



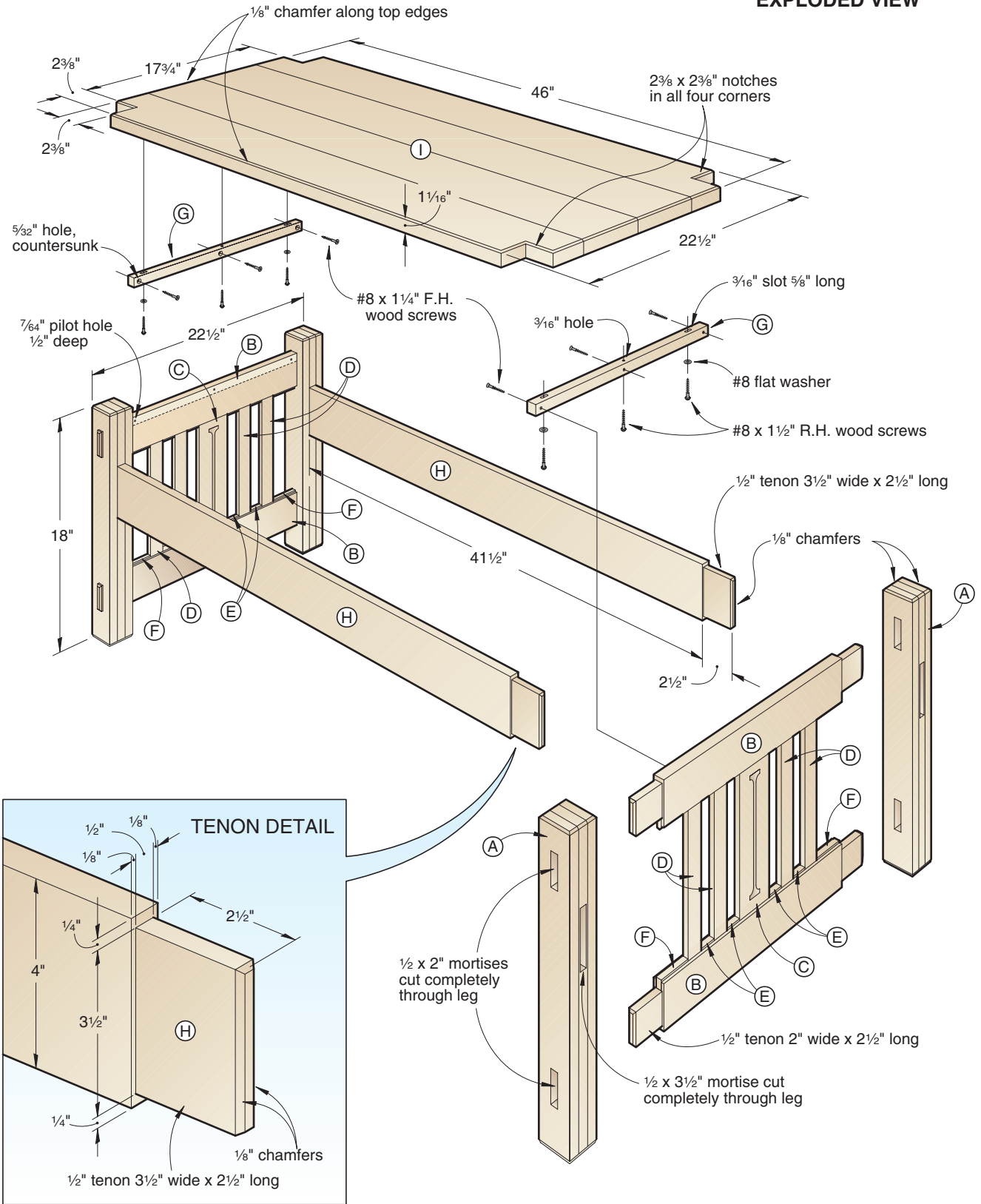
Arts-and-Crafts
Collection

Coffee Table and Ottoman

In a separate downloadable plan, we introduced this impressive Arts-and-Crafts Collection with the Morris-style chair shown *bottom right*. Here, we follow suit with this handsome Coffee Table and Ottoman.



COFFEE TABLE EXPLODED VIEW



Coffee Table Bill of Materials

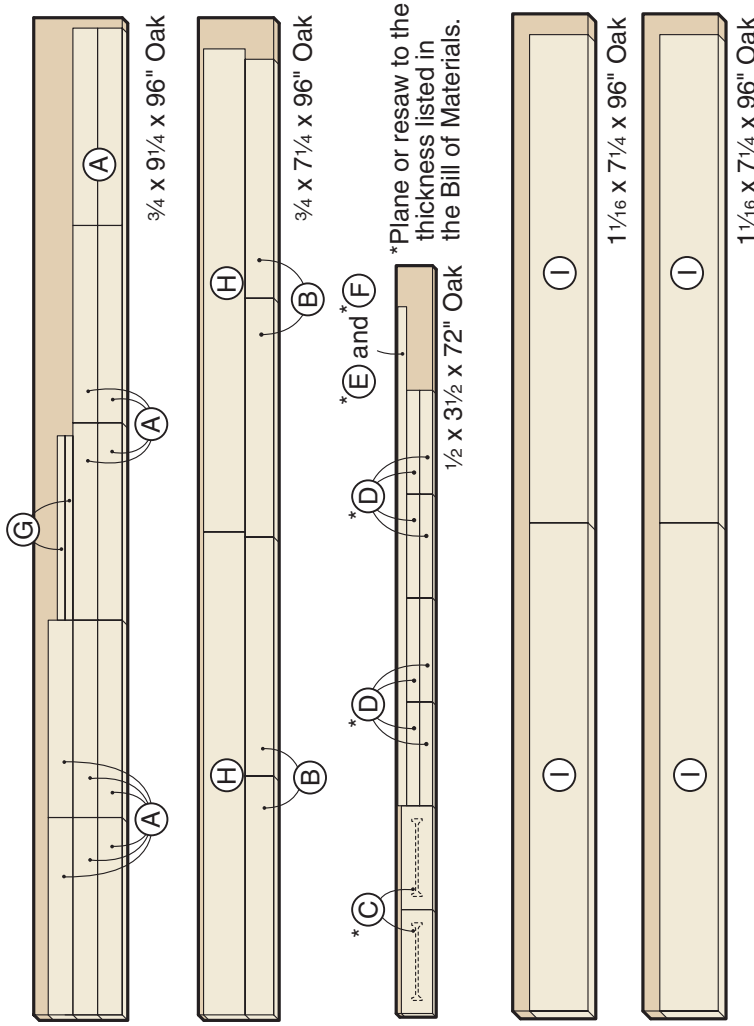
Part	Finished Size			Qty.
	T	W	L	
A* legs	2 1/4"	2 1/4"	18"	4
B rails	3/4"	2 3/4"	23"	4
C ctr. slats	3/8"	3"	10"	2
D side slats	3/8"	1 1/4"	10"	8
E* spacers	3/8"	5/8"	1 1/4"	16
F* spacers	3/8"	5/8"	2 1/2"	8
G cleats	3/4"	3/4"	17 3/4"	2
H stretchers	3/4"	4"	46 1/2"	2
I* tabletop	1 1/16"	22 1/2"	46"	1

*Cut parts marked with an * oversize. Trim to finished size according to the how-to instructions.

Materials Key: LO—laminated oak; O—oak; EO—edge-joined oak.

Supplies: 6—#8x1 1/4" flathead wood screws, 6—#8x1 1/2" roundhead wood screws with flat washers, stain, clear finish.

COFFEE TABLE CUTTING DIAGRAM



Begin by laminating and machining the legs

Note: For an authentic look, choose straight grain or rift-cut stock, preferably white oak, for all the pieces of this project.

