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CORNER CUPBOARD

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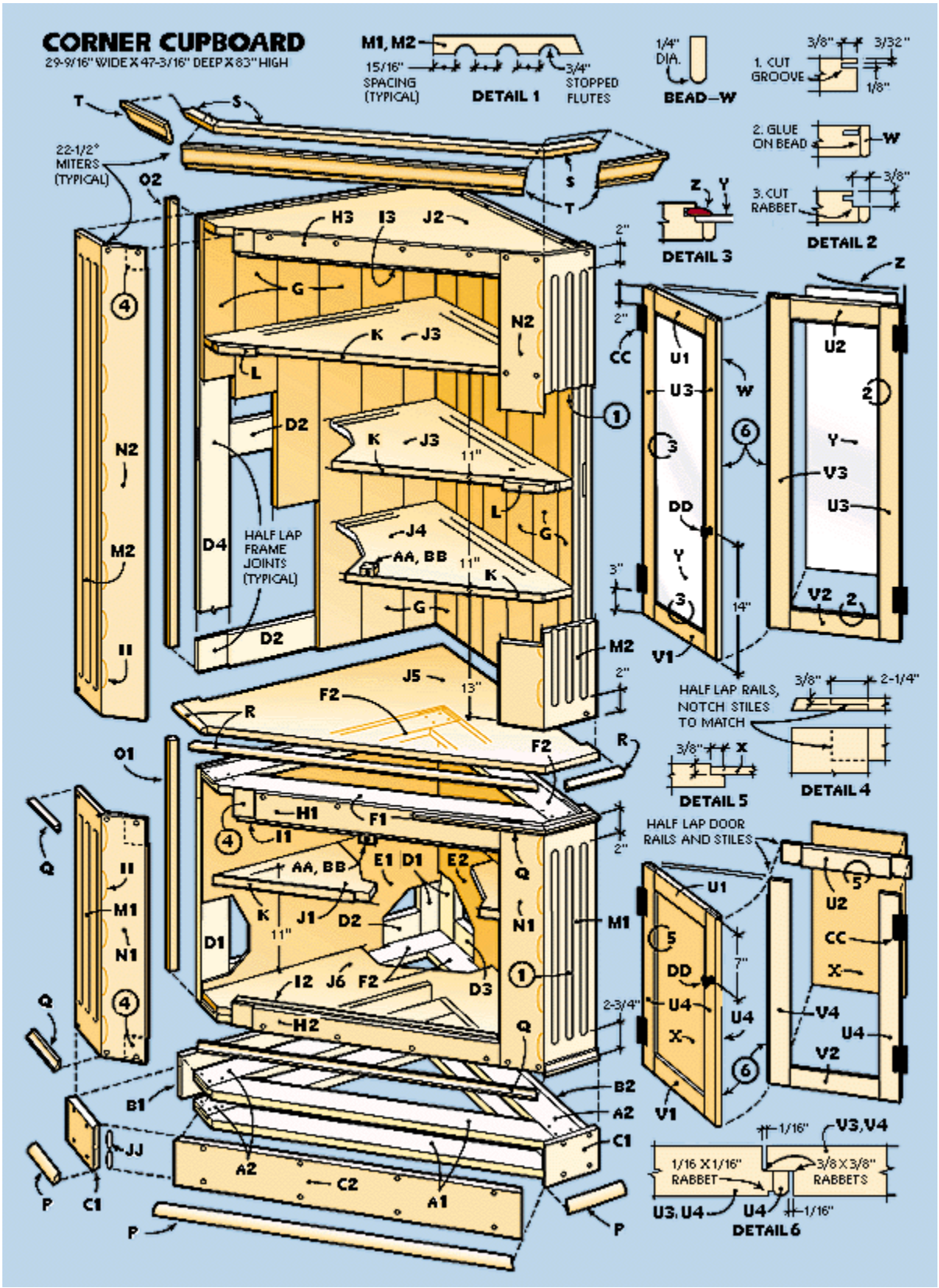

