VOL. 2, NO. 4 ISSUE 10

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WEEKEND WOODWORKING

PROJECTS™

NEAT THINGS YOU CAN BUILD IN A HURRY

HEIRLOOM ROCKER

For-all-time sandglass
Antique clothes dryer
Safari-sunset wall plaque
Hanging-garden planter basket
Country-kitchen butter churn

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FROM THE EDITORS OF WOOD® MAGAZINE

WEEKEND WOODWORKING PROJECTS™

JULY • 1989 VOL.2, NO.4 ISSUE 10

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Adorn your favorite outdoor retreat with this flowering redwood delight. It's perfect for pots with a 5″-diameter base or less, and can hang anywhere you have a hook. Our special nailing jig makes building the planter possible, and the going easy.

6 FOR-ALL-TIME HOURGLASS

Clock builders and those of you looking for a terrific novelty will find this oak project well worth your time to build. A rotating C-arm lets you reverse the direction of sand flow, while a bullet catch holds the hourglass firmly at vertical.

8 ANTIQUE CLOTHES DRYER

No country laundry should be without this functional shelving unit, *above*. By raising the latch, you can extend its folding rack horizontally, and hang damp clothing out to dry.

12 COUNTRY-KITCHEN BUTTER CHURN

What project says "country" more than a butter churn? Our full-sized pine version stands 37″ tall (to the top of the handle) and looks right at home on an old wooden floor.

16 SAFARI-SUNSET WALL PLAQUE

Here's a project that lets you get the best from your bad wood. After considering the subject, we selected spalted poplar for the cloud, knotty pine for the giraffes, and scrap mahogany for the sun. With our full-sized patterns, you'll spend more time creatively choosing your wood than making the plaque.

20 HEIRLOOM CHILD'S ROCKER

Woodturners, if you're shopping for a precious gift that generations of preschool-age family members can enjoy, you need go no further. Our walnut rocker will brighten a child's face, and you'll enjoy the project's light-duty turning assignments.

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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

HANGING-GARDEN PLANTER BASKET

Like a gentle hand, this contemporary redwood planter supports your favorite potted plant, letting it drink in sunlight while it's leaves cascade down. It accepts pots with up to a 5¼"-diameter base. Metal rings attached to the support arm allow the planter to swing in the wind and hang from an overhead fastener. Our template makes the construction a breeze.

FIRST, CUT THE BASKET PIECES AND MAKE THE JIG

1 Rip 25' of ¾ × ¾" strips from a ¾" × 5½" × 6' redwood board. (See the cutting diagram *opposite.*)

2 From the strips, crosscut 49 pieces (A) to 5½". (We used a power miter saw and a stop block to saw duplicate pieces.) Cut the support arm (B) to ¾ × ¾ × 16½".

3 Using the Planter Assembly Drawing *opposite top* for hole locations, drill ⅜" holes through both ends of the arm, and through one end of one part A.

4 From ¾"-thick particleboard (we started with a 2 × 4' sheet), cut a piece measuring 14¼ × 15 5/16". Now, layout the top layer of the jig using the dimensions shown on the Jig Top Layer Drawing *opposite center.* Cutoff the shaded areas. (We used a portable saber saw.)

5 Saw a second piece of ¾" particleboard to 16 × 19" for the jig's bottom layer. Place the top layer on the bottom layer. Align the longest edge of the top layer along one of the bottom layer's 19" edges. Locate the square corner of the top layer 1¾" in from the nearest bottom corner. Nail the top to the bottom layer.

ASSEMBLE THE BASKET

Note: *We predrilled the holes, and then used 1¼" × 17 brads and recorcinal glue to assemble the basket, but the same work can be done in less time with a staple gun.*

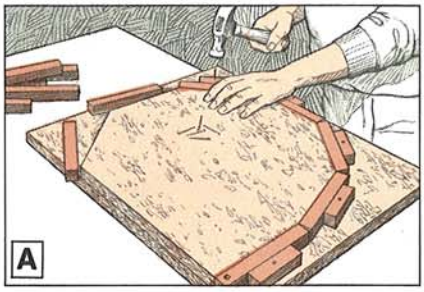
1 Lay seven of the 5½" A pieces around the jig. (This will be the middle course.) Place the A piece with the ⅜" hole where shown on the Jig Top Layer Drawing. Cut seven ¾ × ¾ × 2" cleats and nail them to the jig along the sides of the A pieces as shown in drawing A.

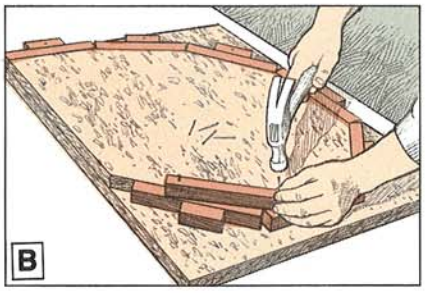
2 Next, using the Planter Assembly Drawing as a guide, begin at the outside tip and temporarily nail the second course of A pieces to the middle course. Let the nail heads extend ¼" above the surface. (After spacing the first A piece of the second course 1½" in from the basket tip, we angled it as shown, and then drilled pilot holes ⅜" in from each end. Then, as shown in drawing B, we drove the nails part way and attached the remaining pieces.)

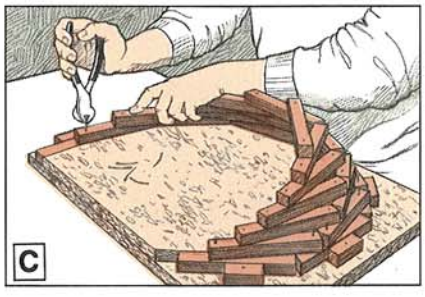
3 Attach the remaining five courses, only this time glue each piece in place with resorcinal glue, and then drive the nails all the way.

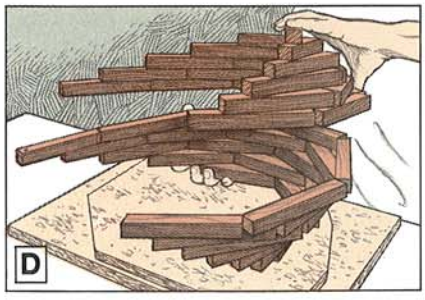
4 When you have assembled the half-basket, remove the protruding nails from the second course as shown in drawing C, and separate it from the jig. Remove the middle course of A pieces, and pry off the cleats and the top layer of the jig. Turn the top jig layer over and reattach it to the bottom.

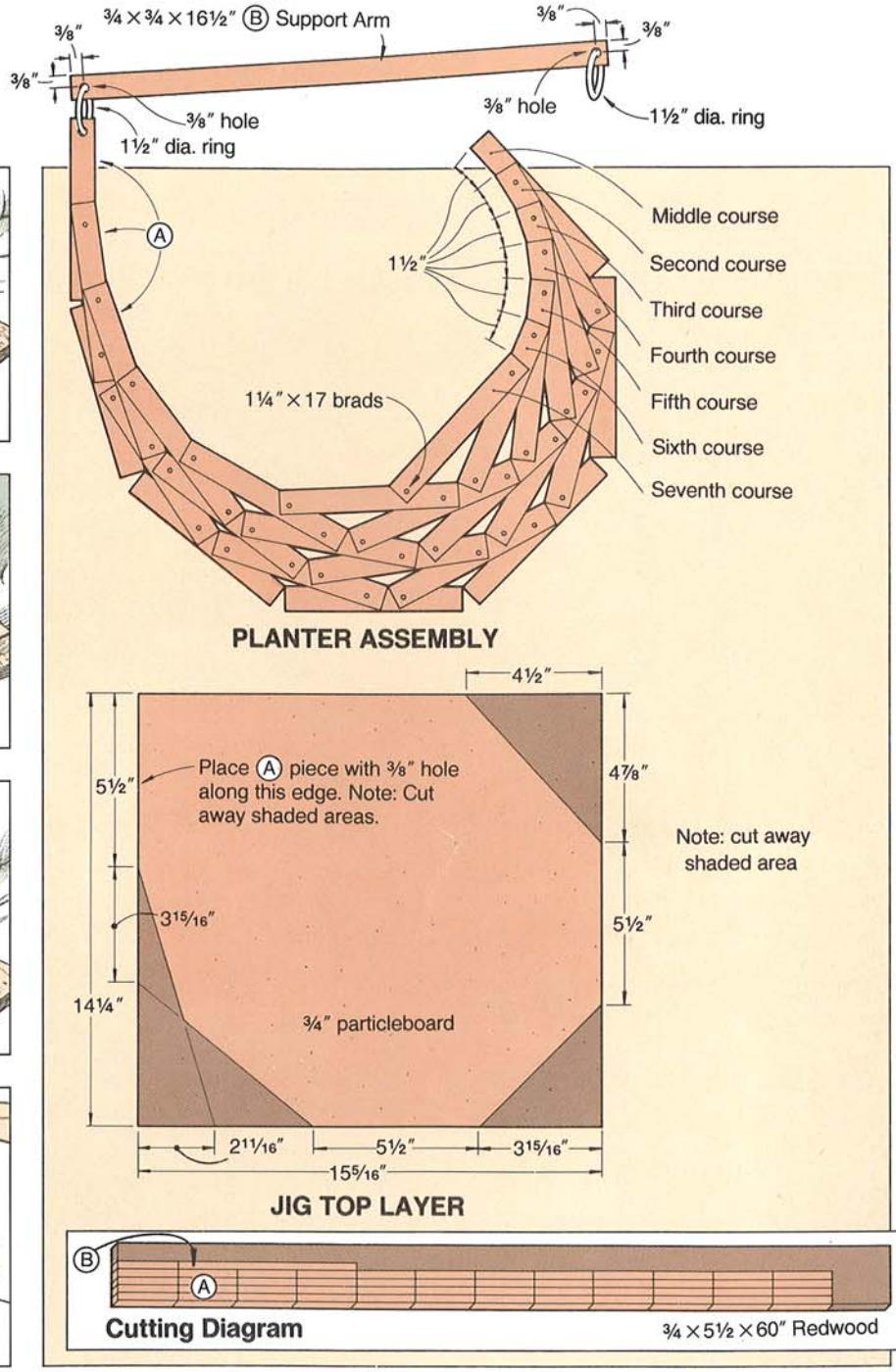
5 Assemble the second half of the basket, following the same assembly steps. This time, glue and nail the second course to the middle course.