1 To form the 2¼"-square legs (A), cut 12 pieces of ¾" stock to 2⅝ by 19". (Using these dimensions, the pieces are oversized ⅛" in width and 1" in length so you can trim flush the edges and ends of the legs later.)

See the Leg drawing at right for reference.

2 Spread an even coat of glue on the mating surfaces of the three pieces making up each leg. With the edges and ends flush, glue and clamp the pieces face-to-face to form the four legs.

3 Cut or plane an equal amount off both edges of each leg for a 2¼" finished width. Then, trim both ends of each leg for an 18" finished length.

4 Lay out the mortises on the outside surface of each leg where dimensioned. (To ensure any possible chip-out would be on the inside surface and covered by the rail and stretcher tenon shoulders, we marked the mortises on the outside surfaces. We also drilled from the outside surface so the bit came through on the inside.)

5 Attach a wood top and fence to your drill-press table. Using a ¼" brad-point bit, drill holes inside the marked mortises. Square-up the mortises with a chisel. You could also form the mortises with a mortiser.

6 Rout a ⅛" chamfer along the top and bottom end of each leg.

Machine and assemble the end frames

1 Cut the upper and lower rails (B) to the sizes listed in the Bill of Materials from ¾" stock.

2 Fit your tablesaw with a ⅝" dado blade, and cut a ⅝" groove ½" deep, centered along one edge of each rail. See the End Frame drawing and accompanying detail for reference.

3 Switch to a wider dado blade on your tablesaw. Then, attach a long wooden extension to your tablesaw's miter gauge, and square the extension to the blade. Using a stop for consistency, cut rabbets to form tenons on the ends of the rails (B). (We test-cut scrap stock first to ensure a tight fit of the tenons into the leg mortises.) See the Tenon detail accompanying the End Frame drawing for dimensions.

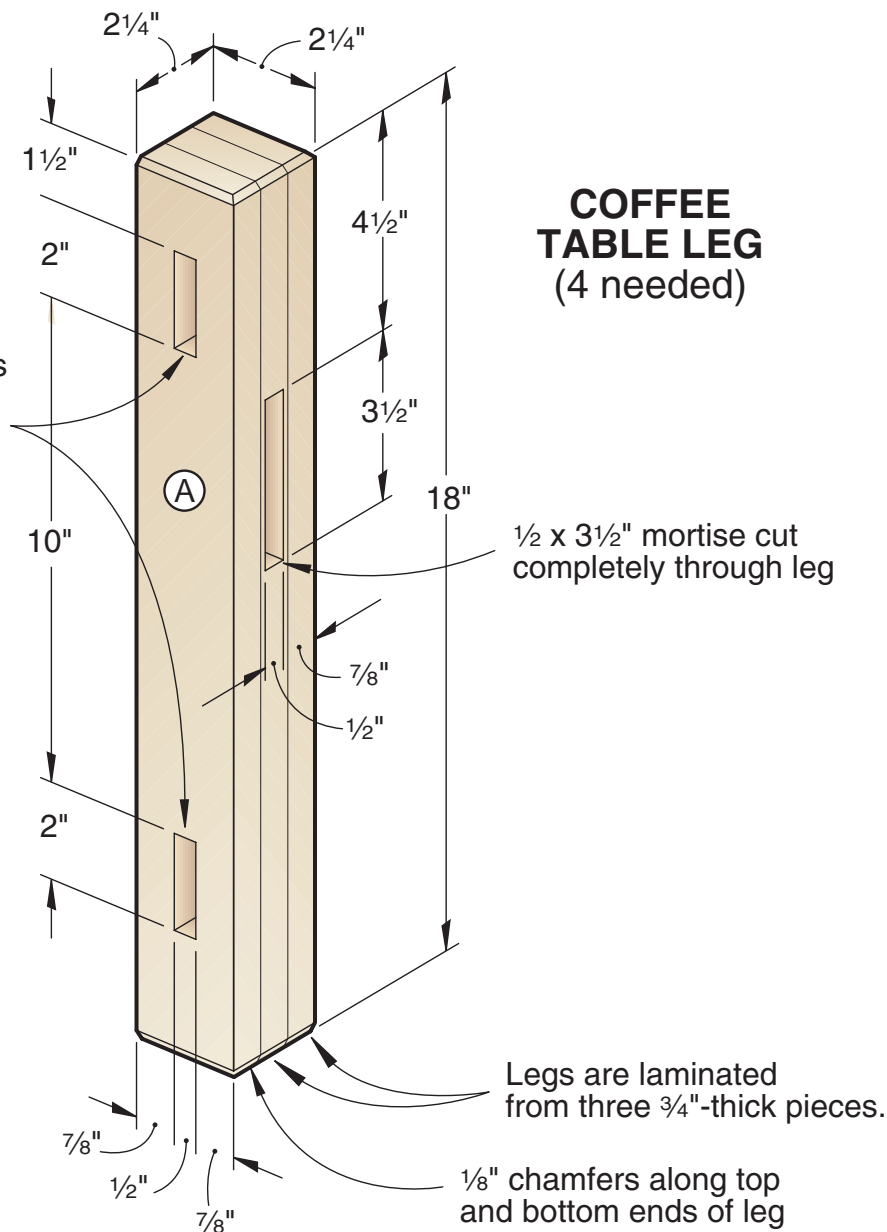
4 Carefully sand or file the chamfers on both ends of the through tenons on the rails (B), where

shown on the Tenon detail. If you have a small laminate-trim router, use a chamfer bit in it to machine the tenon ends.

5 Cut the center slats (C) and narrower side slats (D) to size. Using the Parts View on Page 8, transfer the cutout location to each center slat. Drill a blade start hole, and scrollsaw the openings to shape.

6 To form the spacers (E, F) cut a piece of stock to ⅝" thick by ⅝" wide by 48" long. Then, crosscut the spacers (E, F) to length from this strip.

7 To assemble the end frames, start by finding the center (from end-to-end) of each rail, and mark a



COFFEE TABLE LEG
(4 needed)

