

Under-Bench Tool Cabinet

Practical storage cabinet utilizes the wasted space beneath your benchtop

BY CHRISTIAN
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The shelf below my workbench was always heaped with stray stuff—clamps, power cords, glue, scraps, jigs—things I often needed at the bench but never quite found a home for. It was constantly a mess, and the space above the mound of stuff was wasted, too. Sound familiar? Wouldn't a storage cabinet under there be just the ticket?

All it takes is proper planning and a little effort to create a custom cabinet to fit your bench, your tools, and your work style. Just as I did when building my wall-hung tool cabinet (see "Tool-Cabinet Design," *FWW* #153), I measured and grouped similar items to fit specific drawers beforehand to achieve an efficient and well-planned layout. Your cabinet will differ in size and layout, of course, depending on your bench and your tools.





Layout tips for tools

Not every bench is the same, so you'll have to custom-fit this design to suit your situation. To determine the exterior dimensions of your cabinet, measure the distance between the legs of your workbench. My cabinet slides in from the end of the bench, just fitting between the front and rear legs, and leaving a 3-in.-wide clamping ledge along both the front and back of the bench. This also keeps the cabinet from interfering with the benchdogs. If your bench doesn't have stretchers positioned to support the cabinet, you may have to add ledger strips as I did.

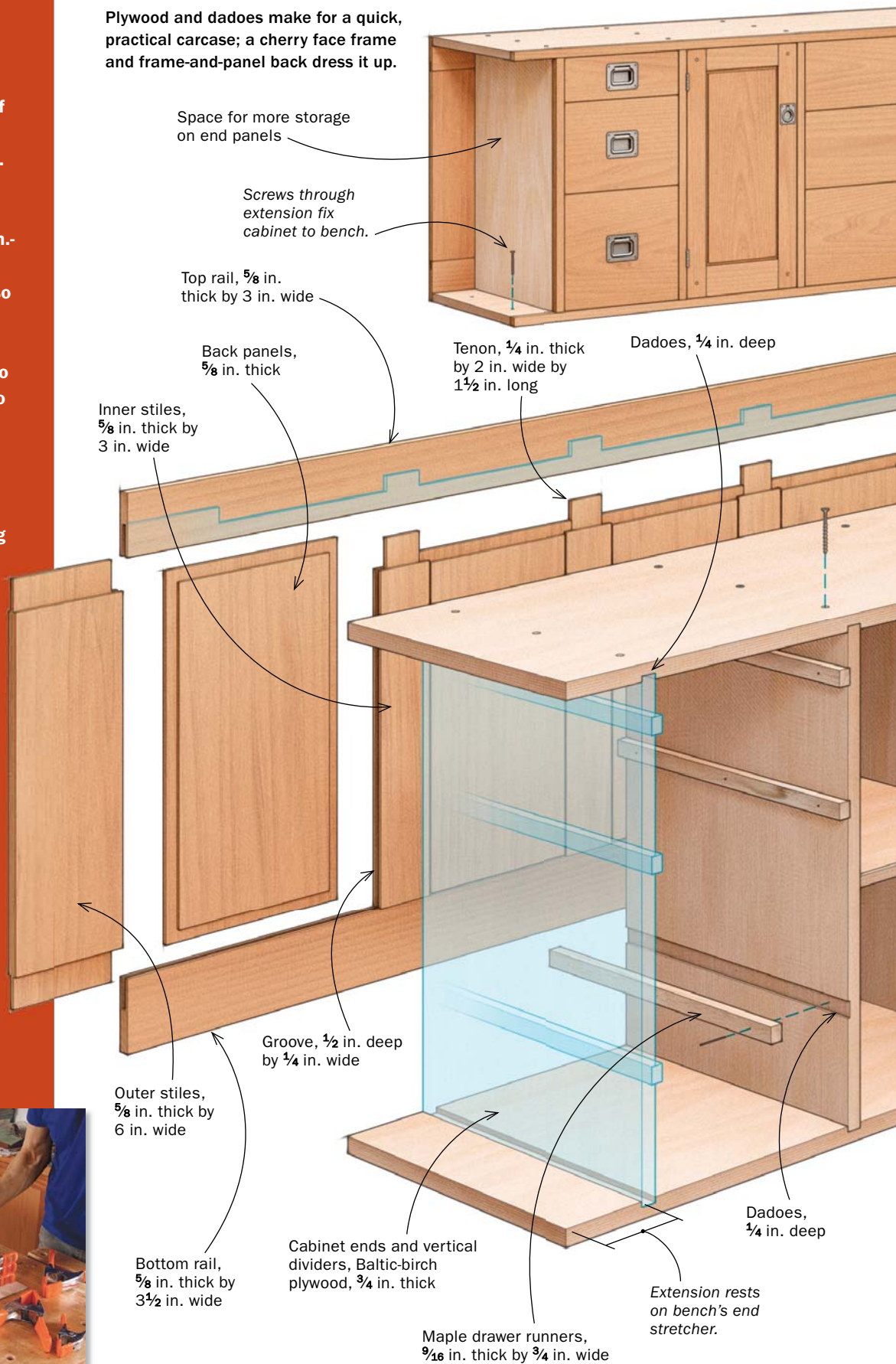
Some time spent planning the arrangement of items in the drawers and cabinet will result in the most efficient layout. I started by grouping similar items that might go into the same drawer. I put all the stuff that accumulates in the tool well—sanding blocks, glue bottles, pencils, tape, spacers, and partially used sandpaper—together in the top shallow drawer. Larger items like clamps, hold-downs, and bench hooks fit in the larger drawers.

