

In this plan you'll find:

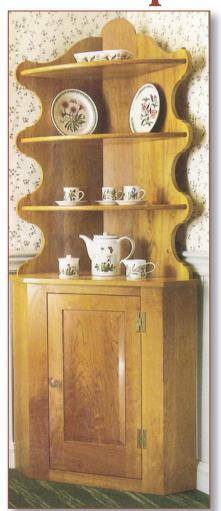
- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

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Early American Corner Cupboard



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PROJECTS

From the Wallace Nutting Collection

Early American

Corner Cupboard

hen it comes to utilizing wasted space in the home for storage and display, no one piece of furniture can equal the corner cupboard. In the typical Colonial or Early American home, where the small size meant space was always at a premium, corner cupboards were especially prized.

The cupboard shown is based on an original in the renowned Wallace Nutting Collection at Berea College, in Berea, Kentucky, and was built by the school's Woodcraft Furniture Division.

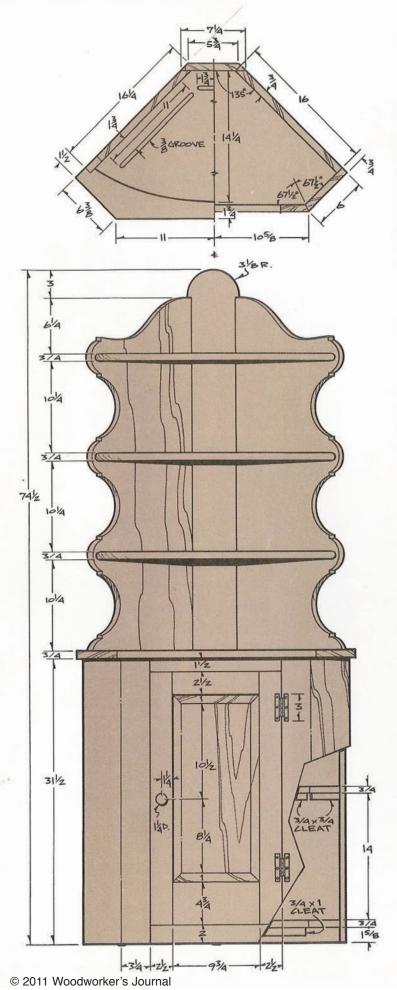
Although a corner cupboard such as this doesn't involve a great deal of complexity, it can be a challenge to assemble. Berea's craftsmen have solved much of the fuss by simply using screws for the bulk of the carcase construction. Indeed, the only actual joinery involved are the mortises and tenons that join the door frame parts.

The cupboard shown—in cherry—sells in the Berea College crafts catalog for about \$1800. But you should be able to build it for only a small fraction of that amount. Since all the stock for this piece is ³/₄ in. thick, this is the ideal project for those who may not own a thickness planer

Getting Out Stock

At first glance you might look at this cabinet and wonder at how many separate glue-ups you'll need just to yield the various shelves. But the old-timers who first dreamed up these corner units had a







This view from the top shows the 1/2 in. notch on the edge of the back.

rather clever way of building them. The primary parts of the carcase—the two sides (A) and the shelves (C, D and E)—are obtained from just four laminations, each 16 in. wide by 72 in. long (see Cutting Diagram).

We specify laminations for several reasons. First, a lamination of several boards is more stable than a single wide board, and second, 16 in. wide boards are as scarce as hen's teeth. Naturally, if you are fortunate enough to have access to wide boards, you could use them. Just make certain they are properly seasoned to minimize the chance of warping.

The remaining carcase and door frame parts—the back (B), case sides (F), stiles (G), rails (H, I), cleats (J, K), and the door stiles and rails (L, M, N)—can all be cut to length and width from available boards. You may need to laminate stock to get the 10¹/4 in. width for the door panel (O), but select stock carefully so the grain matches.

