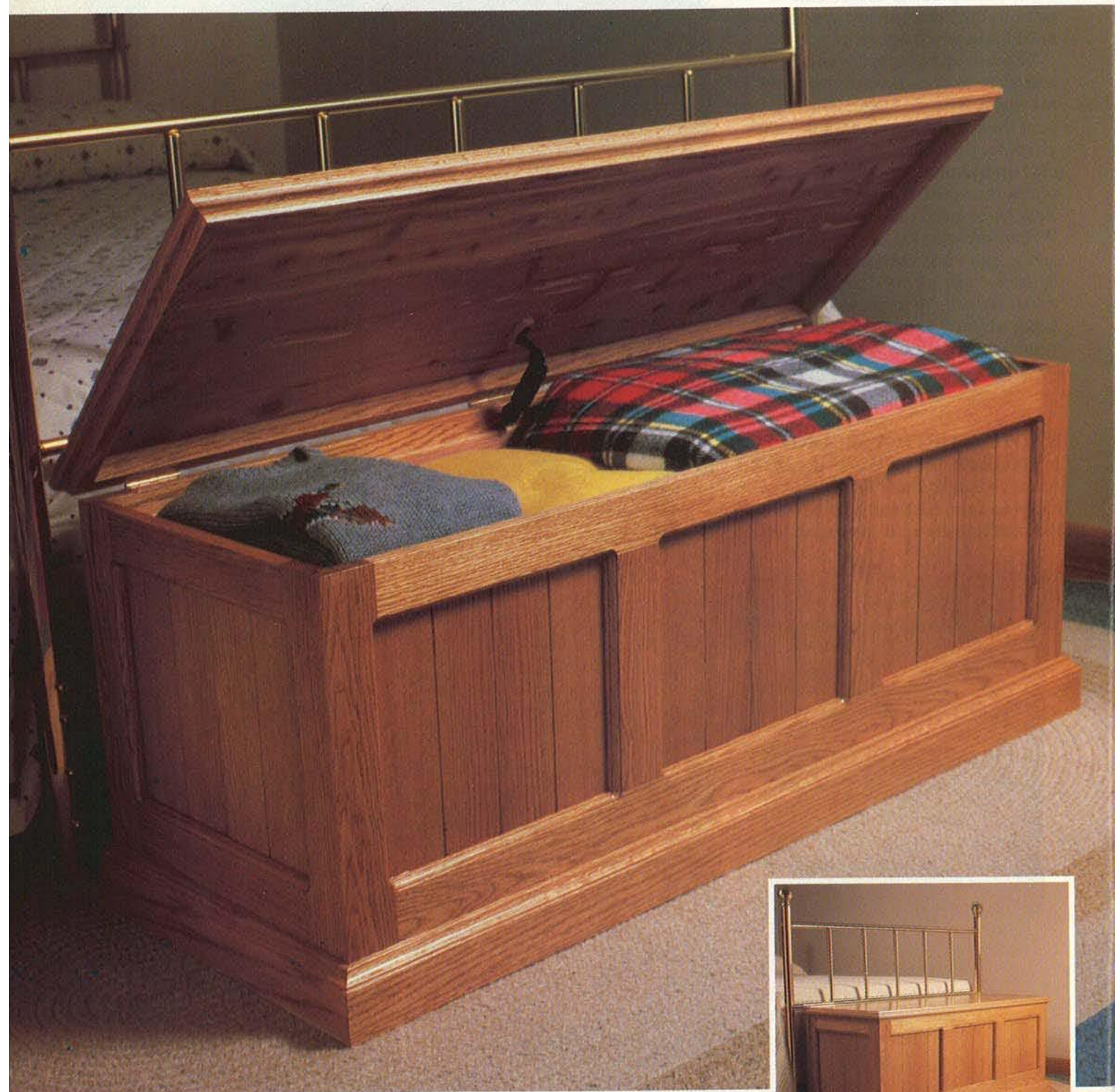
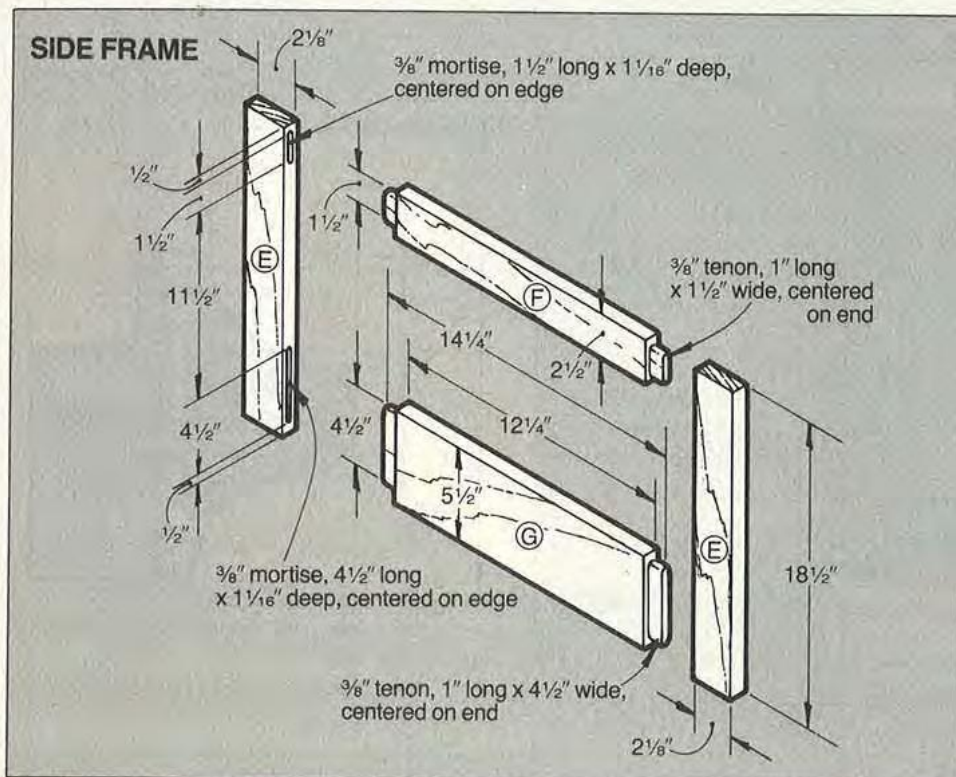
