

# adding the Drawers, Doors, & Shelves

As I mentioned earlier, the position of the web frames that make up the drawer cabinet sets the opening for each drawer and therefore its size. So before you start building the drawers, the only thing to determine is the type of joinery you want to use to assemble them.

**Half-Blind Dovetails.** I used half-blind dovetails to assemble my drawers, like you see in Figure 7. But the box at the bottom of the opposite page shows an optional drawer joint you can use.

Regardless of the type of joint you decide on, it's always a good idea to double-check the measurements for each of the drawer openings. Then, after allowing for a  $\frac{1}{16}$ " gap around all the edges, you can cut all the parts to size and complete the joinery.

**Add the Bottoms.** With the joinery complete, the next step is to cut a groove on the inside face of each part for the  $\frac{1}{4}$ " plywood bottom. This groove is centered on the bottom pin of the drawer sides (Figure 7c). This way, it won't be visible on the sides once the drawers are assembled.

After cutting all the grooves, you can trim the drawer bottoms to size and glue up the drawers. Then, just add a pair of knobs to each drawer.

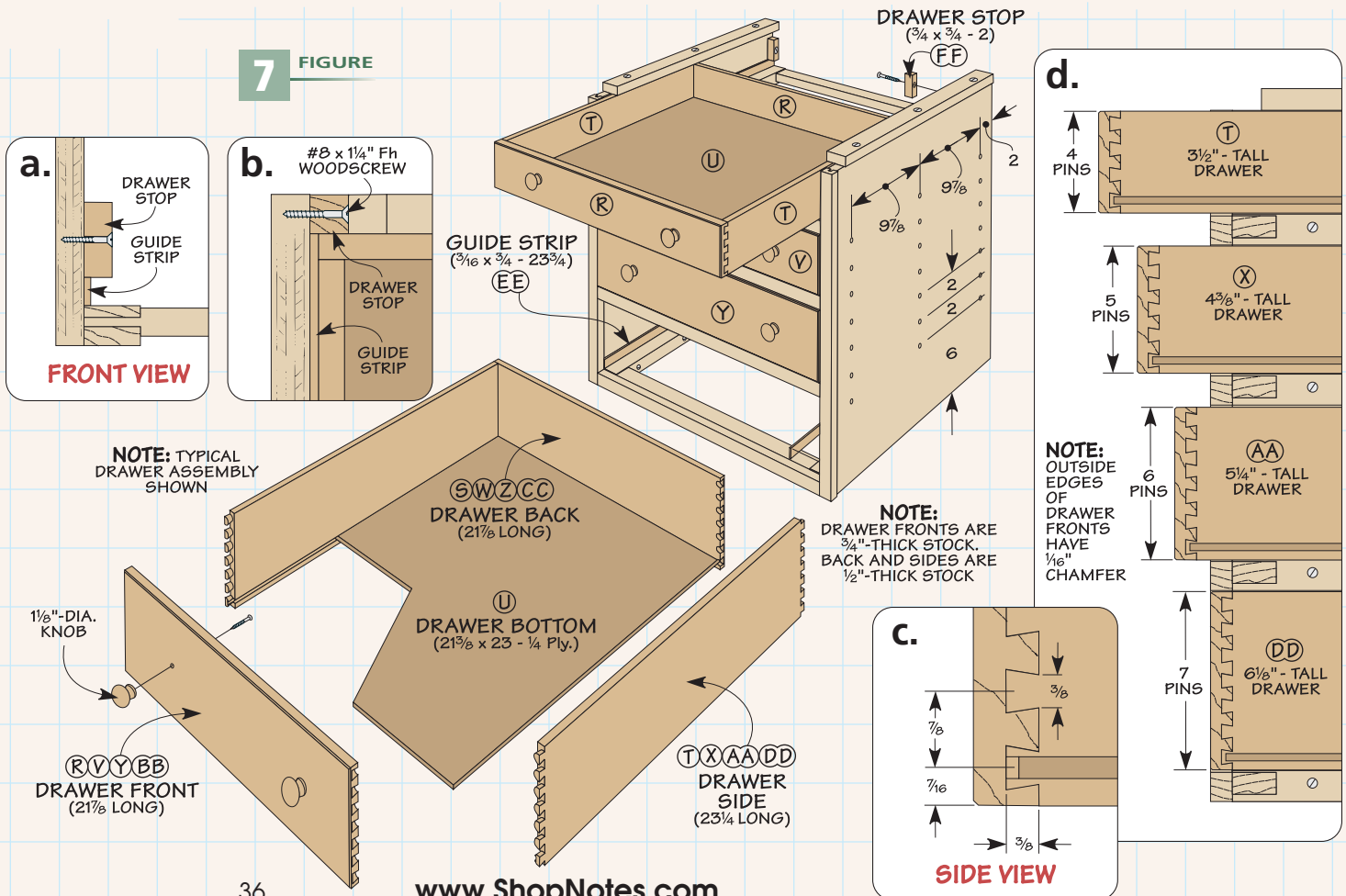
**Guide Strips & Stops.** Now that the drawers are complete, you're just about ready to install them in the cabinets. But first, to keep the gaps consistent from side to side and allow the drawers to slide smoothly, I added guide strips to the cabinet. These thin strips are