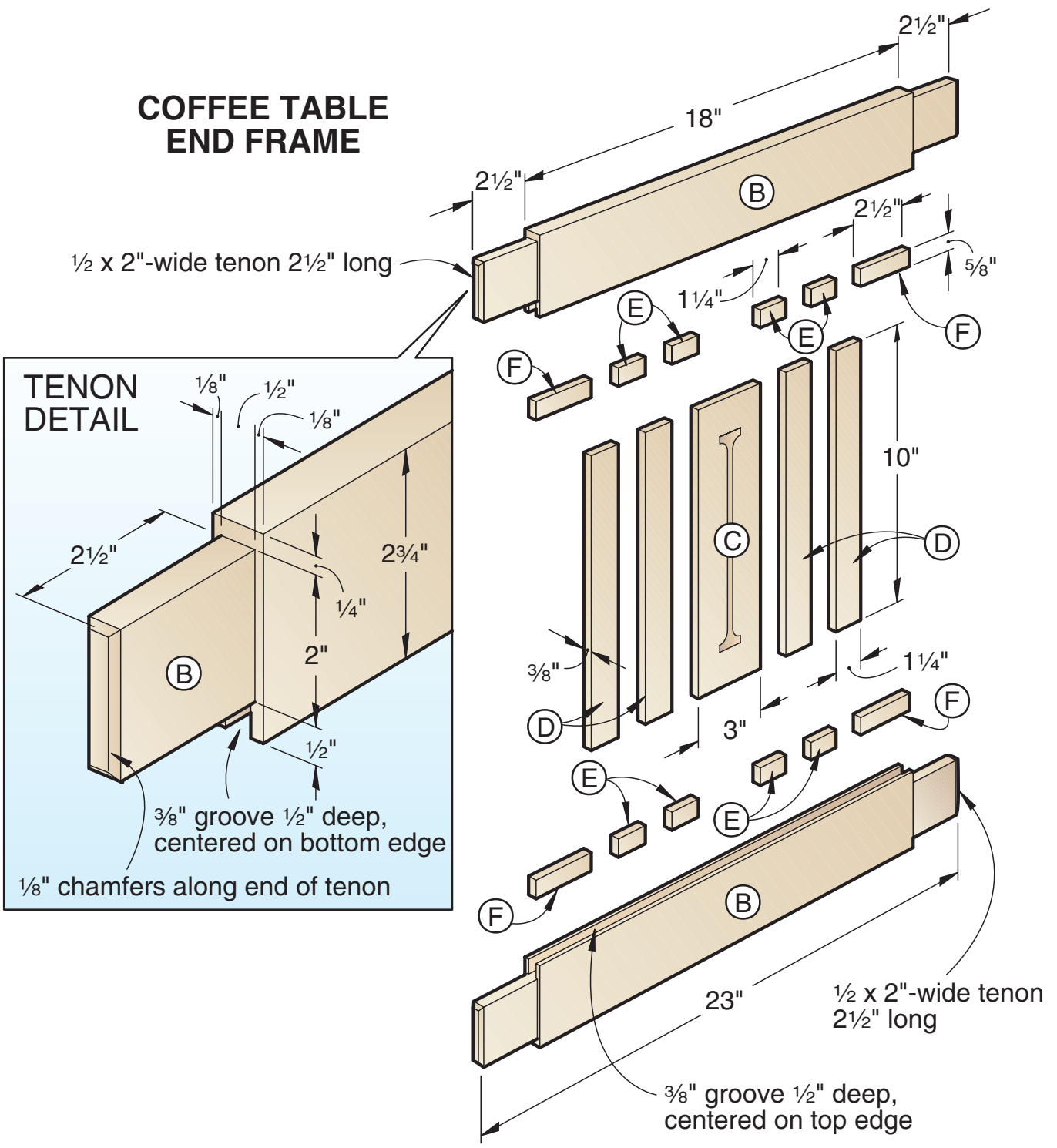
½ x 2" mortises cut completely through leg

½ x 3½" mortise cut completely through leg

Legs are laminated from three ¾"-thick pieces.

⅛" chamfers along top and bottom ends of leg

COFFEE TABLE END FRAME



centerline across the grain. Starting with the center slat (C) centered over the centerline on the bottom rail (B) and working from the center out, add (no glue) the spacers (E, F) and the slats (D). Add the top rail (B). Trim the spacers if necessary. Then, fit (again, no glue) the assembly into the leg mortises to check the joinery.

8 Sand the legs and end frame pieces. Next, glue and clamp the two frames together, checking for square as shown in *Photo A*.

Add the cleats and stretchers next

1 Cut the cleats (G) to size.

2 Mark the locations, and machine a pair of screw expansion slots on each cleat where dimensioned on the Parts View drawing. Mark the centerpoints, and drill counter-sunk holes through each cleat. Screw the cleats to the inside face of each top rail (B), keeping the top edge of the cleats flush with the top edge of the rails. There should be a $\frac{1}{8}$ " gap between the ends of the cleat and the legs, so you won't see the cleat when the tabletop is attached later. See the Notch detail on the Parts View for reference.

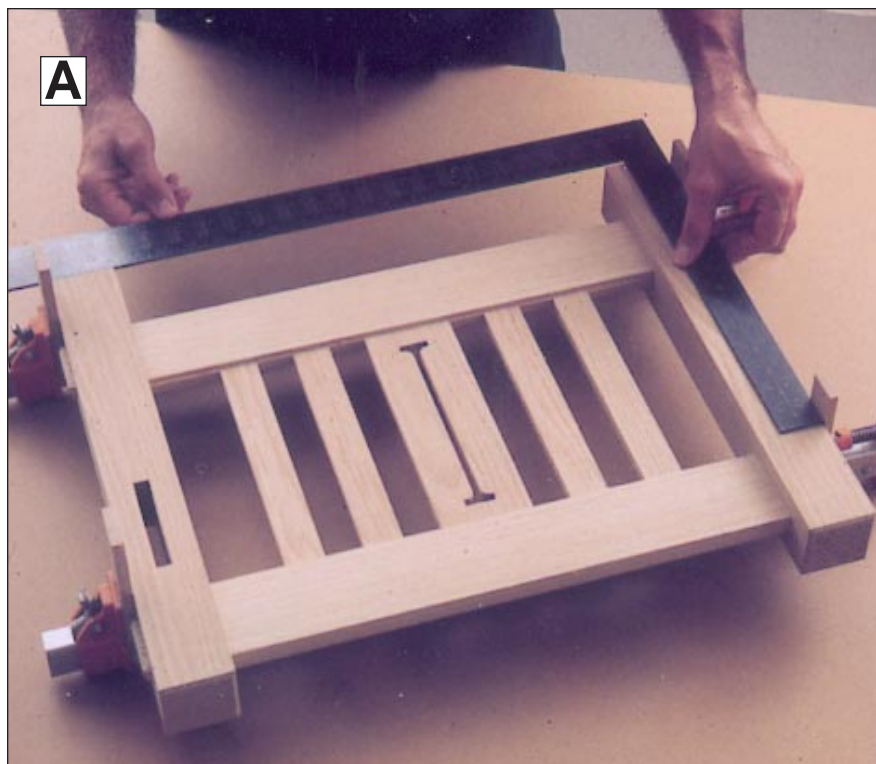
3 Cut the stretchers (H) to size. Cut tenons on the ends of the stretchers to fit snug inside the mortises in the legs. See the Tenon detail accompanying the Exploded View drawing for reference. Next, cut or rout $\frac{1}{8}$ " chamfers on the ends of the tenons.

4 Glue and clamp the stretchers between the end frames, keeping the frames square to the stretchers.

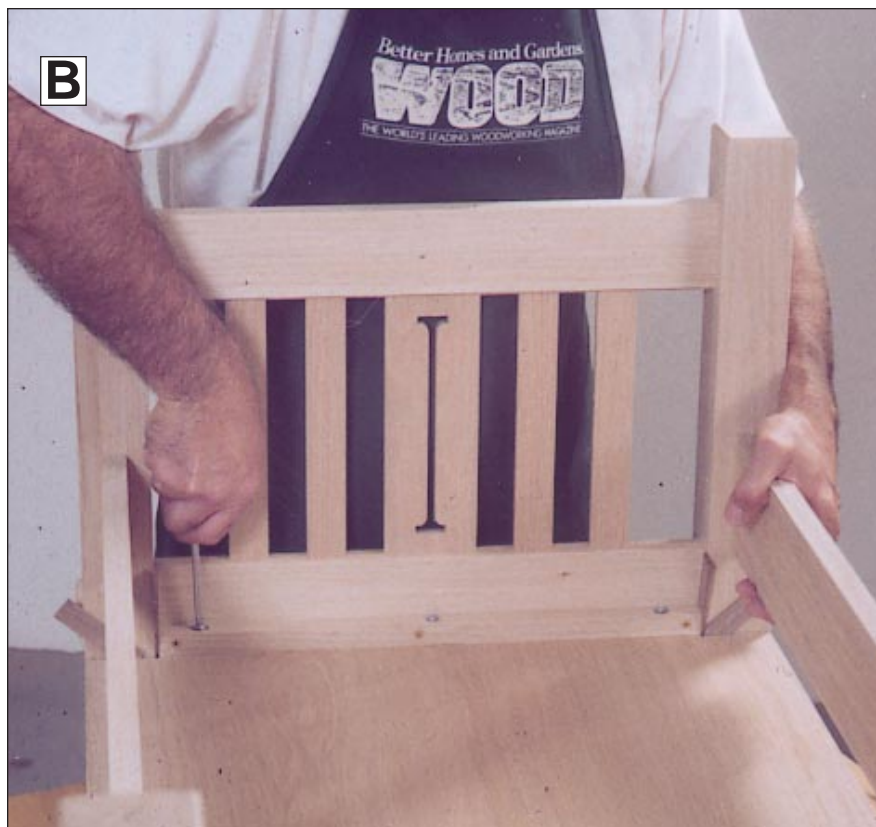
Edge-join pieces for a solid-stock top

1 Cut four pieces of $1\frac{1}{16}$ " stock to $5\frac{3}{4}$ " wide by 47" long. Joint the edges of the four boards so that each measures $5\frac{3}{8}$ " wide.

