

# Mirror Image

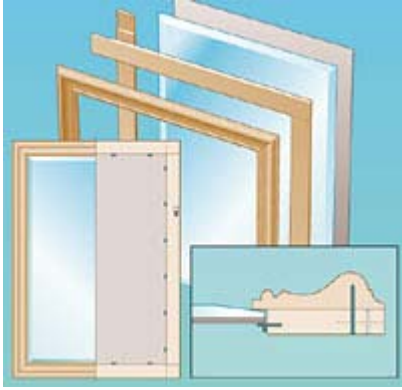
An easy-to-build hallway mirror.



The simple lines of this mirror make it suitable to fit almost any decorative theme. So if you have a vacant space on a wall in need of an attractive and practical adornment, this elegant beveled mirror could serve nicely.

The frame is quick and easy to build, and you don't need a full-fledged shop to do it. We show you how to do the job with just a few basic hand tools and a portable circular saw. The trick is to use stock lumberyard materials: 2-5/8-in.-wide chair-rail molding and 1/2-in.-thick x 2-1/2-in.-wide pine stripping.

Of course, you also have to buy a beveled-edge mirror at a glass and mirror shop.



### Frame Construction

Both the face frame and the rear frame are made from two pieces of molding, each 12 ft. long. The stock must be perfectly straight for this project. For easier handling, cut the pieces to rough length. From each piece, cut two pieces 30 in. long and another two 42 in. long.

First make the short lengths of the face frame. Begin by making a mark for a 45° miter on the molding's inside edge. Keep in mind that the dimensions on our diagram are based on molding that is 2-5/8 in. wide. If that is the case with your molding, the short length of each of these pieces will be 23-1/2 in. That is, the inside miter marks are 23-1/2 in. apart. If your molding is of a different width, adjust the length accordingly.

Position the molding in the miterbox, and align the miter marks on the molding with the saw kerfs in the box. Use masking tape to hold the moldings firmly in place, and use wood blocks to take up the empty space between the molding and the inner face of the miterbox. The molding should be held firmly against the side of the miterbox opposite you. Start the cut by making a few light backward passes with the saw (Photo 1). Finish cutting these pieces, and then cut the long face frame pieces in the same manner.

Test fit the frame pieces on a flat surface. Then spread glue sparingly on the miter faces, and place the pieces on waxed paper to prevent them from sticking to the workbench. Apply pressure to the miters with masking tape (Photo 2). Place a drafting square in the corner of the frame to ensure that the pieces remain at 90°.



Cut the miters on the face frame. Use blocks to take up space behind the molding and to stop it from moving.



Apply glue to the miter faces and tape the pieces together. Use a drafting square to ensure the parts meet at 90°.

Crosscut the rear frame pieces to length (note that the rear frame pieces are  $\frac{3}{8}$  in. longer than the face frame). Overlap the ends of the horizontal and vertical rear frame pieces, and lightly nail them together with  $\frac{1}{2}$ -in.-long brads. Use a utility knife to scribe the cutting lines on the pieces (Photo 3).

Next, after the shoulder lines are scribed, line up the pieces on a workbench, and tack nail a cleat across them. Set a circular saw for a  $\frac{1}{4}$ -in. cutting depth, and cut the shoulders across the pieces in one pass. Then, use the saw to make a series of parallel cuts (Photo 4).

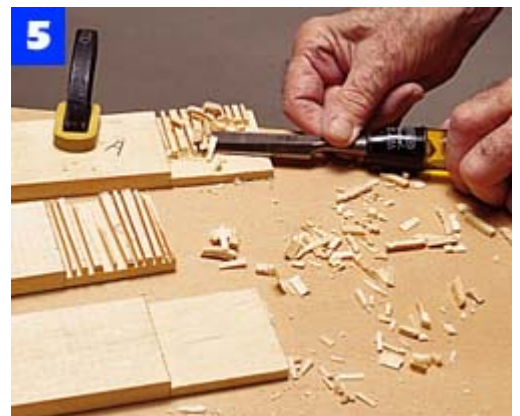
To finish the half-lap joints, clamp each piece to the bench and then pare away the waste with a sharp chisel (Photo 5).



Temporarily nail the rear frame pieces together, and use a utility knife to mark the shoulders of the half-lap joints.



Nail a cleat across the rear frame pieces. Cut the shoulder, and make parallel cuts with a circular saw.



Clamp each rear frame piece to the workbench, and remove the remaining material using a chisel.

Temporarily assemble the rear frame by nailing it together with a few brads. Position the face frame over it so there is an even 3/16-in.-wide reveal on all sides, then tape the inner and outer frames together. Mark the reveal with a pencil (Photo 6).

Disassemble the pieces and clamp them one at a time in a vise. Plane down to the pencil line (Photo 7). Next, place the frame pieces on the workbench, and glue together the half-lap joints. Drive nails through each joint from both directions (Photo 8). Use waxed paper under the joints to prevent the glue that squeezes out from sticking to the workbench.

### Assembly

Place the face frame facedown on the workbench, and place the rear frame over it so that the outside edges of each frame are flush to one another. Take a scrap piece of chair-rail molding, butt it to a stopblock, and set a combination square to act as a nailing guide. Set the end of the square's blade so it is aligned with a mark made over the thickest part of the molding (Photo 9). Using the end of the square's blade to position a finish nail ensures that the nail will be driven into the thickest part of the face frame.

Join the frames together with glue and 1-in.-long nails driven through the rear frame into the face frame.

Place the mirror into the rabbet and install a chipboard backer behind it. This two-ply material is sold at art-supply stores. Use a putty knife to press glazing points into the rear frame (Photo 10). To finish the project, apply two coats of spray enamel primer to the face frame followed by two coats of spray enamel. Do this before installing the mirror.



Tape the face and rear frames together with an equal reveal on all sides. Mark the rear frame with a pencil.



Clamp each rear frame piece in a vise and use a sharp hand plane to remove material down to the pencil line.



Spread glue on both surfaces of the rear frame's half-lap joints. Nail the pieces together from both directions.



Using a scrap piece of molding, set a combination square to act as a guide for nailing the two frames together.



Place the mirror and the chipboard backing in the rabbet, and drive glazing points into the frame.

# MIRROR