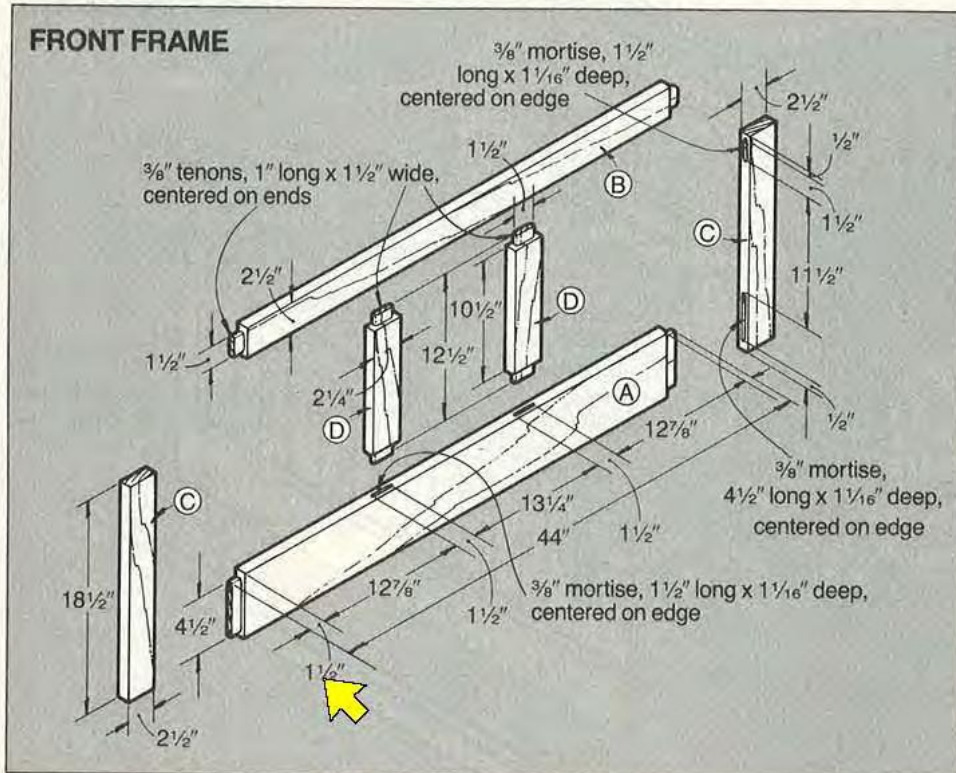
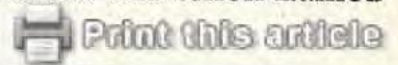