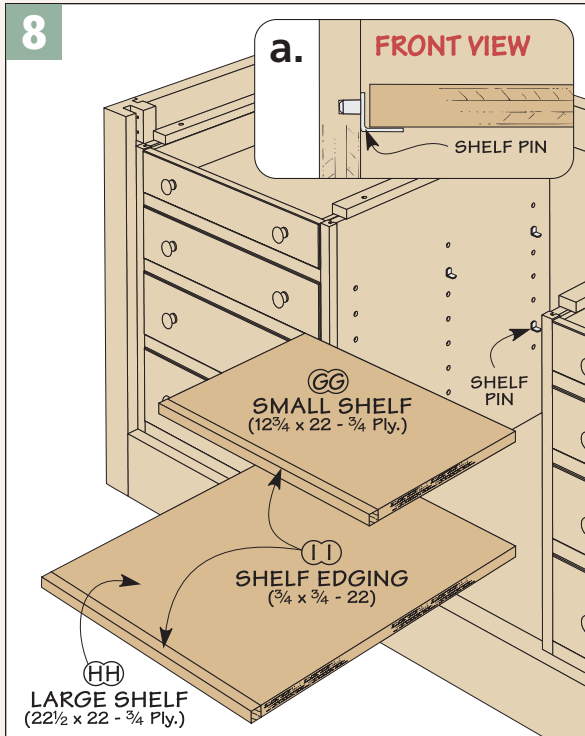


simply glued to the sides of the cabinet, as in Figure 7a.

Once the strips are in place, you can add drawer stops to the cabinet. The stops are glued and screwed in place (Figure 7b) so the face of each drawer front ends up flush with the front of the cabinet.

**7** FIGURE





### ADDING SHELVES

If you chose to leave the center compartment open, now is a good time to add the shelves. You can make full shelves or half shelves — or one of each, like I did (Figure 8).

**Make the Shelves.** Each shelf is just a piece of  $\frac{3}{4}$ " plywood with a strip of solid wood glued to the front. Just be sure to account for the shelf pins when you trim the shelf to final length (Figure 8a).

Once the shelves are complete, you can drill the holes for the shelf pins (Figure 7) and then set the shelves in place.

### FRAME & PANEL DOORS

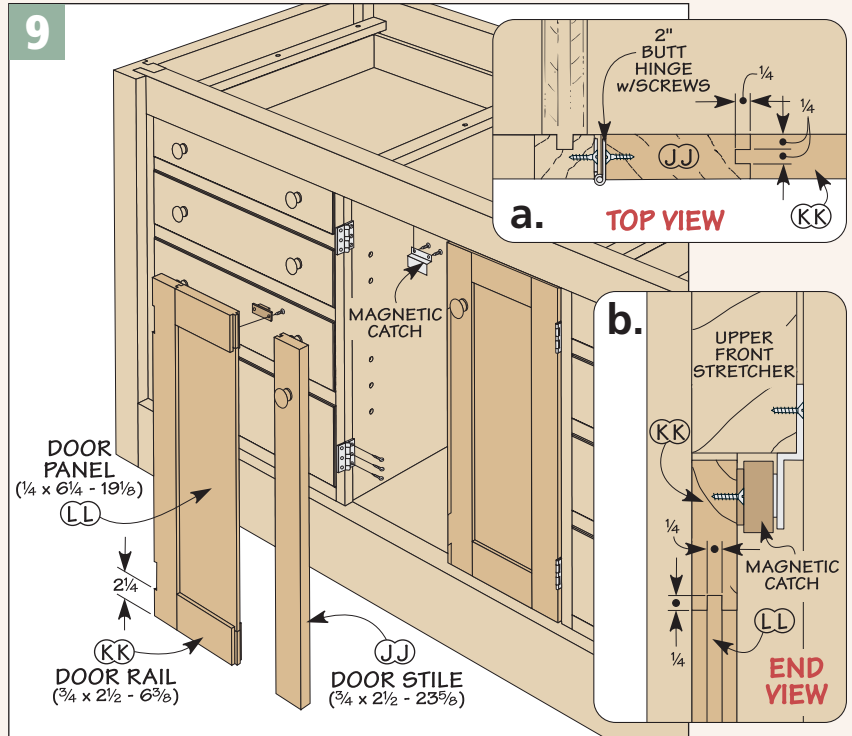
To enclose the center compartment and hide the contents of the shelves, I added a pair of frame and panel doors (Figure 9).

Each door consists of a pair of stiles and rails joined with stub tenon and groove joinery (Figures 9a and 9b). To maintain a consistent gap around the doors, size them to fit the opening, then trim each door to create an even  $\frac{1}{16}$ " gap all around.

The panel for each door is made up by edge gluing stock and then planing it to final thickness. After

trimming the panel to size (allowing for expansion and contraction), you can glue up the doors. To allow the panel to move, don't glue the panel in place.

**Cut the Hinge Mortises.** To install the doors and establish consistent gaps, you'll need to mortise the hinges into the door stile. Once that's complete, you can screw the doors to the sides of the cabinets.



**Adding the Hardware.** At this point, there isn't too much left to do to complete the installation of the doors. I used the same knobs on the doors as I did on the drawers (Figure 9). And to hold the doors securely closed, I screwed a strike plate to the upper stretcher and then attached the magnetic catch to the top inside corner of each door, like you see in Figure 9b.

## Optional Drawer Joinery

You don't need a dovetail jig to build strong drawers. Instead, you can use locking rabbet joints and tongue and dado joinery to make the drawers of the workbench.

At the front of the drawer, I used locking rabbet joints. Since the front takes most of the abuse of opening a drawer, a locking rabbet joint provides a solid connection to the sides of the drawer while hiding the joint from view. And then to join the back and sides together, I used a tongue and dado joint.

The only thing to keep in mind as you size the sides and back is that their lengths change as a result of the optional joinery.

