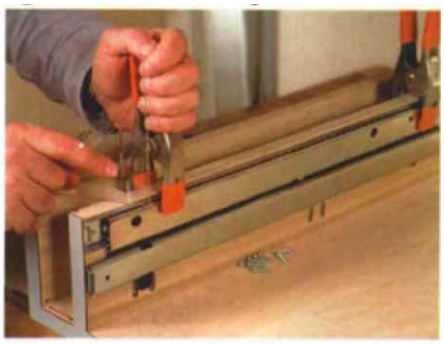
Roller-topped drawers increase outfeed table capacity *By extending the bottoms of two drawers at the back of his tablesaw, Frank Vucolo created a place to mount outfeed rollers. Here, he opens one drawer to rip apiece of 6/4 mahogany.*

Drawer slide alignment is important. *With the outfeed table flipped, the author positions a slide before he screws it to the poplar rail. Precise alignment ensures smooth operation of the outfeed rollers. A leg socket is below the square.*



Shopmade Outfeed Table

Extend your tablesaw's reach for sheet stock and ripping

by Frank A. Vucolo

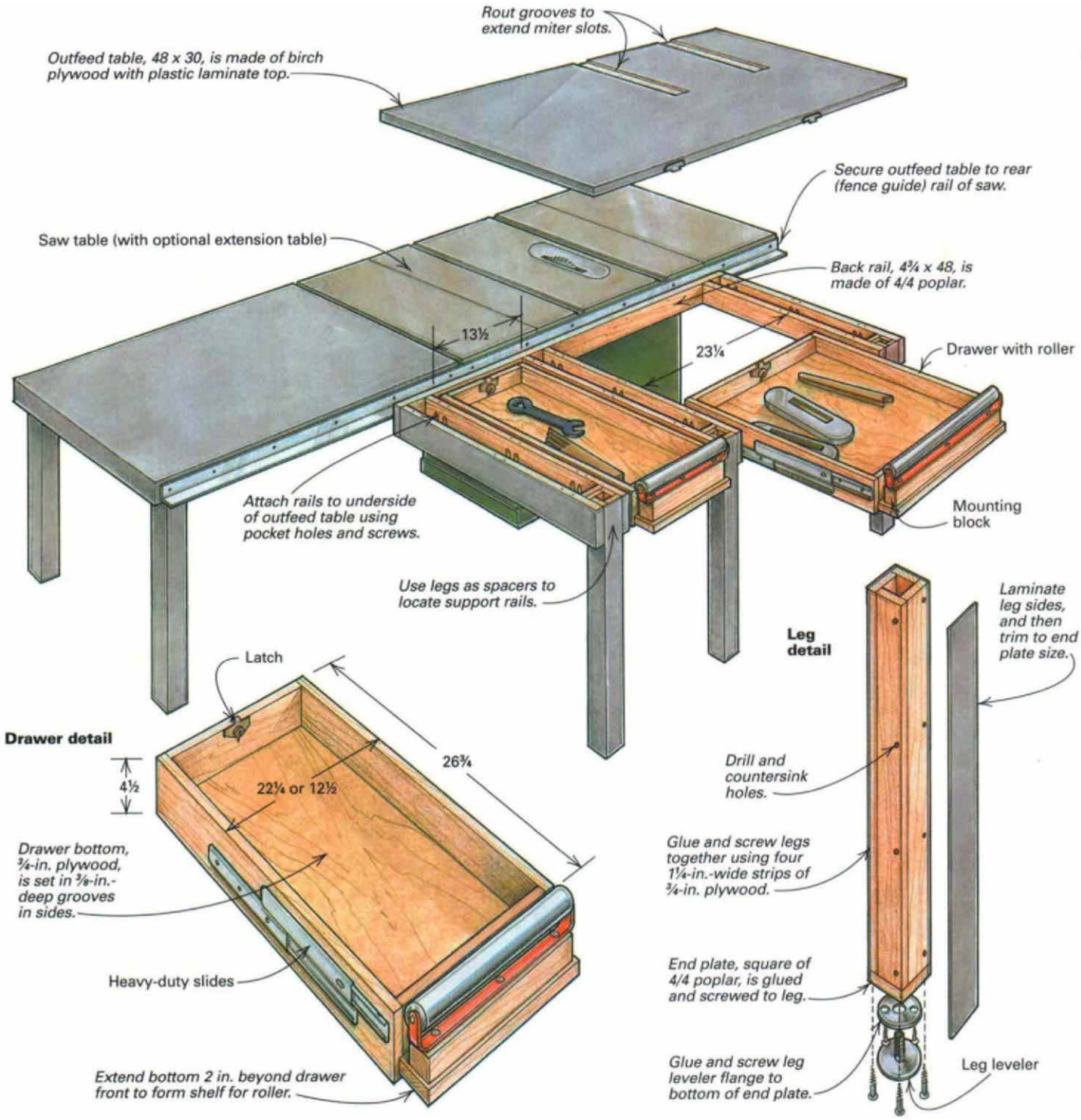
In my small shop, ideal concepts are often compromised by the reality of limited space. My design for an outfeed table is a classic case in point. I started out thinking big. Ideally, I wanted the outfeed surface to extend 48 in. from the back of my tablesaw, so I would no longer have to set up and then reposition unstable roller stands. My ideal was quickly squashed, however, when I realized I couldn't dedicate that much permanent floor space. I need the space behind the saw to store my planer and router table when I'm not using them.