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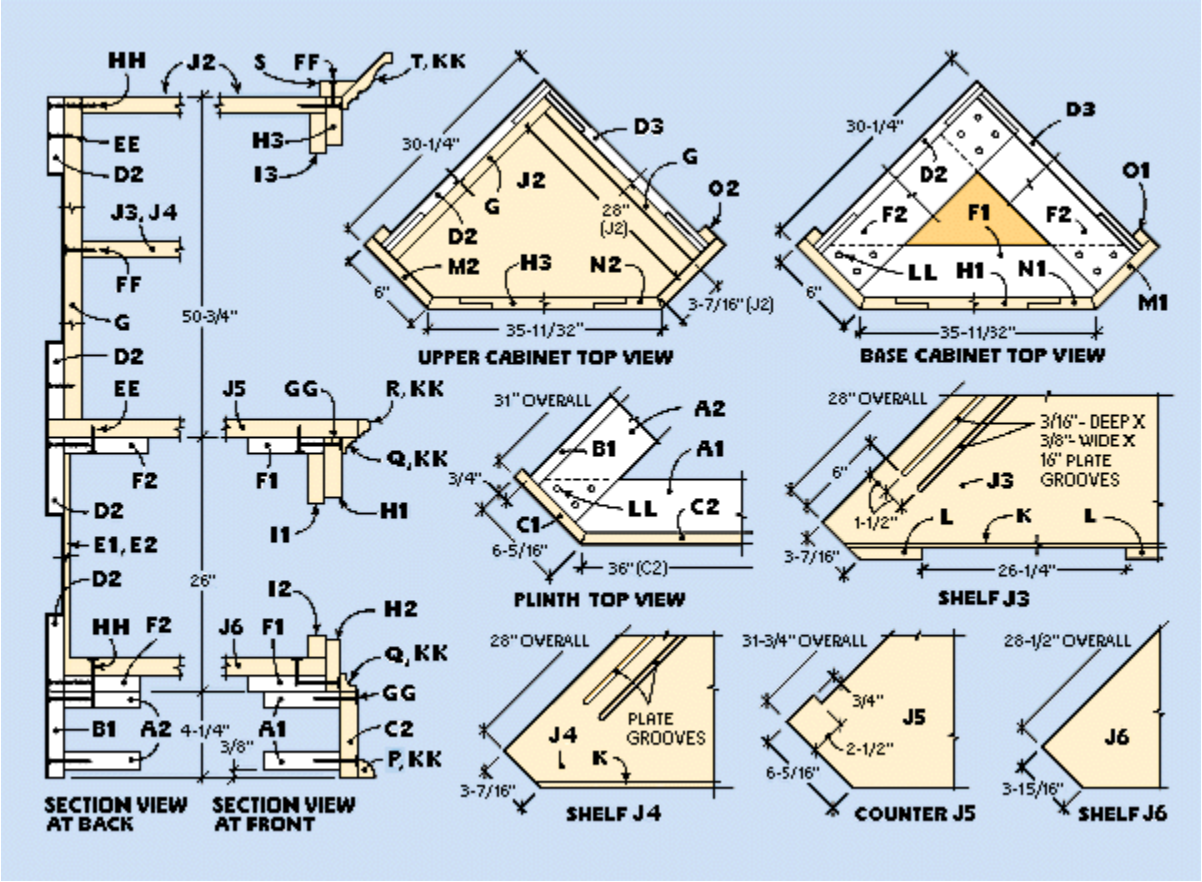

Materials List

Key	No.	Size and description (use)
A1	2	3/4 x 3 1/2 x 41 3/4" pine (plinth frame)
A2	4	3/4 X 3 1/2 X 29 1/2" pine (plinth frame)
B1	1	3/4 X 4 1/4 X 30 1/4" pine (plinth back)
B2	1	3/4 X 4 1/4 X 29 1/2" pine (plinth back)
C1	2	3/4 X 4 1/4 X 6 5/16" pine (plinth front)
C2	1	3/4 X 4 1/4 X 36" pine (plinth front)
D1	4	3/4 X 3 1/2 X 26" pine (back frame)
D2	5	3/4 X 3 1/2 X 29 1/2" pine (back frame)
D3	5	3/4 X 3 1/2 X 28 3/4" pine (back frame)
D4	4	3/4 X 3 1/2 X 50" pine (back frame)
E1	1	1/4 X 24 1/2 X 28 3/4" plywood (back panel)
E2	1	1/4 X 24 1/2 X 28 1/2" plywood (back panel)
F1	2	3/4 X 3 1/2 X 40 5/8" pine (frame)
F2	4	3/4 X 3 1/2 X 28 3/4" pine (frame)
G	12	3/4 X 5 1/2 X 50" pine (back panel)*
H1	1	3/4 X 2 3/4 X 30 9/16" pine (rail)