When assembled, remove this half-basket from the jig.

6 Now, align, and then glue and nail the two half-baskets together. (See drawing D.)

7 Secure the 1½"-diameter metal rings in your vise (we used macrame rings) and cut through them at one point with a hacksaw. Spread the cut ends open with pliers.

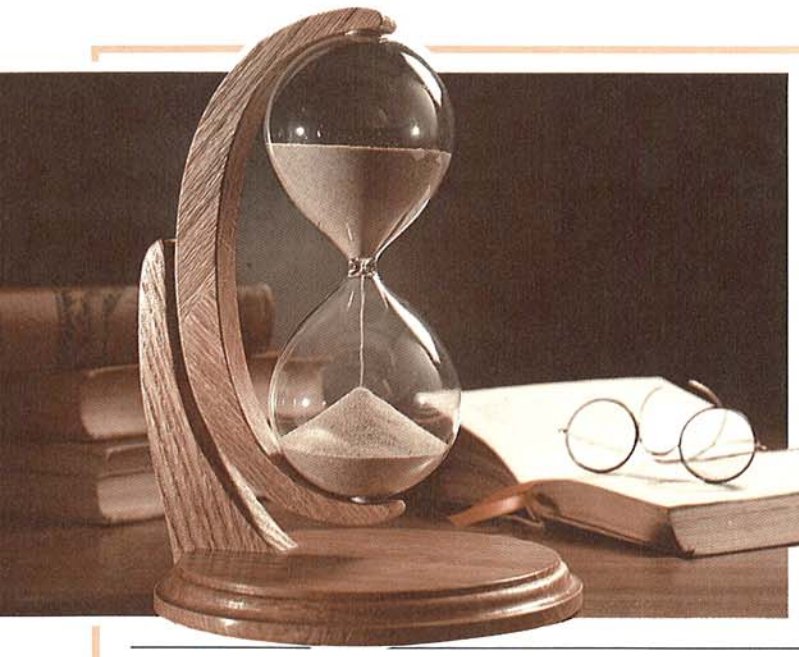
8 Slip a ring through the holes on the ends of support arm B. Next, fit one of the opened rings onto the basket to link it with the support. Pinch both rings to close them. Now, look for a place to hang your redwood planter.

Bill of Materials

Part	Finished Size			Material	Qty.
	T	W	L		
A	¾"	¾"	5½"	redwood	49
B	¾"	¾"	16½"	redwood	1

Supplies: 2—1½"-diameter metal rings; 1¼" × 17 wire brads; recorcinal glue.

Project Design: Jack Adcock, Keezletown, Vir. Illustrations: Kim Downing; Carson Ode Photograph: Bill Hopkins



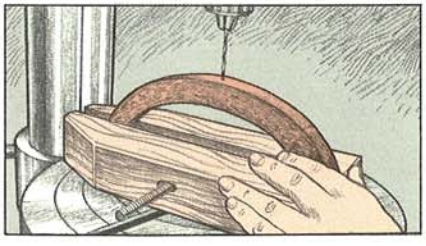
FOR-ALL-TIME HOURGLASS

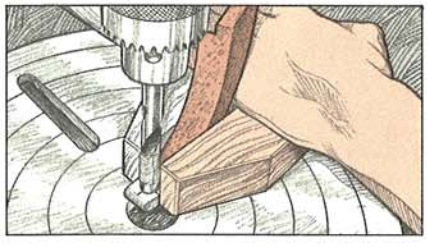
Keeping time by the hour just got more entertaining with this well-engineered novelty. It's an oak hourglass holder that no desktop or mantel should be without. Simply rotate the C-arm 180° to reverse the direction of sand flow. A spring-loaded bullet catch in the upright support locks the C-arm in place.

Note: *Hourglasses vary in size and shape. We designed the C-arm to fit the sandglass provided by the supplier listed in the Buying Guide.*

FIRST, MAKE THE PARTS

1 Using carbon paper, copy the C-Arm (A) and the Upright Support patterns. Rip and crosscut two 2⅜ × 7¼" pieces from ¾" stock (we used oak). Using a dado-equipped tablesaw, cut a half lap on one end of each piece.





2 Apply two drops of hotmelt glue on the half laps, and temporarily assemble the joint. Transfer the C-arm pattern and hole centerlines to the face of the assembly. Cut the C-arm to shape using a bandsaw and sand.

3 Transfer the pattern of the upright support (B), to a ¾"-thick oak piece. Mark the hole centerlines, and then saw the part to shape.

4 For the base, rip and crosscut two C's and one D from ¾"-oak stock using the dimensions on the Base Drawing *opposite bottom*. Now, glue (we used white glue) and clamp the base lamination.

5 Using the dimensions on the Base Drawing, mark the centerpoint for the 3½" radius disc on the bottom face. Saw the disc to shape using the bandsaw technique described in steps 5 and 6 on page 16 of this issue. (We drilled a 1/16" hole ⅛" deep at the centerpoint of the base, and placed a pivot nail 3½" from the side of the saw blade.)

6 Rout a decorative edge along the top edge of the base. (We used a Roman Ogee bit.)

NEXT, DRILL THE HOLES

1 Using a combination square, transfer the hole centerlines from the sides of the C-arm and support upright across the cut edges. Locate and mark the hole centerpoints.

2 Clamp the C-arm in a wood-screw clamp as shown *above*, and drill the 7/64" screw hole ⅝" deep into the outside edge. To drill the holes for the glass in the ends of the C-arm, separate the parts at the lap joint. Next, clamp each C-arm piece in a wood-screw clamp as shown *above right* to get the right angle, and drill the 9/16" hole ¼" deep.

3 Clamp the upright support in a wood-screw clamp, aligning the centerline of the ⅜" hole scribed on the end with the nose of the clamp jaw. Drill the hole ⅜" deep. Change bits, realign the piece for the 5/16" hole, and drill the hole ⅜" deep.

