

hen I'm making furniture for others, I build in all sorts of styles. But when a piece of furniture is for my own house, I go country. Having grown up in New England, I am partial to the simple pine furniture of our northern settlers. This cupboard, with its open top and decorative cutouts on the sides, has its design roots in the 17th century.

Like the original makers, I worked my white pine boards unplugged. Don't get me wrong—I don't build everything by hand. But I really enjoy using hand tools, and when I'm making a piece for myself, I like to indulge a little and skip the machines. The pleasure of the hand-

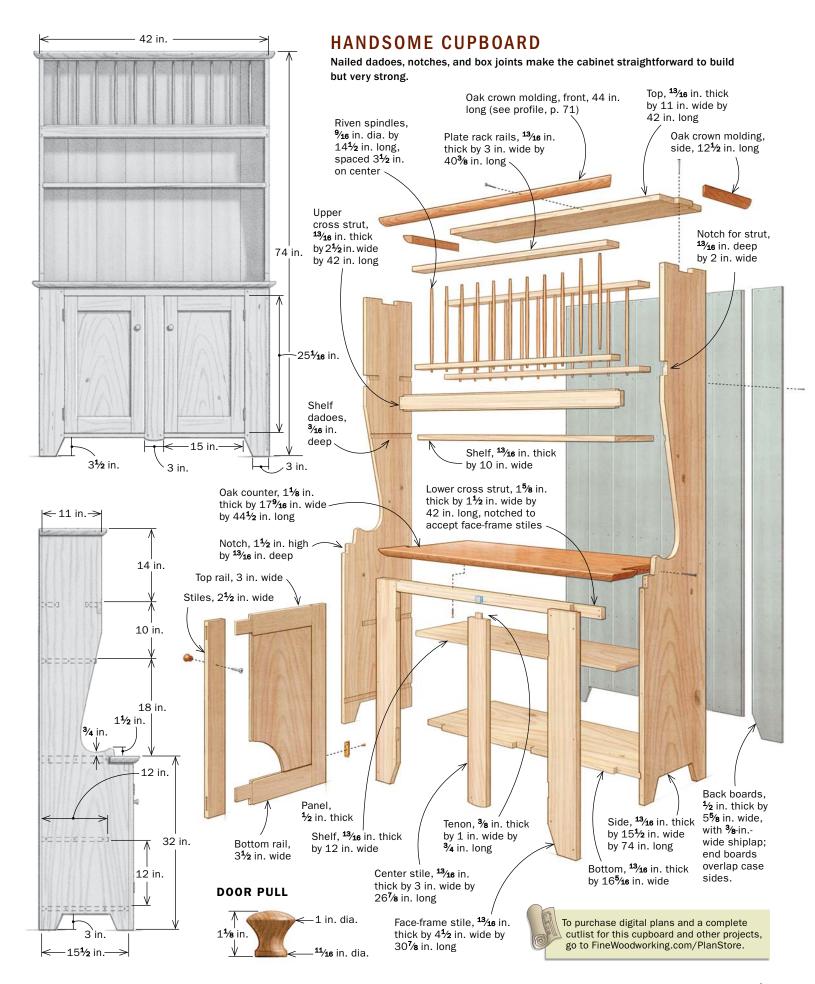
White pine and simple joinery make it a pleasure to build with hand tools

> ANDREW HUNTER

work shows in the finished piece, and it feels good knowing all that has gone into making it.

When building a piece with hand tools, it is best to keep things simple. This cabinet relies primarily on nails for its strength. The box-joined top, along with the dadoed shelves, bottom, and counter, are fixed with nails through the sides, and nailed face frames and cross struts reinforce the structure. With the back boards nailed in place at every horizontal, this cupboard is rock-solid. I use traditional cut nails, and I don't hide them. The exposed nail heads

Photos: Jonathan Binzen



CUT THE CURVES IN THE SIDES

Bowsaw is best. Hunter makes the curved cuts in the sides with a bowsaw. After sawing, he smooths the curves with a plane and spokeshave.

Joinery by hand



One side mirrors the other. Use the first completed cutout as a template to draw the shape on the other side piece.

are appropriate to the country style, and the contrast between the silky-smooth pine and hard steel looks great.

I used red oak for the counter, upper molding, spindles, and door pulls. I like red oak and white pine paired together. I left the pine without finish, but used tung oil to bring out the oak's rich color.

I painted the back boards with slate-blue milk paint. This allowed me to use inferior boards for the back while creating a uniform background for the dishes on display.

Start with the sides

I began the hutch by ripping and crosscutting all the parts a bit oversize, then milling



Twin kerfs. Using a 90° guide block and a panel saw with a depth line drawn on the blade, make the kerfs that define the width of the dado.



Chisel out the middle. Remove most of the waste with the bevel down. Finish with a long chisel bevel up or a grooving plane.



Depth check. To be sure your dadoes reach proper depth, make a test piece that easily fits the dado and draw a line on it at full depth.