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H2	1	3/4 X 2 3/8 X 30 9/16" pine (rail)
H3	1	3/4 X 2 1/4 X 30 9/16" pine (rail)
I1	1	3/4 X 2 1/4 X 30" pine (doorstop)
I2	1	3/4 X 1 X 30" pine (doorstop)
I3	1	3/4 X 13/4 X 30" pine (doorstop)
J1	1	3/4 X 26 5/8 X 26 5/8" plywood (shelf)
J2	1	3/4 X 28 X 28" plywood (top)
J3	1	3/4 X 28 X 28" plywood (shelf)
J4	1	3/4 X 28 X 28" plywood (shelf)
J5	1	3/4 X 313/4 X 313/4" plywood (counter)
J6	1	3/4 X 28 1/2 X 28 1/2" plywood (bottom)
K	1	1/4 X 3/4" X 12' pine (edge band)**
L	4	3/4 X 3/4 X 5" pine (spacer)***
M1	2	3/4 X 6 X 26" pine (side)
M2	2	3/4 X 6 X 50" pine (side)
N1	2	3/4 X 4 5/8 X 26" pine (stile)
N2	2	3/4 X 4 5/8 X 50" pine (stile)
O1	2	3/4 X 1 X 26" pine (cleat)
O2	2	3/4 X 1 X 50" pine (cleat)
P	1	3/4" X 5' pine quarter round (trim)**
Q	1	5/8 X 3/4" X 10' pine cove (trim)**
R	1	5/8 X 3/4" X 5' pine cove & nose(trim)**
S	1	3/4 X 1 3/4" X 5' pine (cleat)**
T	1	31/2" X 5' pine crown (trim)
U1	2	3/4 X 1 7/8 X 12 7/8" pine (top door rail)
U2	2	3/4 X 1 7/8 X 13 1/8" pine (top door rail)
U3	3	3/4 X 1 7/8 X 35" pine (top door stile)
U4	3	3/4 X 1 7/8 X 20 3/4" pine (lower door stile)
V1	2	3/4 X 2 1/4 X 12 7/8" pine (lower door rail)
V2	2	3/4 X 2 1/4 X 13 1/8" pine (lower door rail)
V3	1	3/4 X 2 1/8 X 35" pine (top door stile)
V4	1	3/4 X 2 1/8 X 20 3/4" pine (lower door stile)
W	1	1/4 X 3/4" X 22' pine lattice (beading)**
X	2	1/4 X 9 1/4 X 17" plywood (door panel)
Y	2	1/10 X 9 5/8 X 31 3/4" glass (door glass)
Z	1	15' glass retainer, No. 27078**†
AA	2	3/4 X 1 X 1 3/8" pine (latch block)
BB	2	magnetic latch
CC	2	pair H hinges, No. 76067

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DD	4	knob, No. 76117
EE	As reqd.	1 1/4" drywall screw
FF	As reqd.	1 1/2" drywall screw
GG	As reqd.	2" drywall screw
HH	As reqd.	2 1/2" drywall screw
II	As reqd.	No. 20 joining plate
JJ	As reqd.	No. 0 joining plate
KK	As reqd.	1 1/4" finishing nail
LL	As reqd.	3/4" finishing nail
Misc: Glue, paint, and 1/8"-radius half-round router bit (part #TF82102) available at *Trendlines*, 135 American Legion Highway, Revere, MA 02151; call 800/767-9999 to order).		
* 1x6" beaded tongue-and-groove ** Overall quantity indicated, cut to length as required. *** Cut to fit †(available at *The Woodworkers' Store*, 4365 Willow Drive, Medina MN 55340; call 800/610-0883 to order)		

Case Construction

Begin by cutting 1 x 4 stock to length for all of the 31/2-in. frame members. Rip 1 x 6 stock to 41/4 in. for the wider plinth frame pieces. Mark all of the square half lap joints for the vertical and horizontal frames, and code the pieces with letters so you won't get them mixed up.

Build a router lapping jig by securing two 16-in.-long 1 x 6 boards to a worksurface so they're 31/2 in. apart. At one end of the space between the 1 x 6s, secure a 6-in.-long 1 x 4 stopblock between the boards. Then place the first workpiece between the 1 x 6s and against the stopblock. Measure the distance from the edge of your router's baseplate to the cutting edge of a 3/4-in. straight bit, and use this dimension to locate the four guide strips that will limit the router's path to the size of the half lap joint.

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With the bit set for a 3/8-in.-deep cut and the workpiece butted against the stopblock, shape the half lap while moving the router within the four guide strips **(Photo 1)**. To cut the angled half lap joints in the horizontal frames, first lay the parts together and mark the 45 degree joints. Then, build similar jigs for these pieces and rout the half lap joints.

Apply glue to the mating surfaces of all the joints, assemble and then drive four 3/4-in. nails from each side of each joint. Double-check that the frames are square and set them aside until the glue dries.

