molding at the top of the overmantel as I did at the top of the hearth skirt, so everything looked natural and seemed to belong. I cut miters for all the molding on a power miter box at the site, and then I nailed it into place with my pneumatic gun. Later, the nail holes were filled with a dark wax. I also ran a bead of caulk between the masonry and the mantel skirt to make sure no stray sparks could get trapped.

With all the parts pre-finished, I applied a quick glazing to knock off the high shine and give the mantel a subtle, mature look (see the box below). When the stone was placed on the skirt as a final touch, the mantel seemed to have been ripped out of a Frank Lloyd Wright home and installed in my friend's living room. The only thing left to do was build a fire.   □

Mario Rodriguez is a contributing editor to Fine Woodworking *magazine.*

An aged look that doesn't take 50 years

With a glazing gel, I can make the mantel look either slightly old or very old. I start with McCloskey's glaze and stir in a raw umber Japan color until I get an almost chocolate color with a yogurt consistency.

I paint a thick coat in the spots that I want darkest: the recesses and the areas where stray smoke would have inevitably darkened the wood over time. But I barely touch the parts I want to stay light.

I let that dry a few minutes, apply another coat if necessary and start pulling off the glaze with a piece of cheesecloth or

an old T-shirt. If a spot looks too dark, a little paint thinner on a rag will pull it up. I leave it dark in the crannies where furniture polish, oils and dust would have accumulated with age.

When I'm happy with the shading on the mantel, I wipe it quickly one last time, using a rag and a tiny bit of thinner.

After a few days of drying, a light coat of shellac or wax will tie down the glaze. This painless process subdues the mantel and conjures an aged, smoky appearance that seems natural in the room. —M.R.