



Quick-to-Make Tool Cabinet

Attractive design stores all your tools in a small space

BY JAN ZOLTOWSKI

After a career of 35 years I had collected a substantial number of woodworking tools and I finally decided that they deserved a proper home. I set out to create a cabinet capable of holding my tools in a relatively small but accessible area. The result is home to well over 300 tools, yet covers only about 12 sq. ft. of wall.

I deliberately dedicated this cabinet to hand tools to keep them apart from dusty power tools, but the design can be modified easily to accommodate small power

tools as well. Think twice before making the cabinet smaller; even if your tool collection would look lost in a cabinet of this size, it's nice to have space to grow into.

No wasted space

The inside surfaces of the main doors hold thin tools such as chisels and screwdrivers. Inside the cabinet, working down from the top, the upper shelf seats larger handplanes; the middle section has a pair of internal doors that support tools on both sides (increasing the hanging area by 40%)

and that open to reveal additional space for saws and marking tools. The lower area is divided into cubbyholes for smoothing planes and other specialty planes, while six small drawers in the bottom hold smaller tools such as block planes, drill bits, and router bits.

The cabinet hangs on upper and lower pairs of French cleats. Behind the cabinet, in the space between the cleats, is a place to hold a carpenter's square on one side, and three panel saws, held securely by means of the friction of their teeth, on

A brief tour



Drawers for small objects. The six drawers at the bottom of the cabinet hold small objects such as block planes.



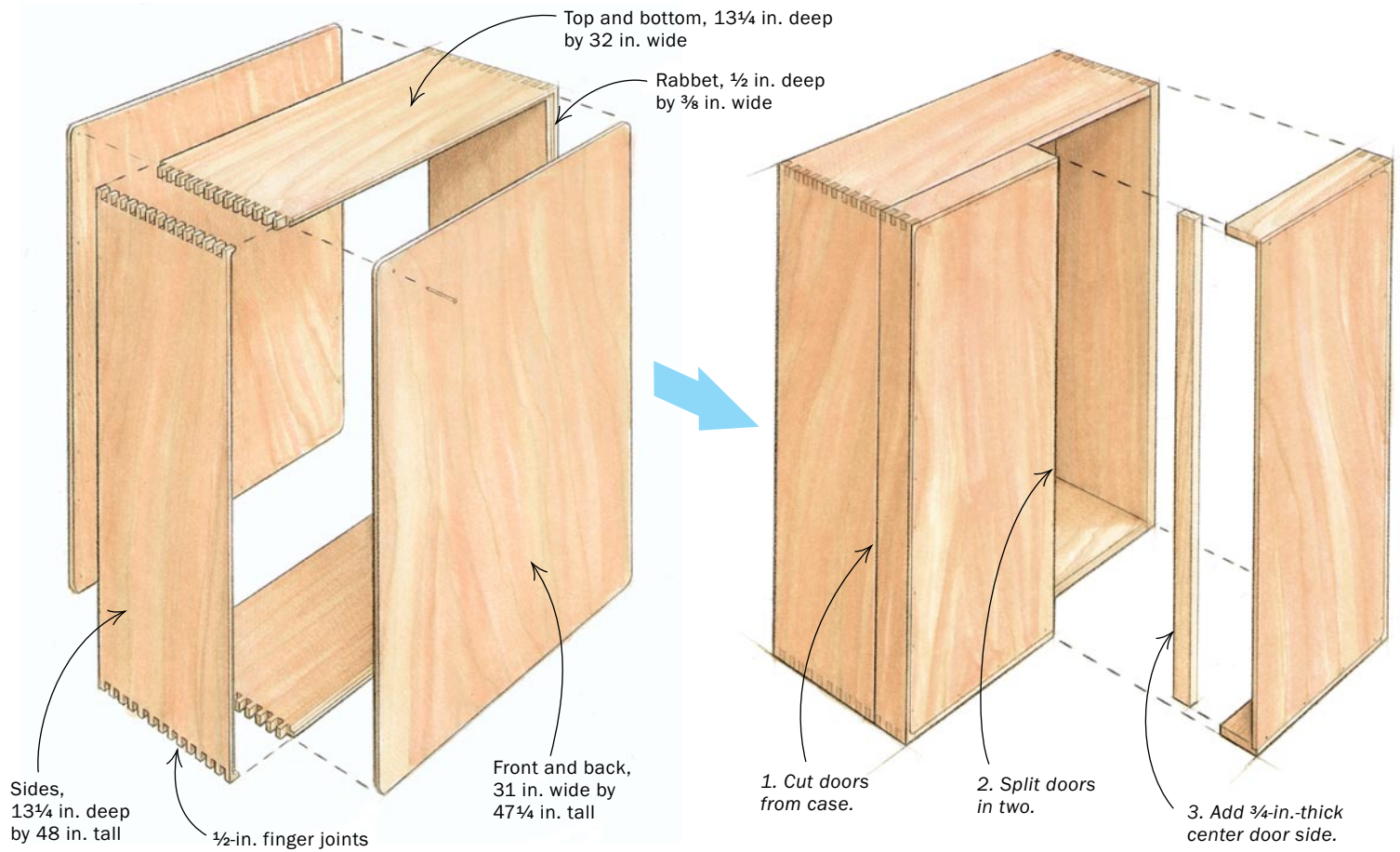
Hinged panels add storage. Tools hang on both sides, adding 40% to the cabinet's hanging area.