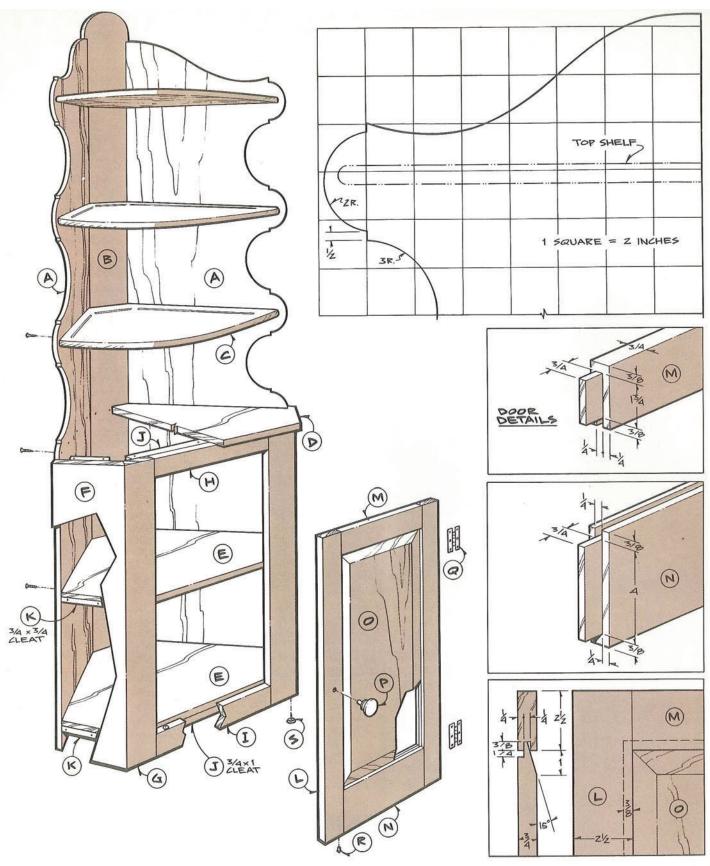
Think First

A corner cupboard presents certain assembly conundrums, not the least of which is what to do first. Though there are several options, here's ours.

Start by making the sides. Rip the 45-degree angle on the back edge of each side *before* you cut the scalloped profile. The easiest way to lay out the scallops is to use our grid pattern to transfer the pattern to a piece of Masonite or ¹/₄ in. plywood, from which a template is made. The plywood or Masonite template is then used to trace the scallops onto one side. Once cut, use the first side as a template to transfer the profile to the second side. Of course, you could simply also just use a compass to lay out the 2 in. and 3 in. radius scallops. Also cut the back board, but note that the back board is square edged at this point. The top radius and the 45-degree angles on the edges aren't established until later.

After the sides and back are cut, lay out and cut the six shelves. Just be sure to leave at least ¹/8 in. between the shelves at the layout stage to allow for the saw kerf between each shelf.

You may want to consider making a template with which to transfer the profile of the three upper shelves. The easiest way to establish the curved radius at the front of the three upper shelves is to first lay out the 15¹/4 in.

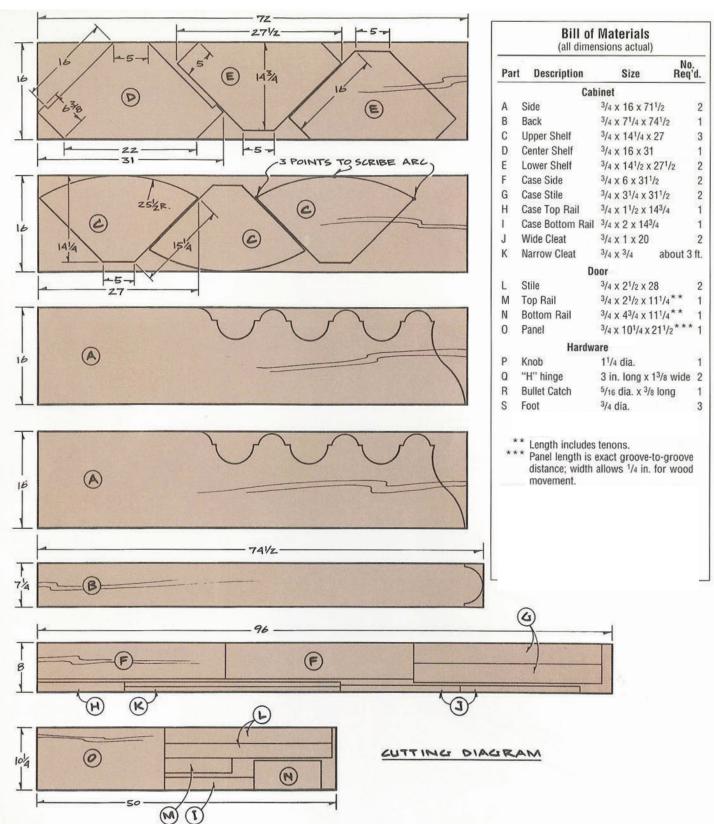


sides of the upper shelf, then measure and mark a point 14¹/4 in. from the center of the 5 in. flat at the shelf back. Now tie a length of string to a pencil, and determine the string length that will enable the pencil to scribe an arc touching the three points on the curved

shelf front, as illustrated in the suggested Cutting Diagram. Your string length should be equal to about a 25½ in. radius, but don't worry if it doesn't work out exactly. Since the curve on the upper shelf fronts doesn't affect anything, you can pretty much pick any curve that

pleases you.