An Heirloom Chest



to Cherish

There's *nothing* like the fragrance of cedar. And no wood matches the durability and popularity of oak. That's why we combined the two in this mortise-and-tenon-framed storage chest.

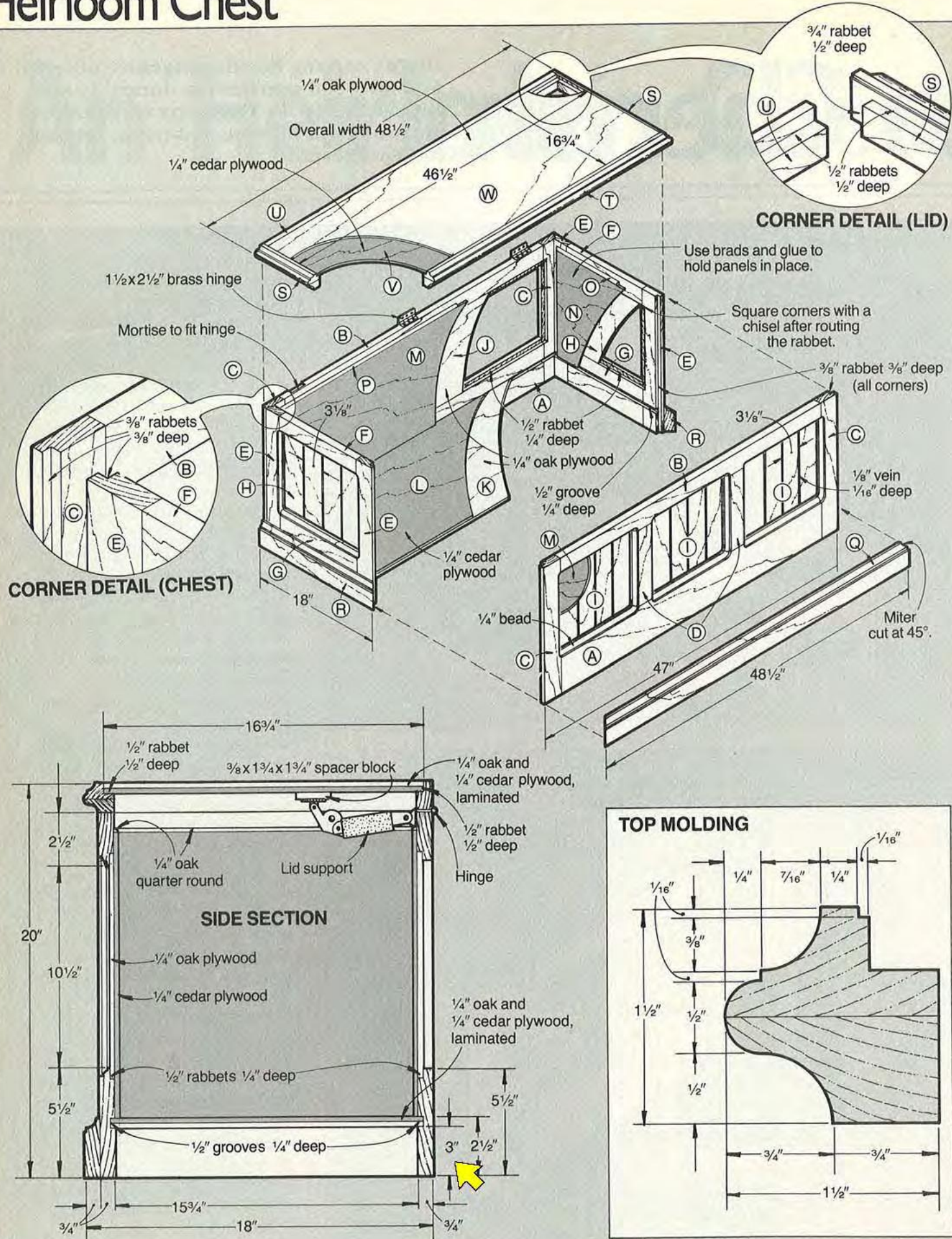


CONSTRUCTING THE FRAME

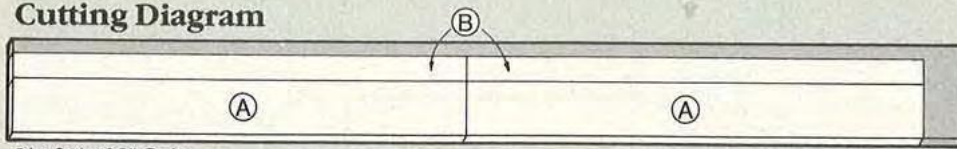
- 1 Cut the front and back frame members — rails (A and B), stiles (C), and mullions (D) — to the sizes listed in the Bill of Materials. Note that the back frame does not have the two center mullions (D).
- 2 Cut the side frame members — stiles (E) and rails (F, G) — to size.
- 3 Lay out and cut the mortises and tenons in the frame members where indicated in the Front and Side Frame Drawings, *left*. If you're not familiar with how to make mortise and tenon joints, please refer to the "Basic Mortise and Tenon Joinery," *page 36*, for the particulars.
- 4 Glue and clamp the front frame together, checking for square, and adjusting if necessary. Repeat the procedure with the other frames. After the glue dries, scrape off the excess, and sand the joints smooth on both sides.
- 5 Fit your router with a rabbeting bit, and rout 1/2" rabbets 1/4" deep along the inside edges of all four frames where shown in the Exploded-View Drawing on the following page. (We used a scrap of 1/4" oak plywood to check the depth.) Square the rounded corners with a chisel. The rabbets will later house the oak plywood panels.
- 6 Now, turn the frames over, and rout a 1/4" bead along the inside edges of all four frames where shown in the Exploded-View Drawing.
- 7 Attach a dado blade to your table saw, and cut a 1/2" groove 1/4" deep 2 1/2" up from the bottom of each of the four frames for the chest bottom where shown in the Side-Section Drawing, *page 48*.
- 8 Cut a 3/8" rabbet 3/8" deep along each end of each frame where shown in the Chest-Corner Detail of the Exploded-View Drawing.