Storage behind the cabinet. A carpenter's square on one side and three panel saws on the other fit into slots in the back of the cabinet.

A COMPACT CABINET WITH AMPLE CAPACITY

The cabinet is made almost entirely from birch plywood, which gives dimensional stability at a budget price. The main carcass is $\frac{3}{4}$ -in.-thick plywood connected with finger joints.



Construct the carcass



Build a big box. The main body of the cabinet is connected at each corner with $\frac{1}{2}$ -in. finger joints cut on the tablesaw (left). Rabbet the front and rear for the panels. Glue and nail the front panel (above), but attach the rear with screws for interior access.

the other. The cabinet holds all these tools within easy reach, and every blade and tooth stays sharp and protected.

Construction starts with a single box

I built my cabinet out of Baltic-birch plywood. Not only is it more economical than solid lumber, but it eliminates problems such as stuck drawers from dimensional changes caused by the high humidity in the Northwest. The body of the cabinet starts out as one large box with the sides made from $\frac{3}{4}$ -in.-thick plywood. Join the corners with $\frac{1}{2}$ -in. finger or box joints (for more on this method, see "A Lesson in Box Joints," *FWW* #181, p. 84, or "Box Joints on the Tablesaw," *FWW* #148, pp. 60-63).

Rout a $\frac{1}{2}$ -in.-deep by $\frac{3}{8}$ -in.-wide rabbet around the inside front and back edges to accept panels of $\frac{1}{2}$ -in.-thick plywood. The front of the cabinet is attached with glue and nails, but the back is attached with screws only to allow access during later construction.

Next, cut off approximately the front third of the box to form what will become the main doors. On the tablesaw, using the rip fence as a guide, cut through both ends of the box. Attach a thin piece of scrap plywood to each end by nailing it on both sides of the cut. This is to keep the two parts of the box attached while cutting through the long sides on the tablesaw.

While at the saw, cut the newly removed front section of the cabinet in half to form the two main doors. When this is done, attach pieces of $\frac{3}{4}$ -in.-thick plywood to form the center side of each door. Don't worry about the exposed edges of the plywood sides; these will be covered by banding.

Create the gallery and drawers

The central gallery, with its cubbyholes used to store planes, gives the cabinet rigidity. Cut the upper and lower crosspieces, then cut the dadoes for the $\frac{1}{4}$ -in.-thick shelf partitions either on the tablesaw or with a router. Use the same method to create the dado on the underside of the gallery to receive the center drawer divider.

Before installing the gallery you need to make the drawers, because their height and spacing will determine the location of the gallery. The six drawers are made of $\frac{1}{2}$ -in.-thick plywood with $\frac{1}{4}$ -in. finger joints. The

bottoms, made of $\frac{1}{4}$ -in.-thick plywood, sit in a rabbet rather than a groove because the latter would reduce the depth of these already-shallow drawers.

After unscrewing the back panel of the cabinet, rout a dado on each side for the upper shelf, and then glue in the shelf. Stack the drawers using laminate or thin cardboard as spacers, and mark the top of the stack for the location of the bottom dado of the gallery. Lay the gallery across the cabinet and mark the location of the top dado. Cut the pair of dadoes on each side, and then install the gallery and the central drawer divider. The latter is screwed to the bottom of the cabinet from the outside and is not dadoed, so as not to weaken the bottom of the cabinet.