4 Make the rotating dowel hinge shown in the Dowel Detail on the exploded-view drawing *opposite*.

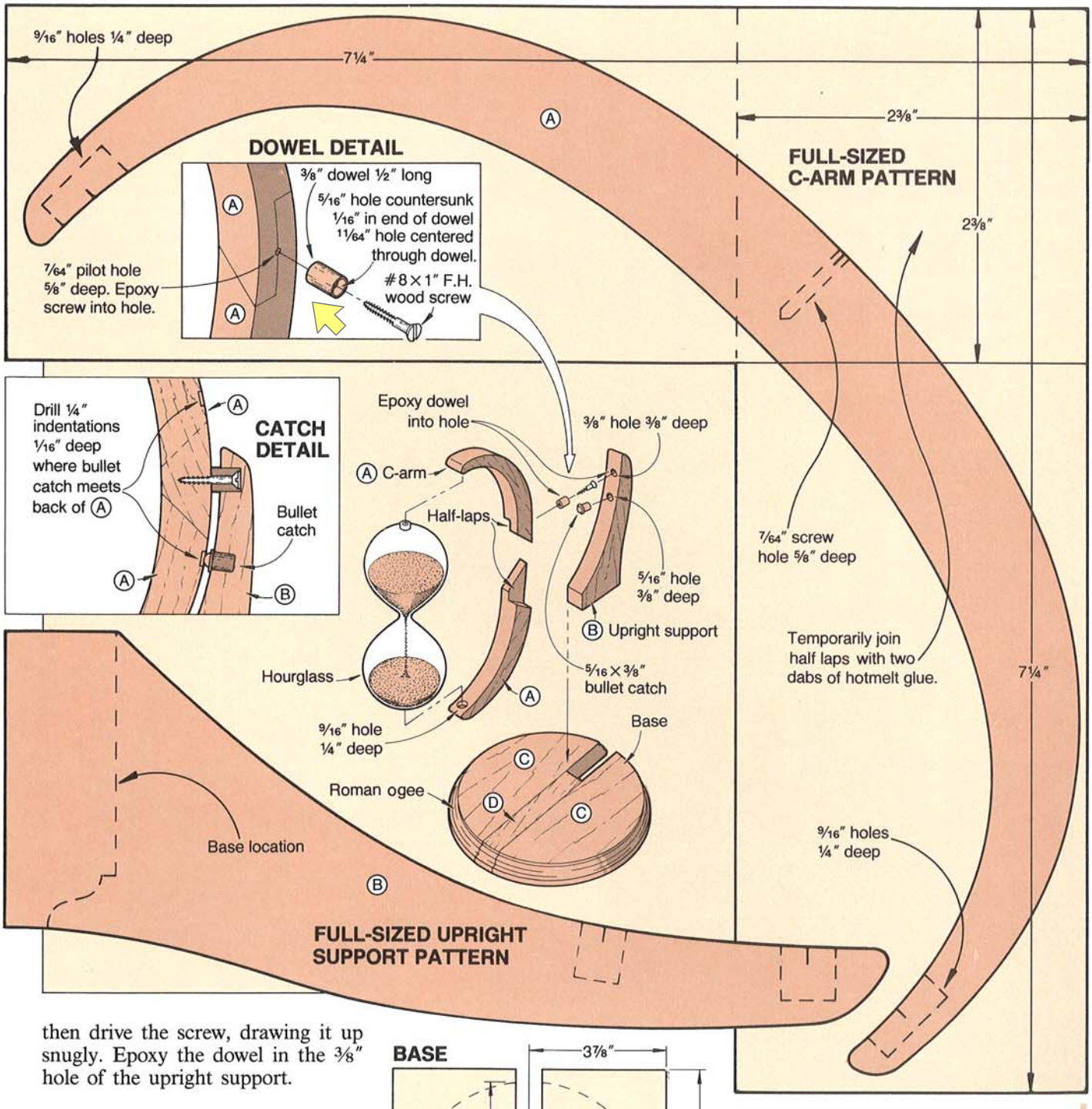
ASSEMBLE THE HOURGLASS

1 Lay the hourglass on a table and fit the knobs on the ends of the glass in the opposing holes in the C-Arm. Check the fit of the half lap.

2 Glue the upright support in the base. After the glue dries, finish-sand the assembly, and sand a slight round-over along all hard edges. Do the same on the C-arm. Apply the finish of your choice. (We sprayed three coats of clear lacquer.)

3 Apply glue to the lap-joints of the two C-arm parts, insert the knobs on the ends of the hourglass in the holes, assemble the C-arm, and clamp until the glue dries.

4 Epoxy the bullet catch (available at hardware stores) in the hole. Next, apply epoxy in the screw hole and to the threads of the rotary dowel hinge with a toothpick, and

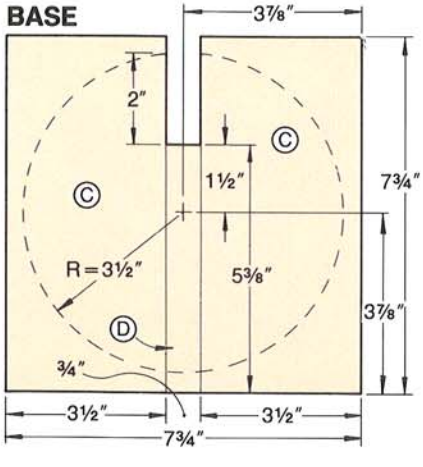


then drive the screw, drawing it up snugly. Epoxy the dowel in the 3/8" hole of the upright support.

5 Rotate the hourglass several times. Now, drill two shallow indentations (centered) where the bullet catch contacts the C-arm. Finally, dab these two areas with finish.

Buying Guide

● **Hourglass.** Catalog no. 04N31. $10.50 ea. ppd.; 5 or more, $9.75 ea. ppd. From: Woodcraft Supply Corp., 41 Atlantic Ave., Box 4000, Woburn, MA. 01888.



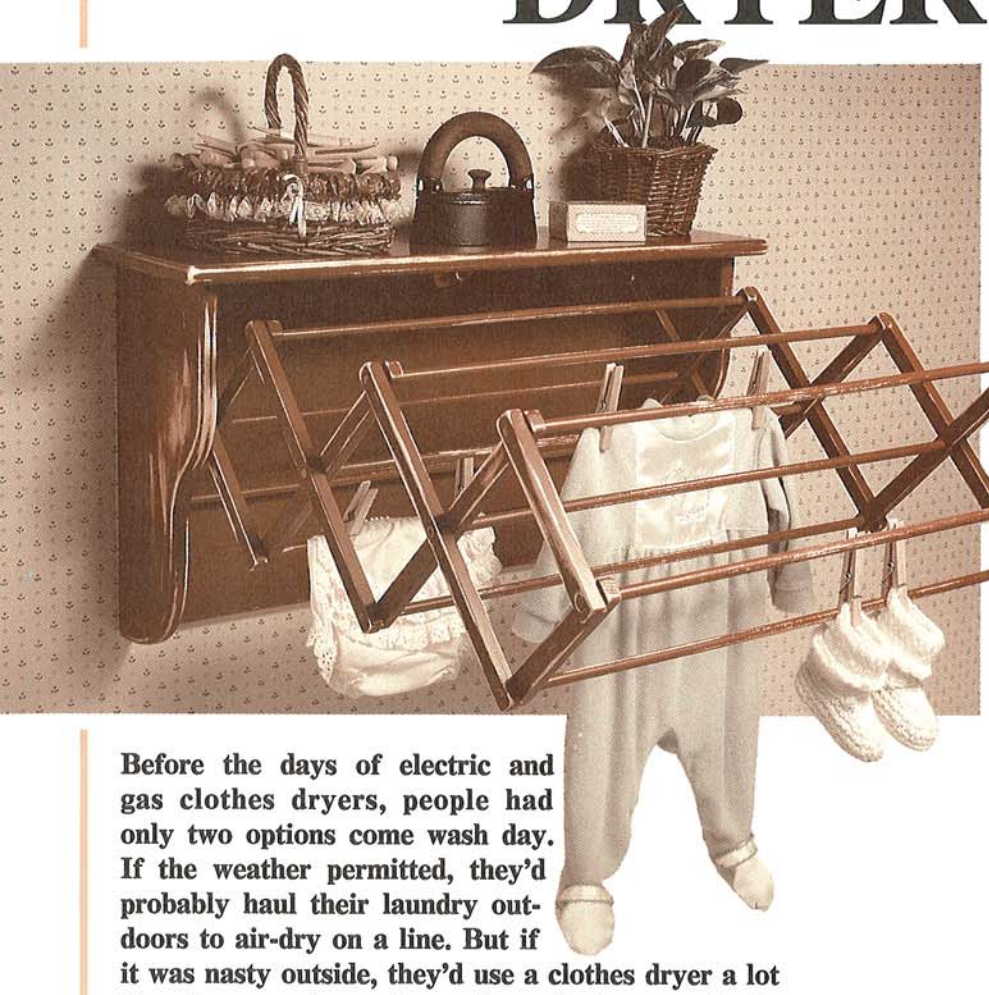
Bill of Materials

Part	Initial Size T	W	L	Material	Qty.
A	3/4"	2 3/8"	7 1/4"	oak	2
B	3/4"	2 3/4"	6"	oak	1
C	3/4"	3 1/2"	7 3/4"	oak	2
D	3/4"	3/4"	5 3/8"	oak	1

Supplies: 1—5/16x3/8" bullet catch, 3/8" dowel, #8 x 1" flathead wood screw, epoxy glue.

Project Design: James R. Downing Illustrations: Kim Downing; Carson Ode Photograph: Bill Hopkins

ANTIQUE CLOTHES DRYER



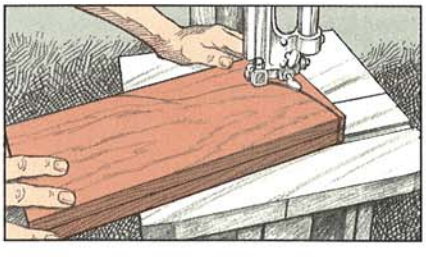
Before the days of electric and gas clothes dryers, people had only two options come wash day. If the weather permitted, they'd probably haul their laundry outdoors to air-dry on a line. But if it was nasty outside, they'd use a clothes dryer a lot like the one shown here. Ours features a sturdy pullout rack for hanging damp clothes and a handy shelf for storing laundry necessities.

FIRST, MAKE THE CABINET

1 To make the back (A), rip and crosscut three pieces of ¾" pine stock to 4¾ × 24½". Glue (we used yellow woodworker's glue) and clamp the three pieces edge to edge to form the back. After the glue dries, remove the clamps, scrape off any glue squeeze-out, and trim the panel to 24⅛" long.