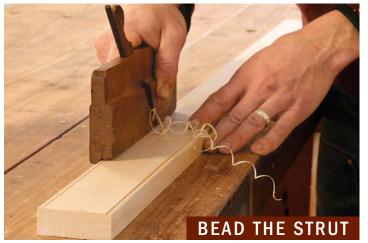


One tab on top. Saw out a pair of notches at the end of the top board to create a central tenon.





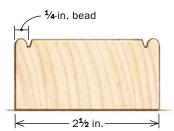
Matching notch. With saw and chisel, cut a central notch at the top of each side. Do the chopping and paring from both faces toward the middle to avoid blowout on the bottom face.



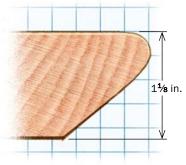


CROSS-STRUT PROFILE

Shape and trim. Use a molding plane or a scratch stock to shape beads on the upper cross strut. Trim the beads back (above right) to fit the cross strut in its notch in the case side.

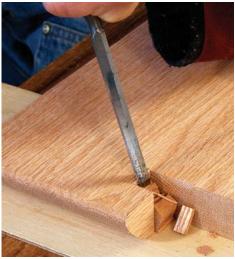


COUNTER PROFILE





Handplaned profile. Shape the edge of the counter with a handplane, working to lines drawn on the ends. Next, profile the ends of the counter that extend beyond the case sides.



Side notch. With the profiling finished and the danger of damaging fragile short grain gone, saw and chisel a notch to accept the case side.

them flat. I cut parts to final size only as needed during the build. You can mill your boards by machine, of course, but to see how I flatten rough boards by hand, see Handwork, *FWW* #239.

The curved cutouts in the sides give this hutch its individuality, and you can design a profile to suit your own tastes. I sawed out the bulk of the waste with straight ripcuts and crosscuts. Then I cut the curve with a bowsaw and cleaned up to the lines with a handplane and spokeshave. I used that completed side as a template to draw the cutout on the second side.

To make the foot cutouts, start with angled ripcuts, use a bowsaw to make the horizontal cut, and clean up with a chisel.

Cut the dadoes—All the major horizontal surfaces except the top are set into dadoes in the sides. I used a Japanese panel saw to make the parallel kerfs that establish the width of the dadoes. The saw's small curved head makes following a guide block simple and lets you start or end a cut in the middle of a board, as with the stopped dadoes. Once you've made the sawcuts, excavate the waste with a chisel. Clean up the bottom of the dado with a long chisel or grooving plane.

Box joints at the top—To secure the top to the sides, I chose a three-part box joint secured with nails. It provides multidirectional strength not offered by a nailed rabbet, yet is far easier to lay out and cut than dovetails. The single tenon of the top

is easily made with rip- and crosscuts, but the center notch in the side boards needs to be chopped with a chisel.

Notches hold the cross struts—The beaded cross strut at the bottom of the plate rack gets let into notches in the sides. Start those notches with multiple stopped sawcuts to the baseline, then chisel the rest of the waste. The lower cross strut, which is just below the counter and doubles as the top rail of the face frame, is also let into the sides, but those notches can be simply sawn out with a ripcut followed by a crosscut.

Make the shelves and counter

With the two sides finished, start the shelves and counter. To ensure consistency, lay out

FINE NAILING

Perfect nail prep. Get ready to nail by drilling pilot holes. Center the holes by eye in the dadoes and support the wood from below to prevent blowout.

Case construction



Against the wall. Assemble the case on its back, supported on a flat sheet of plywood and pushed against a wall.

the shelves with a story pole and then cut and plane their ends to length. Test-fit the shelves in the dadoes and shave their bottom edges if the fit is too tight. For the counter, make the cutouts at the ends so the counter slides into its dadoes. But wait to cut the small notches that lock over the case sides until you've created the counter's edge profile.

Cut the profile with a smoothing plane. Shape the front edge first, taking straight, continuous shavings from end to end. As

> you near the profile line, take lighter passes. The final curve will be made up of many facets, which can be left visible or



Counter locks the case. With the rest of the carcase assembled, move it away from the wall and slide in the counter.

Oak gets extra pilots. Prepare for nailing the oak counter by extending the pilot holes in the sides deep into the counter.



scraped smooth. I leave mine unscraped. Repeat the process on the two ends, working from the outside in to prevent blowout. Now cut the small notches.

A place for plates

The plate rack consists of two separate frames, each with riven oak spindles captured between an upper and lower rail. I drilled holes for the spindles with a 3/8-in. tapered bit. The slight taper of hole and tenon makes it easier to get a snug fit. I split the spindles from a piece of straight-



Rail reinforces the counter. The top rail of the face frame ties counter, face frame, and sides together. Hunter screws it to prevent sagging.