Crosscut boards for the upper and lower case sides and stiles to finished length. Then, plane one edge of each board straight and smooth. Adjust your circular saw for a 22 1/2 degree bevel and tack a straight-edge guide strip to each piece to cut the beveled edges **(Photo 2)** and plane smooth. Mark the joining plate locations and cut the slots with a plate joiner. If your plate joiner fence can't be set for the angled edge of the work, construct a 22 1/2 degree platform jig to hold the joiner square to the edge **(Photo 3)**.

Before joining the case sides to the stiles, install a 3/4-in. corebox bit in your router and cut the stopped flutes in the sides. Use a router fence to make the cuts, as shown. If you don't have a router fence, mount your router to a shop-built sliding carriage **(Photo 4)**. Set the fence to make the two outer flutes first, then reset it for the middle flute. Rout the blind half laps at the top of the upper case stiles and at the top and bottom of the lower case stiles.

To join the sides to the stiles, first make a set of L-shaped clamping brackets **(Photo 5)**. Cut the upper edge of the short leg of each bracket at 45 degree. Apply glue to the plate joints and along the beveled edges. Clamp the brackets to the case sides, and draw the sides to the stiles with bar or pipe clamps.

Next, glue and screw together the two rear

1 --Rout the half lap joints with a straight bit. Hold workpiece in a jig that has guide strips to confine the cut to the lap area.

2 --After planing one edge of the case sides and stiles, use a circular saw to cut 221/2 degree bevel. Use a straight strip to guide saw.

3 --Cut the plate joint slots in the beveled edges of the case sides and stiles. Build a jig to hold the joiner at 221/2 degrees if required.

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frame subassemblies to create the back corner frame for the upper and lower cases. Cut to length 12 50-in. pieces of 1 x 6 beaded tongue-and-groove pine. Then, starting at the corner of the upper case frame, attach the boards with glue and screws driven from the back of the frame **(Photo 6)**. Rip the last board on each side to exact width before installing. Follow this step by adding the 3/4 x 1-in. cleats, as shown. Cut to size the plywood shelves, the upper case top, lower case bottom and counter with a circular saw and plywood blade. Use a sabre saw to finish the long notch on each back edge of the counter. Use a 3/8-in.-dia. corebox bit to rout the 3/16-in.-deep plate grooves in the three upper shelves.

Temporarily clamp the top and the three shelves to the upper case back assembly. Tack triangular blocks to the panels to provide clamping surfaces **(Photo 7)**. Then, bore screw pilot holes for attaching the panels to the back assembly. Remove the shelves, add the edge banding and attach the spacer blocks, as shown. Reassemble the shelves and back with screws and glue. Mark the exact position of the upper face rail and install. Finally, bore countersunk pilot holes for installing the side/stile subassemblies and install with glue and screws **(Photo 8)**. Join the triangular lower case frames to the rear frames with screws and glue **(Photo 9)**.

4 --Use a corebox bit and router to make the stopped flutes. A shopmade carriage supports router in correct position.

5 --Attach L-shaped pieces to side to facilitate clamping side to stile. When the glue has cured, scrape away excess.

6 --After back frames have been assembled, secure the beaded paneling

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with glue and screws driven from the back of frame.

7 --After cutting shelf panels, tack triangular blocks to corners and clamp panels to back assembly. Bore screw pilot holes.

8 --Join shelves to back with screws and glue. Then, apply glue and install side and stile assemblies with countersunk screws.

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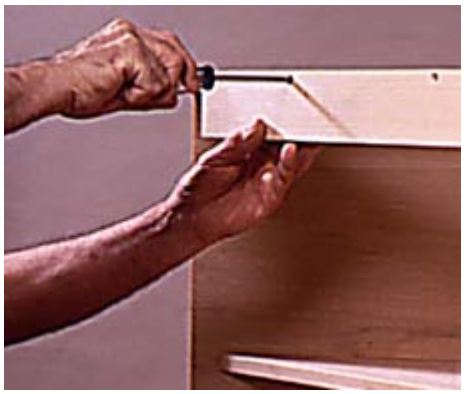
Attach the 1/4-in. plywood panels with glue and nails. Screw and glue the case bottom and shelf to the assembly, and add the face rails **(Photo 10)**. Finally, secure the side/stile subassemblies.

9 --Use screws and glue to join the triangular lower frames to the back frames. Bore pilot holes to avoid splitting the wood.

Miter the ends of the plinth face pieces and slot for plate joints. Then, screw and glue the plinth backs to the triangular frames. Add the long front face piece, and finish the assembly by attaching the ends **(Photo 11)**.



10 --After the lower case frame and back panels have been assembled, add the rails that go across the top and bottom.

