

# ShopNotes

## cabinetmaker's workbench Drawers

Add plenty of storage space with this easy-to-build, slip-in drawer cabinet.



The workbench in *ShopNotes* No. 102 (page 24) offers a lot of storage space on the shelf underneath. To make better use of that space for storing smaller items, you can build the drawer cabinet shown in the photo above.

### DRAWER CASE

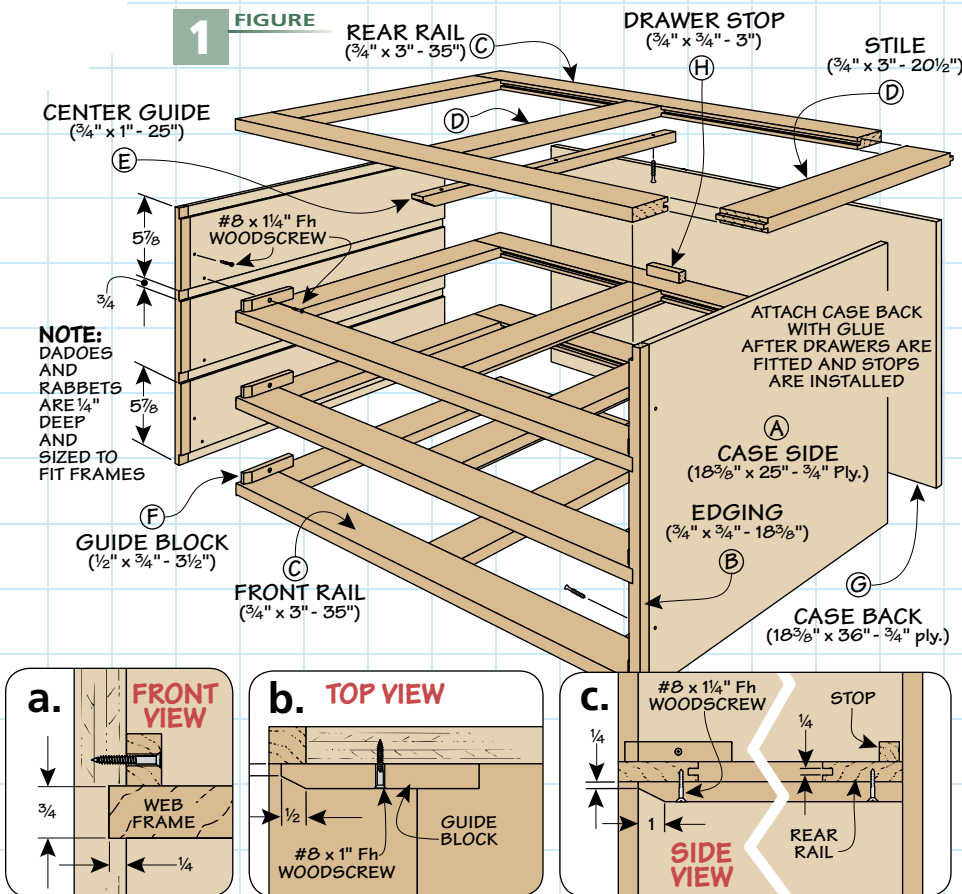
The drawer cabinet consists of an outer case that slips into the opening under the bench. You're going to build the case from the inside out, starting with the drawer frames. These frames connect the

sides and form the openings for the drawers. Figure 1 gives you a starting point for the dimensions, but you may need to make some minor adjustments so the case fits your workbench. I made my case about  $\frac{1}{8}$ " narrower and shorter than the opening.

**Frames.** The two side stiles and the center stile of each frame are connected with front and back rails. I used maple for all of the frame components except for the front rails. For these, I used Douglas fir to match the bench.

**Front & Rear Rails.** To start on the frames, I cut the front and rear rails to size. The length of the rails and the  $\frac{1}{4}$ "-deep dados and rabbets in the case sides will determine the final width of the assembled cabinet. As I mentioned earlier, size the rails so that the cabinet will slide easily into the workbench opening (right photo, next page). To finish up the rails, cut a centered groove along one edge for the stub tenons on the stiles.

**Short Stiles.** The only thing special about the side and center stiles is the stub tenon on each end. A dado blade makes quick work of cutting all the tenons. At this point, you can glue up the four frames before adding the center guides.