Continued

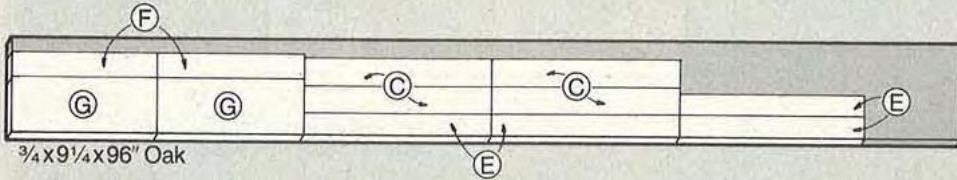
Heirloom Chest



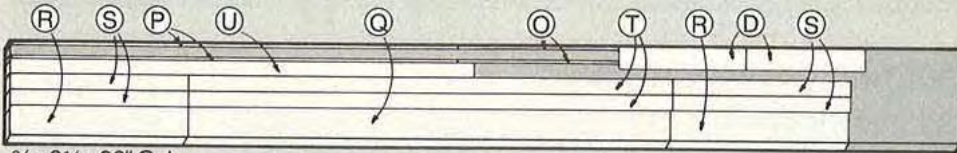
Cutting Diagram



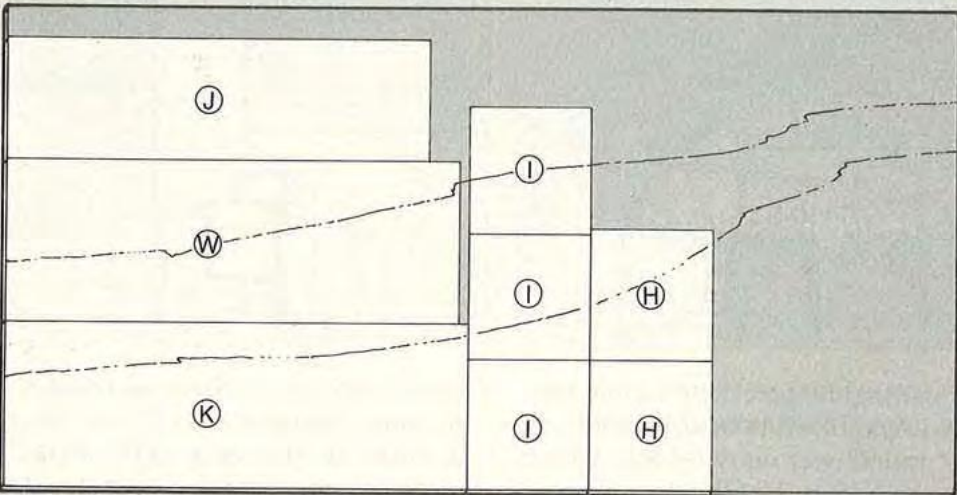
3/4 x 9 1/4 x 96" Oak



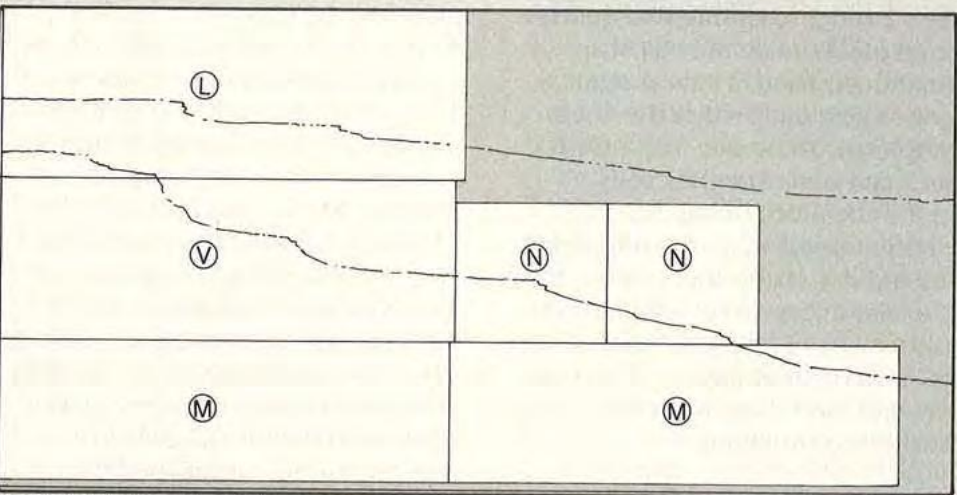
3/4 x 9 1/4 x 96" Oak



3/4 x 9 1/4 x 96" Oak



1/4 x 48 x 96" Oak Plywood



1/4 x 48 x 96" Cedar Plywood

Bill of Materials

Part	Finished Size *			Material	Qty.
	T	W	L		
A	3/4"	5 1/2"	44"	oak	2
B	3/4"	2 1/2"	44"	oak	2
C	3/4"	2 1/2"	18 1/2"	oak	4
D	3/4"	2 1/4"	12 1/2"	oak	2
E	3/4"	2 1/8"	18 1/2"	oak	4
F	3/4"	2 1/2"	14 1/4"	oak	2
G	3/4"	5 1/2"	14 1/4"	oak	2
H	1/4"	13 1/4"	11 1/2"	oak plywood	2
I	1/4"	13 1/2"	11 1/2"	oak plywood	3
J	1/4"	11 1/2"	43"	oak plywood	1
K*	1/4"	16 3/16"	45 15/16"	oak plywood	1
L*	1/4"	16 3/16"	45 15/16"	cedar plywood	1
M	1/4"	14"	45 1/2"	cedar plywood	2
N	1/4"	14"	15 1/4"	cedar plywood	2
O*	1/4"	1/4"	15 3/4"	oak	2
P*	1/4"	1/4"	45 1/2"	oak	2
Q*	3/4"	3"	48 1/2"	oak	1
R*	3/4"	3"	18"	oak	2
S*	1 1/2"	1 1/2"	18"	oak (laminated)	2
T*	1 1/2"	1 1/2"	48 1/2"	oak (laminated)	1
U	3/4"	1 1/2"	46 1/2"	oak	1
V*	1/4"	16 3/4"	46 1/2"	cedar plywood	1
W*	1/4"	16 3/4"	46 1/2"	oak plywood	1

*Parts marked with a * are cut larger initially, then trimmed to finish size. Please read the instructions before cutting.