Note: Because of the weight and size of the tabletop, we found it more manageable to bandsaw



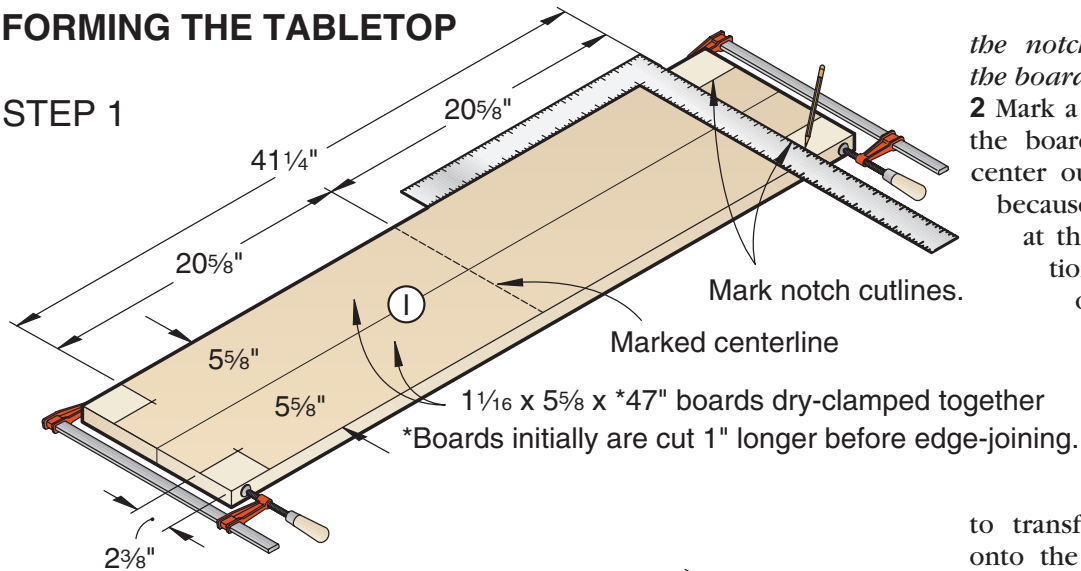
After checking the fit of all the pieces, glue and clamp the end frame, checking for square.



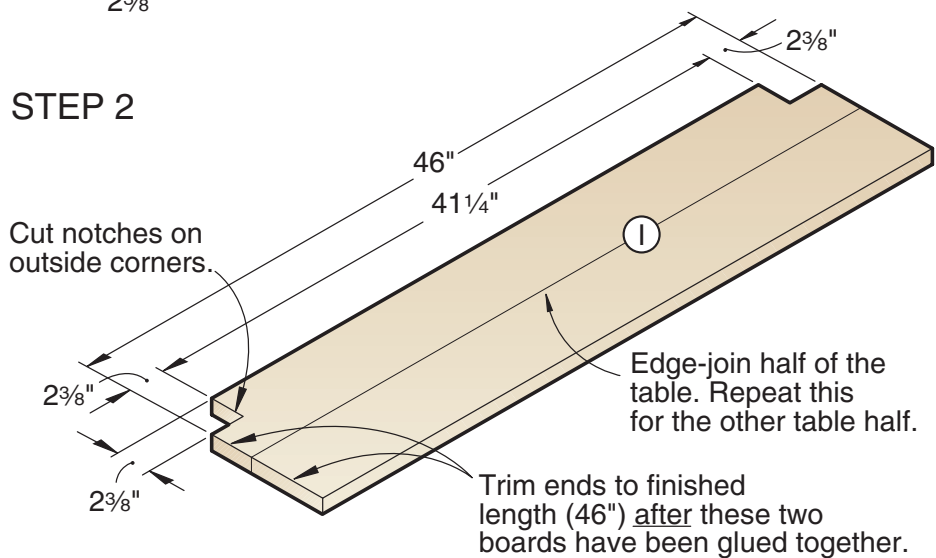
Notice the $\frac{1}{8}$ "-thick spacers between the end-frame legs and tabletop. We used the spacers to center the top on the base when screwing the assemblies together.

FORMING THE TABLETOP

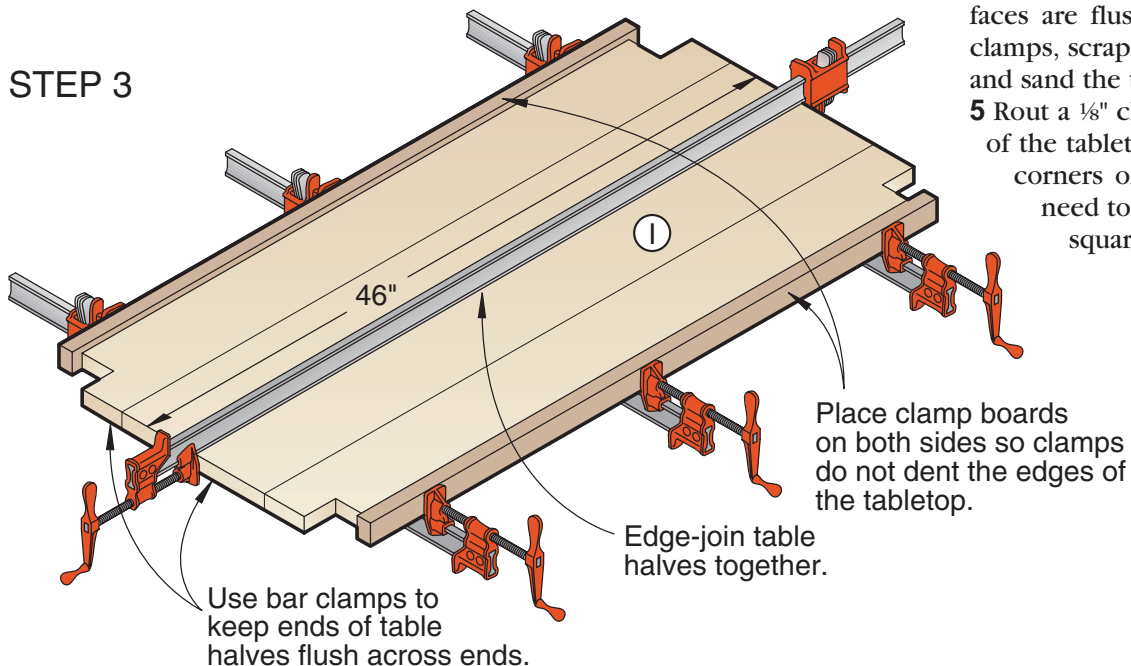
STEP 1



STEP 2



STEP 3



the notches before edge-joining the boards.