Flush the face frame. With the face-frame stile set into its notches, trace along the side, then trim the stile to fit, predrill, and nail it in place.

grained firewood and did most of shaping with a drawknife while the wood was still green. Green wood works like a dream, and it only takes a few days to dry the spindles near the woodstove. I wanted a roughly faceted look, so I left the texture right off the drawknife. For a smoother surface you could do some final shaping with a spoke-shave or block plane after the spindles dry.

With the spindles dry, taper their ends and fit them one by one to their holes. After fitting one end of a spindle, insert it in the rail and make a mark 12% in. up the shaft. Then fit the other end so it seats to the mark. Once all the spindles are fitted, you can trim the ends flush. I let the bottom ends protrude because I liked the way they looked.

I used an antique molding plane to cut the beads on the upper cross strut, but a scratch stock would also work. After you cut the beads, trim them back at each end to fit the strut into its notches. Leave the strut long to prevent splitting when you nail it in. You'll saw the ends flush after assembly.

Cut the face frame for the cabinet

The face frame—the vertical and horizontal members that surround and divide the doors—helps ground the piece visually and adds rigidity to its structure. The top rail of the face frame—the lower cross strut—is twice as thick as the upper strut, because the stiles of the face frame must be notched into it. This strut also has a



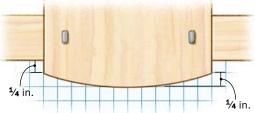
Center stile. Locked in place with a tenon at the top and nails into a notch below, the center stile provides added rigidity along with accurate openings for the doors.

mortise to mate with the tenon of the vertical divider between the doors. Chop this small mortise with a chisel, and make the mating tenon with handsaws and a paring chisel. To create the slight radius at the bottom end of the vertical divider—a small detail that has a big impact on the way the hutch looks—start with sawcuts and fair the curve with a smoothing plane.

I chop notches for the door hinges into the face frame before assembly, which makes cutting them much simpler. Make multiple crosscuts and clean up to the layout line



CENTER STILE



<u>Finishing touches</u>



Tapered holes for a tight fit. Using a tapered bit to cut the holes for the spindles makes fitting them easier.





Split and shave. Firewood and a splitting ax produce the raw material for the spindles. A drawknife shapes the green wood quickly. Hunter leaves his spindles roughly faceted. You could refine yours with a spokeshave or handplane.

with a chisel. To see how I make the doors themselves, see Handwork, p. 24.

Nail the assembly

With all the parts shaped, it is time to put them together. Begin by pre-drilling through the sides for all of the nails. To be sure you hit your mark, drill from the inside face, centering the bit in the dadoes while supporting the board from below to prevent blowout on the show face.

As with most of my projects in pine, I let the handplane create the finish. No treatment can come close to the sheen left on a soft wood with a sharp blade, and the honest surface gains a beautiful patina over time. So before nailing, finish-plane all of the parts, taking only the finest shavings to ensure that the joints will be tight.

Nailing starts with the hutch on its back. I position a workbench or horses near a wall, put a sheet of 3/4-in. plywood on top, and rest the cabinet on top of that. I push one side of the cabinet up against the wall to provide stability while nailing.

Begin assembly with the box joint at the top. Check that everything is square before nailing the top, two shelves, and bottom in place. With the first side secured, spin the plywood and place the nailed side against the wall, then nail the other side.

Pull the cabinet away from the wall and slip in the counter. Because the counter is



Taper the tenons. Fit the spindle ends one at a time to their holes, planing them to a taper. With one end of the spindles fitted, mark shoulder lines on the opposite end 12% in. from the face of the rail. Taper the second end until it fits up to that line.



permitted.



Set and secure the rack. Slide the front plate rack into place and then nail in the cross strut. Hunter drives nails up through the top rail of the rack into the top board of the cabinet.



Leave it long. To avoid splitting, leave the cross strut overlength until the nails are driven in. Then cut it flush to the case side.

oak, drill pilot holes into the end grain to ease the nailing. Use a long bit to extend the holes from the side into the counter.

Next, install the lower cross strut with nails into the case sides and screws up into the counter. The face-frame stiles are next. The tenon at the top of the center stile gets the only glue in the cabinet. Knock it in and then drive the nails at the bottom.

Slide the front plate-rack frame into place and nail through its upper rail into the top board. Then fit and nail the upper cross strut. Stand the cabinet on a level surface and secure the back plate-rack frame.

Adding the back—The back is made up of eight boards, shiplapped and painted. The shiplaps are cut with a rabbet plane with a shopmade fence. I brushed on the milk paint in three coats, and waited a few days before I assembled the piece. Since I painted only the fronts of the boards, I wet the backs before each coat to balance the moisture and avoid cupping.

Before nailing the back, square the cabinet one last time and brace it with a diagonal stick clamped to the front if need be. Nail the first plank so one edge is flush with the outside face of the cabinet side. Then work across the back, nailing each board twice to each horizontal, and shave the last piece to fit flush with the outside face of the other side of the cabinet.

Andrew Hunter designs and builds custom furniture in Accord, N.Y.