Supplies: #8x1 1/4" flathead brass wood screws, 3 - 1/2x2 1/4" brass butt hinges, 1/2" brads, stain, , #0000 steel wool, contact cement

Continued

Heirloom Chest

9 Cut the side panels (H), the front panels (I), and the rear panel (J) to size from $\frac{1}{4}$ " oak plywood.

10 To mark the veins on the front and side panels, first locate the vertical centerline on each panel. Next, mark lines $3\frac{1}{8}$ " apart on each side of the centerline. Now, set up a straight-edge, and rout three $\frac{1}{8}$ " veins $\frac{1}{16}$ " deep in each panel (see the Buying Guide for details about the router bit we used).

11 Glue panels H, I, and J in the rabbeted openings in the framework. Remove any glue squeeze-out on the face of the panels with a damp rag immediately after clamping.

12 To fashion the bottom, cut the oak plywood (K) and cedar plywood (L) to size plus $\frac{1}{2}$ " on all sides. Then, laminate the two plywood pieces with contact cement. Finally, trim the laminated panel to finished size ($16\frac{3}{16} \times 45\frac{1}{16}$ ") with a table saw or with a circular saw and a straightedge. (We cut our laminated panel $\frac{1}{8}$ " shorter in length and width than the dadoed opening to allow for contraction of the framework.)

13 Dry-clamp the chest framework, making sure that the bottom (K, L) doesn't prevent the rabbeted corner joints from fitting snugly. Once the framework fits together correctly, glue and clamp it, checking for square and making sure that the top edges of the four frames are flush.

14 Scrape off the excess glue after it dries. Then, sand all surfaces smooth.

LINING THE CHEST

1 Cut the front and back lining pieces (M) to size from $\frac{1}{4}$ " cedar plywood, keeping the grain direction horizontal. Then, check the fit of the pieces in the chest, but do not glue them in position yet. Cut the side liners (N) to size and dry-fit them, trimming if necessary.

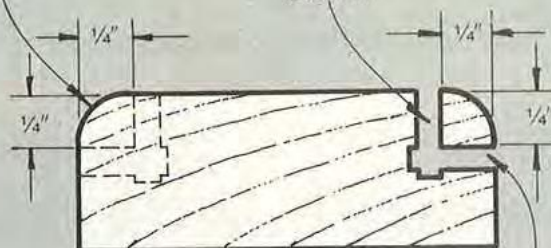
2 Glue and brad the front and back liners in place, then the side liners.

3 Cap the top edge of the liner material with quarter-round molding (O, P). To make these pieces, cut a piece of $\frac{3}{4}$ " oak 2" wide and 62" long (for safety's sake and ease

CUTTING THE QUARTER-ROUND (FULL SIZE)

Step 1. Round-over corner with $\frac{1}{4}$ " round-over bit.

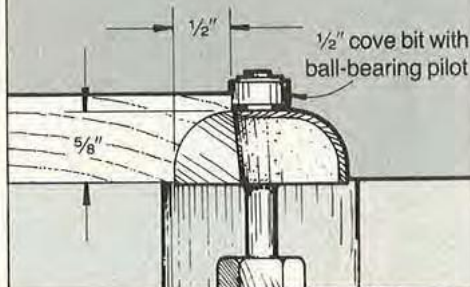
Step 2. Make a cut $\frac{1}{4}$ " in from the edge and slightly deeper than $\frac{1}{4}$ ".



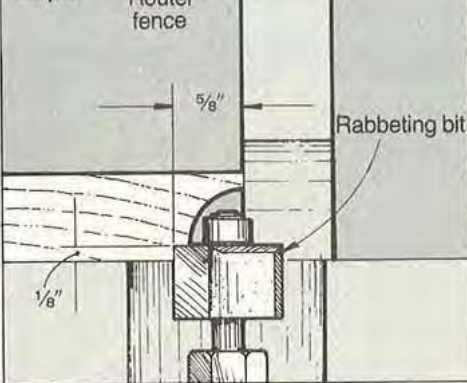
Step 3. Make the last cut $\frac{1}{4}$ " in from the edge and slightly deeper than $\frac{1}{4}$ ".

