

WEEKEND WOODWORKING **PROJECTS**TM

NEAT THINGS YOU CAN BUILD IN A HURRY

ARMORED-CAR BANK

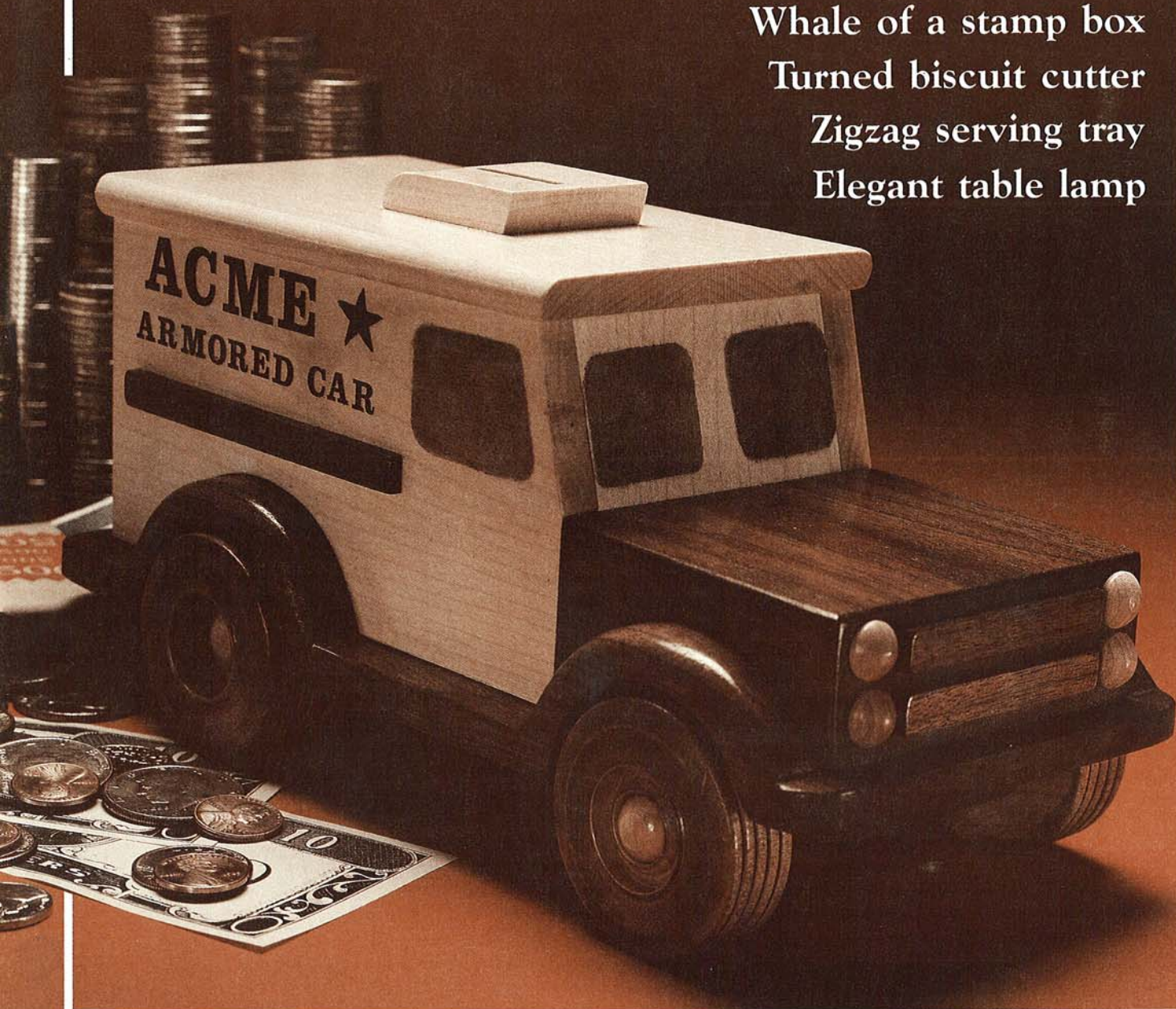
Contemporary coaster set

Whale of a stamp box

Turned biscuit cutter

Zigzag serving tray

Elegant table lamp



FROM THE EDITORS OF WOOD[®] MAGAZINE

4 ZIGZIG SERVING TRAY

Here's one of those projects that causes onlookers to propose theories about its construction. It's a laminated tray that features a fascinating zigzag pattern in shades of walnut. See how we made the tray inside.



8 TAPERED TABLE LAMP

Upscale and sophisticated describes our tapered table lamp. We provide you with a pair of jigs to help you saw the tricky compound cuts in the tapered column pieces. We also give you a source for all the lamp parts.



12 WHALE OF A STAMP BOX

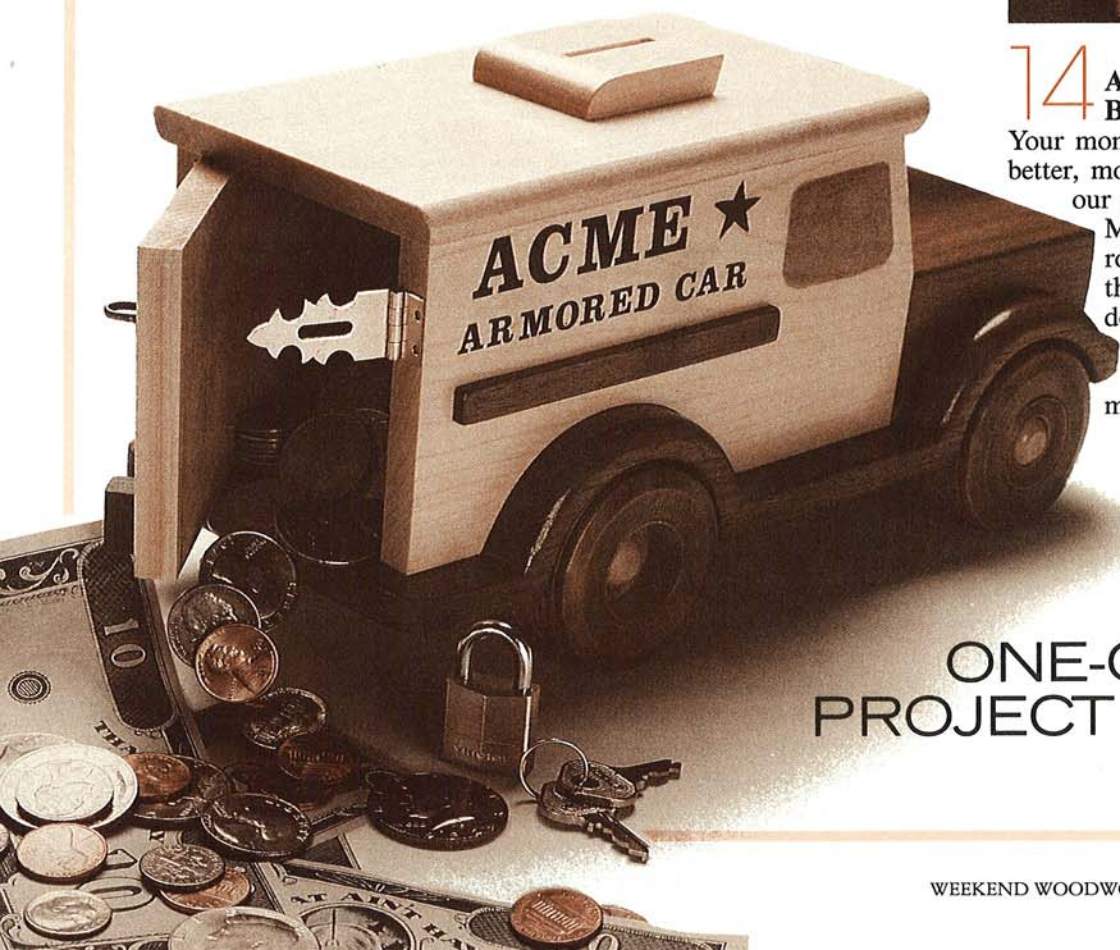
Plug in the bandsaw for this one. It's a nifty desk-top stamp dispenser with a whale-shaped storage drawer. With our full-sized pattern and a 5½"-long block of wood, you can easily make the dispenser in an evening.



14 ARMORED-CAR BANK

Your money bags will never find a better, more suitable home than our armored-car classic.

Make deposits through the roof and withdrawals through the hinged rear door. We combined maple and walnut for the vehicle body and used mail-order wheels.



**ONE-OF-A-KIND
PROJECT DESIGNS**



18 CONTEMPORARY COASTER SET

Save table surfaces and expose your woodworking talents with this attractive project. We cut the stand and all six coasters from one laminated board. Then, we routed recesses in the coasters and filled them with cork. Use our template for great results.

22 TURNED BISCUIT CUTTER

The next time you roll out biscuit dough, how about giving this ingenious project a turn, literally? Though decorative looking, this cutter really works. Our full-sized template patterns make shaping the project's three parts easy.



EDITORIAL/ART STAFF

Editor

Larry Clayton

Managing Editor

Jim Harrold

Projects Editor

Charles E. Sommers

Projects Design Editor

James R. Downing

Art Director

C.L. Gatzke

Graphic Designers

Paula Modersohn, Jolene Wagoner

Project Builders

Terry Fenimore, Jim Dimaio

Editorial Director

Doris Eby

Publisher

Jerry Kaplan

National Advertising Manager

Terry McIntyre

Director, Circulation Marketing

Clem Sevede

Circulation Manager

Bill Reed

Production Services Manager

Steven Johnson

Editorial Research Director

C. Ray Deaton

WEEKEND WOODWORKING PROJECTS™ is published bi-monthly in January, March, May, July, September, and November by Meredith Corporation, 1716 Locust Street, Des Moines, IA 50336. Application to mail at second-class postage rates is pending at Des Moines, IA. SUBSCRIPTION PRICES: One year \$24.97 in the United States and its possessions. Canada and other countries add \$6 per year. POSTMASTER: Send address changes to WEEKEND WOODWORKING PROJECTS™, P.O. Box 10815, Des Moines, IA 50336. To phone, call toll-free 1-800-678-2666. © COPYRIGHT MEREDITH CORPORATION, 1988. ALL RIGHTS RESERVED. PRINTED IN U.S.A.

OUR PLEDGE TO YOU

Prior to publication, we build every project presented in WEEKEND WOODWORKING PROJECTS step-by-step in our shop. Then, a team of editors reviews each element of each project—directions, illustrations, and bill of materials—to make sure the instructions we provide you are clear, concise, and complete. In short, we do everything possible to “de-bug” each project while it’s being built in our shop so you’ll have good results.

The Staff of Weekend Woodworking Projects



ZIGZAG SERVING TRAY

The three-dimensional effect of our serving tray's design makes it a standout in any setting. But don't let the intricate pattern fool you—it's really a breeze to make, and will leave all your woodworking friends guessing.

MAKE THE PIECES FOR THE TRAY BOTTOM

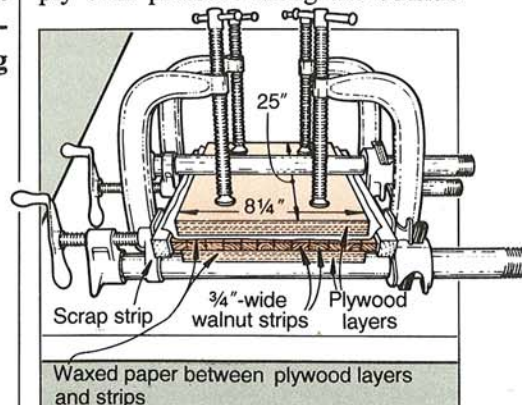
1 Cut two pieces of $\frac{3}{4}$ "-thick walnut to 5×26 ". (For our tray, we chose walnut with both very light and very dark wood to help create the zigzag pattern you see in the photo at *left*, and on the exploded-view drawing *opposite, bottom*.)

2 Set the fence on your tablesaw $\frac{3}{8}$ " from the inside edge of the saw blade. Now, rip 14 strips from the two walnut boards; you'll need 12 to make the tray bottom and two for the tray sides.

3 Position 12 strips edge to edge on a flat work surface. Next, alternate the dark and light strips. Number each piece so you can arrange them in the same order when you glue them later.

4 Cut two pieces of $\frac{3}{4}$ " plywood to $8\frac{1}{4} \times 25$ ". You'll use these pieces to hold the strips flat when gluing in the next assembly step.

5 Referring to the drawing *below*, glue and clamp the 12 walnut strips. (After applying glue to the edges of the strips, we sandwiched them between layers of wax paper and plywood. The C-clamps and plywood apply even pressure on the top and bottom surfaces of the laminations. The bar clamps and scrap strips apply even pressure along the outside