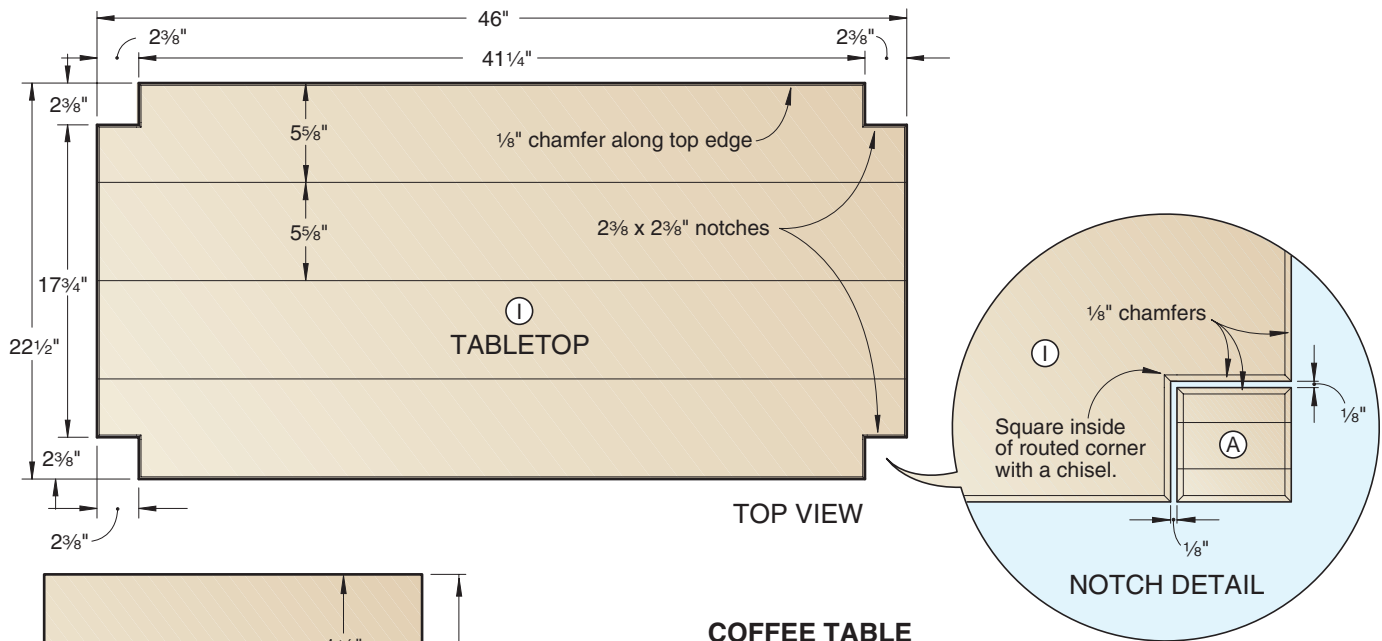
2 Mark a centerline across two of the boards. Measuring from the center out (you need to do this because the boards are cut long at this point), mark the locations of the notches on one of the boards. Now, as shown in *Step 1* of the three-step drawing at left, clamp two of the boards together, aligning the centerlines.

Use a framing square to transfer the notch locations onto the second board. Remove the clamps, and bandsaw the notches in each board to shape.

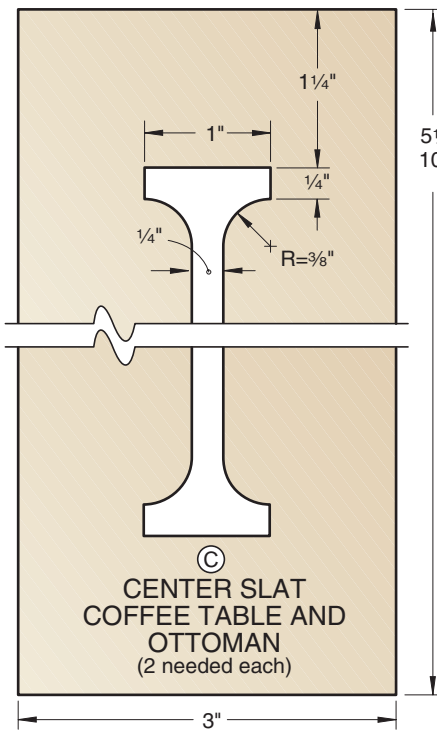
3 Edge-join one notched board against a second unnotched board, keeping the surfaces flush. See *Step 2* of the drawing for reference. Repeat for the remaining two boards

4 Remove the clamps and scrape off the excess glue. Crosscut the ends of both table halves for a 46" long finished length, so that the notches measure 2 3/8" long. Now, being careful to keep the ends and notches aligned as shown in *Step 3* of the drawing, glue and clamp the two tabletop halves together, again checking to see that the surfaces are flush. Later remove the clamps, scrape off the excess glue, and sand the tabletop smooth.

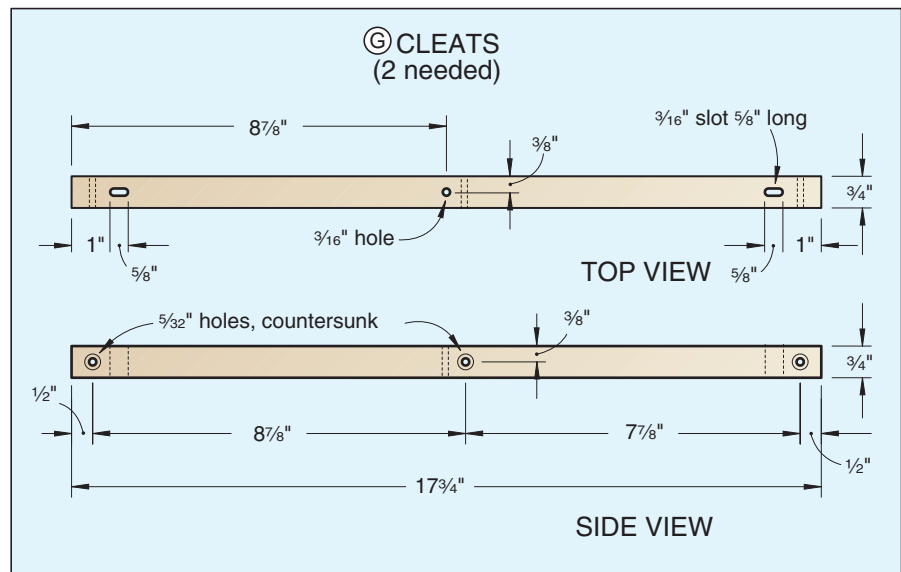
5 Rout a 1/8" chamfer along the top of the tabletop (I). On the inside corners of the notches, you'll need to use a sharp chisel to square-up the chamfer.



COFFEE TABLE PARTS VIEW



5 1/4" Ottoman
10" Coffee table



Finish-sand, stain, and clear-coat the table

1 Finish-sand the table base and tabletop. (We sanded with 100-, 150-, and finally 220-grit sandpaper, using a bright light, in our case a halogen, at a low angle to check the surfaces for sanding marks. Another method we use to check for sanding marks is to lightly dampen the surface with lacquer or paint thinner, then take a close look at it.)

2 Place a blanket on your workbench top, and place the tabletop

(I) upside down on the blanket. Center the base (also upside down) on the tabletop, keeping the gaps around the notches even. Using the holes and slots in the leg cleats as guides, drill pilot holes into the bottom side of the tabletop, and screw the assemblies together as, shown in *Photo B*. Center the screws in the slots, tighten them, then back them off about half a revolution. You want the screws to be able to move back and forth in the slots as the table-

top expands and contracts with seasonal humidity changes.
3 Stain as desired. (We used Minwax Provincial #211, a good choice for imitating that time period.) Or, see our Arts-and-Crafts fumeless finish article in the November 1998 issue of WOOD® starting on page 74. Apply the finish. (We brushed on several coats of satin polyurethane.) ♣



Using a construction procedure like that of the coffee table, build the ottoman shown here. See the Parts View drawing on *Page 8* for part C. See the Cushion Parts View on *Page 13* for the material layout for the cushion. See the Ottoman Bill of Materials *below* for part sizes.

