featureproject By Danny Proulx

Pocket Hole Framed Mirror

I designed this framed mirror project for a couple of reasons. First, I needed a hall mirror for my own home, and secondly, I wanted to use pocket hole filler plugs as a decorative element on a large frame.

MATERIALS LIST

2	**3/4″ x 2 1/2″ x 38″**	(A) Hardwood, Stiles
1	**3/4″ x 5″ x 23″**	(B) Hardwood, Top Rail
1	**3/4″ x 7 1/4″ x 23**	(C) Hardwood, Bottom Rail
2	**3/4″ x 1 5/8″ x 30″**	(D) Hardwood, Trim Caps
1	**3/4″ x 3 1/2″ x 26″**	(E) Hardwood, Shelf
1	**23 5/8″ x 28 7/8″ 3/16″ cut to the size required**	(F) Mirror Plate

HARDWARE & SUPPLIES

Pocket Hole Screws
Glue
Wood Screws
Pocket Hole Plugs
Mirror Clips
Mirror Hangers

A wise old cabinetmaker once told me something regarding joinery. He said, "If you can't hide it, celebrate it!" And that's just the case with these pocket holes. I could have put them on the backside of the frame, but decided to show them off - and they look great!

This elegant mirror is simple to build and will be a useful addition for the hall, or any room in your home. It can be used in the bathroom as a vanity mirror, in a bedroom as a dresser mirror, or as an accent piece in any small room that needs to look larger. A mirror has a way of enlarging a space, so it would also be perfect in a small dining room.

One of the advantages of being a woodworker is the ability to custom design and build projects for a specific purpose or space. There are many framed mirrors available in the marketplace, but you'd have to settle for a standard size. A woodworker, on the other hand, can build to any size, and that's a big plus with this project.

I used an illusion with this project to make the top edge of the mirror appear curved. In reality, it is a straight cut plate mirror which is much less expensive than a curved cut mirror. It is the arched top rail of the frame that creates this illusion.

CUT THE FRAME

Cut the four frame parts (A), (B) and (C), as indicated in the materials list. Draw an arc on the top rail (B), following the dimensions shown in the illustration. Use a thin strip of wood, bent around finishing nails along the arc, to mark the pattern. Then, use a jigsaw or scroll saw to cut the arc.

DRILL POCKET HOLES

Drill three equally spaced pocket holes on the ends of each rail (B) and (C). Set your drill bit stop collar so the pocket hole will be about 1/8" deeper than normal. These pocket holes will be filled with wood plugs so you want to make sure they are seated deep in the hole without being limited by the screw head.

DESIGN NOTE

I drilled my pocket holes on the front face of the frame members. You may want to skip the wood plug step, and hide the pocket holes on the backside of the mirror frame. Either option is acceptable.

JOIN RAILS AND STILES

Join both rails to the stiles using glue and 1 1/4" long fine thread pocket hole screws. The outside edges of the rails are set flush with the ends of each stile.

INSERT PLUGS

Fill the pocket holes with wood plugs. I used walnut plugs on an oak frame (as a decorative element). You can choose any combination, or even use the same wood species plug. Use glue in the pocket holes, insert the plugs and, when the adhesive has cured, sand the plugs flat to the frame surface.

ROUTER FRAME PROFILE

Ease the inside frame profile using a 3/8" radius router bit. Then, complete the final sanding of the frame front face.

ROUTER RABBET

Use a rabbeting router bit to cut a 3/16" deep rabbet on the inside back profile of the frame. This will provide a place for the mirror plate to rest.

Each rabbeting bit cuts a little different because of the bit style and diameter of the guide bearing. The width is not critical; as the mirror will be ordered to fit the cut you've created.

SQUARE RABBET

You can order the mirror plate cut with a curved top but that would be more expensive. Instead, use a plain square cut mirror and square the rabbet on the curved top rail.

Use a straight cutting bit in your router, guided by a board, to clean out most of the wood. Remove the remaining material, and square the corners, using a sharp chisel.

COVE CUT EDGES

The upper and lower trim caps (D) are formed with a cove router bit. The cove is cut leaving a 1/4" high lip on the edge. Cove cut the front edge and ends of both pieces.

The cove faces the frame on both bottom and top caps and is centered on the frame. Use glue and 1 1/2" long screws to secure the trim caps. The back edges of (D) are flush with the back face of the frame.

ATTACH SHELF

Shelf board (E) is attached with glue and 1 1/2" long screws driven through the back face of the frame. Round over the two outside corners of this shelf to minimize injury in case someone bumps into the mirror. Set your shelf board 2 1/2" below the bottom rail's top edge and centered on the frame's width.