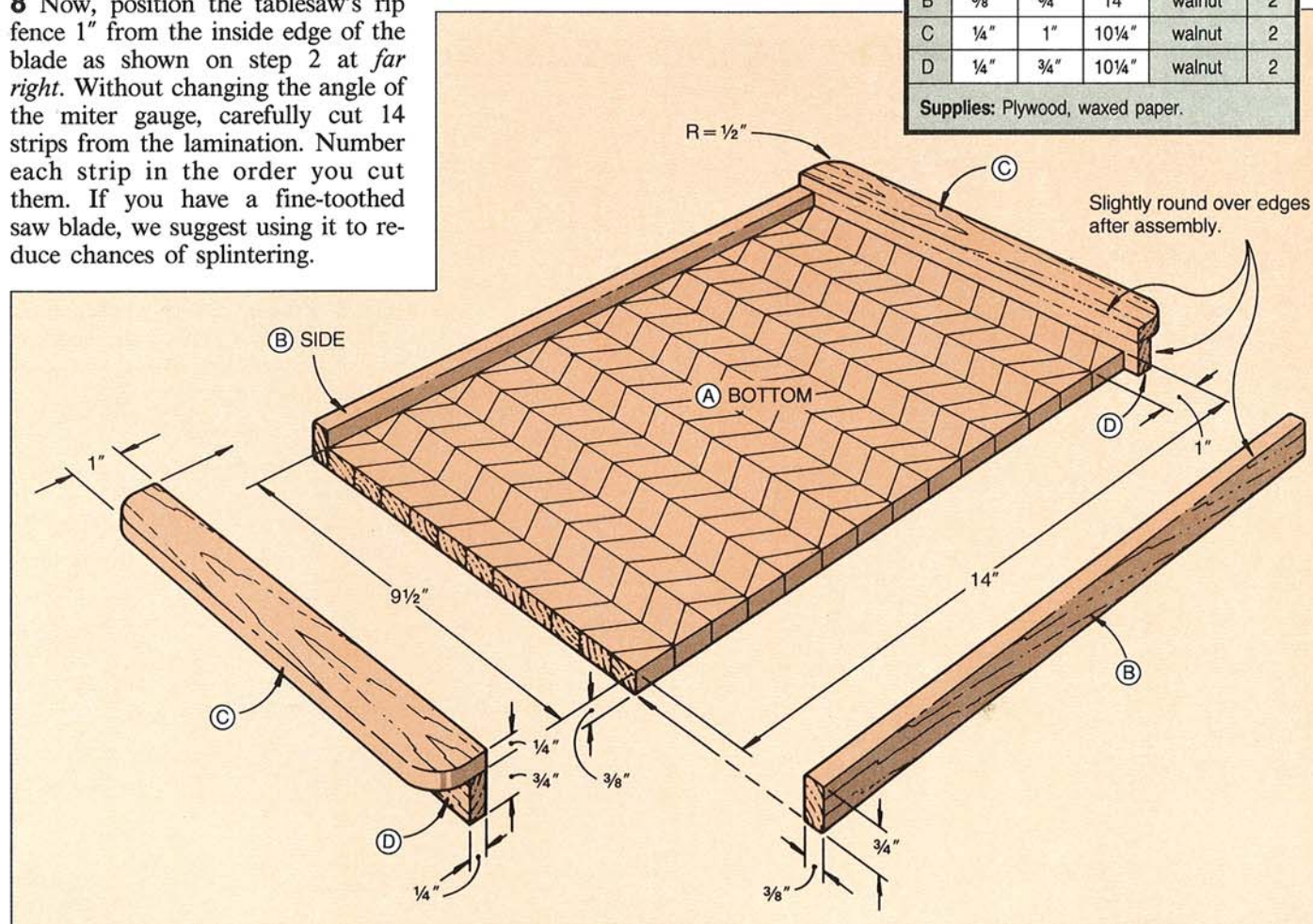
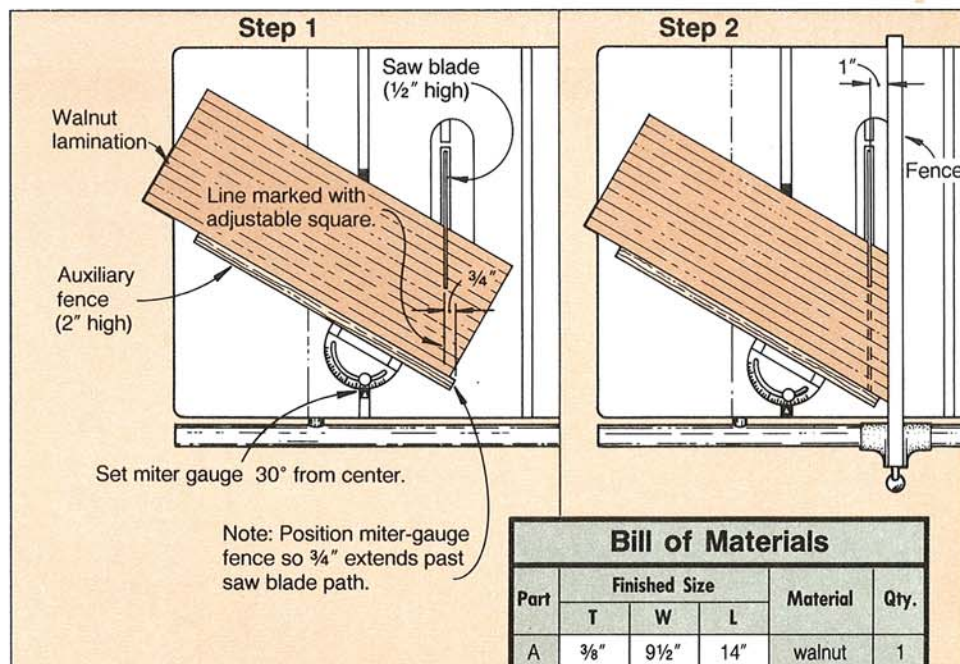


edges.) Alternately tighten the clamps. Let the glued assembly stand overnight. Remove the clamps after the glue has dried. Now, carefully scrape off any glue squeeze-out on the lamination.

6 Using an adjustable square, mark a 30° angle across the lamination. Start at the lower right corner.

7 Attach a 2"-high auxiliary fence to your tablesaw's miter gauge. Set the gauge 30° from center. Now, using the line you marked in the above step as a guide, trim the end of the lamination as shown in step 1 of the two-step drawing at *right*.

8 Now, position the tablesaw's rip fence 1" from the inside edge of the blade as shown on step 2 at *far right*. Without changing the angle of the miter gauge, carefully cut 14 strips from the lamination. Number each strip in the order you cut them. If you have a fine-toothed saw blade, we suggest using it to reduce chances of splintering.



Continued

SERVING TRAY

NEXT, FORM THE TRAY BOTTOM

1 Line up the strips in the order you cut them. (Here's where your numbering pays off). Turn every other piece over face to face as shown at *right* to create the zigzag pattern. Renumber the top face of the pieces you turned so they can be repositioned in order.

2 To assemble the tray bottom, use the same clamping setup you used to make the first lamination. Lay the pieces in order, and carefully align the strips so the *points meet* to form the pattern. When you are satisfied with the pattern, apply a thin bead of woodworkers' glue to the mating edges on each piece and spread it evenly over the edge's surface with a finger. Next, replace the pieces in the numbered order on the waxed paper. Slowly squeeze the pieces together with your hands to squeeze out as much of the excess glue as possible. Wipe off the squeeze-out with a damp cloth. Now, recheck the pattern alignment one more time. Finish clamping the pieces together as shown at *right*. Let the assembly stand overnight. Remove the clamps.

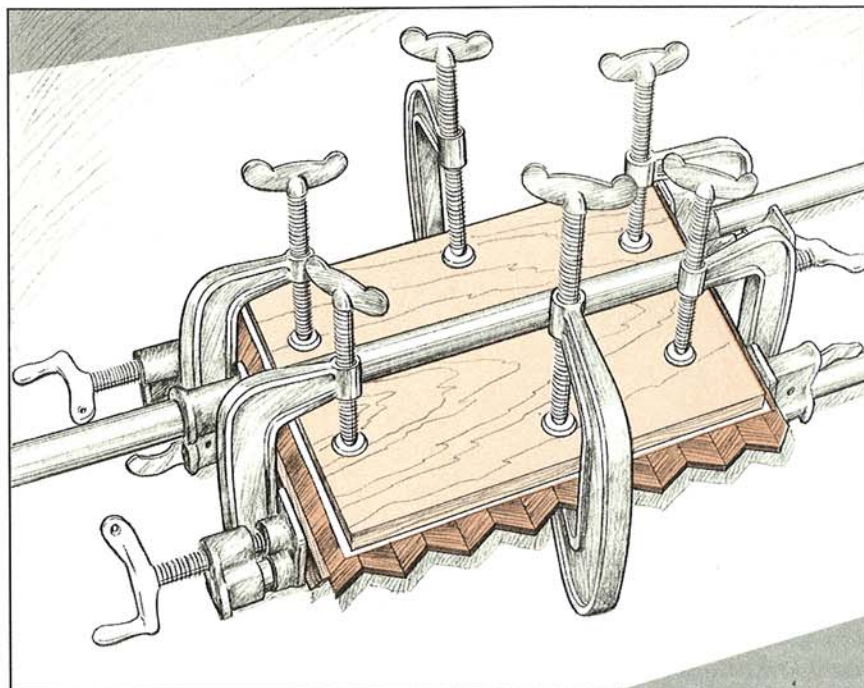
3 Belt-sand both faces to level the lamination. (When sanding, we checked the surfaces with a straight-edge to help us keep them flat.) Use a 100- or 150-grit sanding belt; coarser grits tend to remove stock too quickly and may accidentally gouge the tray bottom.

4 Finish-sand the lamination. (We used a palm sander with 150-grit sandpaper and finished with 220-grit paper. We found it easier to sand the bottom now than after the sides and ends have been added.)

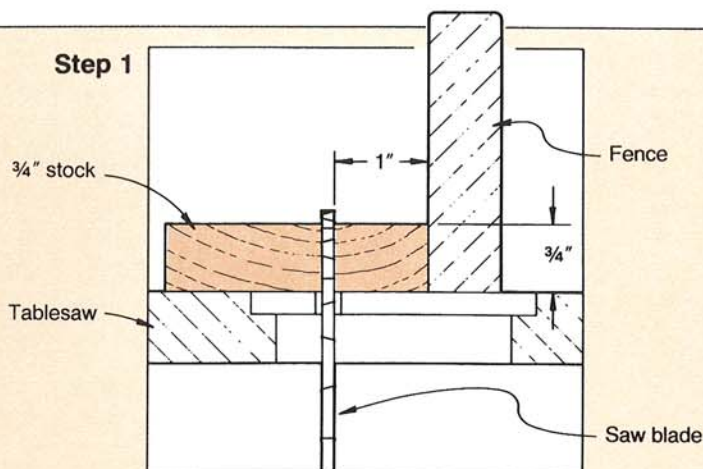
5 Draw diagonals on the bottom face to find the center of the lamination. Measuring from the center (we

want the pattern to be identical at both ends and both sides), lay out the finished size ($9\frac{1}{2} \times 14$ ") of the tray bottom (A). If necessary, use

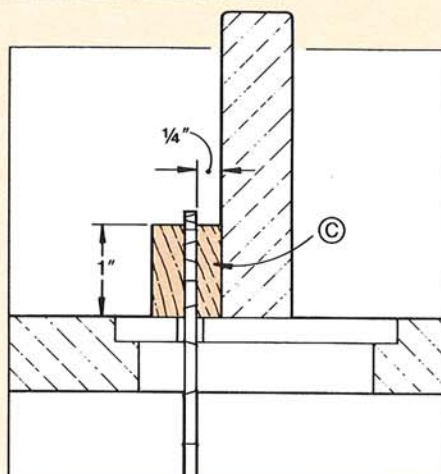
your tablesaw and trim the four edges to square the bottom. (We taped the cutlines before sawing, to reduce splintering the edges.)



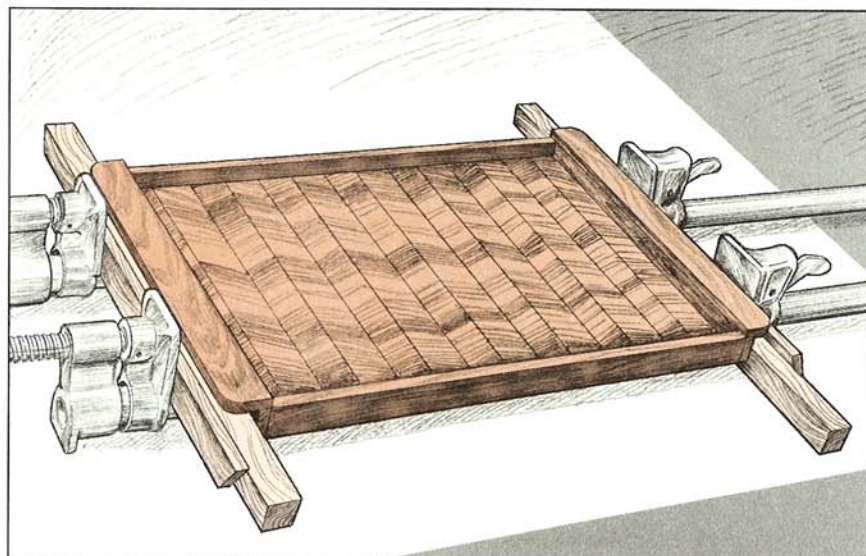
Step 1



Step 2



CUTTING THE HANDLE PIECES



ADD THE SIDES AND HANDLES

1 Cut the tray sides (B) to the size listed on the Bill of Materials plus 1" in length from the $\frac{3}{8}$ "-thick strips you cut earlier. Finish-sand the strips before assembling.

2 Glue and clamp the side pieces to the tray bottom. Check them for square because we found that they tended to slant inward. If they do, cut two scrape strips the same width as the tray bottom and place them on top of the tray bottom and between the sides to act as spacers. After the glue dries, trim the ends even with the bottom's ends. (We used our tablesaw.)

3 Cut the handle parts (C, D) to size, following the two-step drawing at left. Tape the C parts together face to face using double-faced tape. Mark a $\frac{1}{2}$ " radius on the outside corners of one piece where shown on the exploded-view drawing. Now, using a bandsaw or scrollsaw, cut the radii to shape, and sand the radii. Separate the taped parts, remove the tape, and finish-sand all of the handle parts.

4 Glue and clamp the handle pieces together. Check both assemblies for square, and make certain that the ends are flush. Remove the clamps after the glue dries. Finally, glue and clamp the handles to the tray as shown at left.

5 Apply the finish of your choice. (To make a durable surface, we applied three coats of clear polyurethane, sanding with 320-grit paper between coats to level the surface. We steelwooled after the last coat.)

Project Design: Joel & Karma Brokaw,
Kalona, Iowa
Illustrations: Kim Downing; Ode Designs;
Bill Zaun
Photograph: Jim Kascoutas



TAPERED TABLE LAMP

WITH HIGH-END ELEGANCE



Though we selected a pleated beige shade to show off our tapered lamp, any number of shades will fit the bill. We also painted the base with black semi-gloss enamel, but a clear finish would prove equally effective. Use our taper jigs to guarantee your success in cutting the beveled and tapered column parts.

FIRST, CUT OUT THE BASE PARTS

1 Rip and crosscut four pieces of $\frac{3}{4}$ " hardwood stock (we used maple) to $3\frac{1}{2} \times 15$ ". You'll make the lamp column parts (A) from these pieces. Select the best side on each piece for the outside face and mark it. Next, designate one end on each to be the bottom.

2 Set your tablesaw blade 4° from center. Now, bevel-crosscut the bottom end of each, making their final length $14\frac{3}{4}$ ". (We set the blade angle with an adjustable triangle. See the last page in this issue.)