ROUTING THE BASE MOLDING

Step 1



Step 2



of cutting the pieces on a table saw, we used a 2"-wide board). Rout a $\frac{1}{4}$ " round-over on two edges where shown in Step 1 of the drawing at the top of the page. Then, follow Steps 2 and 3 to rip the two quarter-round pieces from the oak strip.

The thin strips may have a tendency to kick back when the cut is completed. To be safe, use a push block and don't stand directly behind the piece being cut.

4 Miter-cut the side molding strips (O) and dry-clamp them above the $\frac{1}{4}$ " cedar liners. Now, miter-cut the front and back strips (P) to fit. Glue and brad the molding strips in position, and sand them flush with the cedar-plywood lining.

ROUTING THE BASE AND LID MOLDINGS

1 Cut the base molding pieces (Q, R) to size plus 2" in length.

2 Follow the two-step procedure in the drawing, *above*, to rout the

decorative contours on the three molding pieces.

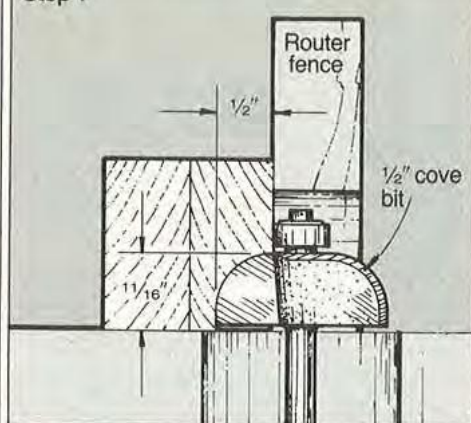
3 Miter-cut both ends of the front piece and the front end of each side molding. Then, glue and clamp the pieces to the chest.

4 To form the lid molding, start by cutting four pieces of $\frac{3}{4}$ " oak to $1\frac{3}{4} \times 20$ " for the sides (S) and two pieces to $1\frac{3}{4} \times 50$ " for the front (T). Laminate the four 20"-long pieces into two blocks that measure $1\frac{1}{2} \times 1\frac{3}{4} \times 20$ ". Do the same to the two 50"-long pieces. (We also formed a scrap lamination about 12" in length for making test cuts. Then, we positioned the router bits as shown, test-cut the scrap, and readjusted the bit as necessary before routing our finished pieces.) Scrape off any excess glue, and rip all three laminated pieces to $1\frac{1}{2}$ " finished width. Also, cut the lid's back trim piece (U) to finished size.