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 Photography: Scott Little, Hetherington
 Graphic Design: Jamie Downing
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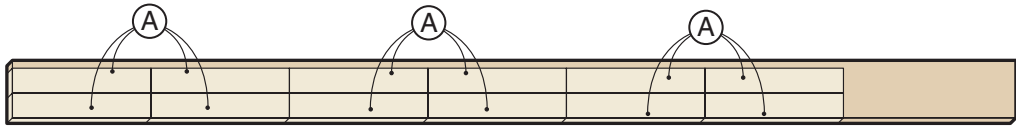
Ottoman Bill of Materials					
Part	Finished Size			Mati.	Qty.
	T	W	L		
A* legs	2¼"	2¼"	12¼"	LO	4
B rails	¾"	2¾"	18"	O	4
C ctr. slats	¾"	3"	5¼"	O	2
D side slats	¾"	1¼"	5¼"	O	4
E* spacers	¾"	5/8"	1¼"	O	8
F* spacers	¾"	5/8"	2½"	O	8
G stretchers	¾"	4"	24"	O	2
H cleats	¾"	¾"	19"	O	2
I slats	¾"	1¼"	14½"	O	8

*Cut parts marked with an * oversize. Trim to finished size according to the how-to instructions.

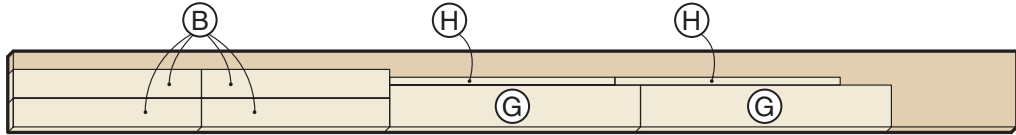
Materials Key: LO—laminated oak; O—oak.

Supplies: 20—#8×1" flathead brass wood screws, 6—#8×1¼" flathead wood screws, stain, finish.