After some careful measuring, taking into consideration where I would locate all the machines, I concluded that the outfeed table should extend 30 in. from the back of the saw. But I still needed more support to rip long stock and to cut sheet goods.

While I was pondering possible solutions, I started to think about rollers that could extend off the back of the fixed table and then retract into it when they weren't needed. Then I remembered how amazed I was at the strength of Accuride's extension drawer slides (150-lb. capacity) when I had used them for file drawers in a desk pedestal. After a little more head scratching, nudged along by a couple of cups of coffee, I decided to incorporate the slides into a pair of drawers with rollers mounted on the front of them for the outfeed table (see the photo at right above). Now I

Photos: Alec Waters

Outfeed table assembly



simply open *a* drawer to get an additional 24 in. of outfeed surface when I'm ripping long boards or cutting sheet stock.

Design and materials

Allowing an extra 1 in. for the extension rollers and the drawer slide action, the outfeed table is designed to support work up to 55 in. from the back of the saw table. With the drawers in the closed position, only 30 in. of floor space behind the tablesaw is committed. I made the drawers different widths so that I have various outfeed options, and I extended the drawer bottoms out in front of the drawers. This way, I have a place to mount the rollers (see the detail above). As a bonus, I get two drawers for storing saw accessories. And because the rollers are an integral part of the outfeed table, they are adjusted precisely in relation to the tabletop.

I constructed the outfeed table's top, legs and drawer bottoms out of ¾-in. birch plywood. The under-table support rails are made from 4/4 poplar, as are the drawer sides, fronts and backs. For added protection and to give a nice slick surface, I covered the legs and top with plastic laminate.

To complete the material requirements, I bought the following hardware: two metal rollers, one 13 in. long and one 22 in. long (Wilke Machinery Co., 3230 Susquehanna Trail, York, Pa. 17402;

Drawing: David Dann

800-235-2100), two sets of heavy-duty drawer slides (I picked up Accuride's file-cabinet model from The Woodworkers' Store, 21801 Industrial Blvd., Rogers, Minn. 55374; 800-279-4441), three leg levelers (available from Woodworker's Supply Inc., 1108 North Glenn Road, Casper, Wyo. 82601; 800-645-9292) and a couple of latches (window sash locks), which I bought at a local hardware store. When you're determining the size of your drawers, keep in mind that the slides come in 2-in. increments, 12 to 28 in. long.