ROUTER EDGES OF FRAME STILES

Use a 1/4" radius round over bit to ease the outside edges of the frame stiles. The router base plate will strike the upper and lower trim cap limiting its travel. That's OK though, because that's the effect you want to achieve on those edges. Prior to installing the mirror, apply a finish to your frame.

INSTALL CLIPS TO HOLD MIRROR

Use metal clips to hold the mirror in place on the frame. Install the bent clips in 1/8" deep grooves that you've cut into the frame edge with a straight router bit. The clips are held in place with 1/2" long wood screws. Install heavy-duty hanger clips on the frame for mounting on screws driven into the wall. Attach the hanger clips to the stiles, so the upper rail doesn't support the mirror weight.

CONSTRUCTION NOTES

This mirror can be any size. Different applications demand special sizing, so change the dimensions to suit your needs.


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Any wood type can be used and the pocket holes can just as easily be filled with matching or contrasting plugs. I applied three coats of polyurethane to the frame, but an applied stain, to match existing furniture color, is a nice touch.

Be careful installing the mirror clips, as too much pressure can crack the glass. Order the mirror 1/8" less than the overall width and height to accommodate any seasonal wood movement. My mirror supplier uses a standard 5mm (3/16") thick plate, but check with your supplier before cutting the rabbets on your frame.

The curved upper rail is a nice design element and adds a lot of interest to the mirror. However, it's not always suitable for some furniture styles. If your furniture has straight lines (i.e. Shaker) you may want to eliminate the upper rail curve. Also, the coved caps may not suit the furniture style in your home. Really, they can be almost any design (including straight line with cuts, bullnose, or a simple round over) so change them to match your style.

This project is from Danny Proulx's new book, "The Pocket Hole Drilling Jig Project Book". Release date: April 2004. For more info, go to:

http://www.cabinetmaking.com"

DANNY PROULX is a woodworking author and teacher.
www.cabinetmaking.com
or email: danny@cabinetmaking.com

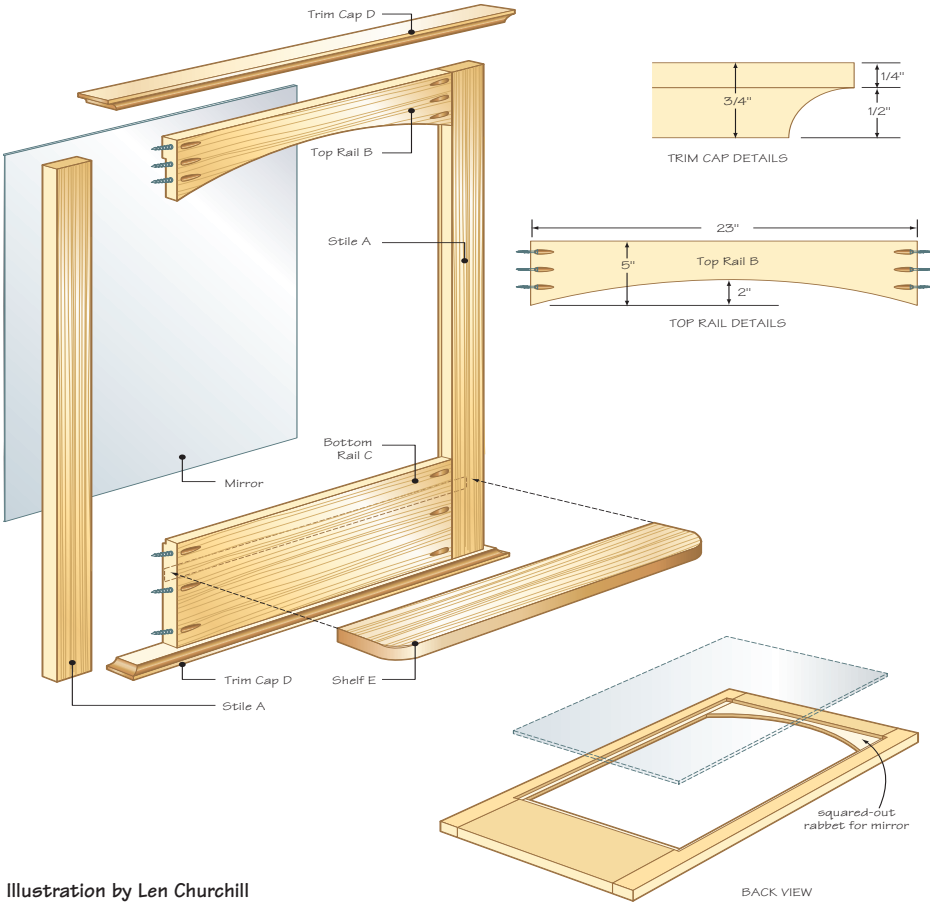

Illustration by Len Churchill