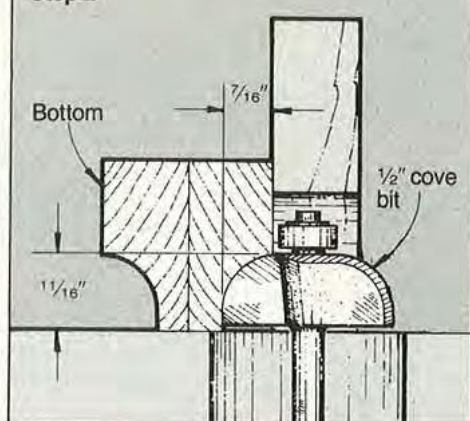
5 Follow steps 1 through 6 in the

ROUTING THE LID MOLDING

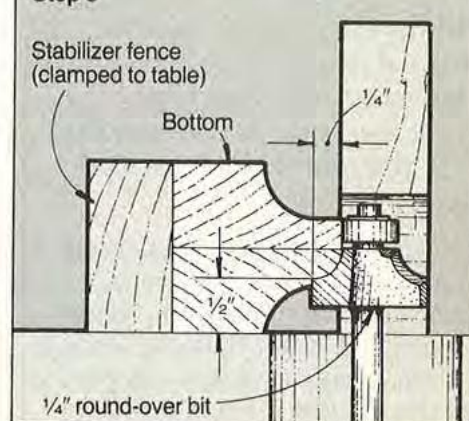
Step 1



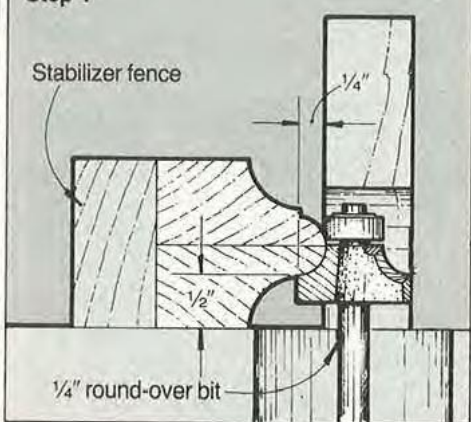
Step 2



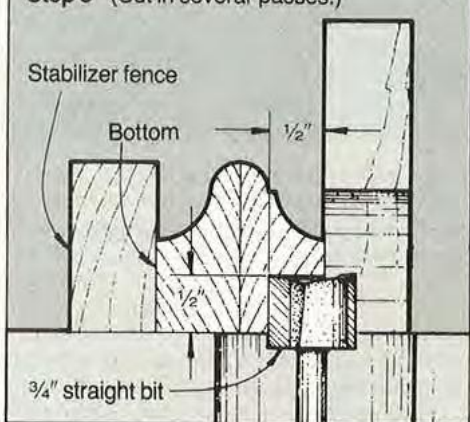
Step 3



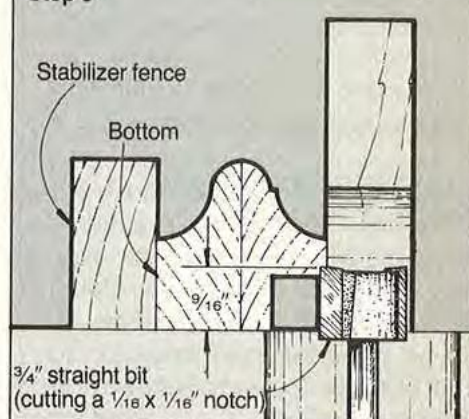
Step 4



Step 5 (Cut in several passes.)



Step 6



series of drawings at the top of the page to rout the decorative molding (R, S). Now, go back and rout a 1/2" rabbet 1/2" deep along the top inside edge of the back trim piece (U), following the procedure in step 5 of the drawing.

6 Cut the lid pieces V and W to size plus 1/2" on all sides. Then, laminate the two pieces with contact cement, and trim the panel to finished size.

7 Glue and clamp the back trim piece to the laminated panel (V, W), keeping the ends flush.

8 Cut a 3/4" rabbet 1/2" deep in the back end of each side molding piece (S) where shown in the Lid-Corner Detail in the Exploded View Drawing, page 48.

9 Miter-cut the side molding pieces (S) and front molding piece (T) to length. Now, glue and clamp them to the lid assembly, being careful not to mar the routed edge. (When clamping, we used scrap spacers

with the clamps for uniform pressure and to prevent marring the oak veneer plywood.)

FINAL CONSTRUCTION AND FINISHING

1 Mortise the back rail (B) and back trim piece (U) for the hinges. Note that the middle hinge is centered and the other two are positioned 4" in from each end.

2 Sand the entire chest smooth, especially the cedar lining, which will remain unfinished. Using masking tape and newspaper, mask the lining, and apply the finish of your choice. (We stained our chest first, then applied several coats of polyurethane, using steel wool between coats.) Finally, remove the masking tape and newspaper.

3 Install the hinges. Then, attach the lid support (see the Buying Guide) and spacer block where shown in the photo, page 46, and in the Side-Section Drawing, page 48.

Note: Cedar slowly loses its aroma over time. Revive the fragrance by lightly sanding with 220-grit sandpaper. You can also plane a solid piece of cedar, put the shavings in a nylon or sock, and place it in the chest for use as a pomander.

BUYING GUIDE

●**Router bit.** 1/8" high-speed steel veining bit fortified with chrome-plated steel. Catalog no. 9HT2559, \$2.69. To order, call your local Sears store.

●**Counterbalanced lid support.** Rugged, heavy-gauge housing. Catalog no. D1512, \$3.35 each. The Woodworker's Store, 21801 Industrial Blvd., Rogers, MN 55374. Phone 612/428-2199 to order. 🌲

Produced by: Marlen Kemmet
Project Design: James R. Downing
Photographs: Jim Kascoutas
Illustrations: Randall Foshee; Bill Zaun