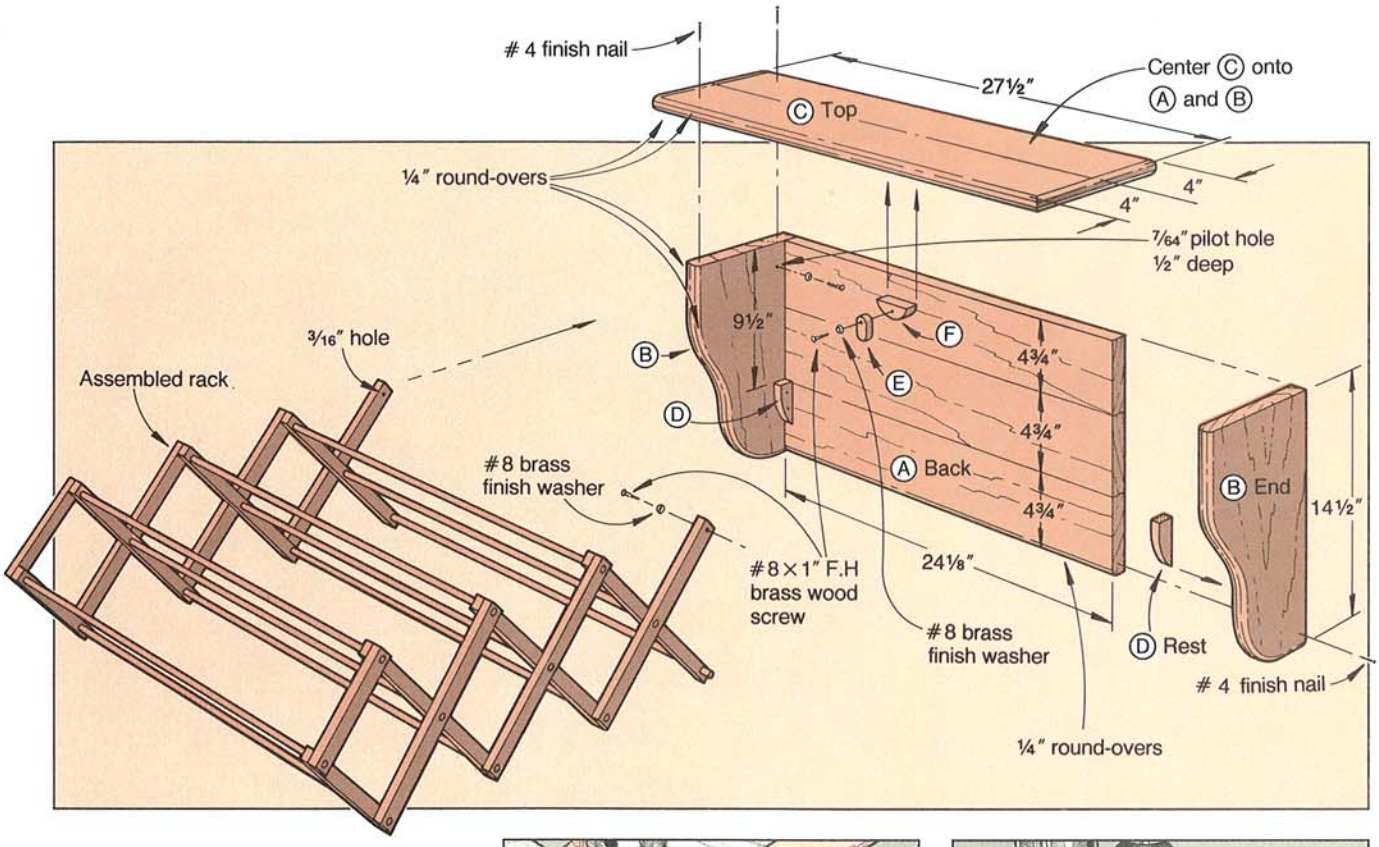
2 On a large piece of paper, draw an 8 × 15" grid of 1" squares. Next, using the Gridded End Drawing on page 10 as a guide, draw the pattern for the end panels (B) on your paper grid. Mark the centerpoint for the 7/64" pilot screw hole on the pattern. Cut the pattern to shape.

3 Rip and crosscut two pieces of ¾" pine to 7 × 15" for the ends (B). Stick double-faced tape on one of the pieces, and stack the other on top of it, aligning along an adjoining end and edge. Next, place the pattern on the top piece, align it with its top and edge, and trace.



4 Bandsaw the end pieces to shape as shown *above*, and sand the cut edges. (We sawed just outside the line, then sanded to the line with a drum sander mounted on our drill press.) Separate the two pieces and remove the tape.

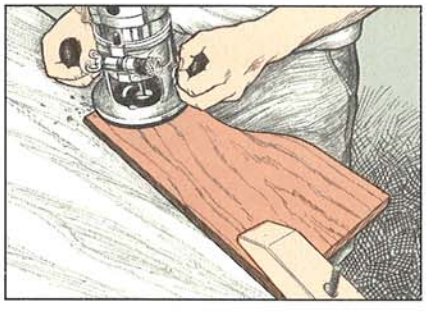
5 To form the top (C) panel, rip and crosscut two pieces of ¾" pine stock to 4 × 28". Glue and clamp the pieces edge to edge. Later, remove the clamps, scrape off excess

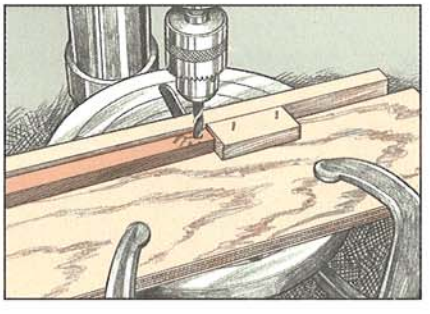


glue, and then crosscut the panel to 27½"-final length.

6 Mount a ¼" round-over bit in your router. Then, as shown at *right*, round over the front curved edges on the ends, and also the front and ends of the top panel as indicated on the exploded-view drawing *above*. Next, finish-sand all of the pieces. (We sanded the flat surfaces on the parts with an orbital sander and the edges by hand, using 180-, and 220-grit sandpapers.)

7 To make the rack rests (D), transfer two outlines of the Full-Sized Rest Pattern on page 10 to ¾"-thick pine scrap, and cut both parts to shape. (We used a bandsaw.) Next, using the Full-Sized Latch Patterns on page 10, cut one part E and one F to shape, and then resaw or sand E to ½" thickness. Now, drill a 3/16" hole through E, and a 7/64" pilot hole ½" deep into F. Attach part E to F with a #8×1" flathead wood screw and a finish washer.





8 Using your full-sized end pattern, transfer the marked centerpoints for the 7/64" holes to the inside face of the two end pieces. Next, drill the two holes ½" deep.

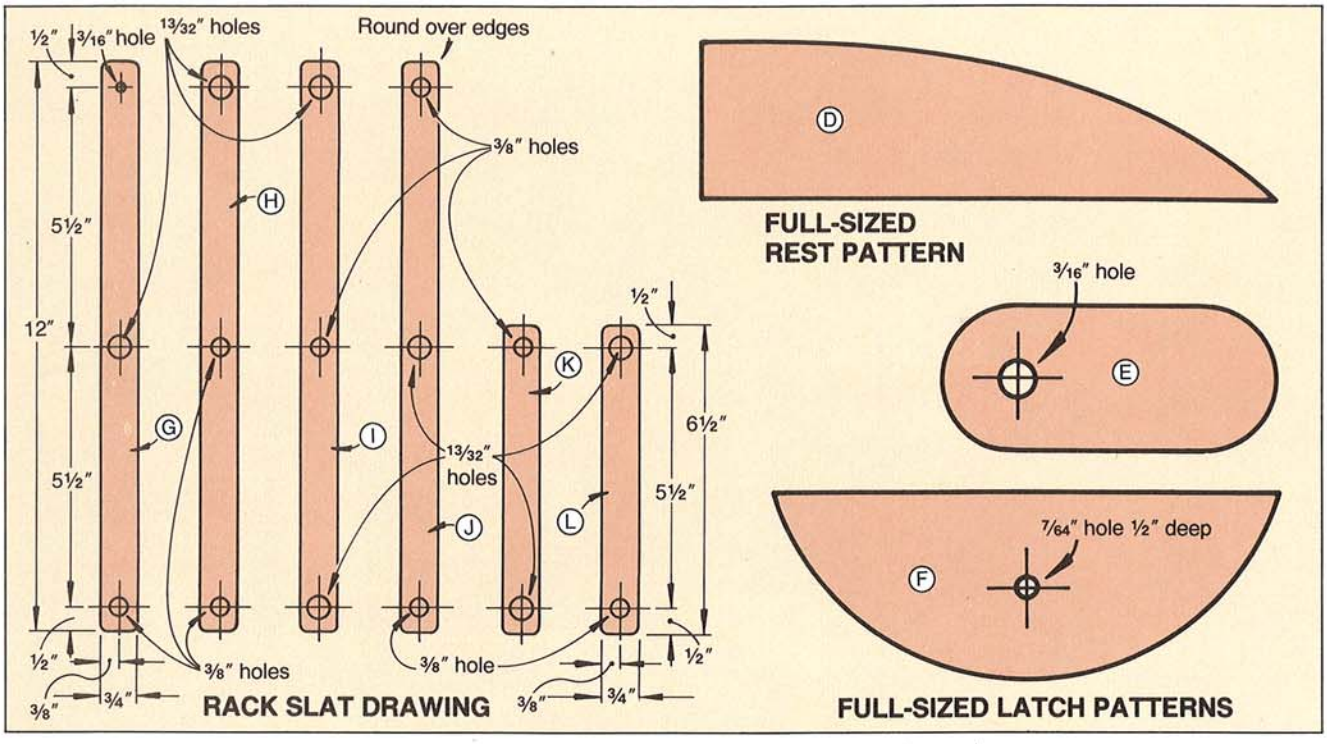
9 To assemble, first glue and nail the ends to the back. (We used 4d finish nails.) Next, align the top flush with the back and center it. Glue and nail it to both the back and the ends. Glue and nail the rack rests (D) inside of the cabinet.