Doors And Trim

Rip the beveled cornice support cleat to size with a 45 degree bevel on one edge. Then, use a simple wood miterbox to cut the 22 1/2 degree miters at the exact length. Next, glue and nail the cleats to the case top.

To cut the compound cornice miters, place the stock in the miterbox and tilt it at a 45 degree angle so its top edge is on the base of the miterbox and the back edge rests against the back of the miterbox. Cut the long section first. Then, cut the miters for the case sides to exact length. Attach the crown molding with glue and finishing nails **(Photo 12)**. Miter the remaining trimpieces to exact length, and install with glue and finishing nails **(Photo 13)**. Set all nails below the surface, fill and sand smooth.

11 --Use plates to join the plinth face pieces. Join the long piece to the plinth frame first, then add the short endpieces.

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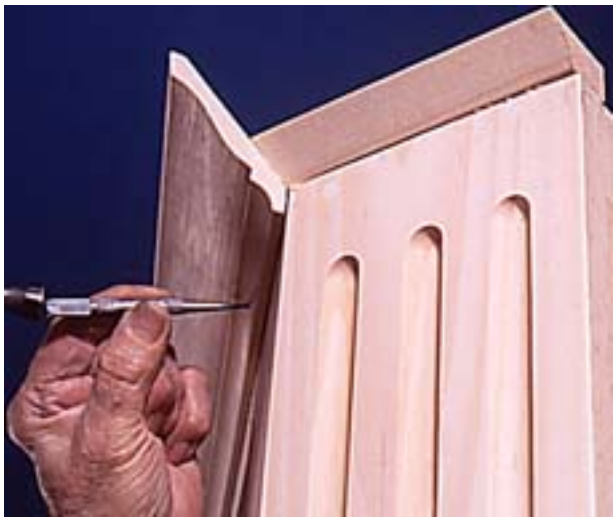

12 --Attach the long crown section first. Miter the endpieces to exact length, and then glue and nail to cleat. Set nails and fill.

13 --Miter remaining molding to length, and install each profile, long piece first. Use glue and finishing nails.

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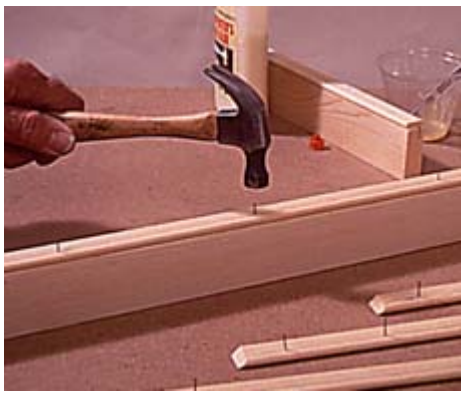
After the molding has been installed, secure the plinth to the lower cabinet section with 2 1/2-in. screws. Use 2-in. screws to attach the counter to the upper case, and then attach the upper case to the lower case with 1 1/2-in. screws driven up into the bottom of the counter. Cut the door rails and stiles from 1 x 3 stock. Use a router to shape the half lap joints. Then, use a 1/8-in. slotting cutter to rout the stopped grooves in the upper doors for the glass-retaining strips **(Photo 14)**. Set up your router table with a 1/8-in.-rad. half-round bit, and round one edge of the 1/4-in.-thick pine lattice for the door beading **(Photo 15)**. Use the miterbox to cut the lattice to length. Then, attach the beading to the inside perimeter of the upper door frames -- and along the opening edge of the upper and lower left doors-with glue and 3/4-in. brads placed near the outer face of the door **(Photo 16)**. Rout the rabbet for the glass, and square the corners with a sharp chisel. Then, rout the overlapping rabbets along the door-opening edges, as shown.

Install the glass, cutting the plastic retaining strips to exact length with a knife, and glue the 1/4-in. plywood panels in the lower doors. Finally, shim the doors, mark the hinge and knob screwhole locations and install the hardware **(Photo 17)**.

To finish the cabinet, remove the glass and disassemble the sections. Apply one coat of latex primer, tinted to the final color, followed by one finish coat of paint. We used Sherwin-Williams Birdseye Maple Latex Satin House and Trim Paint. After it's dry, reassemble the cabinet.

14 --Use a router with a piloted slotting bit to cut the slots in the upper door frames for the plastic glass-retaining strips.

15 --Make the beading from 1/4-in. lattice. Cut the round edge with a 1/8-in.-rad. half-round bit mounted in a router table.



16 --Nail and glue the beading to the door-frame pieces. Then, cut glass and door overlap rabbets with a router and straight bit.

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17 --Clamp upper doors in place and shim to achieve equal clearance all around the frame. Then, install the H hinges.

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