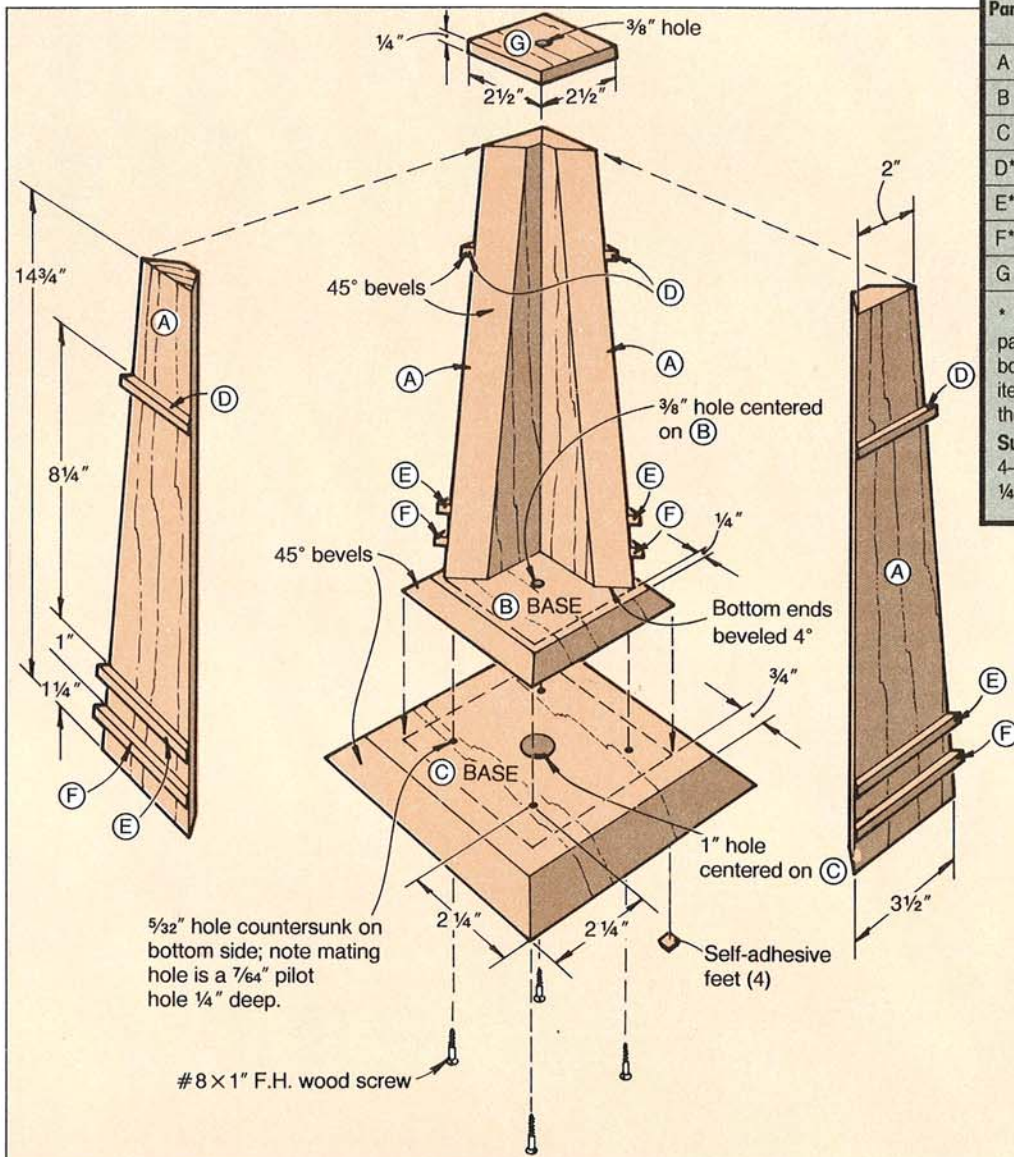
3 From $\frac{3}{4}$ " plywood or particle-board, make the two jigs to the dimensions shown on the Jig Drawing on page 10. (We cut the 45° bevel along one edge on both blanks first. Next, we laid out the openings on the jig blanks, and cut them to shape with a portable jigsaw.) Mark them jig 1 and jig 2.

4 With the saw blade set at 45° , place jig 1 on the saw table with its beveled edge against the blade. Lock the fence against the jig. Place one of the columns you cut in the notch of the jig, marked face down and beveled end nearest you. Rip the first bevel as shown *opposite, center*. Make the identical cut on the other three column pieces. (For safety, we nailed scrap cleats across the corners of the jig to help hold the

Bill of Materials					
Part	Finished Size*			Material	Qty.
	T	W	L		
A	3/4"	3 1/2"	14 3/4"	maple	4
B	1/2"	5"	5"	maple	1
C	3/4"	8"	8"	maple	1
D*	1/4"	1/4"	3"	maple	4
E*	1/4"	1/4"	3 7/8"	maple	4
F*	1/4"	1/4"	4"	maple	4
G	1/4"	2 1/2"	2 1/2"	maple	1

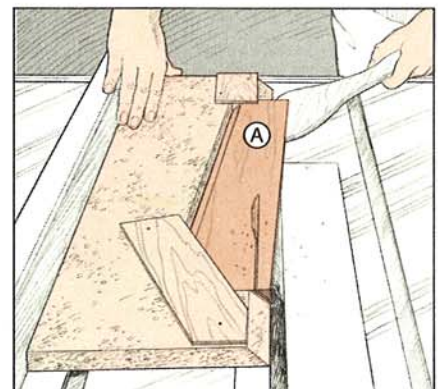
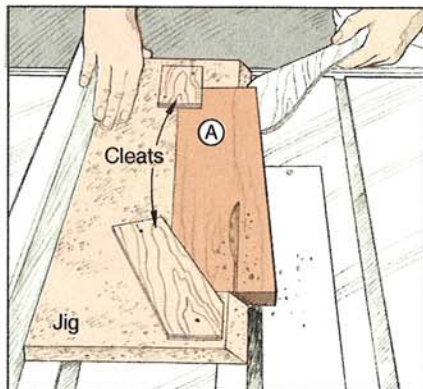
* We made parts A from one—4×60" board, parts B, C, D, E, F, and G from one 8×36" board. Individual assemblies may vary so cut items marked with an * to fit as instructed in the text.

Supply list: 4—8×1" flathead wood screws, 4—self-adhesive feet, double-faced tape, 6—1/4"-wide rubber bands, plywood.



pieces securely in the notches while sawing the taper.)

5 Without changing the saw settings, place jig 2 on the saw table. Next, put one of the column pieces in the jig, marked face down, and with the nonbeveled end nearest you. Rip the second bevel as shown *far right*. Now, make an identical cut on the other three column pieces. Set the four sawed column pieces aside for now.

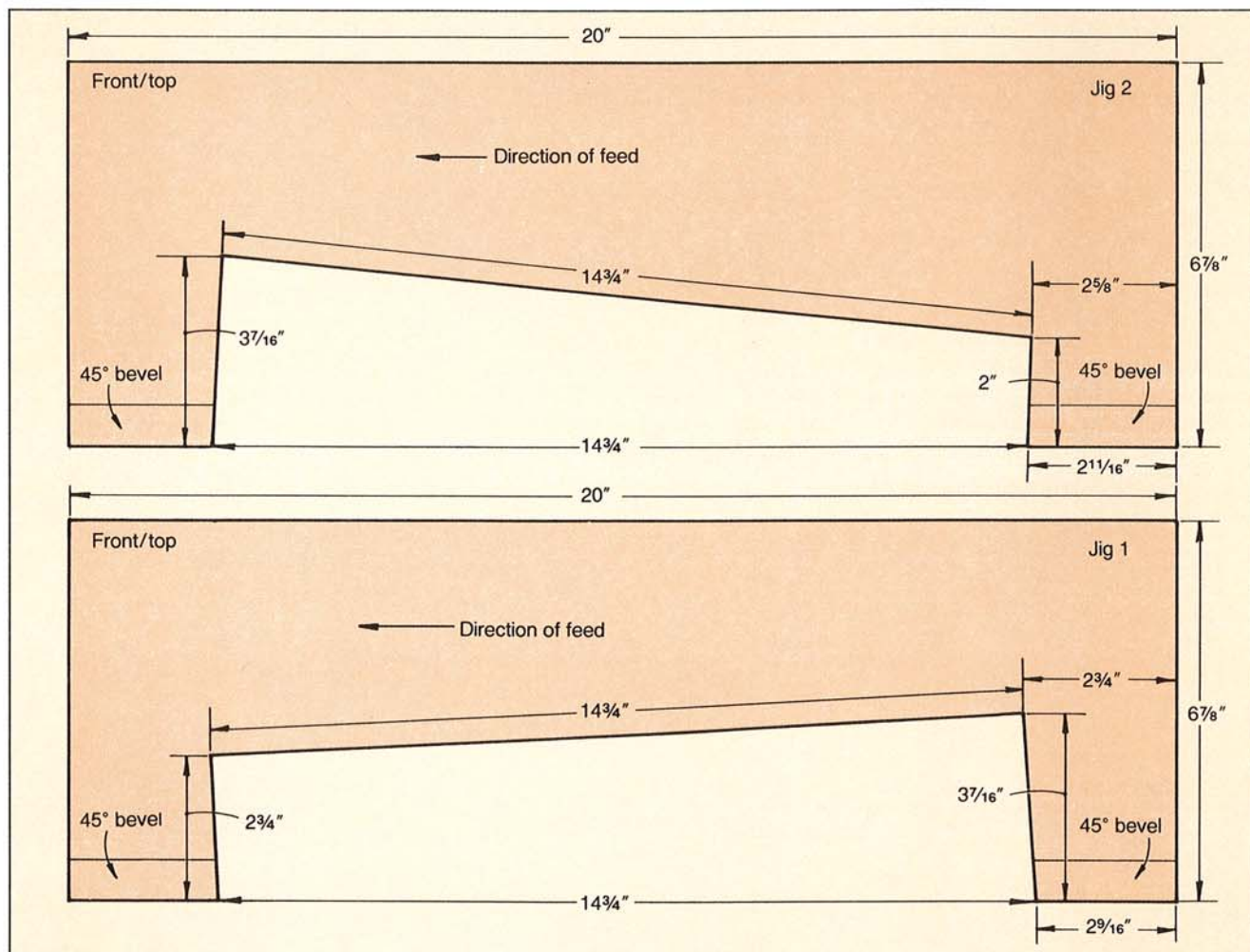
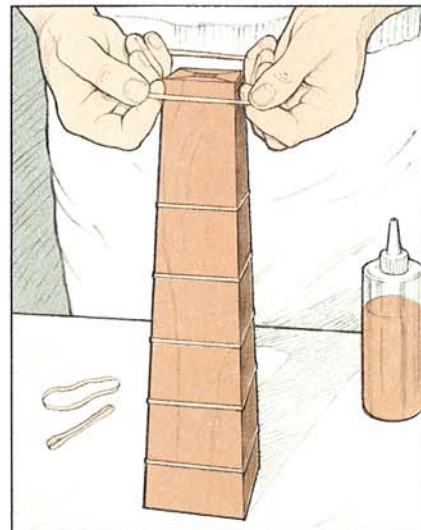
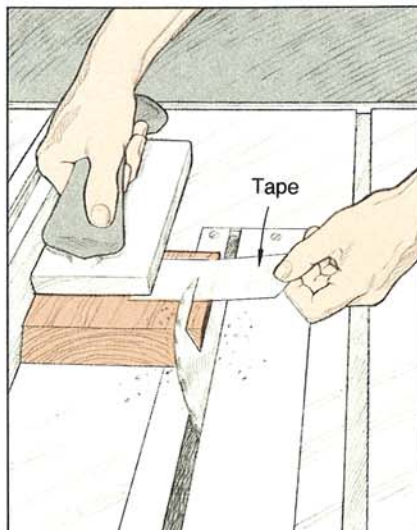


Continued

TAPERED TABLE LAMP

6 To make the smaller base piece (B), plane or resaw a $5\frac{1}{2} \times 12$ "-long piece of $\frac{3}{4}$ " stock to $\frac{1}{2}$ " thickness. Next, bevel-cut it as shown *right center*, to the dimensions listed on the Bill of Materials. Make the larger $\frac{3}{4}$ "-thick base piece (C) by repeating the bevel-cutting process.

7 To form the decorative trim, plane or resaw a piece of $\frac{3}{4}$ " stock to $\frac{1}{4} \times 2\frac{1}{2} \times 20$ ". From it, cut two $\frac{1}{4} \times \frac{1}{4}$ " lengths (you will use these later to make pieces D, E, F) and one $2\frac{1}{2}$ "-square piece (G). (We used duct tape to catch and hold the small pieces as they were cut.) Finish-sand the strips and the square.



NOW, ASSEMBLE AND FINISH THE LAMP

1 Apply a bead of woodworker's glue to the beveled edges of the column pieces. Stand the four columns on end on a level surface (we placed a piece of waxed paper underneath), and join them together to form the tapered column. Align the pieces carefully along the outside edges. Don't worry about slight gaps along the inside of the beveled joints. Now, as shown at *left*, stretch $\frac{1}{4}$ "-wide rubber bands around the glued column to hold it. Wipe off any glue squeeze-out. Set the assembly aside while the glue dries.

2 Draw diagonals and mark the centerpoints on the bottoms of base parts (B, C) and the cap (G). Using a drill press, drill a $\frac{3}{8}$ " hole at the center in parts B and G, and a 1" hole in part C.

3 Using the measurements on the exploded-view drawing, locate, drill, and countersink the four screw holes in the bottom of base part C.

4 Lightly mark diagonals on the face of C. Place double-faced tape on the underside of part B. Next, position this part on C, aligning the corners of it with the diagonal lines. Using an awl, poke through the four screw holes in C and mark the pilot holes to drill in B. Now, separate the pieces, remove the tape, and drill the $\frac{7}{64}$ " pilot holes $\frac{1}{4}$ " deep in the underside of B.

5 After the glue dries, remove the rubber bands. If the column doesn't set level, tack a sheet of 150-grit sandpaper to a scrap piece of plywood, and sand the bottom of the column on it.

6 Finish-sand the assembled lamp column and the individual parts. Fill any voids with wood putty. If you elect to finish the trim parts dif-

ferently, we suggest applying the finish before completing further assembly work. (We sprayed the lamp column and the large base piece with semigloss black enamel, and applied two coats of Danish oil to the unpainted trim parts.) For a smoother finish on porous woods, we suggest applying a coat of sanding sealer before painting.

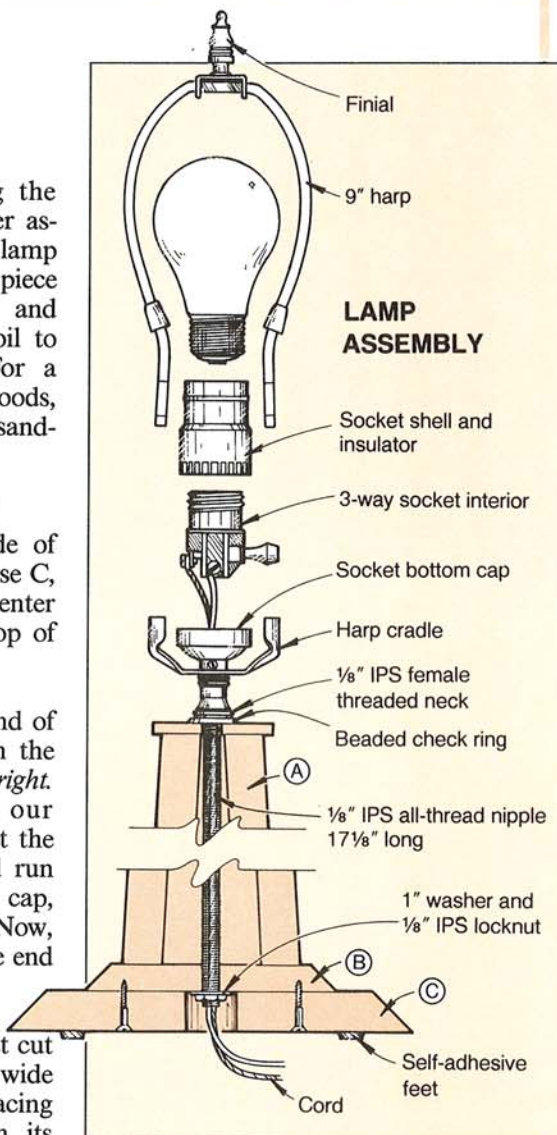
ADD WIRING AND TRIM

1 Apply glue to the underside of base B, align it on the top of base C, and drive the screws. Next, center and glue the cap (G) to the top of the lamp column.

2 Screw a lamp neck to one end of a threaded nipple as shown on the Lamp Assembly Drawing at *right*. (See the Buying Guide for our source of lamp parts.) Next, set the lamp column on the base, and run the threaded pipe through the cap, column, and the hole in B. Now, place the washer and nut on the end of the nipple and tighten.