**Center Guides.** After the glue dries, you can add the center drawer guides. They're centered and attached to the *underside* of the top three frames with screws, as shown in Figure 1.

**Case Sides.** With the frames assembled, the case sides come next. The sides have dados and rabbets to accept the frames. But before cutting these, I added hardwood trim along the front edge to hide the plywood.

**Assembly.** At this point you're ready to assemble the sides and frames. The key is to keep everything square while the glue dries.

I didn't attach the back panel until later. Leaving it off makes it easier to add the drawer stops after the drawers are in place.

## DRAWERS

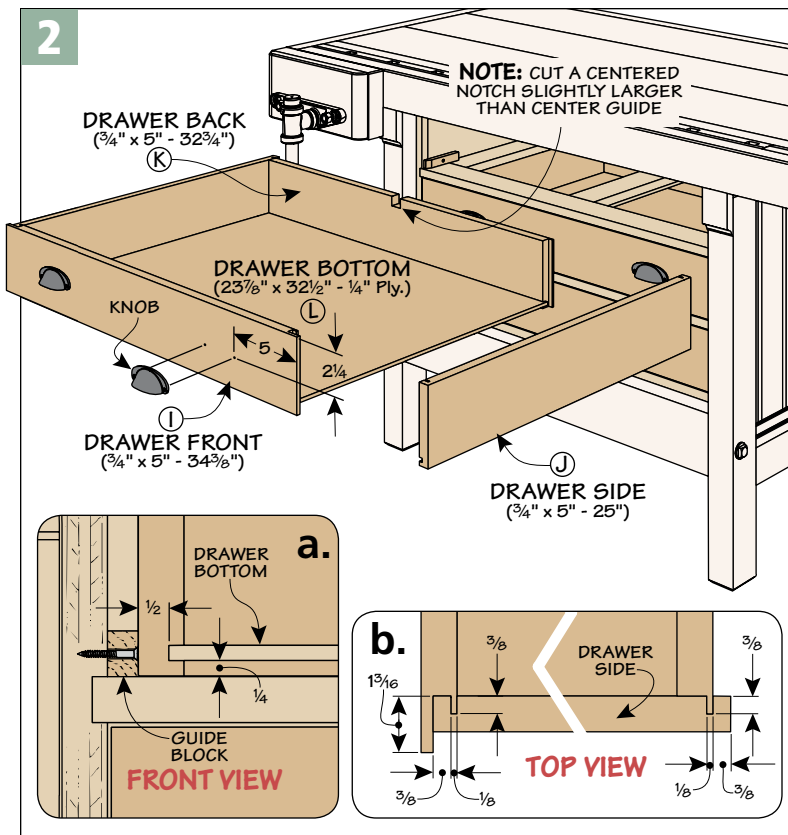
The three large drawers are identical in size and construction. The sides are joined to the front with a locking rabbet joint and to the back with a tongue and dado joint. Figure 2 gives you the details. You can cut these joints on the table saw. It just takes a few test cuts to get a

perfect fit. The goal is to end up with an even gap at the top and sides of the drawer front. Once all of the basic joinery is done, there are a couple of things left to do.

**Grooves & Notches.** Cutting a groove for the plywood bottom is pretty simple. Just remember to cut the groove on the *inside* face of all the drawer parts. And before you can assemble the drawer, you need to cut a notch in the drawer back. Size the notch for a smooth, sliding fit along the center drawer guide.

**Assembly.** Finally, you can assemble the drawers, making sure they're square. While the glue dries, you can cut the stiffeners that are glued to the bottom. A little glue and a clamping caul are all you need to attach it.

**Guides Block.** As shown in Figure 1, there are small guide blocks screwed to each side of the case.



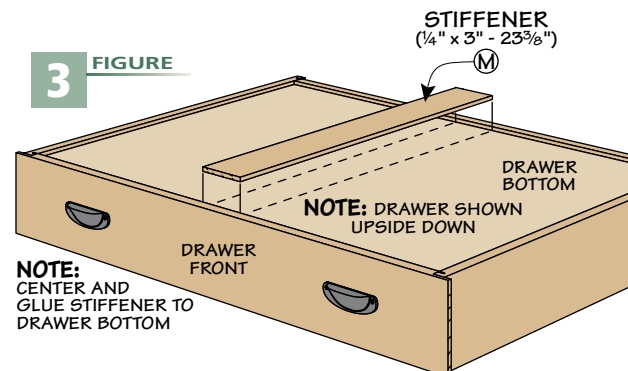
**Sliding Case.**  
The drawer case slips into the workbench frame and is secured with screws.