NEXT, BUILD THE FOLDING DRYING RACK

1 From ¾" pine, rip and crosscut 16 rack slats (G, H, I, J, K, L) to the sizes listed in the Bill of Materials and the Rack Slats Drawing on page 10. (We found it helpful to label and sort the different slat pieces as we cut them.)

2 Using the dimensions on the Rack Slats Drawing, mark the centerpoints for the holes in the rack slats G, H, K, I, J, K, and L. (Note there are three different hole sizes. The smallest fit the mounting screws, and the larger 13/32"-diameter holes allow the ⅜" dowels to rotate in them.) Next, using the drill press, a simple fence, and a stop-block jig like the one shown *above* to repeat identical operations, drill

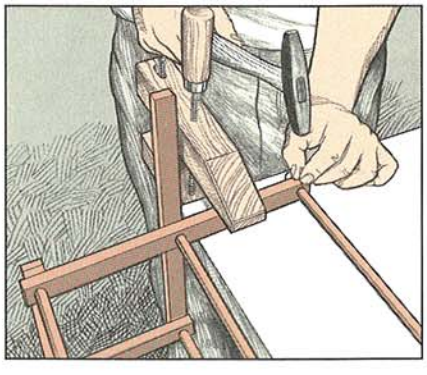
continued



the holes. (We drilled all holes of the same size and at the same location before changing the setup.)

3 Select 11 straight, ⅜"-diameter dowels (we used birch), and crosscut them to 24" long.

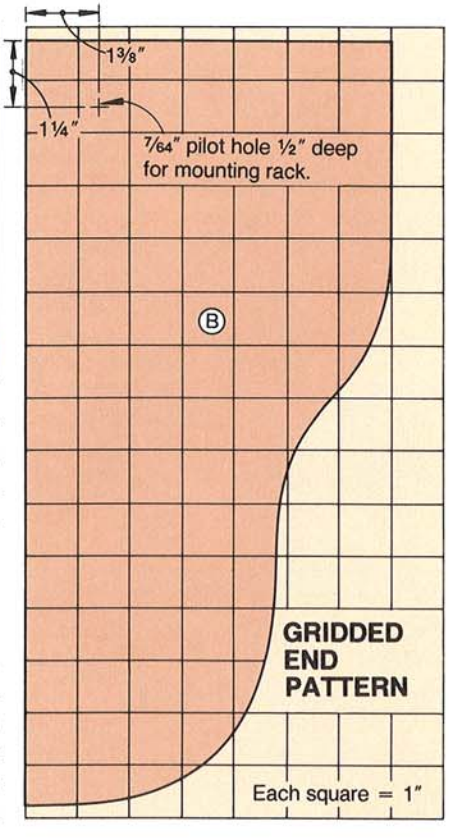
4 Assemble the drying rack following the three steps shown on the Rack Assembly Sequence Drawings *opposite*. (We started with slats G and H, which attach inside the box, and inserted the center dowel to make the first cross. Then, we inserted the top and bottom dowels in parts H. [See step 1]. Next, we added slats I and J and the dowels needed for the second and the identical third crosses. [See step 2]. Finally, we formed the last rack section with slats K and L, and the dowel. [See step 3]). When a dowel passes through a ⅜" hole, nail it as shown *above right*. (We used ¾"×17 brads.) Do not nail a dowel when it passes through a 13/32" hole.

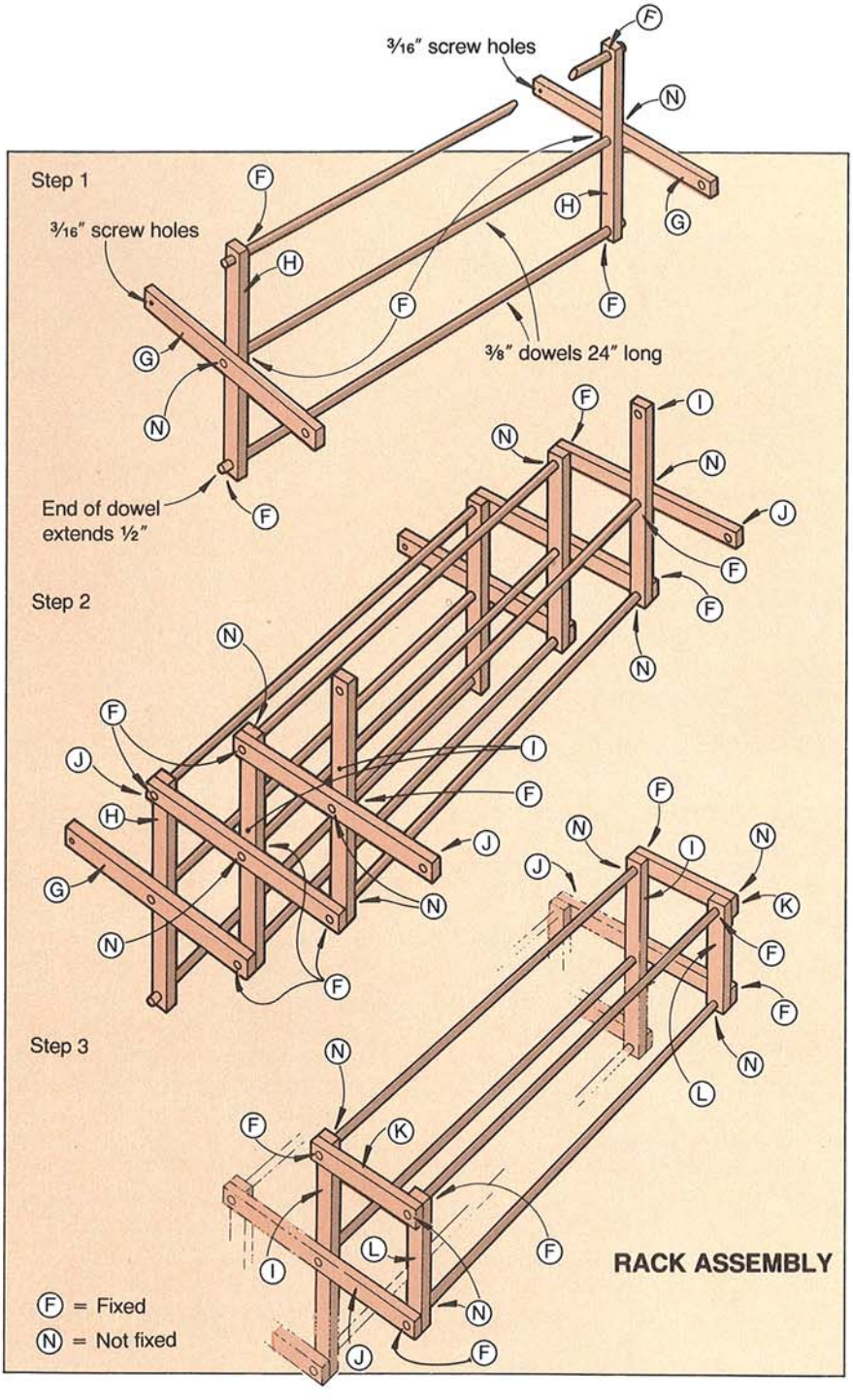


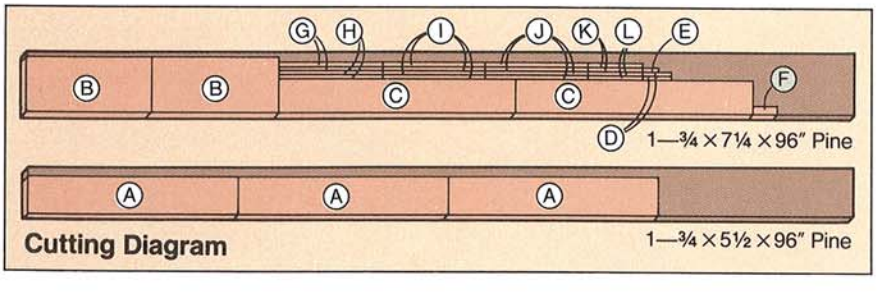
(We found it helpful to remember that on the outside slats the dowels are free-turning at the center and fixed at the top and bottom, and just the reverse on the inside slats.)

ATTACH THE RACK AND APPLY THE FINISH

1 Using #8×1" flathead brass screws and brass finish washers, attach the assembled rack to the inside of the cabinet. Next, fold the rack into the cabinet and note its position. Now, center, glue, and nail







the half-round latch to the underside of the top shelf to hold the rack in the folded position.

2 Apply the finish of your choice. (We applied a coat of clear sealer, then sprayed on a coat of enamel paint. To give the dryer a worn antique look, we lightly sanded away some of the paint.)