Making and mounting the table

To build the outfeed table, first determine the overall size (mine is 48x30), and then cut the tabletop out of plywood. Temporarily mount the plywood to your saw, and level it using braces. This is so you can determine the length of the three legs. Measure each leg separately, and allow some room (½ in. or so) for height adjustment. The leg levelers will take up the play. Disassemble the table, and then fabricate the legs, as shown in the drawing detail on p. 75, including the plastic laminate.

With all three legs complete, lay out the support rail locations on the underside of the plywood top. Approximate the two different widths of the drawers plus their slides. Rip and crosscut the poplar pieces to size, and begin fixing the members to the plywood. I drilled pocket holes and then glued and screwed the rails in place. Start at one end, then use an assembled leg as a spacer to set the second rail. Next do the other end of the table, using another leg as a spacer. Set the two center rails in a similar fashion. Then attach the rear rail across the ends of the support rails. Also, cut and attach blocks behind each leg using the leg as a guide.

Mount the carcase portion of each drawer slide to the rails (see the photo at left on p. 74). Make sure you position all the slides the same distance from the bottom of the table. I used the rails as a reference. The drawers must be perfectly parallel to the top. While you have the table flipped, laminate the sides of the top, and trim them with a flush-trimming bit in a router. Turn the table over, so you can laminate and flush-trim the top.

Now temporarily mount the legs, and align the laminated table to your saw exactly as it will be positioned in use. Carefully mark the position of the miter slots on the top. Determine the depth of the grooves by referencing off the tablesaw. If you have a T-slot or dovetail-shaped miter-gauge runner, lay out the slots so that they will be a bit wider than the widest (bottom) part of the tablesaw slot. The outfeed table slots will be for clearance only.

Remove the outfeed table. Run the miter gauge all the way past the blade, so you can find the length of the runner as it hangs off the back of the saw table. Mark this length plus a bit extra onto the outfeed tabletop. If you use sliding jigs, like a crosscut box, check that their runners will work in the laid-out slot, too.

Using a straight bit and your router, cut the grooves in the surface of the outfeed table. A straightedge can be used to guide the router. But don't try to cut the whole depth in one pass. It's better to make two or three passes, removing a little at a time. Soften all the corners of the laminated top using a fine file. Also, ease the edges of the miter-gauge slots, and feather the edge that will go against the tablesaw. This will ensure that workpieces won't get hung up as they slide from the tablesaw onto the outfeed table.

How you mount the outfeed table to the saw will depend on the type of saw and fence guide rail you have. You can use angle brackets or drill directly into the rail. After you have the outfeed table in its approximate position, use a straightedge and a level to adjust the screw feet until the outfeed table is lined up to the saw table (see the photo at left).

Level the outfeed table to match the saw table—*After Vucolo secured the outfeed table to the rear guide rail of his saw, he turns the leg levelers (screwfeet) to line up the two surfaces.*

Pocket holes and screws join drawer boxes—*After temporarily clamping a drawer back, the author drives three screws into the sides using a flexible-shaft extension for his drill.*

Adding the drawers and extension rollers

The drawers should have a ¾-in. plywood drawer bottom extending 2 in. beyond the front of the drawer. This will provide enough rigidity for the extension rollers (see the drawing detail on p. 75). To receive the bottom, I plowed a ⅜-in.-deep groove down the inside of each drawer side using a dado blade in my tablesaw. After I glued and screwed the bottom to each drawer, I butt-joined the front and back pieces-together using pocket holes and screws (see the far left photo). Then I attached the other part of the drawer slides to the outsides of the drawers.

It's critical that the rollers are mounted at the correct height. They should be at, or just barely above, the outfeed surface; they need to roll freely, without disrupting the travel of a workpiece. To get the proper height, I mounted the rollers using spacer blocks. First I set the roller on the shelf created by the extended drawer bottom. Then I measured from the top of the roller to the tabletop. I cut the block a bit oversized and then planed it down to thickness. If the roller is not parallel to the outfeed top and you can't adjust the drawer slides enough, taper the blocks slightly with the plane until the top of the rollers are level with the table. Finally, install a latch on the inside back of each drawer, so you can lock them in the open position. □

Frank Vucolo builds furniture for his home in East Amwell, N.J.