The single most critical aspect of the corner cupboard construction is the uniformity of the 5 in. dimension at the back edge of all six shelves. If this dimension is consistent, then the cupboard should go together flawlessly.



When it comes time to actually cut out the shelves, unless you've got a really big shop, your table saw probably won't be large enough for a job like this. Instead, use a straightedge clamped to the board as a guide for the hand-held circular saw. The curved front edge of the three upper shelves is cut with a jig saw, and the router table and a bull-nose or round-over bit is used to establish the

bullnose molding on that same curved edge. The router equipped with a ³/s in. corebox bit and the edge guide is used to cut the optional plate groove in the three upper shelves.

Assembly Games

In certain ways, our corner cupboard is analogous to a boat. Using this boat analogy, the back would be the keel, the shelves are the ribs, and the sides are the planks. Though we wouldn't advise carrying our analogy too far (the cabinet is hardly seaworthy!), even in its assembly sequence, the cupboard's resemblance to standard boat construction methodology is remarkable. As with boat construction, you'll want a helper for the assembly.

Start by using a square to scribe index

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lines on the back and the two sides to locate each of the shelves. Screw through the back and into the center shelf (drill and counterbore all screw holes). First butt one side and then the other up to the back, and screw through each of the sides (in turn) into the center shelf. Add the two bottom and the three upper shelves in the same manner, screwing through both the back and the sides into each shelf. Also, drill and counterbore for screws through the back and into the back edge of the sides.

With the shelves all secured, you can next get to cutting and fitting the remaining case parts. Note that you'll rip a 22¹/₂ degree angle on the mating edges of the case sides and stiles. Three cleats (each about ³/₄ in. square by about 4¹/₂ in. long) screwed to the inside face of each case side are used to mount the case sides to the center and lower shelves, as shown in the exploded view.

The case face frame, consisting of the case stiles, and the upper and lower rails can be made next. We haven't specified any joinery for these parts, but if you have a biscuit joiner, or use dowels, either would be appropriate. However, since these parts are backed up by a pair

of wide (3/4 in. by 1 in. by 20 in. long) cleats, you could even just butt join them. Once the case frame has been assembled and test fit, apply glue to the mating edges of the case sides and stiles, and mount the face frame by screwing up through the wide cleats and into the shelves. A pair of narrow cleats are screwed to the back of the case stiles and up into the bottom of the uppermost of the two lower shelves.

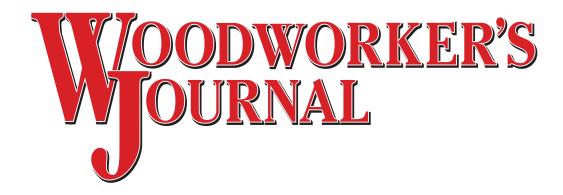
Your work on the case is nearly complete, but several details remain. You'll note from the Bill of Materials that the back is 71/4 in. wide. The radius that's cut on the top is only 31/8 in., which translates into a 61/4 in. diameter, or a 1 in. difference between the diameter and the overall width of the piece. The detail photo on page 32 should resolve this apparent discrepancy. As the photo clearly shows, you'll need to notch in 1/2 in. on each edge of the back before establishing the 31/8 in. radius. The final case detail is to take a sharp hand plane and plane the back flush with the sides. Since all your screwheads are countersunk, they should be well out of the way of your plane blade.

With the case complete, you can now go to work on the door. Although our Bill of Materials lists specific dimensions for the door parts, in practice, you'll want to take your measurements directly from the door opening. We show a mortise and tenon joint for the door frame (see Door Detail), but biscuits or dowels would also be fine. As the door cross section shows, the door panel is 3/4 in. thick. A 1/4 in. deep by 5/8 in. wide rabbet all around the back of the panel enables the panel to fit flush with the front of the door frame. Be sure to size the width of the panel to allow for expected wood movement.

Finishing Up

Our piece sports a lacquer finish, but any finish from penetrating oil to polyurethane would be appropriate. Use whatever best matches your decor, and what you are comfortable with.

Once the finish is dry, add the hardware.



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Matt Becker Internet Production Coordinator