

# WOODWORKER'S JOURNAL

"America's leading woodworking authority"™

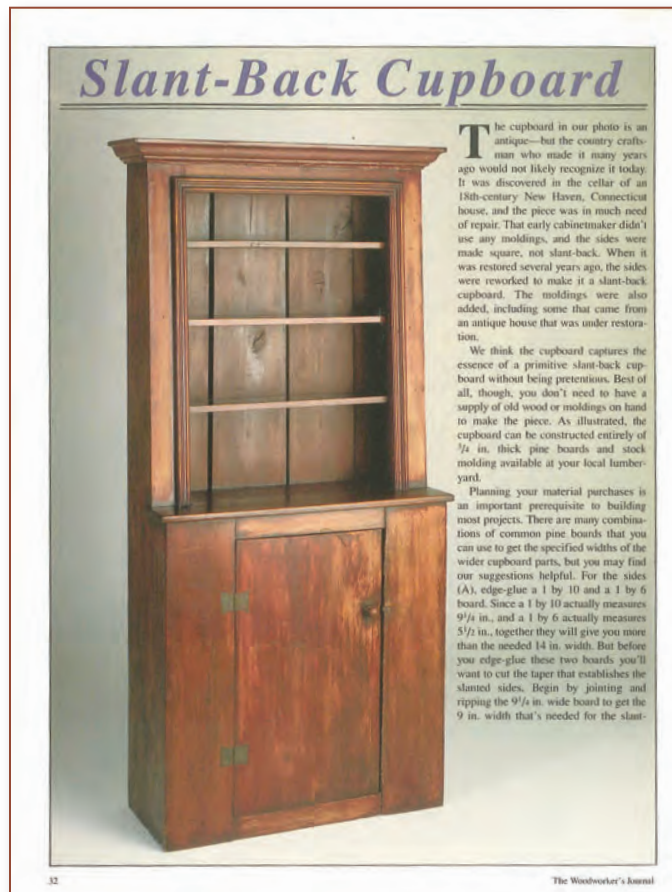


## Classic Project

### 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.

## Slant-Back Cupboard



To download these plans, you will need **Adobe Reader** installed on your computer. If you want to get a free copy, visit: <http://adobe.com/reader>.

### Having trouble downloading the plans?

Right click on the download link and select "Save Target As..." or "Save Link As..." (depending on the web browser you are using) to download to your local drive.

Published in *Woodworker's Journal* July/August 1990

Copyright *Woodworker's Journal* © 2010  
This pattern is copyrighted by *Woodworker's Journal*.  
Purchasers of this plan may make three copies for personal use in the shop. The pattern itself, however, is the property of *Woodworker's Journal* and is not to be reproduced for distribution or resale. Doing so, including via any electronic methods, is a violation of copyright law.

[www.woodworkersjournal.com](http://www.woodworkersjournal.com)