3 To attach the trim strips, first cut a scrap of $\frac{1}{4}$ " hardboard to 4" wide and $10\frac{1}{2}$ " long for use as a spacing guide. Next, lay the lamp on its side, and lay the spacer on it so it squarely butts base B. Cut four—4" lengths of the $\frac{1}{4}$ " $\times$ $\frac{1}{4}$ " trim for D. Cut a 45° miter on the end of one piece (we used a small miter box and handsaw), place it on the column, aligning the mitered corner at one edge and mark the other edge. Cut that miter. Glue the piece in place. (We used fast-curing 5-minute epoxy.) Now, rotate the lamp, and affix the trim pieces on the remaining three sides.

4 Now, cut the hardboard spacer to 2" long and repeat the same process described in step 3 to attach the E trim pieces. Finally, cut the spacer in half, and repeat the process to attach the F trim pieces.



5 Assemble the rest of the lamp parts, and wire the lamp as shown on the Lamp Assembly Drawing. Attach the wire leading from the positive blade on the plug to the brass-colored screw on the socket.

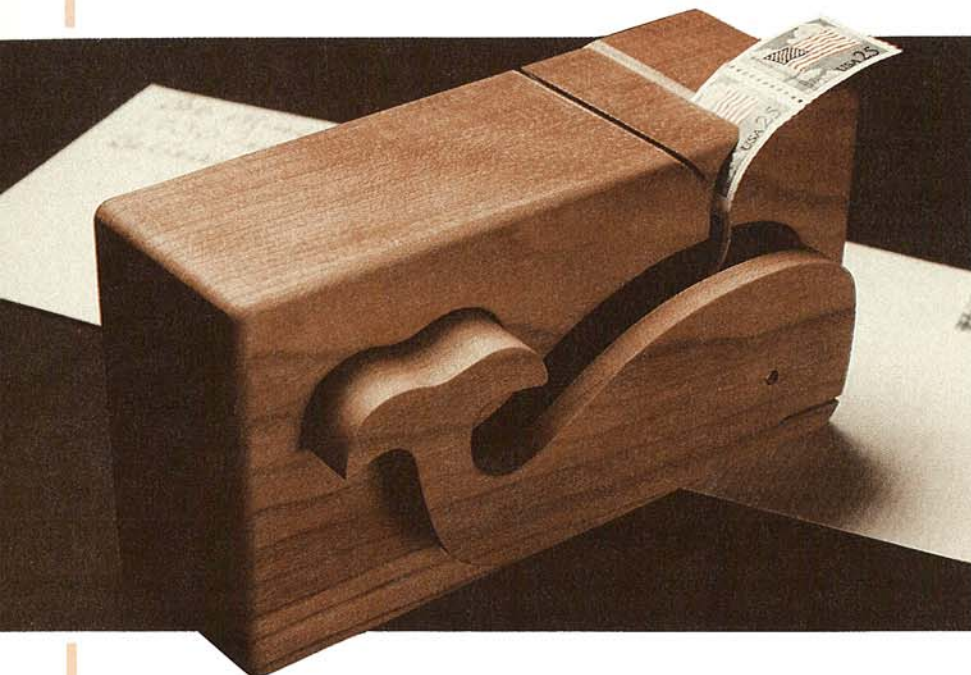
6 Place four self-adhesive feet on the underside of the base.

Buying Guide

● **Tapered Table Lamp Kit.** Includes 17 $\frac{1}{8}$ " threaded nipple, threaded finial, neck, brass check ring, nuts and washers, 9" harp, 3-way brass socket, 8' gold electrical cord. Price: \$8.85 plus \$3.00 shipping. From: The Lamp Shop, 3215 Forest Ave., Des Moines, Ia 50311. Phone: 515/255-7170.



WHALE OF A STAMP BOX



Sail the seven seas and you won't find a better looking stamp box than our design *above*. Cut on a bandsaw, it features a whale-shaped drawer that slides out with the push of a finger for stamp refilling. One of the two saw kerfs making the whale's spout lets you dispense stamps quickly and easily.

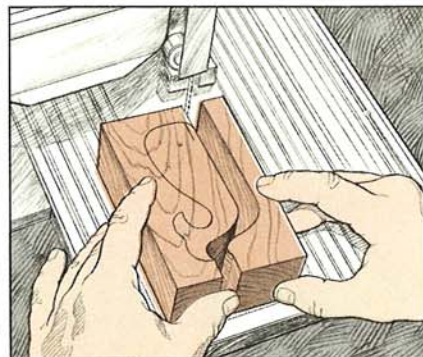
PREPARE THE STOCK AND THE PATTERN

1 Rip and crosscut a piece of hardwood to $1\frac{3}{4} \times 3 \times 5\frac{1}{2}$ ". (We used cherry.) As shown on the exploded-view drawing *opposite bottom*, you cut the whale-shaped drawer and surrounding block from this piece.

2 Transfer the full-sized whale pattern *opposite top*, to the block. (We used carbon paper.) Mark the eye, mouth, spout lines, and the solid cutlines. Do not trace the dash line, or the arrow lines at this time.

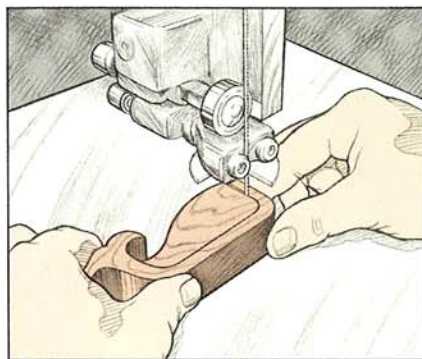
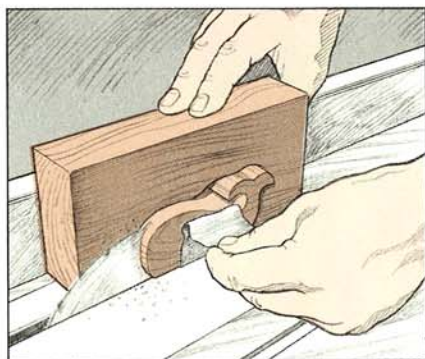
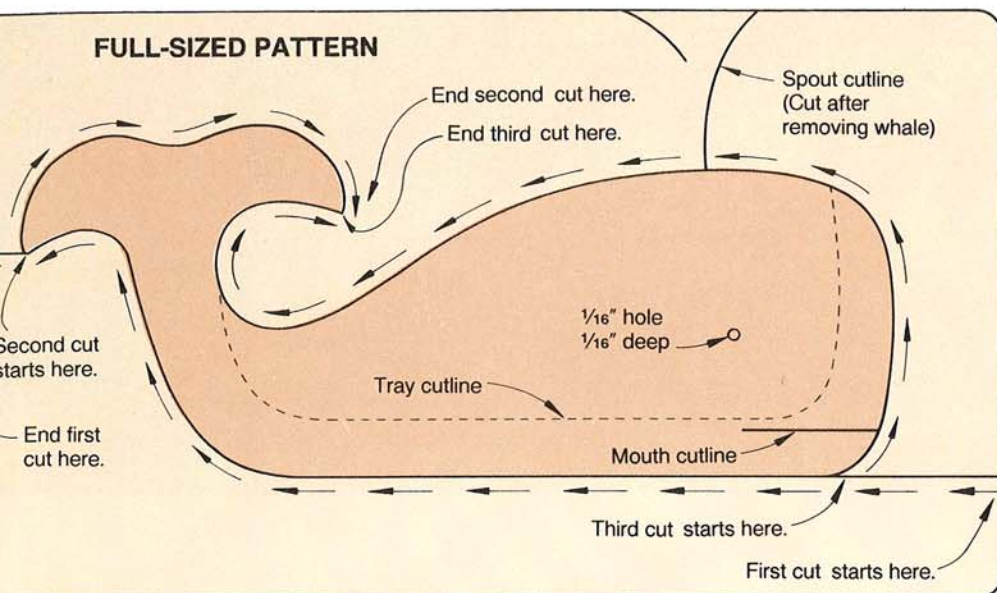
CUT OUT THE WHALE

1 Using a bandsaw, cut the whale to shape. (We found a $\frac{1}{8}$ " blade with 12-14 teeth per inch worked well.) When sawing the pattern, follow the cutting sequence shown by the arrows on the pattern. Note in the illustration *below* that in making the first saw cut, you enter and exit the wood in straight lines.



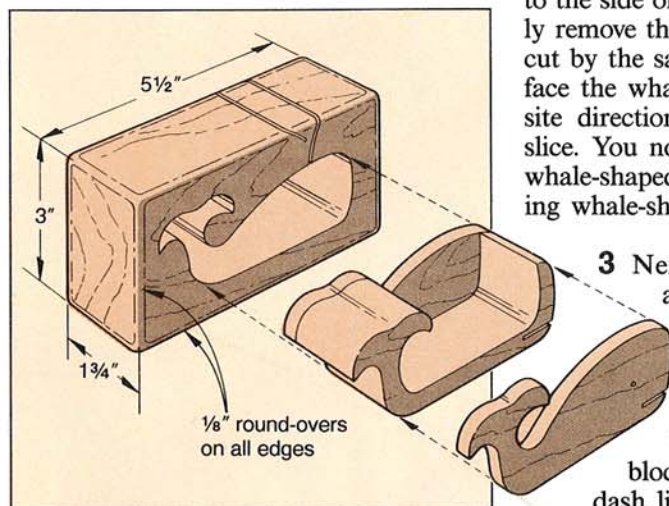
2 Start the second saw cut at the exposed tip of the tail. Following the arrows on the pattern, saw around the tail. When you reach the other tail tip, stop. Now, back the saw out of the cut.

3 Make the third saw cut, again following the arrow on the pattern. When finished sawing, you will have cut three separate pieces.



NOW, FORM THE DRAWER

1 First make a safety jig. (We placed the whale cutout on a scrap of 2x4, outlined its shape with a pencil, and then cut out the whale-shaped cavity with a bandsaw.)



2 Place the whale cutout in the jig's cavity, and position both against the saw's fence. Next, adjust the fence to slice $\frac{1}{4}$ " from the side of the whale. Make the cut as shown *above left*. (We stuck a strip of duct tape to the side of the whale to help safely remove the thin piece after it was cut by the saw.) Readjust the fence, face the whale and jig in the opposite direction, and saw the second slice. You now have two— $\frac{1}{4}$ "-thick whale-shaped sides and the remaining whale-shaped block.

3 Next, using the pattern and carbon paper, trace the drawer outline (indicated by the dash line on the full-sized pattern) onto the whale-shaped block. Bandsaw along the dash line as shown *above*.

4 Sand the inside faces of the two $\frac{1}{4}$ " whale slices, and the outside of the whale-shaped drawer. (We tacked sandpaper to a flat surface, and slowly rubbed the whale parts over the paper.)

5 Apply glue, assemble, and clamp the whale drawer pieces, checking alignment. After the glue has dried, remove the clamps. Next, using the bandsaw or scrollsaw, cut the mouth slit. Finally, drill the $\frac{1}{16}$ " holes for the eyes. (Avoid drilling through the sides). If needed, sand the edges just enough to remove rough-saw kerfs or burnt wood.

ASSEMBLE THE BLOCK AND APPLY THE FINISH

1 Sand the inside surfaces of the top and bottom parts if needed to remove burnt wood. Next, apply glue to the mating surfaces, align the two parts, and then clamp them together. Remove the clamps after the glue has dried.

2 Set the fence on your tablesaw the same width as the assembled drawer. Raise the blade to the height of the block. Now, saw the excess width from the backside of the block. Finally, return to the bandsaw and make the two spout cuts where indicated. If the through-slit wants to close, wedge a piece of a flat toothpick in the slit on one edge to hold it open.

3 Sand a round-over on all outside edges of the block. Now, finish-sand all surfaces.

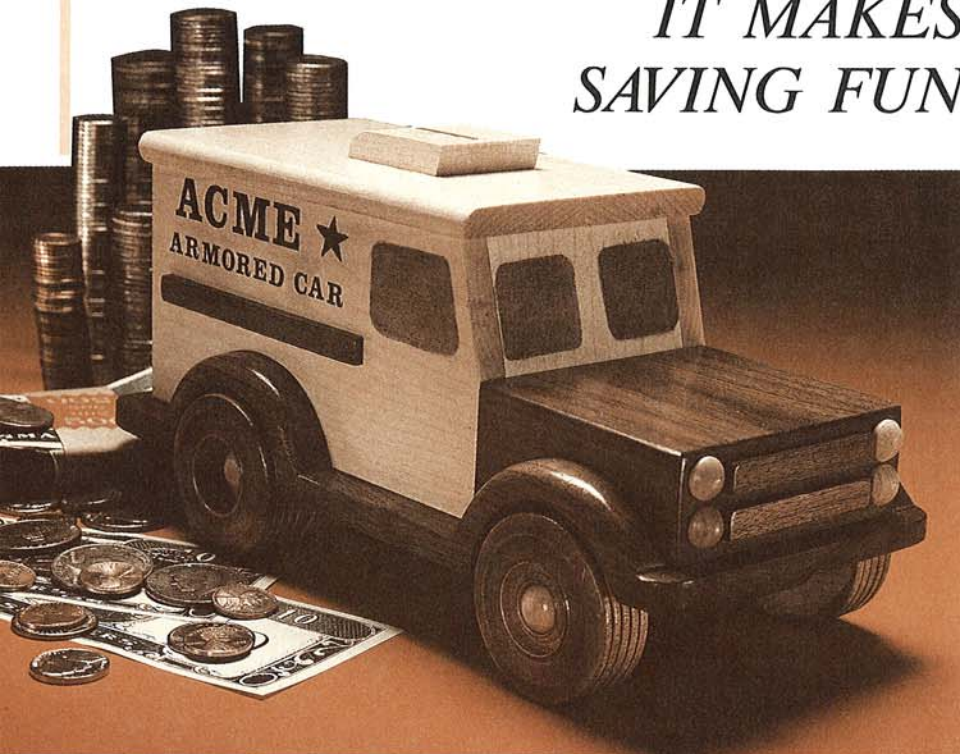
4 Apply the finish of your choice. (We sprayed on three coats of clear flat lacquer, sanding lightly between coats to level the surface.)

5 Insert the drawer in the block, place a roll of stamps in the drawer, and thread them through the spout.



ARMORED-CAR BANK

IT MAKES SAVING FUN

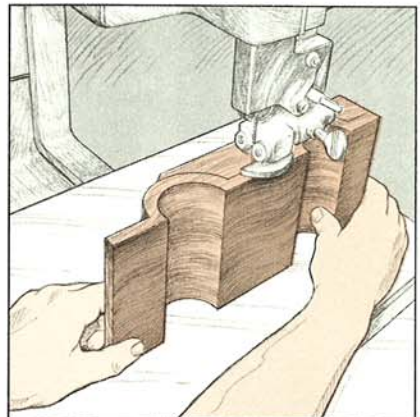


Encourage a child to save by parking this handsome vehicle on his or her dresser. Made from walnut and maple, our armored-car bank offers ample storage for bills and change. A padlocked door at the rear opens with a key, allowing for rainy-day withdrawals.

START BY BUILDING THE CAR CHASSIS

1 Using a photocopier or carbon paper, copy the full-sized patterns on pages 16 and 17. Cut out the pattern copies with scissors, leaving a margin around the outlines.

