

Remodeling a part of your home — with your own skills and tools — is a great way to save money. More than that, however, it allows you to make a personal statement by virtue of the woodworking you choose to do.

This article is the first installment of a four-part series on home woodwork remodeling. In this installment we'll cover one way that you can make your own paneled doors. In issues to follow, we'll discuss various moldings and paneling techniques you can consider that will bring new sparkle to your home.

Why start with how to make a door? Because doors are a focal point in any room. Larger than any picture you have hanging on the wall, a door can and should be a work of beauty. It should accent the expanse of wall space.

One of the favorite door styles throughout Western history has been the frame and panel door. The woodworking theory behind it is simple. A door made of solid wood will split and crack due to the expansion and contraction caused by changing humidity. A door made up of many smaller panels can react to humidity changes with little visible alteration. The result is that the smaller panels last longer and work better.

The plans given here are for an interior "Cross and Bible" door. The name comes from the configuration formed by the stiles, rails and mullions — a "Cross" in the upper section, and an open "Bible" in the lower section. You can follow the design in these plans or create a door all your own using the techniques shown.

1. Plan ahead. Measure the opening. Check for squareness of the opening by placing a carpenter's square against each side jamb and the header jamb. If a door is already there

and it fits well, take your measurements off of that. Be sure to check for the door thickness you want. Our plans are for a typical interior door 1-3/8-in. thick.

2. Selecting your stock. Frame stock can be planed to the proper thickness on the thickness planer or you can request your local sawmill or lumberyard to do this for you. Raised panels are made from 3/4-in. stock. Plain panels can be made from 1/4-in. hardwood veneer plywood. Select clear grained, straight stock for your door. Clear, knot-free ponderosa pine is the wood commercial door makers use most often. Other clear softwoods will do as well as clear hardwoods.

3. Rip frame pieces to width on the table saw. These include stiles, rails, and mullions. Cut the stiles to the correct length (the height of the door). Add a few inches to the rails and mullions so you can cut these to fit later.

4. Cut the 1/4-in. x 3/8-in. deep grooves on the inside edges of the stiles and the top and bottom rails, then on both edges of the remaining rails and mullions.

5. Mold the ends of the rails and mullions (see Fig. 1) using the molder with the coping knives of the 3/16-in. bead and cove set (505927) (see Detail, p. 27). Cutting each side of the stock will form a 1/4-in. tongue. When measuring for the final length of the rails and mullions, make sure you measure from the bottoms of the grooves on the stiles and rails before you cut to length. Making these coping cuts requires that your stock be held vertically. Use the Panel Jig with the vertical strip on the back edge (see p. 18 for this jig) to steady the stock. Test fit the frame pieces together.

6. Mold all the inside edges with the sticking cutter of the same 3/16-in. bead and cove set.

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