**\$1.00**

WJC036

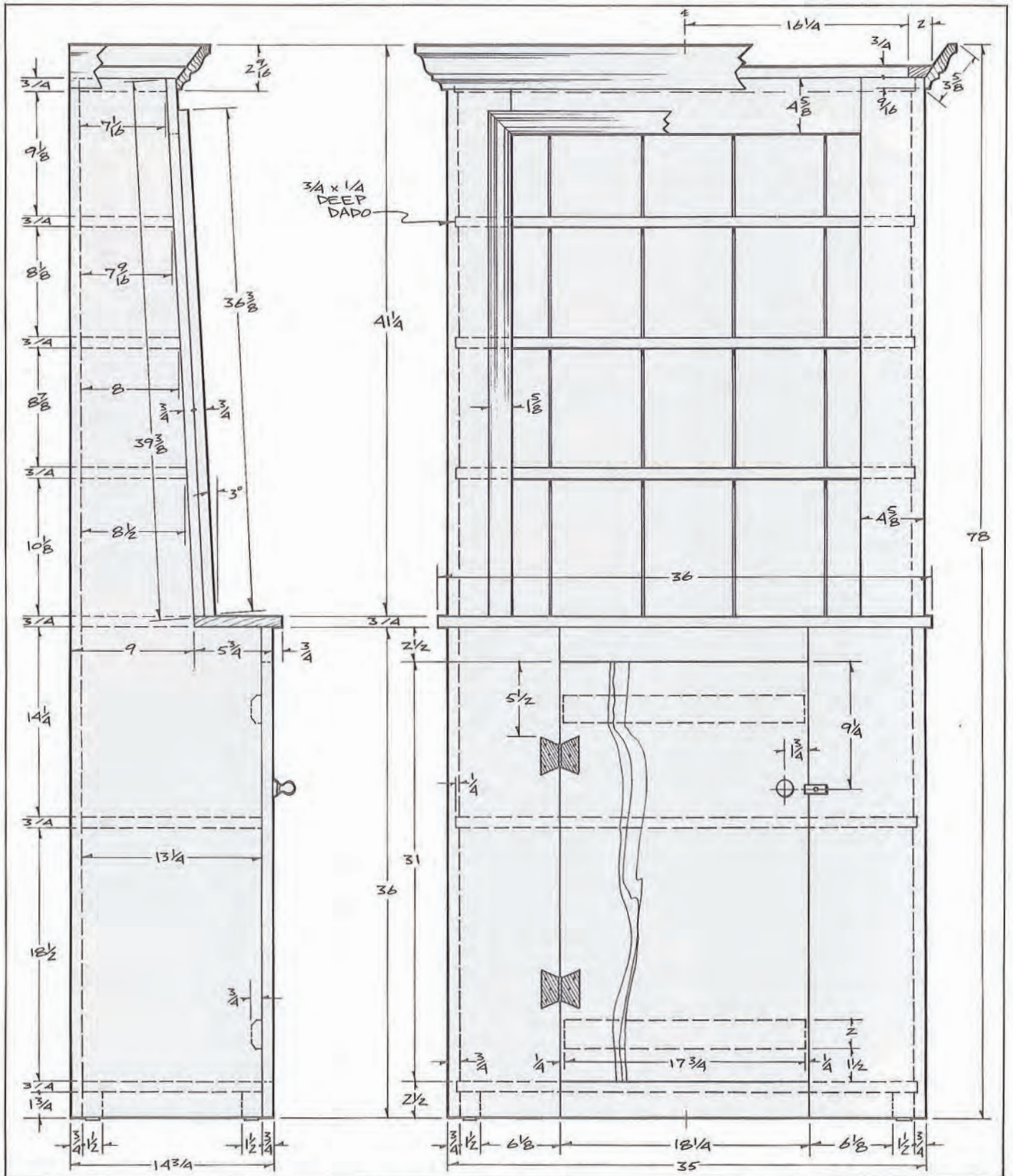
# Slant-Back Cupboard



**T**he cupboard in our photo is an antique—but the country craftsman who made it many years ago would not likely recognize it today. It was discovered in the cellar of an 18th-century New Haven, Connecticut house, and the piece was in much need of repair. That early cabinetmaker didn't use any moldings, and the sides were made square, not slant-back. When it was restored several years ago, the sides were reworked to make it a slant-back cupboard. The moldings were also added, including some that came from an antique house that was under restoration.

We think the cupboard captures the essence of a primitive slant-back cupboard without being pretentious. Best of all, though, you don't need to have a supply of old wood or moldings on hand to make the piece. As illustrated, the cupboard can be constructed entirely of  $\frac{3}{4}$  in. thick pine boards and stock molding available at your local lumberyard.

Planning your material purchases is an important prerequisite to building most projects. There are many combinations of common pine boards that you can use to get the specified widths of the wider cupboard parts, but you may find our suggestions helpful. For the sides (A), edge-glue a 1 by 10 and a 1 by 6 board. Since a 1 by 10 actually measures  $9\frac{1}{4}$  in., and a 1 by 6 actually measures  $5\frac{1}{2}$  in., together they will give you more than the needed 14 in. width. But before you edge-glue these two boards you'll want to cut the taper that establishes the slanted sides. Begin by jointing and ripping the  $9\frac{1}{4}$  in. wide board to get the 9 in. width that's needed for the slant-