3 Secure the dryer to a wall. (We held the dryer where we wanted it, located the wall studs, and marked their location on the inside of the cabinet. Next, we drilled 11/64" shank holes for the mounting screws in the cabinet back, and then counterbored them 1/4" deep to accept 3/8"-diameter screw-hole buttons. Finally, we attached the dryer, using two #8×2" flathead wood screws, and then concealed them with screw-hole buttons. We painted them the same color as the cabinet.)

Bill of Materials

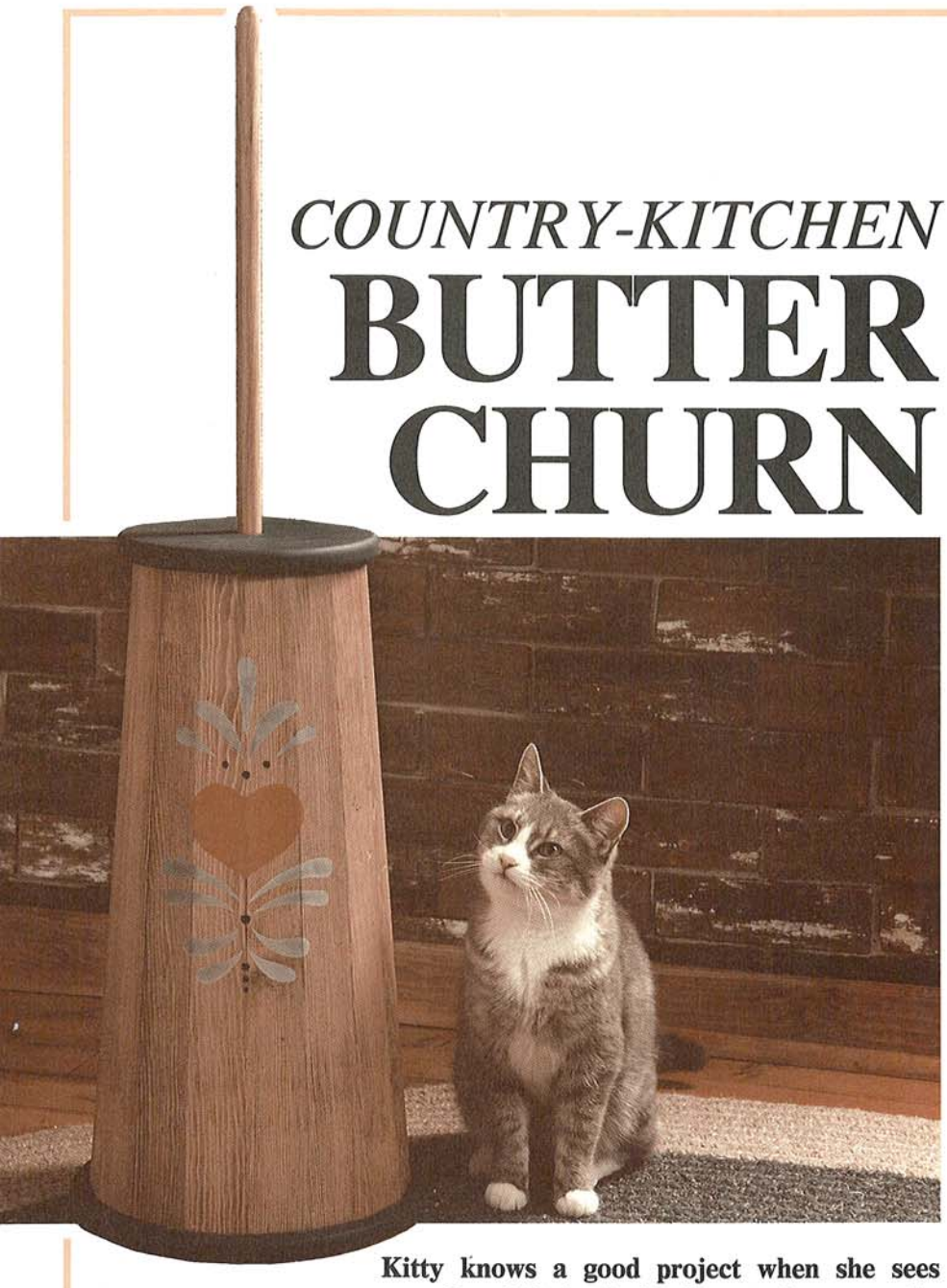
Part	Finished Size*			Material	Qty.
	T	W	L		
A*	3/4"	14 1/4"	24 1/8"	pine	1
B*	3/4"	7"	14 1/2"	pine	2
C*	3/4"	8"	27 1/2"	pine	1
D	1/2"	3/4"	3"	pine	2
E	1/2"	3/4"	1 3/4"	pine	1
F	3/4"	1"	2 5/8"	pine	1
G	1/2"	3/4"	12"	pine	2
H	1/2"	3/4"	12"	pine	2
I	1/2"	3/4"	12"	pine	4
J	1/2"	3/4"	12"	pine	4
K	1/2"	3/4"	6 1/2"	pine	2
L	1/2"	3/4"	6 1/2"	pine	2

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

Supplies: 11—3/8" dowel rods; 5d finish nails; 3—#8x1" flathead brass wood screws; 3—#8 brass finish washers; 2—#8×2" flathead wood screws; 2—3/8" screw-hole buttons; 3/4"×17 brads; finish.

Project Design: David Ashe Illustrations: Kim Downing; Carson Ode Photograph: Bill Hopkins

COUNTRY-KITCHEN BUTTER CHURN



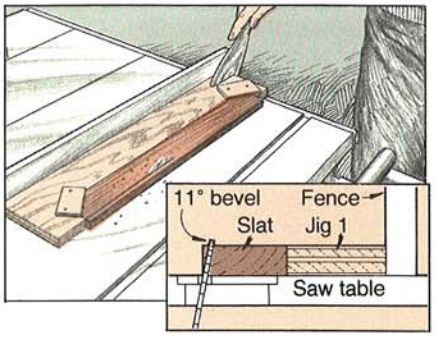
Kitty knows a good project when she sees one. Our full-sized pine butter churn may be just the right country accent your home needs. We provide jigs for cutting the tapered barrel pieces, a jig for routing the circular lid and bottom, and the pattern for the stencil that adorns the churn's front.

FIRST, CUT THE TAPERED BARREL STAVES

1 From ¾"-thick pine stock, rip and crosscut 16—2×20½" barrel staves (A). (See the cutting diagram.) Next, angle your tablesaw blade 4° from center. (We set the blade angle with an adjustable triangle.) Select the best side of each stave for the outside face and mark it. Now, strike a square line across the good face ½" up from one end of each stave. Now, bevel-crosscut each stave along that line so that the outside face on each measures 20" long.

2 From ¾"-thick plywood or particleboard, make the two taper jigs using the dimensions shown on the Taper Jig Drawing on the bottom of page 14. (We made the jigs from two pieces measuring 5½×24" by first setting the tablesaw blade to cut an 11° bevel, the fence 5" from the blade, and then bevel-ripping one edge on both pieces. Next, we laid out the notches on the jig blanks, and then cut them to shape with a portable jigsaw.) Cut the notches carefully so the staves fit snugly in the jig. Nail cleats across the corners of the jigs where shown (we used scrap ¼"-thick plywood). Number the jigs 1 and 2.

3 With your tablesaw blade still angled at 11°, place jig 1 on the saw table with the beveled edge against the saw blade. (Our tablesaw blade tilts to the right and we positioned the fence to the right of it.) Lock



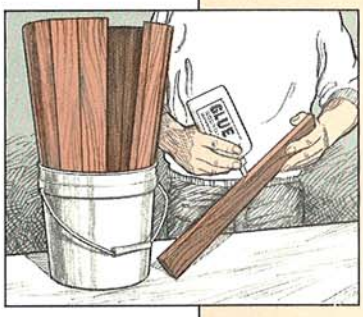
the fence against the jig. Now, position the jig so it clears the blade, and insert a stave outside facedown in the jig's notch, and rip the first tapered bevel as shown *below left*. Cut the other 15 staves.

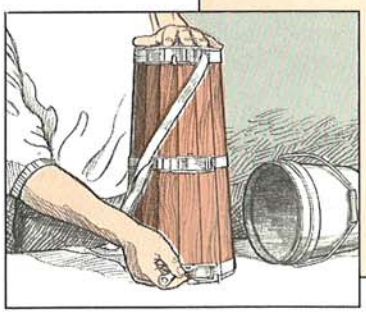
4 Without changing the saw setting, place jig 2 on the saw table with the beveled edge against the saw blade. Next, insert a stave in the jig outside facedown and the square edge out. Rip the second tapered bevel using the same procedure. Make the identical saw cut on the remaining 15 staves.