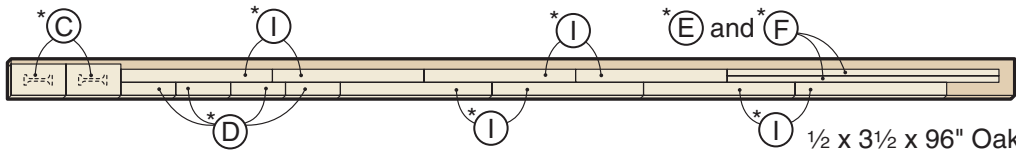
OTTOMAN CUTTING DIAGRAM



$\frac{3}{4}$ x $5\frac{1}{2}$ x 96" Oak

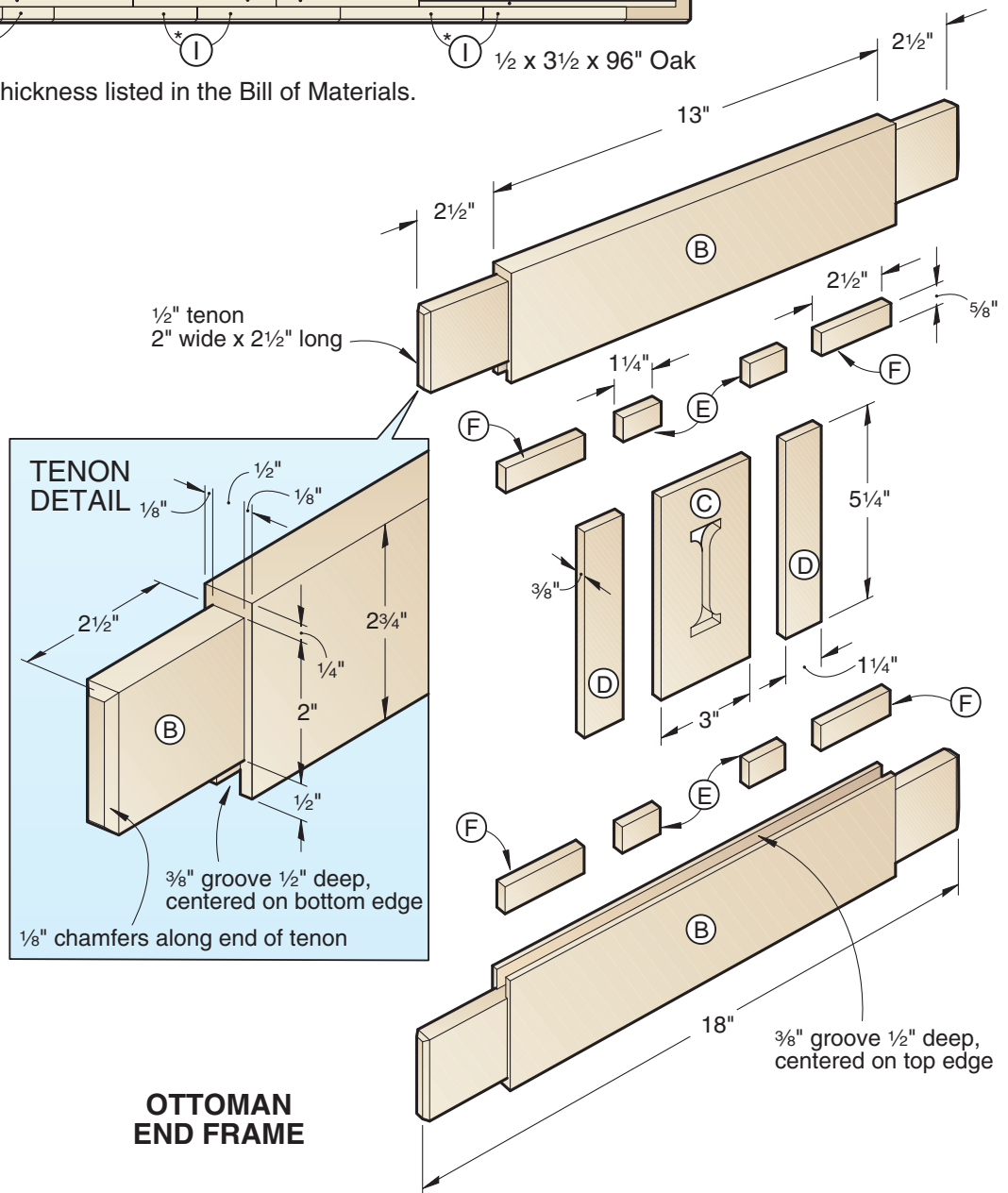


$\frac{3}{4}$ x $7\frac{1}{4}$ x 96" Oak

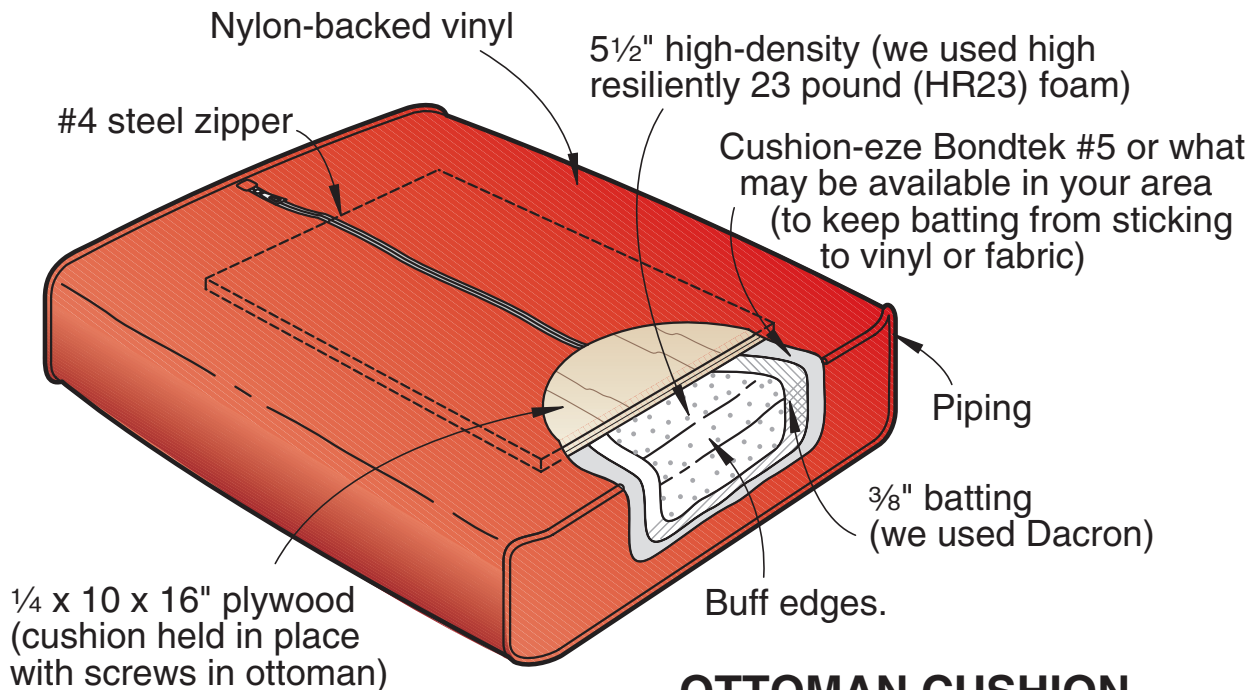
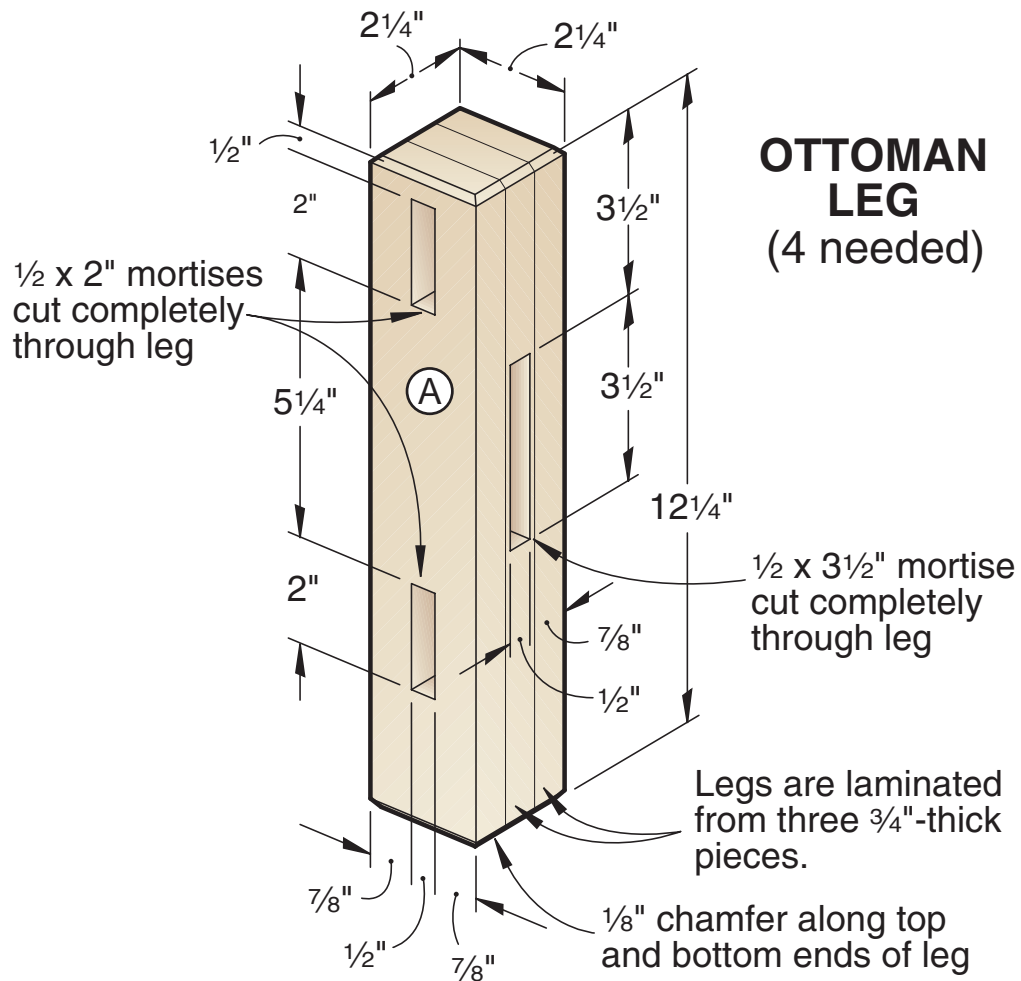


$\frac{1}{2}$ x $3\frac{1}{2}$ x 96" Oak

*Plane or resaw to the thickness listed in the Bill of Materials.