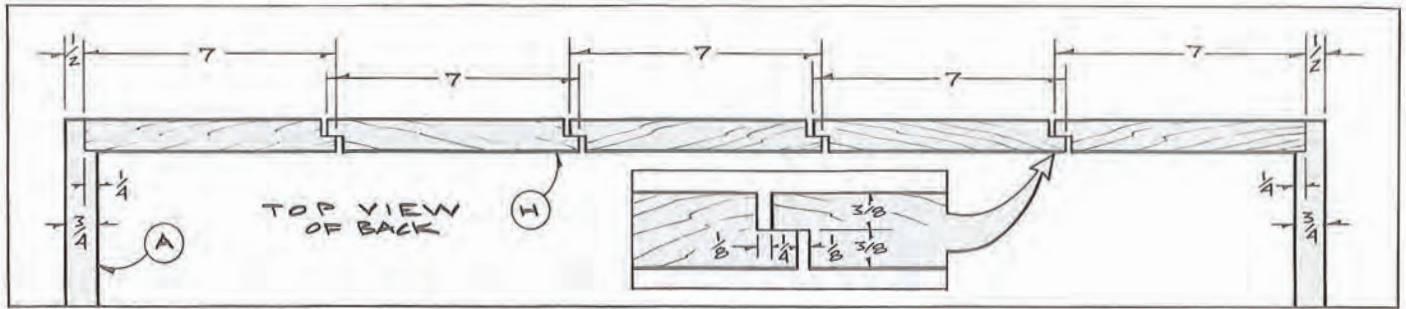


back upper section. The usual procedure here is to first joint one edge of the board to get a straight edge and then move to the table saw to rip away any excess from the opposite edge. With the jointed edge against the table saw rip fence, rip the opposite edge to establish the width,

leaving about 1/16 in. extra. This 1/16 in. is then cleaned up with one or two passes over the jointer.

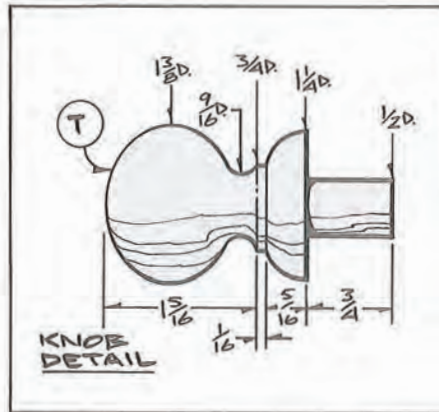
Next, lay out the 3-degree taper. The taper starts 36 in. up from the bottom end of the board. You can use a tapering jig and make the taper cut on the table

saw, but working with a board this long can be awkward. You may need to rig a special jig just for this cut, given the length of the sides. It's much easier to use a band saw or handheld circular saw to rough cut the taper, and then clean down to the pencil line with a hand



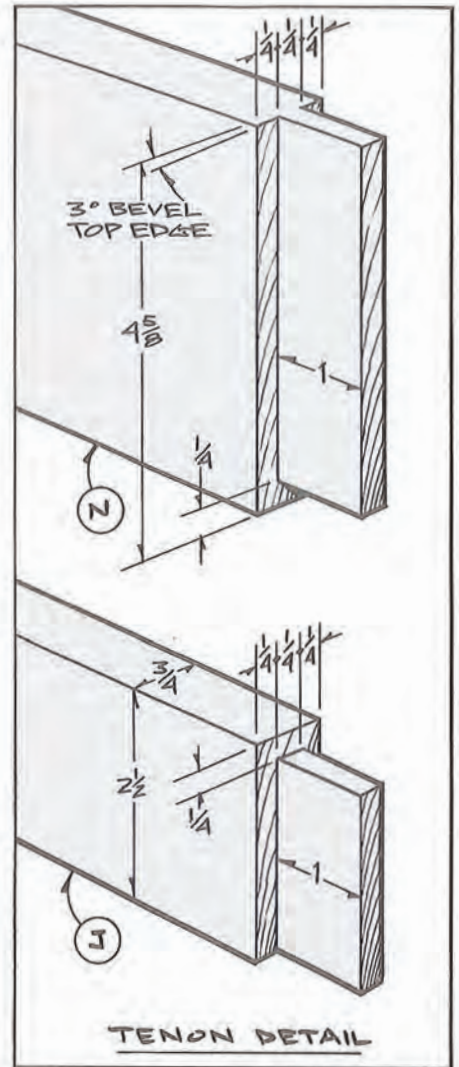
Bill of Materials (all dimensions actual)			
Part	Description	Size	No. Req'd.
A	Side	3/4 x 14 x 76	2
B	Bottom Shelf	3/4 x 13 1/4 x 34	2
C	Middle Shelf	3/4 x 14 3/4 x 36	1
D	Open Shelf (lower)	3/4 x 8 1/2 x 34	1
E	Open Shelf (middle)	3/4 x 8 x 34	1
F	Open Shelf (upper)	3/4 x 7 9/16 x 34	1
G	Top	3/4 x 7 1/16 x 34	1
H	Back	see Detail	as req'd
I	Bottom Stile	3/4 x 8 3/8 x 36	2
J	Bottom Rail	3/4 x 2 1/2 x 20 1/4*	2
K	Door	3/4 x 18 1/4 x 31	1
L	Cleat	3/4 x 2 x 17 3/4	2
M	Upper Stile	3/4 x 4 5/8 x 39 3/8	2
N	Upper Rail	3/4 x 4 5/8 x 27 3/4*	1
O	Molding Cleat	3/4 x 2 in. stock	6 ft.
P	Crown Molding	3 5/8 in.	6 ft.
Q	Trim Molding	see Detail	9 ft.
R	Foot	1 1/2 x 1 1/2 x 13 3/4	4
S	Leveler	as shown	4
T	Knob	as shown	1
U	Turnbutton	1/2 x 5/8 x 1 1/2	1
V	Butterfly Hinge	3 1/2 x 2 1/2**	2