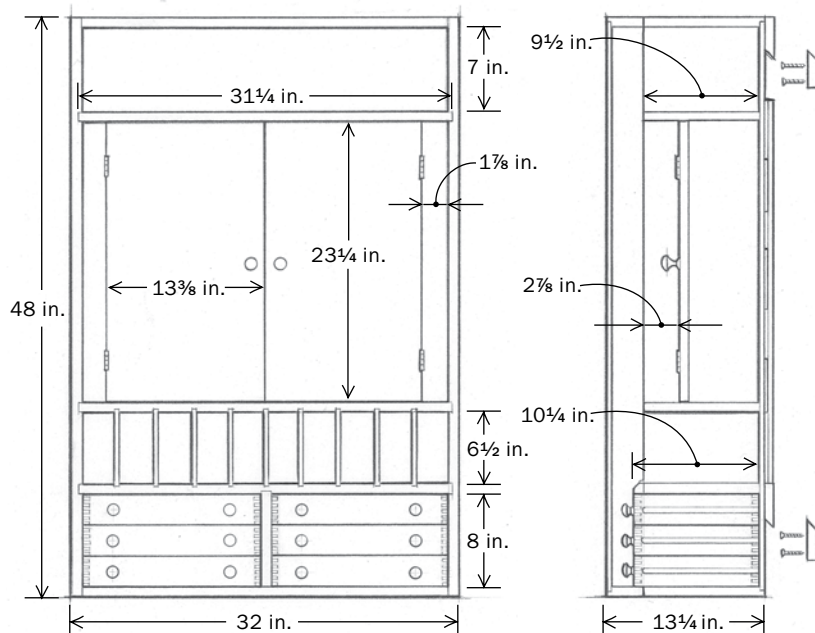
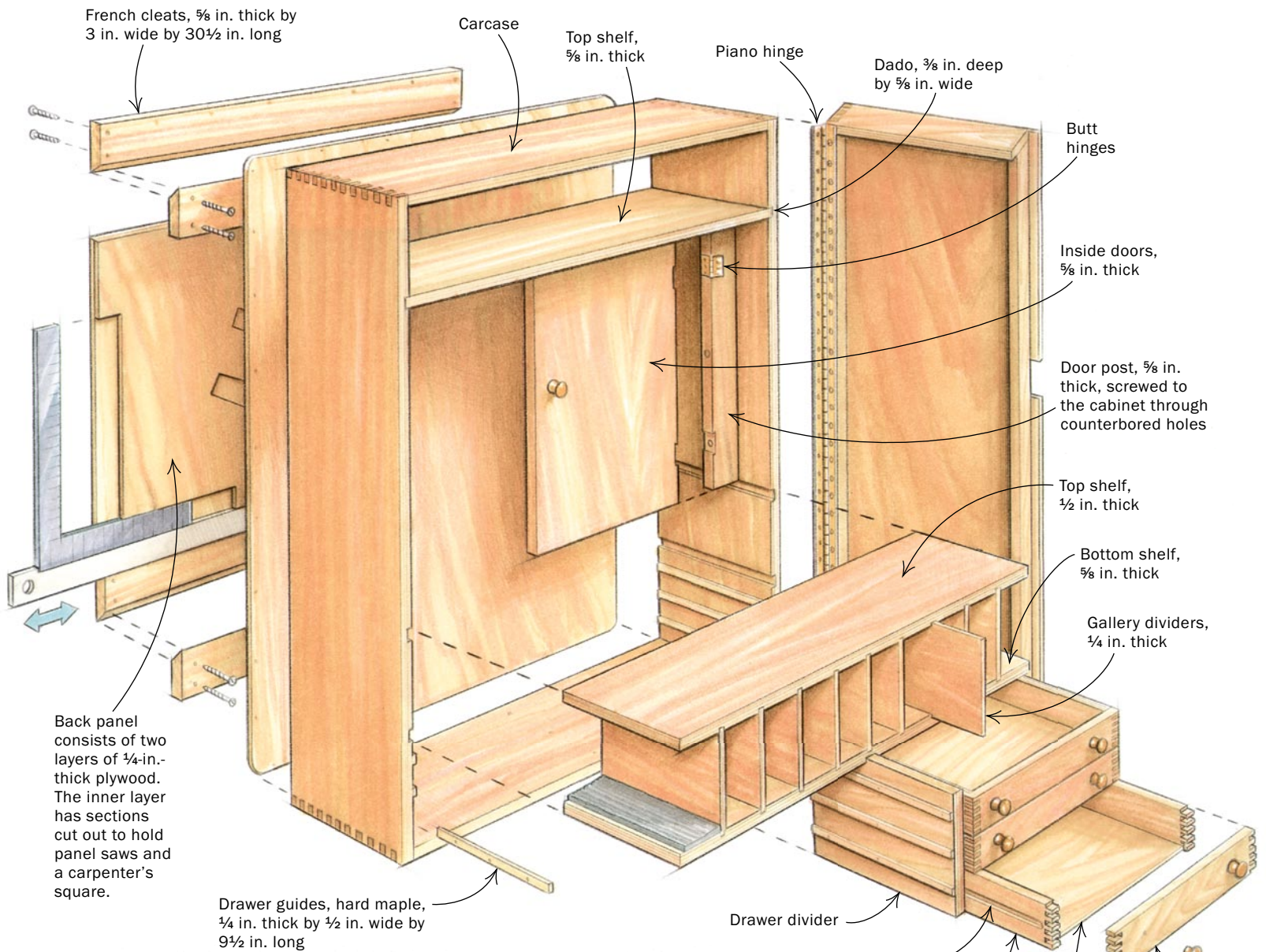
I hung the drawers by attaching $\frac{1}{4}$ -in.-thick by $\frac{1}{2}$ -in.-wide strips of hard maple to the sides of the cabinet and the central divider. To get the drawers to hang perfectly