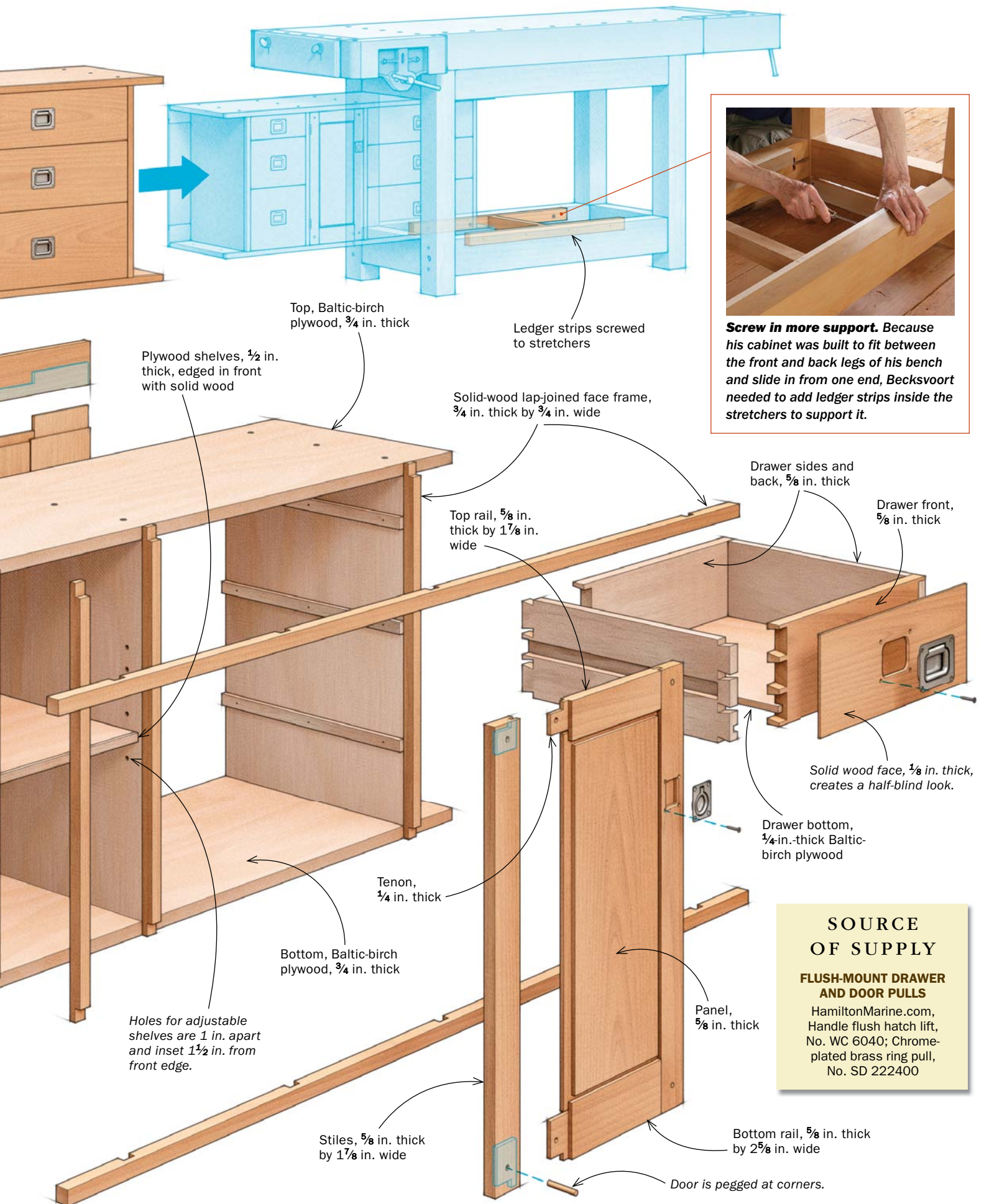
When I designed my wall-hung tool cabinet I made scaled graph-paper cutouts of my tools to find the best fit. But here I simply laid things out on the bench to see how they fit together. I cut a scrap to the length of the cabinet, arranged the tools, and marked the door and drawer sizes on the stick.