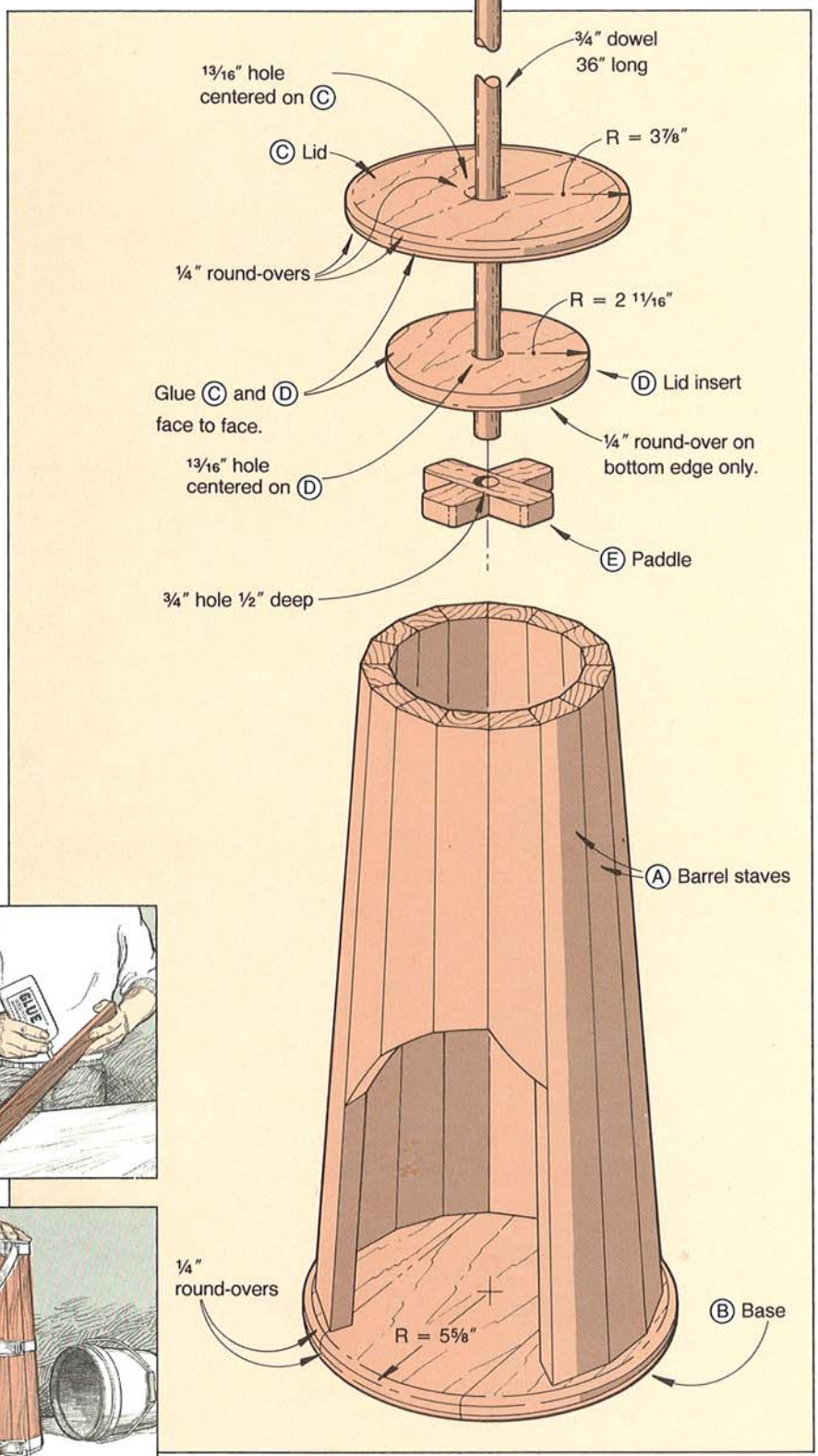
NEXT, GLUE-ASSEMBLE THE BARREL

Note: *To save glue cleanup work later, adhere strips of masking tape along both edges on the face of each tapered stave.*

1 To form the churn's barrel (see the exploded-view drawing at *right*), apply glue (we used white woodworker's glue) to the beveled edges of each stave. (As shown immediately *below*, we arranged the glued staves inside a two-gallon paint pail.) Finish aligning all of the glued staves into a circle in the barrel. Place a web clamp around the middle of the assembly to draw it together. Remove the assembly from the pail, check stave alignment around the outside and for level on the bottom. Next, place web clamps around the barrel near the top and the bottom, as shown at *right*. Wipe off any glue squeeze-out. Set the barrel aside until the glue dries.