\* Length includes tenons.  
\*\* Length includes tenons.



Your next job is cutting the 3/4 in. wide by 1/4 in. deep shelf dadoes. You could make these cuts with the dado head, but again it's awkward to work with pieces this large on the average table saw. A better choice is the router. Butt the two sides along their back edges, make sure they are flush at the bottom, then lay out the dadoes. Use a 3/4 in. diameter straight cutter in the router, and a straightedge as a guide, and make the dado cuts. For the 3/4 in. wide by 1/4 in. deep rabbets at the top end and along the back edge of both sides, switch to an edge-guide for the router. Use two passes, removing 1/8 in. of stock with each pass.

Next, cut the shelves (B, C, D, E and F) and the top (G). You'll need to edge-glue boards to get the width needed for the bottom and middle shelves. Two 1 by 8's will yield the bottom shelf and a 1 by 6 and 1 by 10 will yield the middle shelf. Note that the short leg of the notch in the middle shelf is cut at a 3-degree angle to match the slope of the slant-back sides. Don't worry about cutting the widths of the top and the three open shelves to the exact dimensions listed in our Bill of Materials. In practice, it's best to start with boards that are a little wider than needed. Rip one edge of the three open shelves and the top to establish the 3-degree bevel. You'll make a ripping cut along the back