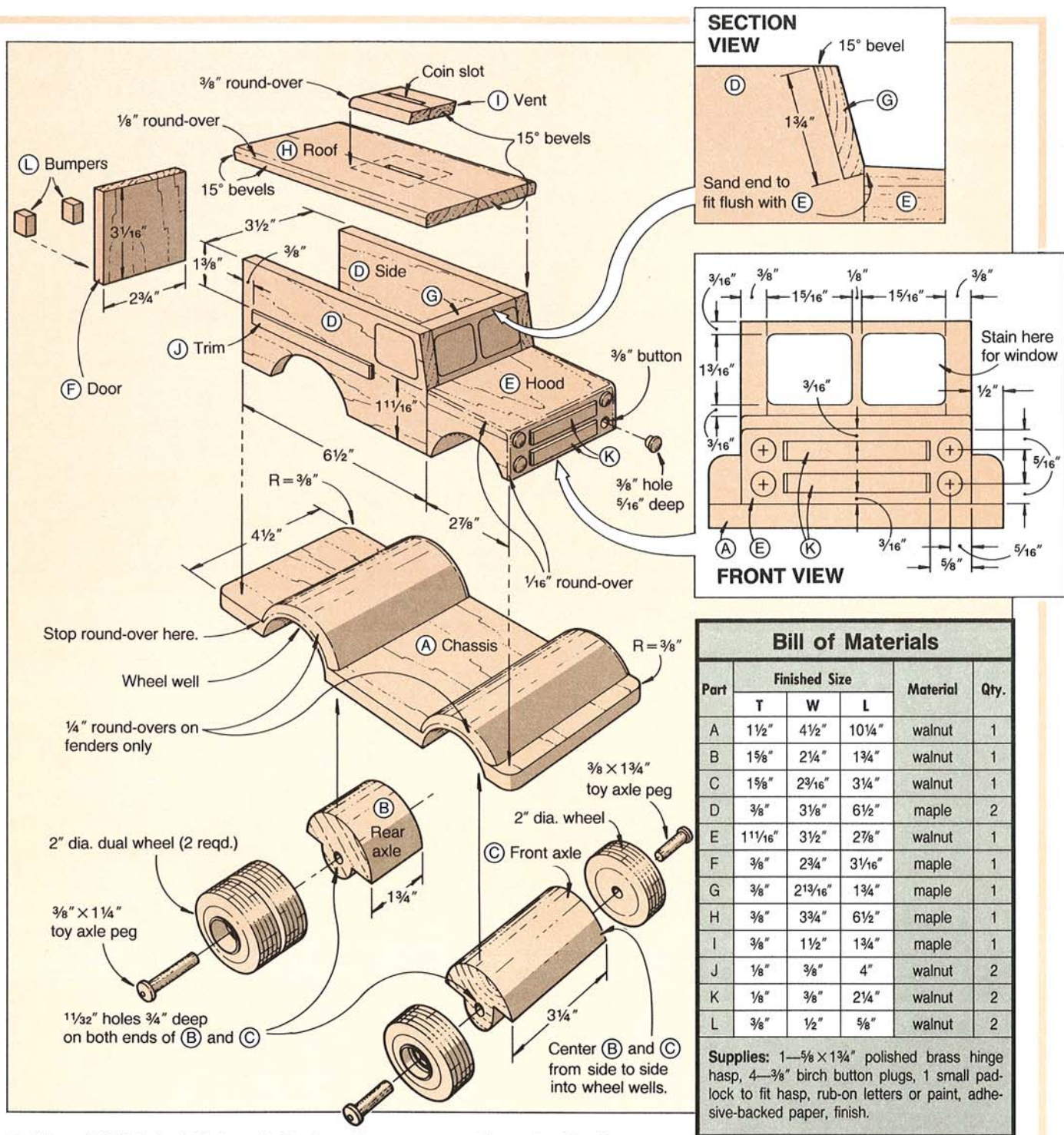
2 Laminate three— $\frac{3}{4} \times 5\frac{1}{2} \times 24$ " pieces together face to face. (We used walnut.) After squaring the lamination, rip and crosscut one— $4\frac{1}{2} \times 10\frac{1}{2}$ " piece from it. Apply spray adhesive on the back of pattern A and glue it to the edge of the piece. (We aligned the bottom of the pattern with the bottom of the piece.) Saw the chassis (A) to shape on your bandsaw as shown *below*. Remove the pattern.



3 Using a penny for the form, scribe a $\frac{3}{8}$ " radius on all four corners of the chassis. Cut the radii to shape on your bandsaw, and sand.

4 Rout a $\frac{1}{4}$ " round-over on the chassis fenders where shown on the exploded-view drawing *opposite*. Hand-sand where the fenders meet the running boards.

5 Rip and crosscut a $1\frac{3}{4} \times 2\frac{3}{4}$ " block from the $2\frac{1}{4}$ "-thick lamination. Adhere axle pattern B to the edge. Cut a second block to $3\frac{1}{4} \times 2\frac{3}{4}$ " from the lamination. Adhere axle pattern C to the edge of it.



Drill an 1 1/32" hole 3/4" deep in both ends of both parts where indicated on the pattern. (We used a Stanley 59 Doweling Jig when drilling to ensure the axle holes align at both ends on each block.)

6 Saw both axles to shape on your bandsaw. Next, test-fit the axles in the wheel wells of the chassis. Sand

the parts to adjust the fit if necessary. Remove the patterns, center, glue, and clamp both parts (we used woodworkers' glue) in the wheel wells of the chassis.

NEXT, MAKE THE BODY

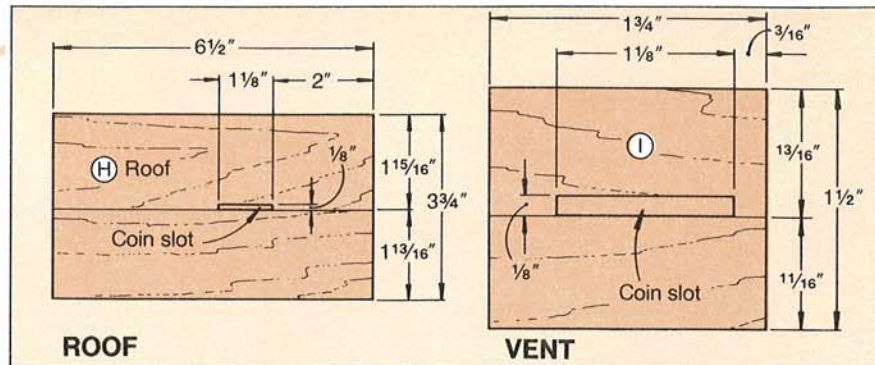
1 Rip and crosscut a piece of 3/4" maple stock to 5 1/2 x 30". Plane or resaw the piece to 3/8" thick.

Continued

ARMORED-CAR BANK

2 From the $\frac{3}{8}$ " maple, crosscut two— $6\frac{1}{2}$ "-long pieces for the car body sides (D). Rip both pieces to a width of $\frac{3}{16}$ ". Using double-faced tape, stick the two pieces together face to face, and adhere pattern D to the top piece. Cut the parts to shape, using a bandsaw. Sand the cut edges. Separate the pieces, and remove the tape and pattern.

3 To form the engine hood (E), rip and crosscut a $3\frac{1}{2} \times 2\frac{7}{8}$ " block from the $2\frac{1}{4}$ " lamination. Stick pattern E to the edge. Bandsaw the wheel well. Test-fit the hood and body parts together on the chassis. Sand the parts to fit if necessary. Now, following the pattern line, saw the top of the hood to shape. Finish-sand the hood, sides, and the exposed parts of the chassis. Finally, sand a round-over on the five exposed edges of the hood.

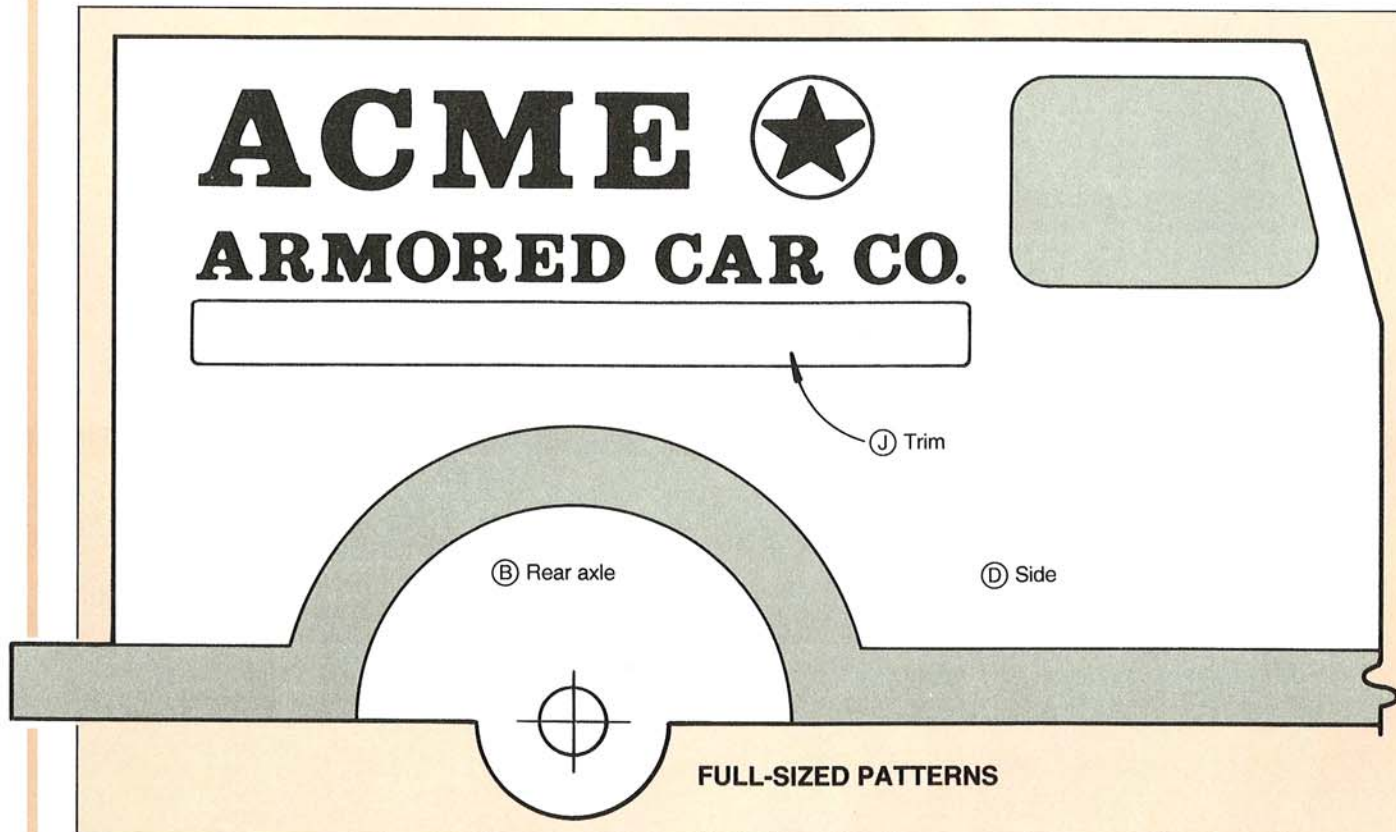


4 Rip and crosscut a piece of $\frac{3}{8}$ " maple to $2\frac{3}{4} \times 3\frac{1}{16}$ " for the door (F). Cut two— $\frac{3}{8}$ "-wide strips of thin cardboard. (We used the back of a writing tablet.) Tape the strips to the door edges. Now, insert the door in the rear opening to space the sides. Test-assemble and clamp. Check the sides and hood for square. Finally, glue and clamp the hood and sides to the chassis.

5 For the windshield (G), crosscut a 2"-long piece from the $\frac{3}{8}$ " maple. Next, bevel-rip one end as shown in the Section View on the exploded-view drawing on page 15. Crosscut the piece $1\frac{3}{4}$ " long, and rip it to fit the opening. Sand the opposite end

to fit the back of the hood. Finish-sand, glue, and clamp it into place.

6 Crosscut a 7"-long piece from the $\frac{3}{8}$ " maple for the roof (H). From it, rip one— $1\frac{15}{16}$ "-wide piece and one— $1\frac{13}{16}$ "-wide piece. Cut a $\frac{1}{8} \times 1\frac{1}{8}$ " coin slot from the edge of the wider piece where shown on the Roof Drawing above, left. (We cut in $\frac{1}{8}$ " with a bandsaw, and chiseled out the wood between the cuts.) Glue and clamp the two pieces edge to edge. Next, bevel-crosscut both ends of the roof, cutting it to $6\frac{1}{2}$ " finished length. Bevel the sides, and round over the top edges with sandpaper. Finally, finish-sand the roof and glue it to the car body.

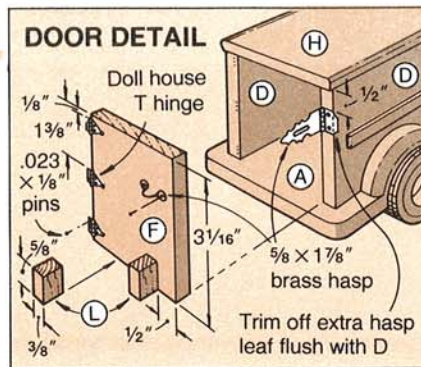


7 To make the roof vent (I), rip from the remaining $\frac{3}{8}$ " maple, one piece $\frac{13}{16}$ " wide, and one piece $\frac{11}{16}$ " wide. Crosscut both to 2" long. Cut the $\frac{1}{8} \times \frac{1}{8}$ " coin slot in the wider piece as shown on the Vent Drawing at left. Next, glue and clamp the two pieces together. Cut a bevel along the front edge, saw it to length, and round-over the back edge. Finish-sand the piece, and glue it to the roof.

NOW, APPLY THE TRIM

1 To make the trim strips, resaw a $\frac{3}{4} \times 1 \times 16$ " piece of walnut to $\frac{3}{8}$ " thickness. Rip one— $\frac{1}{8}$ "-wide strip from the piece, and sand it. From that piece, crosscut two side strips (J), and two grill strips (K).

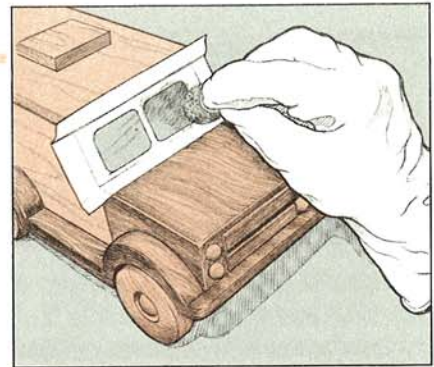
2 Glue the 4" walnut strips to both sides of the car. (We used masking tape to temporarily hold the strips.)



3 Mark the location of the four headlights on the front, using the dimensions in the Front View on the exploded-view drawing on page 15. Drill four $\frac{3}{8}$ " holes, $\frac{5}{16}$ " deep. Glue a $\frac{3}{8}$ " button plug in each hole. Glue on the two trim pieces (K).

4 Cut the two walnut bumper pieces (L) to the size listed on the Bill of Materials. Glue them to the rear door where shown on the Door Detail Drawing above.