To size them, I fastened them with double-sided tape. I start out by making them a little thick. This way, you can sand them down later for a perfect fit of the drawer.

**Hardware and Fitting.** Adding the drawer pulls now makes it easier to fine-tune the drawers for a smooth fit. I used a drilling jig to help locate all of the holes.

Like I said, you may need to sand or plane the guide blocks while fitting the drawers. And a little wax goes a long way to help the large drawers slide easily. Then you can permanently attach the blocks.

Now you can add the rear drawer stops to position the drawer fronts flush with the case. Finally, it's time to attach the case back with glue. After that, simply slide the cabinet into the bench and fasten it in with screws. Then all you're left with is the task of filling the drawers with your tools.



# ShopNotes

## cabinetmaker's workbench

# Drawers

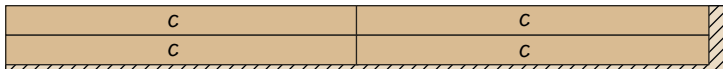
## Materials & Hardware

A Case Sides (2)	18 <sup>3</sup> / <sub>8</sub> x 25 - 3/4 Ply.	I Drawer Fronts (3)	3/4 x 5 - 34 <sup>3</sup> / <sub>8</sub>
B Edging (2)	3/4 x 3/4 - 18 <sup>3</sup> / <sub>8</sub>	J Drawer Sides (6)	3/4 x 5 - 25
C Front/Rear Rails (8)	3/4 x 3 - 35	K Drawer Backs (3)	3/4 x 5 - 32 <sup>3</sup> / <sub>4</sub>
D Stiles (12)	3/4 x 3 - 20 <sup>1</sup> / <sub>2</sub>	L Drawer Bottoms (3)	23 <sup>7</sup> / <sub>8</sub> x 32 <sup>1</sup> / <sub>2</sub> - 1/4 Ply.
E Center Guides (3)	3/4 x 1 - 25	M Stiffeners (3)	1/4 x 3 - 23 <sup>3</sup> / <sub>8</sub>
F Guide Blocks (6)	1/2 x 3/4 - 3 <sup>1</sup> / <sub>2</sub>		
G Case Back (1)	18 <sup>3</sup> / <sub>8</sub> x 36 - 3/4 Ply.		
H Drawer Stops (3)	3/4 x 3/4 - 3		

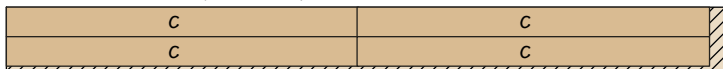
• (6) Drawer Pulls (Lee Valley 02W18.09)

## Cutting Diagram

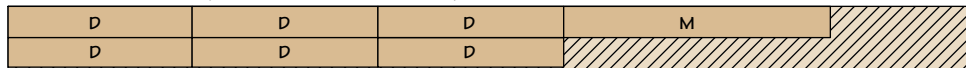
3/4" x 6 1/2" - 72" DOUGLAS FIR (3.3 Bd. Ft.)



3/4" x 6 1/2" - 72" MAPLE (3.3 Bd. Ft.)



3/4" x 6 1/2" - 96" MAPLE (2 Boards @ 4.3 Bd. Ft. each)



3/4" x 6" - 72" DOUGLAS FIR (4.0 Bd. Ft.)



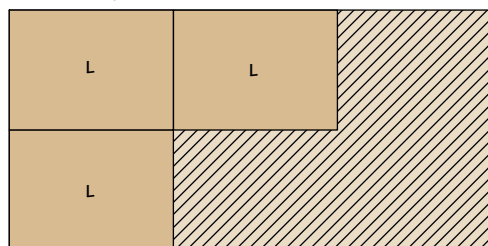
3/4" x 6" - 72" DOUGLAS FIR (4.0 Bd. Ft.)



3/4" x 6 1/2" - 96" DOUGLAS FIR (3 Boards @ 4.3 Bd. Ft. each)



48" x 96" - 1/4" PLYWOOD



48" x 96" - 3/4" PLYWOOD