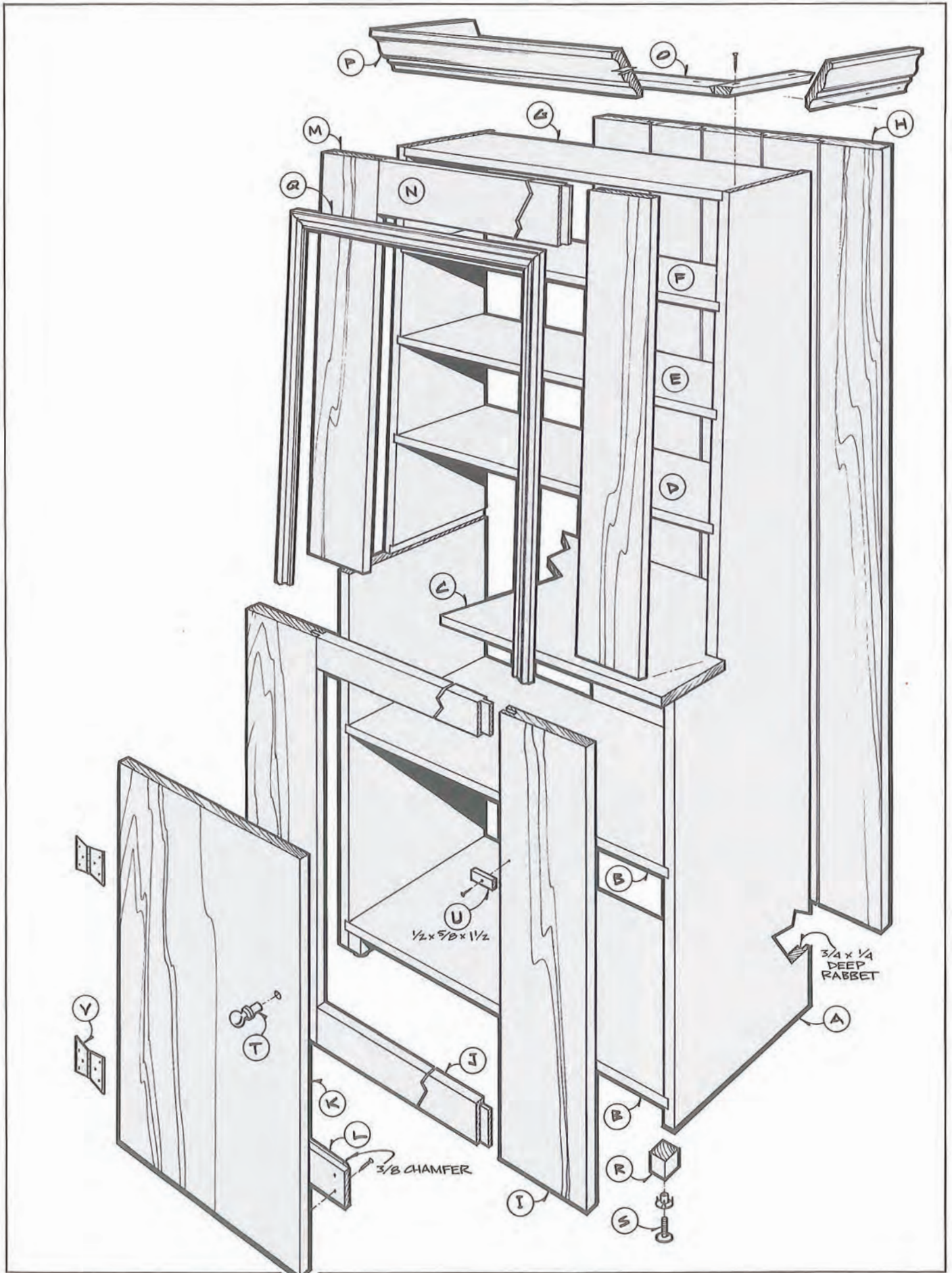


edges of these parts to establish the final width after dry-fitting them to the case.

The cupboard should be laying on its back as you assemble it. Lay the 3/4 in. thick boards for the back (H) under the back edge of the shelves and top. That way the shelves and top will be properly located with respect to the rabbets for the back parts, which are added later. Test-fit the top and three upper shelves, then adjust if needed. Glue up the case parts, assemble and clamp securely. Use a framing square to check for squareness, adjust if needed and set aside to dry.

plane. Don't forget that you'll need two boards, since the cabinet has two sides.

Now reduce the 5 1/2 in. wide board to a 5 in. width, ripping and jointing as before. Then cut the 5 in. wide board to a 36 in. length, edge-glue it to the 9 in. wide board so the bottom edges are flush, and repeat the procedure for the opposite side. There are other ways to make the sides, but this way simplifies cutting the taper and results in almost no waste.

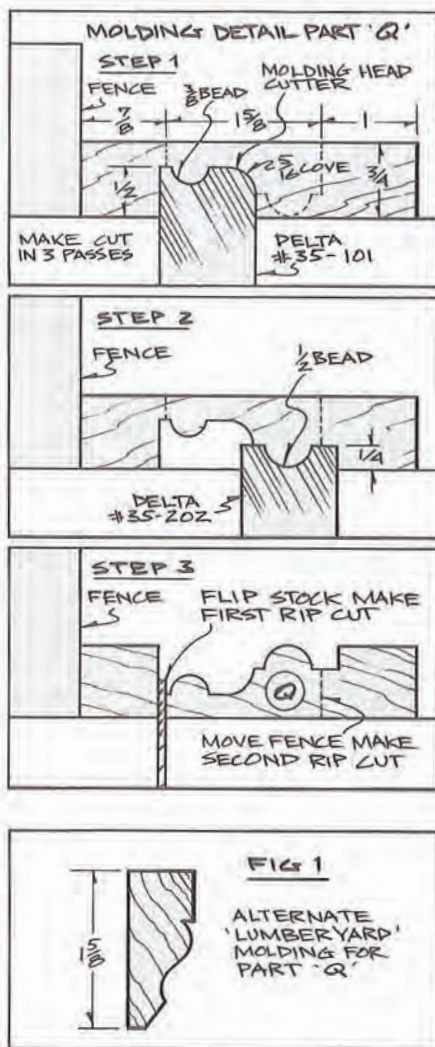


While the case is drying, make the two face frame assemblies. The bottom face frame consists of two stiles (I) and two rails (J), while the upper face frame has two stiles (M) but only one rail (N). Refer to the Tenon Detail for the dimensions of the face frame mortise and tenon joints. When making the upper face frame, note that the Bill of Materials length dimension for the stiles is point-to-point. The best way to get the upper face frame right is to cut a 3-degree angle on the bottom end of both stiles, but leave the top end of the stiles and the top edge of the upper rail square. Then use a hand plane to flush the top of the upper face frame with the case after assembly. Leave a little extra on the width of both face frames. That way a few passes with the hand plane will flush the face frame edges with the case sides. The face frames are glued in place, but if you like the primitive look you can add old-fashioned cut nails here and through the sides into the shelves.