5 Stain the wheels. (See the Buying Guide for a source of wheels and pegs.) Cut the toy axle pegs to the length specified on the exploded-view drawing. Now, place the axle



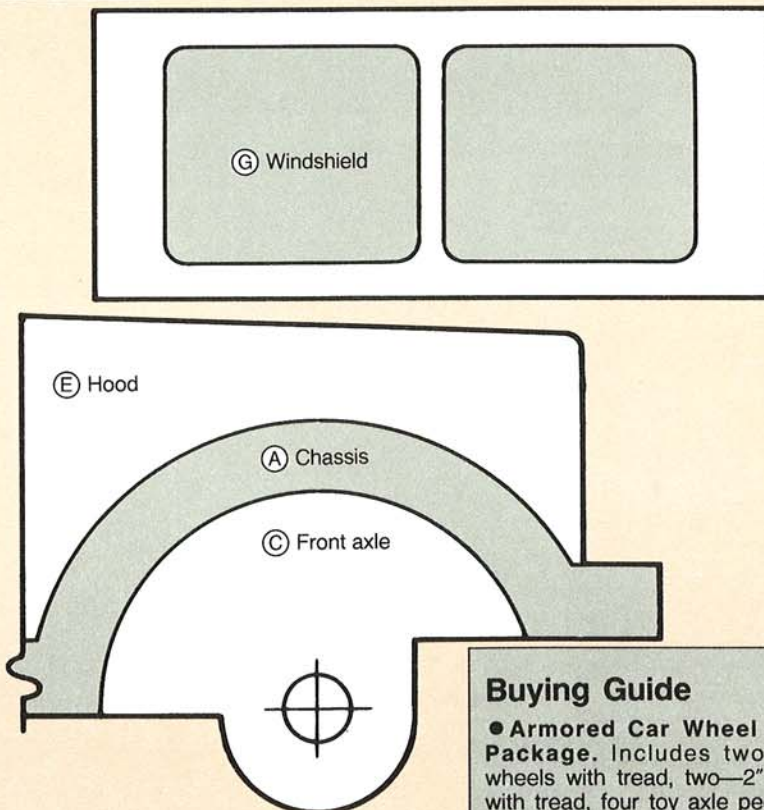
pegs through the wheels, and glue them in the axle holes.

6 Paint or stain the windows. (We traced the window patterns onto adhesive-backed paper [the pattern has to be flipped for the left side window], and then cut out the window silhouettes. We adhered the masks in position, and, as shown above, stained the wood exposed in the mask cutouts using a cotton ball. We found a sparing amount of stain on the cotton ball worked best to keep the stain from running under the masks. Remove the masks immediately after staining.)

7 Using the dimensions on the Door Detail Drawing, glue (we used 5-minute epoxy) and nail the hasp and the three doll house hinges to the door, and then to the side wall. (See the Buying Guide for a source of hinges and pins.) Finally, glue and nail the hasp (available at most hardware stores) in position. (We trimmed the end of the hasp flush with the side by sanding it on a stationary belt sander before attaching it to the car side.)

8 Paint or stencil the name of your choice on the car sides. (We used rub-on letters—48 pt. Clarendon Bold for the large letters, and 24 pt. for the small letters).

9 Apply the finish of your choice. (We sprayed on three coats of semi-gloss polyurethane.)



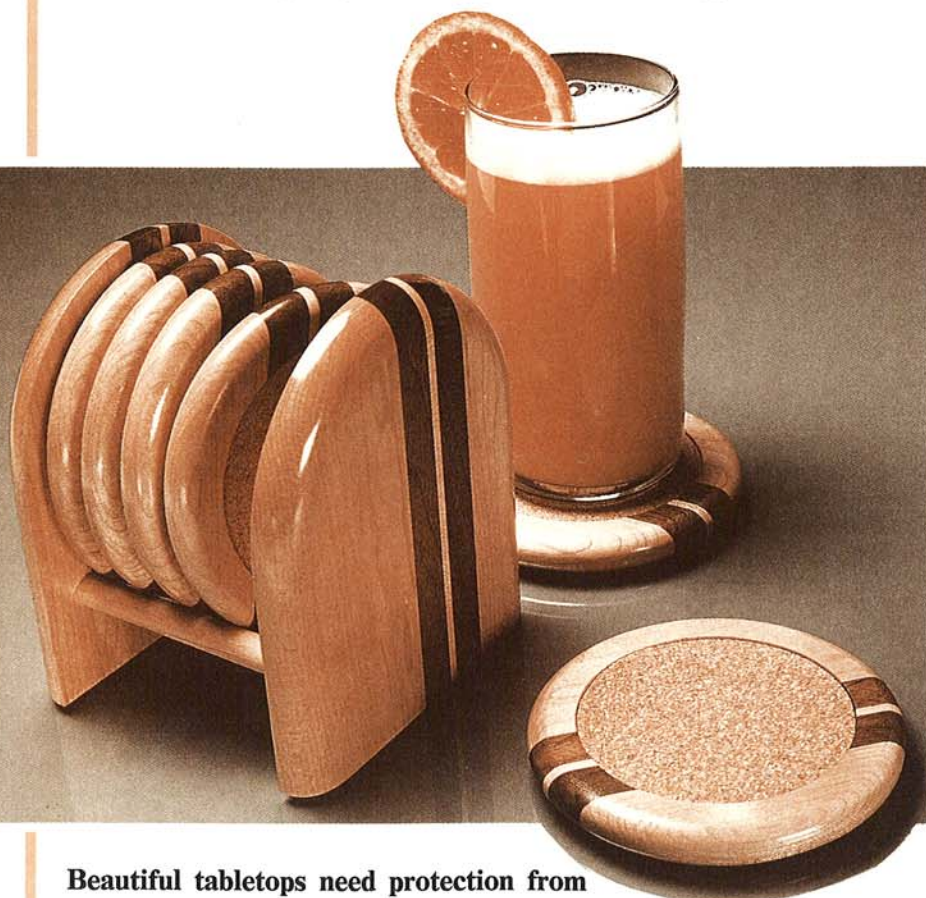
Buying Guide

● **Armored Car Wheel and Hinge Package.** Includes two—2" single wheels with tread, two—2" dual wheels with tread, four toy axle pegs, three doll

house T hinges, and one package of es-cutcheon pins. Catalog no. 8315. Price: \$3.95 plus \$2.50 shipping. From: Meisel Hardware Specialties, P.O. Box 70, Mound, MN 55364. Phone: 800/441-9870, in Minnesota 612/471-8550.

CATCHY COASTERS

WITH CONTEMPORARY STYLING



Beautiful tabletops need protection from moisture and the rough bottoms of glasses and beverage bottles. With our laminated-hardwood coasters and matching stand, you can save the finish on your tables and flaunt your woodworking talents at the same time.

Note: We've sized the lamination long enough to make seven coasters (an extra should you damage one in machining) and the stand. See the Bill of Materials on page 20 for the lists of pieces you'll need to make up the lamination.

START WITH THE LAMINATION

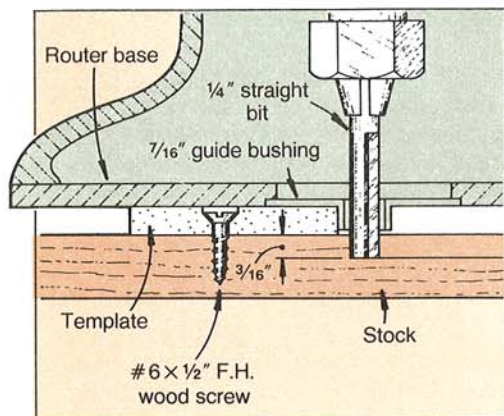
1 Rip three maple strips (A, B, C) and two walnut strips (D) to the sizes listed in the Bill of Materials. (We ripped all of the strips from the edge of $\frac{3}{4}$ " stock on our tablesaw, and used a pushstick to safely saw the narrow strips.)

2 Arrange the maple and walnut strips in the order illustrated *far right*. Next, apply glue to the mating edges of each, position them in order, and align the ends flush. Now, clamp the lamination. (We used short bar clamps.)

3 After the glue dries, remove the clamps, and scrape off the excess glue to avoid dulling your planer or jointer blades. Now, plane or joint the $\frac{3}{4}$ "-thick lamination to $\frac{1}{2}$ " thick. (We did this on our 6" jointer, removing the same amount of stock from each face.) Crosscut a $10\frac{1}{2}$ "-long piece from the lamination. You'll use this section later to make the coaster stand.

NEXT, MAKE THE TEMPLATE AND ROUT THE CORK RECESSES

1 First, mount a $\frac{7}{16}$ " guide bushing and $\frac{1}{4}$ " straight bit to your router. (Our bushing was too long, so we cut it with a hacksaw. This lets it protrude a fraction less than $\frac{1}{4}$ " below the bottom of the router base. Set the bit to cut $\frac{3}{16}$ " the lamination as shown *opposite, top left*.

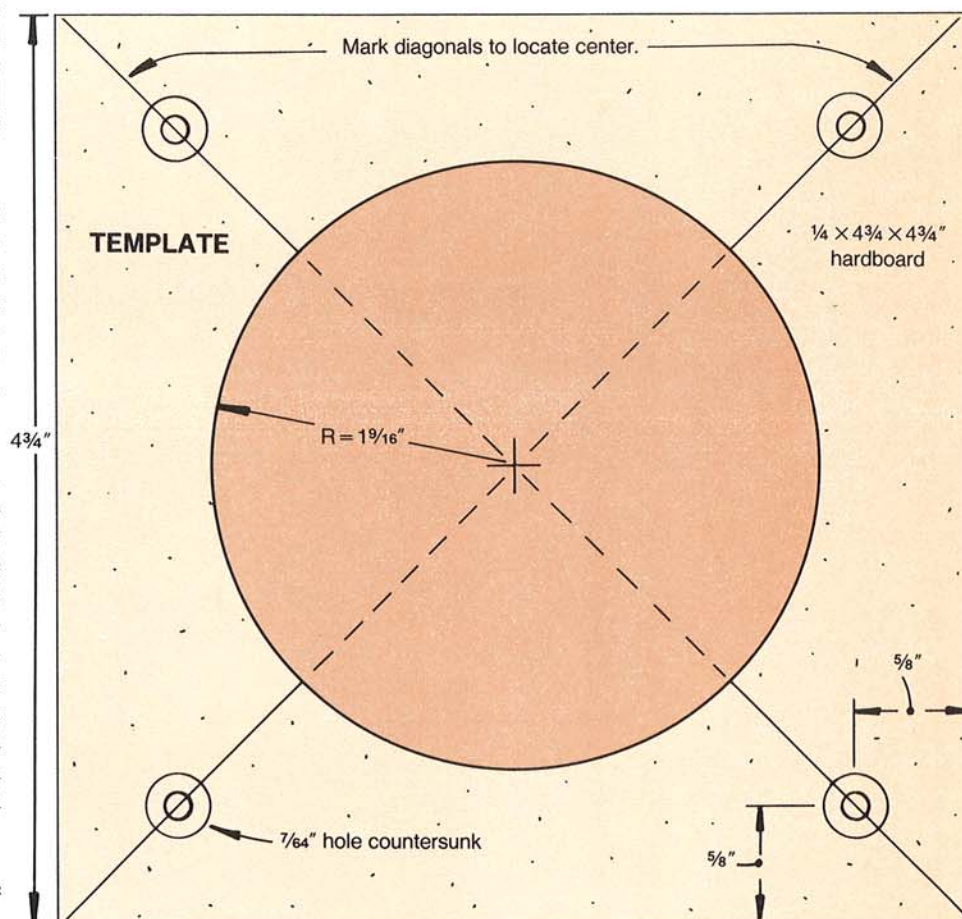
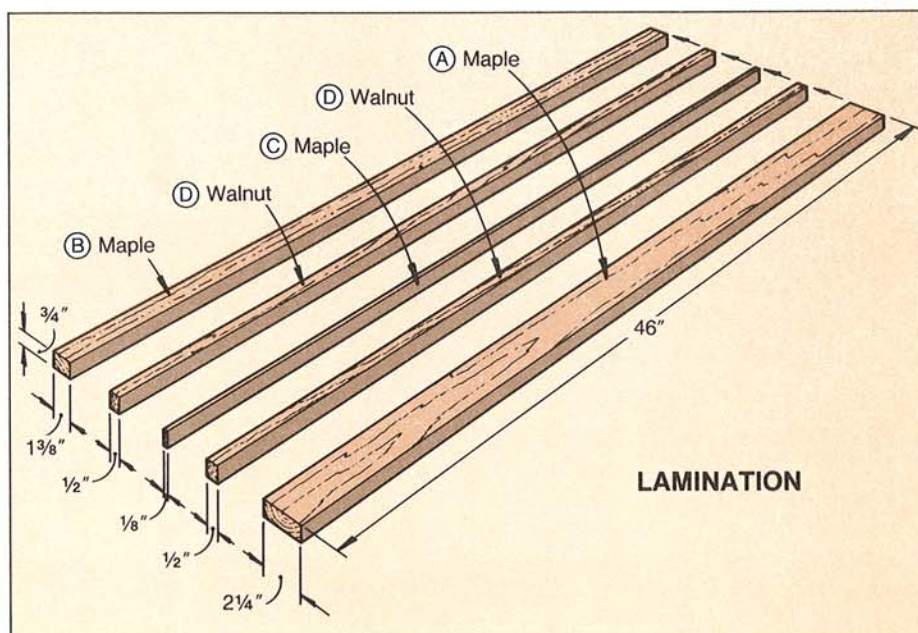


2 Make the hardboard template using the dimensions on the Cork Template Drawing, *below right*. (We clamped the hardboard to the drill press table and cut the $1\frac{9}{16}$ " radius hole with a circle cutter.) Next, drill and countersink the corner holes where shown.

3 Now, place the template on one end of the longer of the two laminated pieces. Align the template with the end and left edge of the lamination, and clamp it to the lamination. Drill four pilot holes, screw the template to the end of the lamination, and remove the clamps.