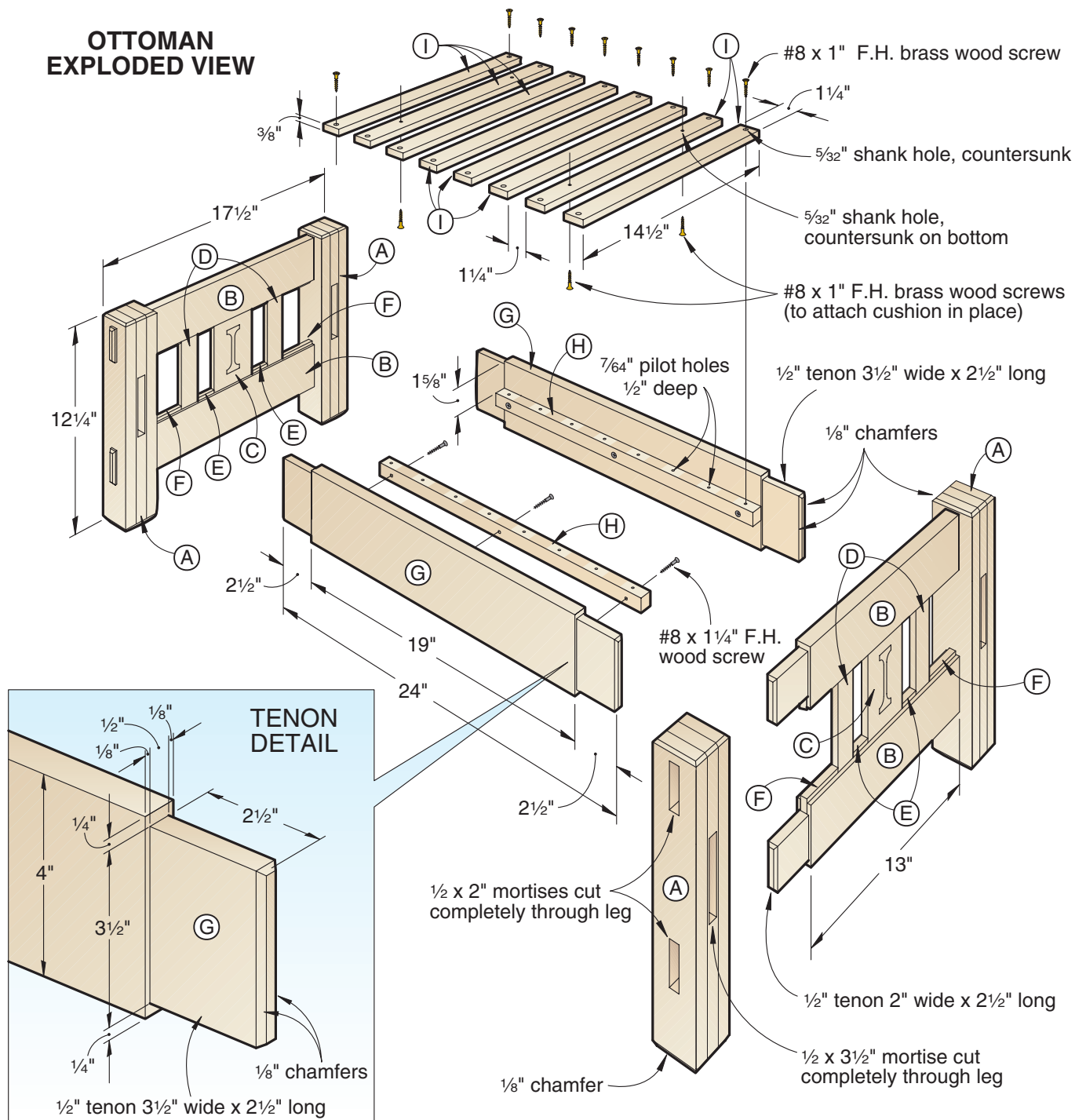


**OTTOMAN
END FRAME**

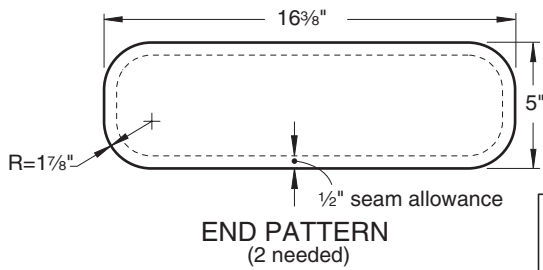


OTTOMAN CUSHION
(VIEW FROM BOTTOM)

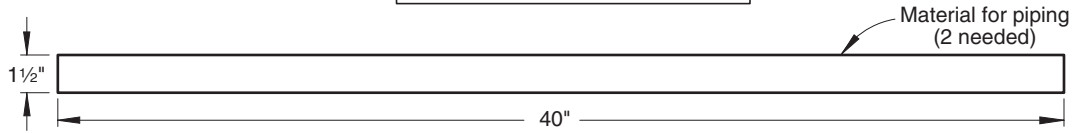
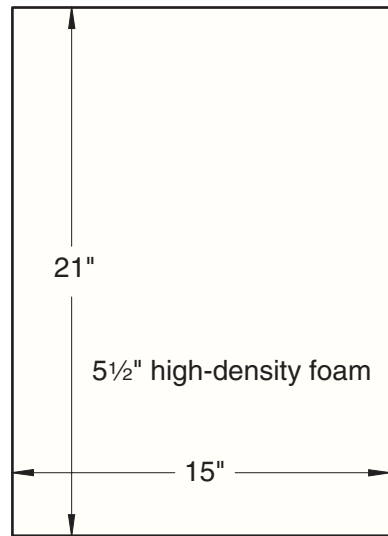
OTTOMAN EXPLODED VIEW



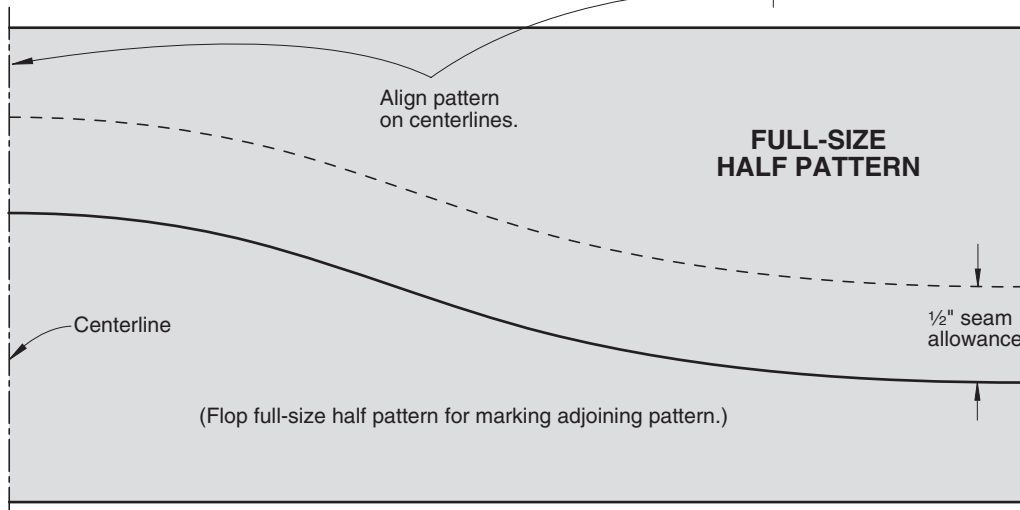
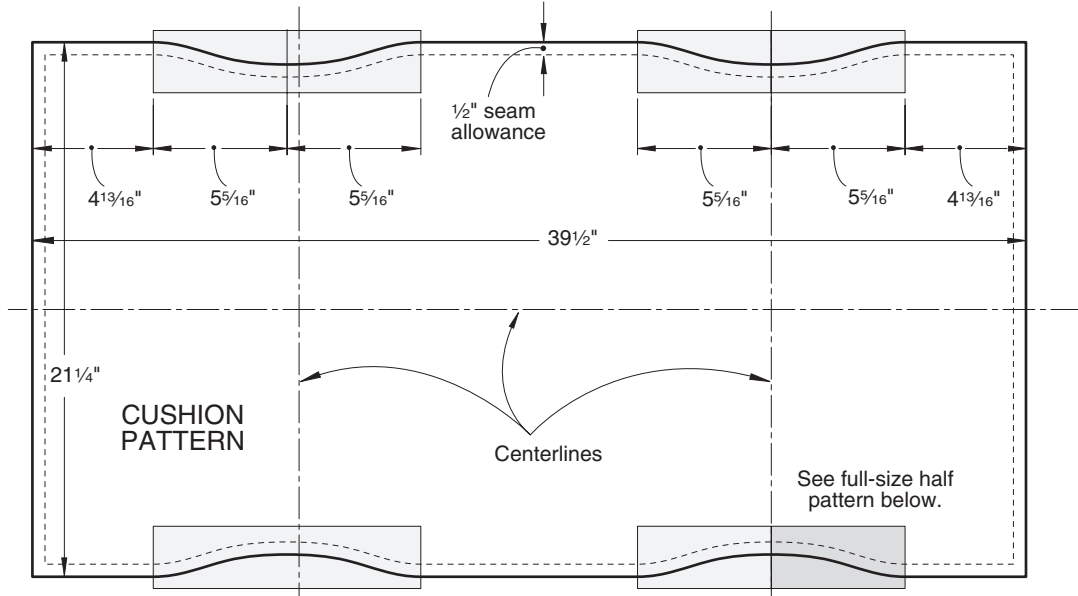
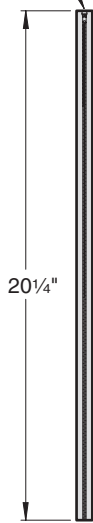
CUSHION PARTS VIEW



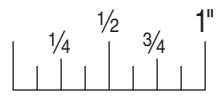
Note: Checking with upholsterers around the country, we learned that the supplies and the thickness of materials vary greatly. We recommend providing our drawings and your chair to your upholsterer, and having them make the cushion to fit your chair.



#4 steel zipper



To ensure full-sized patterns are correct size, your printer should be set to print at 100% (not fit to page). Measure full-sized patterns to verify size.



SCALE