Now is a good time to add the back. The back boards are cut from 1 by 8 stock, which results in almost no waste. Use a dado head with the table saw or a rabbeting bit in the router to shiplap all the edges except those on the two outside back boards. Note that when mounting the back you'll want to maintain a  $\frac{1}{8}$  in. space between the boards, as shown in the back detail. This allows for any wood movement that may occur. The two outside back boards can be glued into the rabbets in the sides, but use screws for the remaining back board assembly. Screws through the back boards into the top and the various shelves should provide plenty of holding power.

Also make the door (K). Note that a single board door will have a greater tendency to cup than a door that's glued up from several boards. If you can find some stock that has quartersawn grain, use it. Quartersawn grain will produce the most stable door. Add two cleats (L) as stiffeners against cup. Our Special Techniques article on page 22 shows an interesting dovetailed cleat system that would also be suitable here. Size the door for a tight fit; chances are the pine will shrink a bit. If the door sticks, a few

strokes with the hand plane along the edge will solve the problem. Turn the knob (T) to the dimensions shown in the Knob Detail and add the turnbutton (U). Sources for either factory-made reproduction butterfly hinges or the hand-forged butterfly hinges (V) we used are listed in the Bill of Materials. Black iron H-hinges, available at most hardware stores, would be a good alternate choice.



The crown molding (P) around the top of the cupboard is a lumberyard variety crown molding. Our molding measured  $3\frac{5}{8}$  in. wide, which when mounted at a 45-degree angle translated into a  $2\frac{9}{16}$  in. height. As shown in the exploded view, we used a molding cleat (O) to securely fasten the molding to the cupboard. You could simply glue the molding at the front and use finishing nails at the sides, but finishing nails don't provide much strength. Also, with most crown moldings, just gluing the front and nailing the

sides leaves a large portion of the molding unsupported. The cleats provide needed support. To make the cleats, take a 3 ft. length of 1 by 4 pine, rip at a 45-degree angle down the middle to get your 6 ft. of cleat stock, then cut to length. The side cleats and molding pieces are glued together, but be careful not to glue the molding to the sides. The slotted holes in the side cleats allow wood movement in the cupboard sides as they adjust to changes in humidity.

The trim molding (Q) is made with a Delta molding head, as shown in the Molding Detail. You'll need two cutters: a combination  $\frac{5}{16}$  in. cove and  $\frac{3}{8}$  in. bead cutter, and a  $\frac{1}{2}$  in. bead cutter. Start with a wide piece of stock, make the molding head cuts as shown in Steps 1 and 2, then flip the stock over and rip away the excess as shown in Step 3 to produce the final  $1\frac{5}{8}$  in. molding width. If you don't have a Delta molding head, or would rather buy a stock molding, your local lumberyard should carry a variety of moldings that would look good here. Ask to see their base and band moldings, and select a profile that you like. Fig. 1 shows a suitable  $1\frac{5}{8}$  in. wide band molding that we found at a local yard.

Because the bottom of this cupboard has a flush edge all around, it presents a problem of unsteadiness on floors that aren't perfectly flat. We've solved the problem by adding a foot (R) and leveler (S) at each corner. The levelers should be available from your local hardware store.

For an antique look, try distressing the piece before applying a finish. To finish, wipe on a brown stain—such as Minwax no. 230 Early American—followed by some barn-red latex paint, then wipe off most of the paint while still wet. If you like the protection that polyurethane provides, but don't like the fussy application procedure or the plastic look that brushing polyurethanes produce, try one of the new wiping polyurethane gels. They give much of that famous polyurethane protection, while looking more like a penetrating finish than a surface coating. Before applying any finish to your cupboard, though, first try the technique on some scrap that's left over from the construction. You wouldn't want to be surprised at this stage of the game.

# WOODWORKER'S WJOURNAL

Thank you for purchasing this *Woodworker's Journal* Classic Project plan.

*Woodworker's Journal* Classic Projects are scans of much-loved woodworking plans from our library of back issues. Please note that specific products and sources cited in a plan when it originally appeared may no longer be available.

If you experience any problems with this plan, please contact: [info@woodworkersjournal.com](mailto:info@woodworkersjournal.com)

or

Attn: Classic Projects  
Woodworker's Journal  
4365 Willow Drive  
Medina, MN 55340

Thank you again for your purchase, and happy woodworking!

Matt Becker  
Internet Production Coordinator