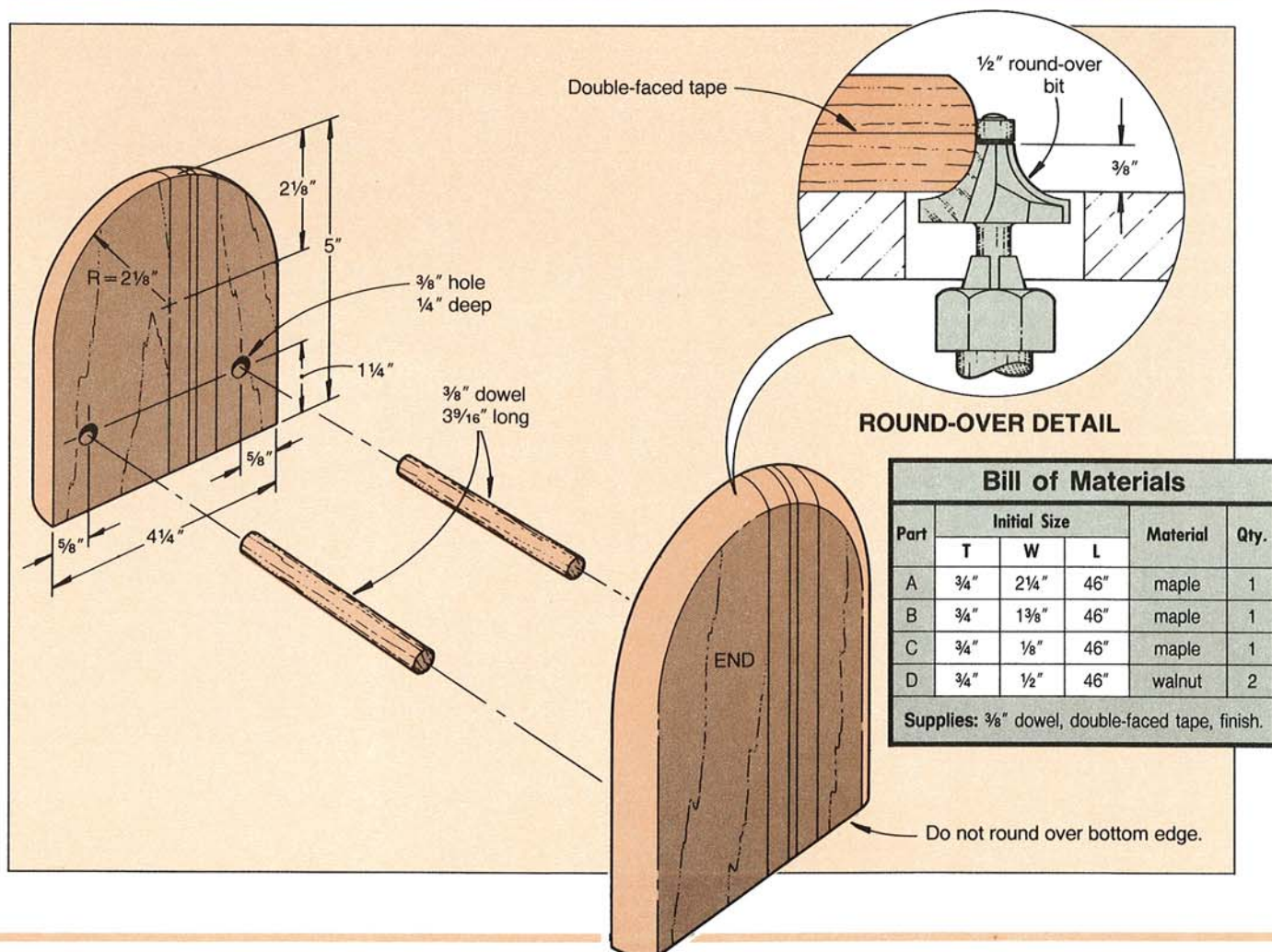
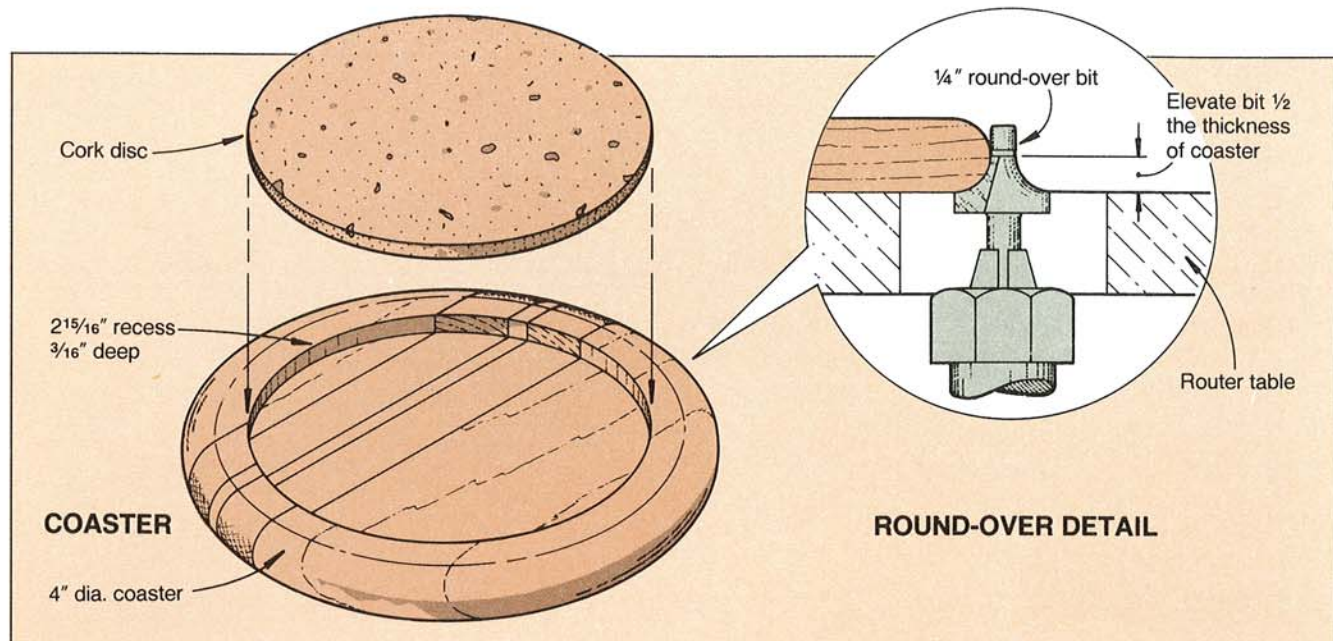
4 Using the template as a guide, rout the $\frac{3}{16}$ "-deep recess for the cork discs (see the Buying Guide for our source). Check the depth of the cork in the recess. (We wanted ours to be recessed $\frac{1}{16}$ " below the surface.) Next, draw a line on the lamination along the edge of the template. Remove the template from the lamination. Now, crosscut on the outside of the line just drawn to separate the routed square from the lamination.

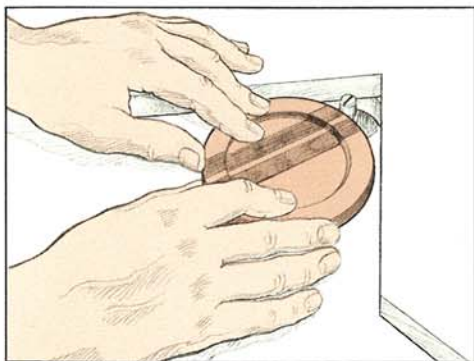
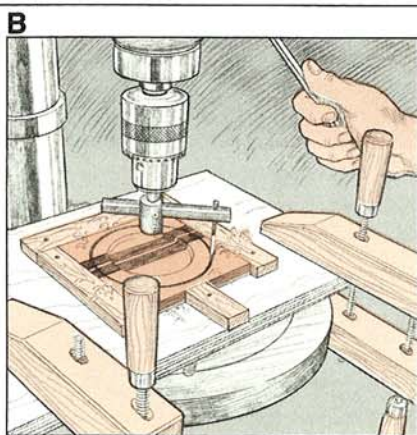
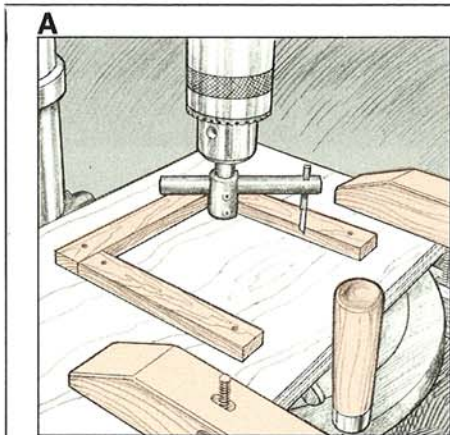
5 Repeating Steps 3 and 4, make six more recessed coaster squares.



Continued

CATCHY COASTERS





NEXT, CUT THE COASTERS TO SHAPE

1 To make a jig for holding the recessed coaster squares, cut four $\frac{1}{2}$ "-thick scrap pieces about 1" wide. Make the side pieces 5" long, the back piece $6\frac{3}{4}$ " long, and the front one 2" long. Next, nail them to a large piece of scrap plywood so they surround a coaster square and hold it snugly in place.

2 Center the holding jig under the circle cutter, and clamp it firmly to your drill-press table, as shown in drawing A *above top*. (We drew diagonals on the back of one square to find the center, placed it in the jig, and centered both under the circle cutter's bit.) Next, remove the pilot bit from the circle cutter. Adjust the cutter arm so it will cut a 4"-diameter disc. Finally, place a coaster square in the jig and cut a round coaster as shown in drawing B, *above right*. Repeat the process to cut the other six coasters. (As an al-

ternative method, you can mark circles on the recessed squares with a compass, and then cut the pieces to shape on a bandsaw.)

3 Chuck a $\frac{1}{4}$ " round-over bit with a solid pilot in your table-mounted router. Elevate the bit so the bottom of the pilot centers on the middle of the coaster as shown in the Round-Over Detail on the Coaster Drawing. Now, rout a round-over on the top and bottom edge of each coaster. (We cut a 90° V-notch in a piece of particleboard and clamped it on the router table as shown *lower left*. This simple device helps keep our fingers safely away from the spinning router bit.)

LET'S BUILD THE COASTER STAND

1 Rip $\frac{1}{4}$ " from both edges of the $10\frac{1}{2}$ "-long lamination piece you cut earlier. (This leaves a final width of $4\frac{1}{4}$ ".) Next, crosscut two 5"-long pieces from it. Now, using double-faced tape, tape the pieces together with the ends and edges flush, and the lamination stripes aligned.

2 Using a rule and a compass, mark and draw the $2\frac{1}{8}$ " radius on one of the end pieces where shown on the exploded-view drawing, *opposite*. Now, bandsaw the radius to shape, and sand the arch to remove saw marks. (We cut wide of the line, then sanded to the line, using our stationary disc sander.)

3 With the ends still taped together, rout a round-over on all but the bottom edges of the end pieces as shown in the Round-Over Detail accompanying the exploded-view drawing. (We used a $\frac{1}{2}$ " piloted round-over bit.) Next, carefully separate the pieces (we used a wood wedge), and remove the tape.

4 Using the dimensions shown on the exploded-view drawing, mark the centerpoints for the dowel holes on the inside face of each end piece. Next, drill the two pair of $\frac{3}{8}$ " dowel holes $\frac{1}{4}$ " deep. Now, cut two pieces of $\frac{3}{8}$ " dowel to $3\frac{3}{16}$ " long.

NOW, ASSEMBLE THE STAND

1 Sand all parts smooth. Place glue in each hole in the end pieces, and onto the dowel ends. Insert the dowels. Clamp the assembly, and then wipe off any excess glue with a damp cloth. (To ensure proper spacing, we placed the six coasters and a $\frac{1}{16}$ "-thick cardboard spacer between the ends when clamping.) Place the assembly on a flat surface, and check the stand for square.

2 Apply several coats of clear finish to the coasters and stand. (We sprayed on four coats of clear polyurethane, sanding after each application). Lightly sand the recess, and then install the self-adhesive cork discs in each coaster.

Buying Guide

● **Cork discs.** Precut self-adhesive back, $2\frac{15}{16}$ " dia. Catalog no. 832. Price: \$1.76 for eight discs, \$7.92 for 48, plus \$2.50 postage and handling. From: Meisel Hardware Specialties, P.O. Box 70, Mound, MN 55364. Phone: 1-800/441-9870, in Minnesota 612/471-8550.

Project Design: Kas Taylor, Castle Rock, Colo.
Illustrations: Kim Downing, Ode Designs
Photograph: Jim Kascoutas



HARD-WORKING BISCUIT CUTTER



This decorative biscuit cutter, by Florida turner Clif Sessions, works every bit as good as it looks. Turned from walnut, it incorporates a plunger-like pushplate that lets you neatly deposit your round biscuits on a cookie sheet. Use our full-sized templates to make one just like it.

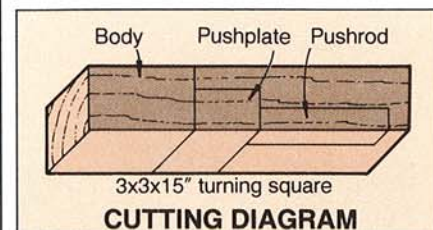
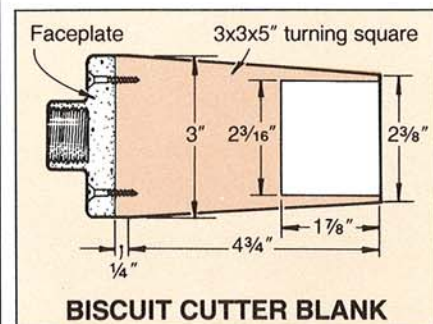
FIRST, SHAPE THE BISCUIT-CUTTER BODY

1 Make cardboard copies of the full-sized body, pushplate, and the pushrod templates shown on page 24. (We used carbon paper to transfer the template outlines to thin cardboard, and carefully cut the templates to shape with a crafts knife.) Set them aside for later.

2 From a 15"-long 3×3" turning square (we used walnut), crosscut a 5" length. (See the Buying Guide for our source.) If you can't buy turning stock locally, or don't want to order it by mail, you can make a square by laminating thinner stock.

3 Center a 3" metal faceplate on one end of the 5"-long turning square, drill the pilot holes, and screw the faceplate to the turning square. Now, mount the assembly on your lathe, slide the tailstock into position, and lock it in place.

4 Turn the square round. (We used a turning speed of about 1,000 rpm's, and a $\frac{3}{4}$ " roughing gouge.) Next, taper the stock to shape as dimensioned on the Biscuit Cutter Blank Drawing below top. Keep the



taper straight (we checked it with a small straightedge). Use an outside caliper to frequently check the diameter while tapering the blank.

5 Back the tailstock away. Turn the cavity to size, keeping the cavity's wall straight. (We used a $\frac{1}{4}$ " and $\frac{3}{8}$ " spindle gouge and a parting tool.) Finish the wall with fine cuts.

6 Sand the cavity, and then the outside of the cavity. Now, sand a slight chamfer on the inside edge.

7 Mount a key chuck (also called a Jacob chuck) to the lathe tailstock. (See the Buying Guide.) Insert a $\frac{5}{16}$ " bit into the chuck.

8 Set your lathe to run at its slowest speed. Move the tailstock assembly next to the biscuit-cutter body. Now, slowly drill a hole $2\frac{1}{2}$ " deep in the center of the biscuit cutter as shown *near right, top*. (We backed out the bit periodically to remove the waste, and to keep the bit from overheating.) Finally, move the tailstock assembly out of the way.

9 Now, turn the handle on the biscuit-cutter body to shape. (We used a $\frac{1}{4}$ " gouge and $\frac{1}{4}$ " skew.) As shown *near right, center*, frequently check the shape of the turning against that of the paper template.