UNDER-BENCH CABINET

Plywood and dadoes make for a quick, practical carcass; a cherry face frame and frame-and-panel back dress it up.





BUILD THE CASE

No-frills carcass. Becksvoort's native language may be solid wood, but he built the carcass of this utilitarian cabinet with plywood—dadoed, glued, and screwed.



Plywood case and simple joinery

Since this is a shop project, I used plywood for the carcass, cut simple dado joints, and screwed it together. But I dressed it up with a solid face frame in front and a frame-and-panel back. When you cut the plywood to size, subtract $\frac{3}{4}$ in. from the width for the face frame and $\frac{5}{8}$ in. for the paneled back. Cut out the shelves at the same time, subtracting $\frac{1}{4}$ in. for solid lip-ping on the front edge.

At the tablesaw, use the dado set to cut dados in the top and bottom for the dividers and in the ends and the vertical dividers to accept the runners for the side-hung drawers. Then glue and screw the case together. The screws are driven from the top and bottom, so they won't show. With the case assembled, drill holes for adjustable





Dressing up the basic box. A $\frac{3}{4}$ -in.-thick, lap-joined face frame of solid cherry dignifies the front of the cabinet. Becksvoort marks the vertical members to length directly from the cabinet (1). The verticals then get rabbeted with the dado blade on the tablesaw (2), and the horizontals are dadoed (3). With the horizontals dry-fitted to ensure proper location, he glues and nails the verticals one at a time (4).

1



2



3

shelves. I make a hardwood template on the drill press, making a series of holes 1 in. apart. I use that template with a hand drill to cut the holes in the carcass.

Solid-wood details

To make the face frame, mill your stock to $\frac{3}{4}$ in. square and mark the pieces to length directly from the carcass. Cut the lap joints at the tablesaw, then glue and nail the face frame to the carcass. I use a nail gun for this, and later I fill the small nail holes with wood putty.

Next it's time to build the frame-and-panel back. After cutting the rails and stiles to size, cut their mortise-and-tenon joints (or dowel or biscuit joints if you're so inclined), and groove all the parts to accept the panels. Then dry-assemble the frame. Measure the panel sizes directly from the



4

HANG THE DRAWERS



Careful transfer. With the drawer in place, transfer the location of the runner dado from the case to the drawer side. Becksvoort uses old credit cards as spacers beneath the drawer.

frame, and cut the panels to fit. Assemble the back, and set it aside to cure. After the drawers are fitted, you'll glue and nail the assembly to the back of the carcass.

Smart storage areas

I made the side-hung drawers from solid wood, joining them with dovetails and then cutting grooves in the sides for the drawer runners. You could make the drawers from plywood if you wish, though the action of the runners will not be as smooth. At this point, install the runners inside the case and check the fit of the drawers. I like a drawer to be about $\frac{1}{16}$ in. narrower than the drawer pocket. Once the drawers are fitted, I mount the pulls. Flush pulls are preferable, since any protruding hardware may get in the way of clamping from above. I bought my pulls from Hamilton Marine; similar pulls are available from White Chapel.

Finally, make the mortise-and-tenoned frame-and-panel door. Fit it, install its pull, and hang it. Then apply your finish of choice to the cabinet and start putting all that stray stuff in its place. □

Contributing editor Christian Becksvoort builds Shaker furniture in New Gloucester, Maine.



Rout for the runners. Cut stopped grooves in the drawer sides to accept the solid-maple drawer runners. Becksvoort puts tape on the router table's fence to establish the location of the bit (above). Clean up the stopped end of the runner groove with a chisel (left).



Fix the runners. Becksvoort glues in the maple runners, using brads instead of clamps to hold them in place.



Beautify the back. With the drawer fitting finished, Becksvoort glues the solid cherry frame-and-panel back to the cabinet.

Fitting flush-mount pulls



After roughing out a recess with a trim router to accept the main part of the pull, Becksvoort uses a countersink bit (top) to create clearance for the screw dimples at the corners. Carbon paper and a gentle tap with a mallet (above) marks the areas that need further excavation with a chisel.