Cut away the door section. With the front and rear panels installed, cut away the front quarter of the box to form the main doors. Cut the short sides first, and then tack a batten across the cut to hold the section in place while cutting the long sides.



Next cut makes the two main doors. Tack two strips of wood across the cut line as shown. Then set the sawblade to just score the underside of the strips. In this way the panel is cut in half but won't bind on the sawblade.



SHELVES AND CUBBYHOLES PROVIDE TOOL STORAGE

The internal doors are $\frac{5}{8}$ in. thick; the shelves are either $\frac{5}{8}$ in. or $\frac{1}{2}$ in. thick, and the front and back are $\frac{1}{2}$ -in.-thick panels. The drawers are made from $\frac{1}{2}$ -in.-thick material with $\frac{1}{4}$ -in.-thick plywood used for the drawer bottoms and the gallery dividers.

parallel, I used the same spacers when cutting rabbets in the drawer sides and when attaching the strips to the cabinet.

On a router table, create a guide channel the same width as the drawer sides comprising two outer guide strips, two center strips of wood the width of the straight-cut router bit, and two equal spacers to go above and below the bit that center the drawer side over the router bit. Clamp the outer strips to the table, remove the spacers and the center strips, raise the bit to $\frac{1}{4}$ in., and cut a groove until just before the finger joints at the front of the drawer.

When all the grooves have been cut, use the spacer strips from the router table and the laminate spacers used earlier when stacking the drawers to establish the location for each maple drawer runner. Screw the runners to the sides, and the central divider and the drawers are hung.

The two inner doors and their posts are made from $\frac{5}{8}$ -in.-thick plywood. Cut matching recesses on each door and post for a pair of hinges, and then screw each post to the sides of the cabinet between the top of the torsion box and the upper shelf. Hang the doors on these posts.

The separate unit at the back of the cabinet is built of two layers of $\frac{1}{4}$ -in.-thick plywood and should be designed to accommodate carpenter's squares and panel saws. Screw this unit to the back of the cabinet between the French cleats.

The outer doors are hung using piano hinges and magnetic catches; ball catches give a positive latch to the doors. After hanging the front doors, conceal the exposed rabbet joint around the front panel with a $\frac{3}{16}$ -in.-thick by $\frac{3}{4}$ -in.-wide strip of solid maple, rounded slightly (as all exposed corners should be).

With the main cabinet construction complete, make and attach custom hangers for each tool using scraps of plywood.

I finished my cabinet with two coats of oil-based sealer that were sanded with P320-grit sandpaper. Then I wiped on a couple of coats of tung oil.

The cubbyholes and the bottoms of the drawers were covered with industrial rubber-backed floor covering, available from home centers. It comes in many colors and gives excellent protection to edge tools. The final step was to attach pulls to the drawers and doors, and stout handles to the outside of the cabinet. These are a great help when you and a friend lift the cabinet onto the wall-mounted part of the cleats. Install all of the tools and then start putting them to use. □

Jan Zoltowski is a professional antique and art restorer who lives near Seattle, Wash.



Install the upper shelf and gallery. Cut a dado on both sides of the cabinet and install the upper shelf. This gives the carcass extra rigidity. After routing the dados for the upper and lower shelves, test-fit the gallery and then glue it in.

Assemble the interior



Attach the inner doors. Stretching from the top of the gallery to the bottom of the upper shelf, each inner door is hung from a post screwed to the cabinet.



Storage behind the cabinet. An inner layer of $\frac{1}{4}$ -in.-thick plywood is cut to receive panel saws and a carpenter's square, then covered by a solid outer piece of plywood.