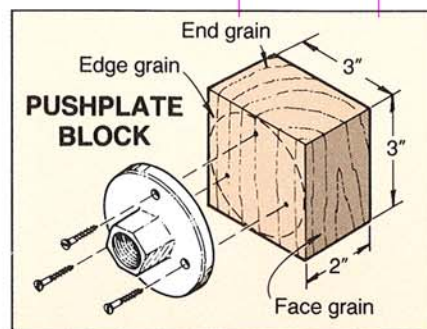
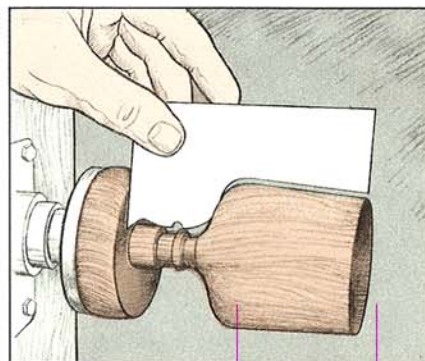
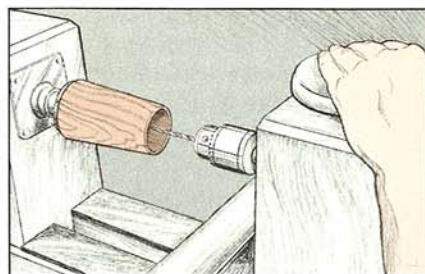
10 Speed up the lathe to about 1,500 rpm's and sand the cutter handle smooth. Next, make a parting cut to separate the biscuit-cutter body from the headstock. Have a helper catch the turning to prevent it from flying off the lathe.

NEXT, TURN THE PUSHPLATE TO SHAPE

1 Cut a 3" length from the turning square. Trim the block as dimensioned on the drawing *near right, bottom*. Screw it to the faceplate, noting the grain direction.

2 Mount the assembly on your lathe's headstock. Now, using the pushplate template as a guide, turn the piece to final shape. (We slowed the lathe to about 1,200 rpm's, and used a small bowl gouge and parting tool. From time to time, we'd also test-fit the body cavity over the pushplate turning.)

3 Using a key chuck, and the procedure described in step 8 in the previous section, drill a $\frac{1}{4}$ " hole $\frac{5}{16}$ " deep into the center of the pushplate. Next, speed up the lathe to about 1,500 rpm's, and sand the part smooth. Finally, part the pushplate from the headstock.

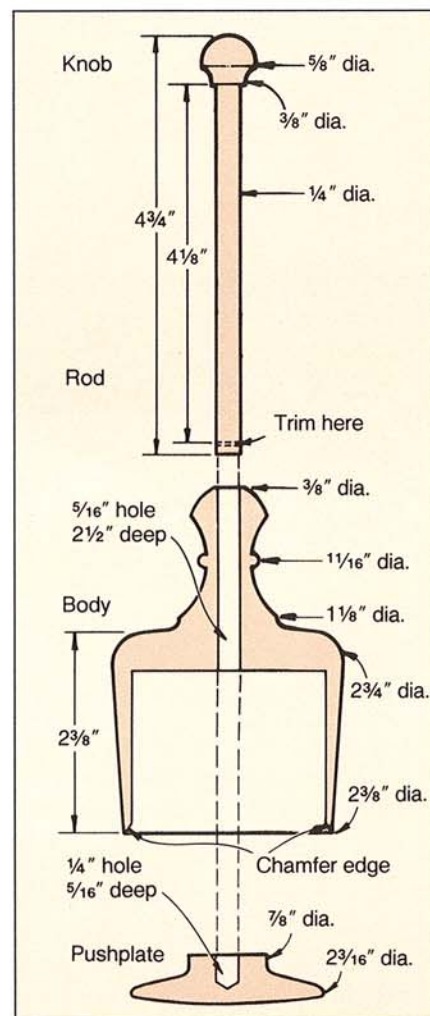


TURN THE PUSHROD

1 Rip and crosscut a $1 \times 1 \times 6$ " piece from the remaining turning square (see the cutting diagram), or from scrap stock. Mount the piece between centers and turn it round. (We used a $\frac{1}{2}$ " gouge, and a speed of about 1,200 rpm's.) Turn the stem portion of the pushrod to just over a $\frac{1}{4}$ " in diameter.

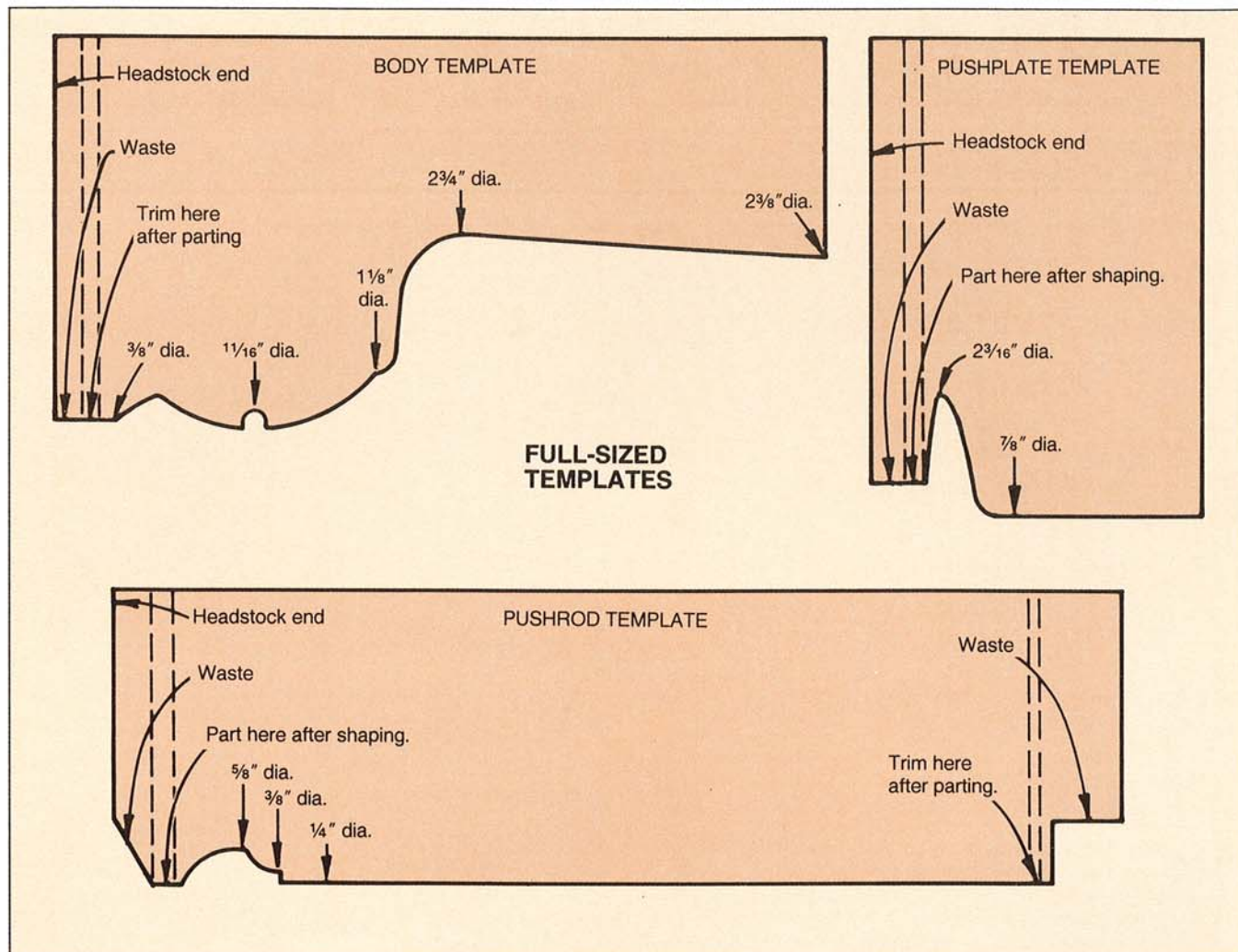
2 Turn the pushrod knob to shape using the pushrod template as a guide. (We used a parting tool and a small gouge.) Sand the turning.

3 Make a parting cut at the knob end. Now, using a fine-toothed saw,



Continued

BISCUIT CUTTER



cut the rod so that the finished length measures 4 3/4".

APPLY THE FINISH AND MIX THE DOUGH

1 Apply a water-resistant finish on the biscuit-cutter parts. (We recommend several coats of Behlens Salad Bowl Finish—see the Buying Guide at right for our source).

2 Assemble the biscuit cutter as shown on the exploded-view drawing on page 23. Do not glue the pushrod into the hole in the pushplate; you'll need to disassemble the cutter for cleaning after each use.

How to Use and Care for Your Biscuit Cutter

Mix and roll out the dough. Dip the bottom of the biscuit cutter in flour, and then lower it into the dough, letting the pushplate and rod rise. Now, lift the biscuit cutter. To keep the dough from falling out, tilt it to one side as you lift. Move to the baking pan, turn the cutter level, and push the knob down to eject the biscuit.

Clean the tool after use, wiping it with a warm soapy cloth. Dry it with a clean, dry cloth.

BUYING GUIDE

● **3x3x15" turning square.** Species available: butternut, cherry, walnut; limited supplies of black ash, hackberry, and red elm. Price: \$9 ppd. per square. From: Johnson Wood Products, R.R. 1, P.O. Box 69, Strawberry Point, IA 52076.

● **Behlens Salad Bowl Finish.** FDA approved, nontoxic finish for kitchen wooden ware such as salad bowls and utensils. Catalog no. WF225, \$10.95 ppd. per quart. From: Craft Supplies, 1287 E. 1120 S., Provo, UT 84601, or call 801/373-0917.

● **Key chuck.** Holds tool-bit shanks up to 1/2" in diameter. Comes in #1 and #2 Morse taper (state size needed when ordering). \$39.95 ppd. From: Craft Supplies, address above.



CORNER

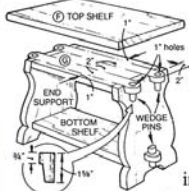
READER'S



Because this is your magazine, it's important that you have an opportunity to sound off. Here, you can register your suggestions, criticisms, and, if you wish, a kind word or two. We may not be able to publish every letter, but we'll get in what we can. Send your letters to:

Reader's Corner
WEEKEND WOODWORKING PROJECTS™
1716 Locust St.
Des Moines, IA 50336.

SCHOOL ON THE STOOL



When building the footstool shown in your September 1988 issue [pages 8-11], I encountered difficulty both gluing the dowels in the top of the two end support pieces, and in cutting and sanding the dowels. This was because they were too close to the stools top shelf.

For this reason, I tried the wedge-pin method at the lower top piece "G". (See the illustration above.) After assembling the ends, bottom shelf, and lower top piece using wedge pins, I glued on the top of the stool. It proved so successful for me that I thought you may want to pass it on to your readers.

--Leo Wells, Upper Marlboro, MA

Leo, when we built our stool, we too realized that sanding off the dowels (located just beneath the overhanging top) was a little time-consuming.

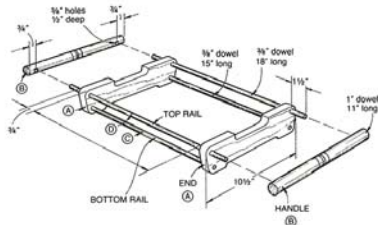
Your solution eliminates this problem and adds a new twist. Good job! You might increase the length of the top shelf by 2" so that the wedge-pin joints don't extend beyond it.

OAK SERVER NOTICE

I enjoy your magazine, but am surprised at some of the errors that slip past your proofreaders. For example, in issue 5, the Oak Server article is in error. Step 2 which runs onto page 21 says that two of the dowels should be cut to 5". It should be 15". On the drawing, the top and bottom rails are labeled incorrectly.

--Walter C. Rizzardi

Walter, thanks for letting us know of these mistakes. We've obviously frustrated you and we apologize. For the benefit of other readers who intend to build the Oak Server, please change "5"-long pieces" on the continuation of step 2 on page 21 to "15"-long pieces," and relocate art labels C and D on the exploded-view drawing to the positions shown below.



4 SHOP AIDS THAT ADD ACCURACY

Whether designing or machining a wood-working project, you want to have the best tools at your side for ensuring accuracy. Though a tape measure, compass, and square fit the bill in many instances, you may find the following shop aids more suited to the occasional task that requires a different tack.

FRENCH CURVES

When designing a project with sharp or gently-sloping curves, rely on a French Curve, like the one here, to help you layout the project on paper or wood. Ideally, a set of three different French curves should serve all your radius needs. We found an acrylic plastic set with beveled edges at a local art supply store for \$6.50.



SLIDING T-BEVEL

When it comes to transferring an angle from one piece of wood to another or to paper, reach for a sliding T-bevel. To capture the angle, simply position the tool snugly against the angle you wish to duplicate. Next, lock the tool's metal blade in place by tightening its wing-nut or threaded knob. The slot in the blade allows you to lengthen or shorten the blade as needed. Inquire at your local hardware

store or page through your mail-order tool catalogs for this one. The price ranges from \$5 to \$20, depending on the quality of the tool.

We found the wood- and metal-handled T-bevels superior to those with plastic handles, offering superior precision and durability.



PROTRACTOR

Whether reading angles on a project plan or plotting the hour positions on a clock face, you'll find a protractor the ideal tool.



We prefer the full-circle 360° version because it lets you mark an angle at the top and bottom. Stores with school supplies carry inexpensive versions selling for about \$1.50. Art supply stores sell more elaborate and expensive models.

ADJUSTABLE TRIANGLE

You seldom can rely on the calibrations of stationary or benchtop tools for accurately setting the tool's table or cutter to a prescribed angle. You can, however, rely on an adjustable triangle like the one here. This versatile

aid also serves as a drafting tool. A threaded knob lets you lock in place the desired angle. You'll find the aid at art supply stores for about \$11.



From Our Shop to Yours

Dear Reader,

In my book, two things define a top-notch woodworking magazine—complete and accurate construction information, and appealing project designs. I know that if **WEEKEND WOODWORKING PROJECTS** fails to give you either of these, I'll lose your business, and mine as well. To maintain these goals, we commit ourselves to a process that you may find interesting.

BUILDING PROTOTYPES, THE ONLY WAY

To ensure accuracy and good design, we spend a lot of time working out the kinks in our projects by building prototypes. We call on our skilled project builder Terry Fenimore, shown *below*, for each new challenging assignment. When a design falls short, or asks too much of the builder, it's



Terry who gives us the bad news. And as much as we hate to do it, we sometimes have to redesign and rebuild a project so it meets our standards. Terry also double-checks all dimensions and develops special jigs that help in the precise machining of the wood parts in each project.

A PRIME EXAMPLE

The Adirondack chair in issue 5 proves the value of building prototypes. After building the chair, Terry brought it into my office and asked me to try it out. I lowered into the seat and worked

through a range of sitting postures.

"It's too low,"

Terry said. I commented on the incline of the chair's back and the narrowness of the seat. Terry said, "I don't like where the front of the seat hits the back of my legs."

These were problems that didn't appear on the blueprint drawings. And yet, the chair looked terrific.

Naturally, we reworked the measurements—without sacrificing the design—and rebuilt the chair. A lot of bother, you say. Not really. For us, it's business as usual.

Jim Harrold

Jim Harrold
Managing Editor



CHECK OUT THESE GREAT TIPS

- Clamping a lamination in two directions for a uniform surface—page 4.
- Rubber band clamps—page 11.
- Using duct tape to hold and remove thin pieces cut on a tablesaw—page 13.
- Masking wood for staining isolated areas—page 17.

Note: To find the tips quickly, turn to the above pages and look for the tinted step numbers.