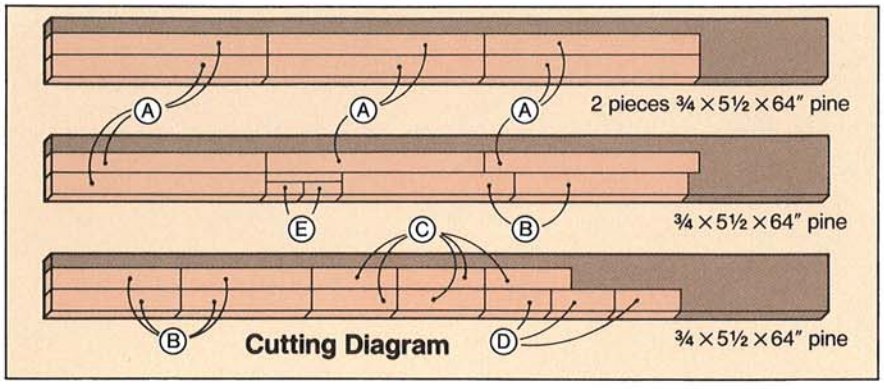




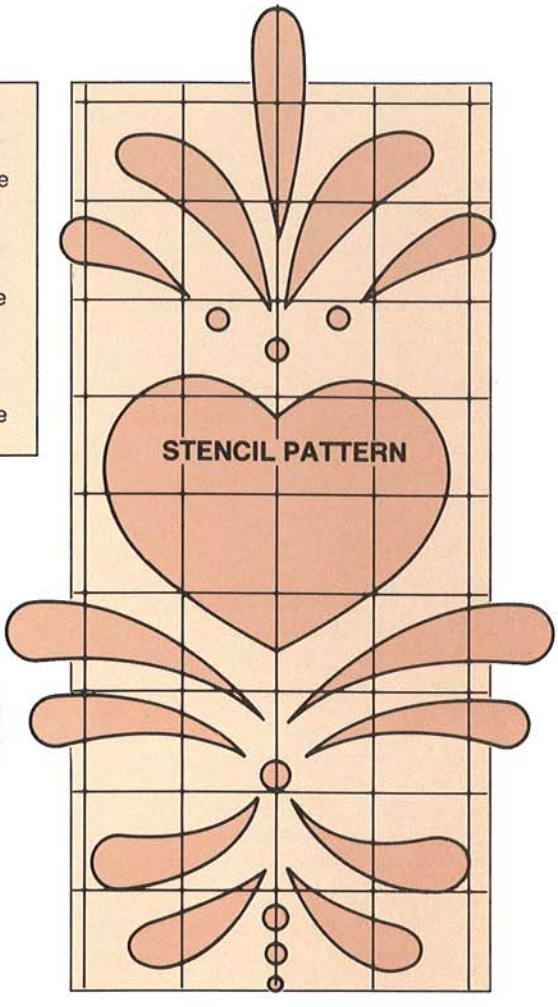


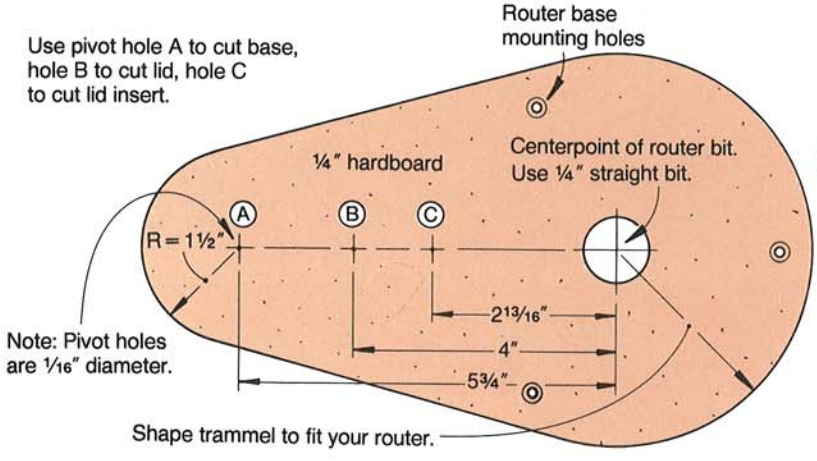
continued

BUTTER CHURN

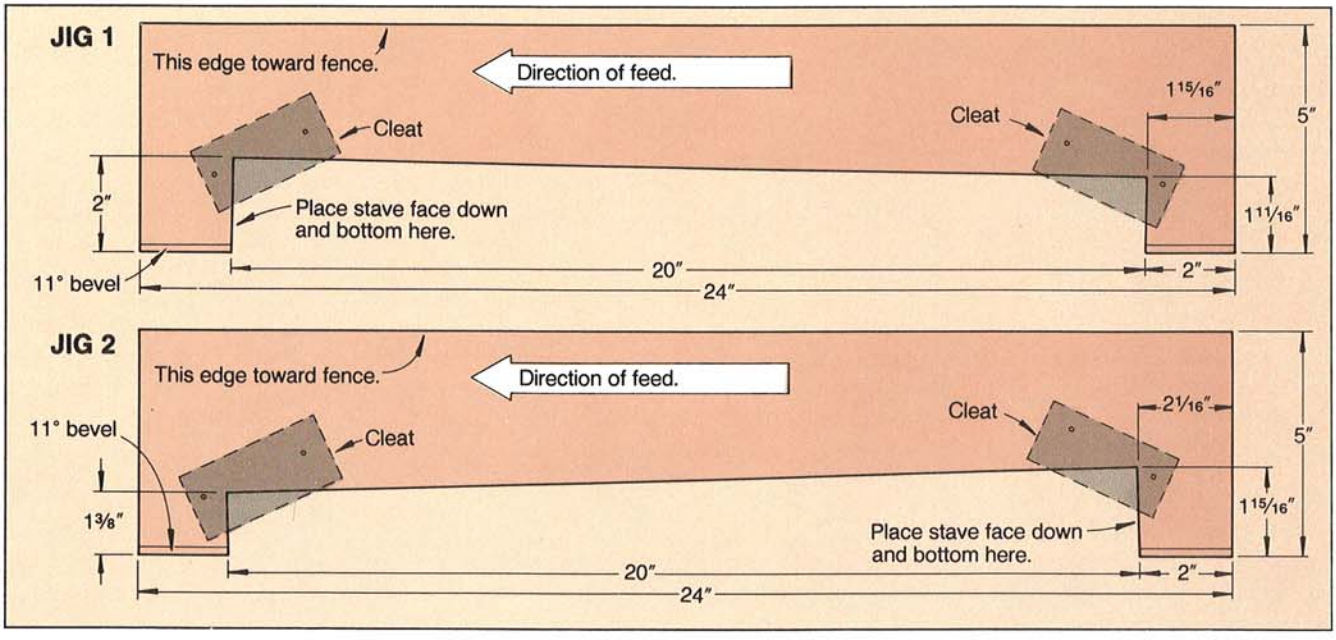


Cutting Diagram





TRAMMEL BASE FOR BUTTER CHURN



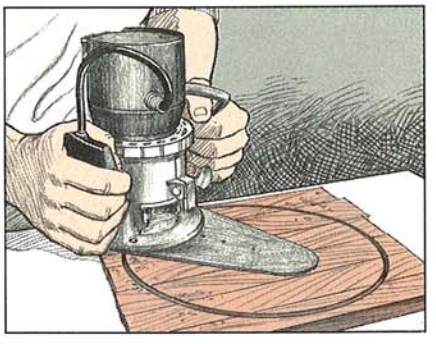
2 For the churn's base (B), the lid (C), and the lid insert (D), make up one 12″ square, one 9″ square, and one 6″ square of ¾″-thick pine. (We edge-joined 2″ widths of boards to minimize the chance of warpage.) Draw diagonals from corner to corner on the underside of each square and mark the centerpoints. Next, drive a 4d finish nail ½″ deep into the centerpoint of each square to use as the pivot point for the router's trammel base. Now, cut off the nails, leaving about ½″ exposed above the surface of the wood.

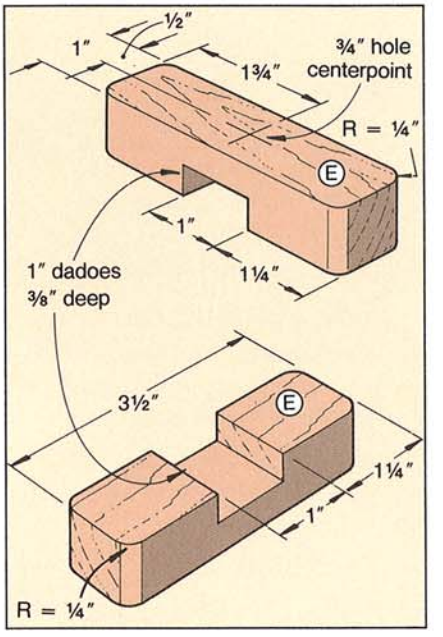
3 Make a trammel base to fit your router, using the dimensions on the Trammel Base Drawing *opposite*. Now, remove the regular base from your router and mount the trammel base to your router.

4 Clamp a large piece of scrap to the top of your bench or work area. Next, one by one place the squares on the scrap and drive two 2d finish nails through opposite corners to hold them firmly in place. Now, using your router, the trammel base, and a ¼″-straight router bit, cut the base, lid, and lid insert to shape, as shown *below left*. Use pivot hole A on the trammel to cut the base, hole B for the lid, and hole C to cut the lid insert. (We set the router to cut in ¼″ deep initially, and then lowered the bit in ¼″ increments.)

5 Remove the nails from the discs. Rout ¼″ round-overs along the edges of each, where shown on the exploded-view drawing. Drill a 13/16″ hole through the center of the lid and the lid insert. (We used a spade bit, or you can sand the inside of a ¾″ hole.) Glue the lid insert to the underside of the lid.

6 Form the paddle (E) as shown on the drawing *below*. (Beginning with a 12″-long piece, we first cut two 1″-wide dadoes ⅜″ deep starting 1¼″ from each end, using a tablesaw. Then, we trimmed the pieces to length, and rounded the corners.) Glue the two E's together to form a cross. Next, drill a ¾″-diameter hole, ½″ deep into the center of the paddle. Sand one end of a 36″ long ¾″ dowel round. Now, glue the flat end in the hole in the paddle.





ORDER THE STENCIL PATTERN

For a full-sized stencil pattern, send a self-addressed #10 business envelope along with 25¢ postage to:

Stencil Pattern
Weekend Woodworking Projects
1716 Locust Street
Des Moines, IA 50336

This offer expires January 31, 1990.

THE FINAL ASSEMBLY AND FINISHING

1 Remove the web clamps and the masking tape from the barrel staves. Scrap off any remaining glue squeeze-out. Finish-sand the barrel and the other parts, sanding with the grain. (We used 180- and 220-grid papers, sanding just enough to remove the sharp edges.)

2 Test-fit the barrel on the base. Next, center the barrel on the base and place several pencil marks around it to aid repositioning. Liberally apply glue to the bottom of the barrel, and place it on the base. Wipe off glue squeeze-out, and weight the barrel down until the glue dries.

3 Apply the finish of your choice. (We stained the barrel, paddle, and paddle handle; we painted the base and lid, masking the bottom of the barrel with tape to avoid getting paint on it.)

4 Transfer the stencil pattern *opposite* to an 11×17″ sheet of stenciling Mylar (available at crafts supply stores). Cut out the design with a crafts knife. Paint the decorative stencil on the barrel in the colors of your choice. (We positioned our stencil 2½″ from the top edge.)

Bill of Materials

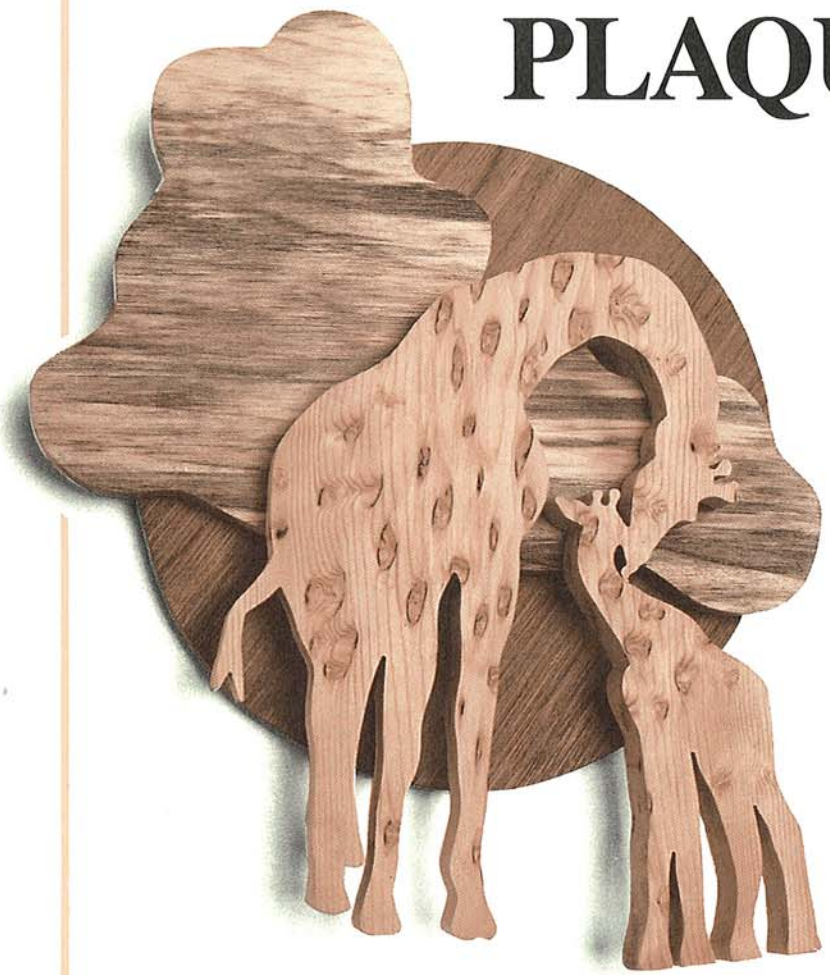
Part	Finished Size* T	W	L	Material	Qty.
A*	¾″	2″	20″	pine	16
B*	¾″	11¼″ dia.		pine	1
C*	¾″	7¾″ dia.		pine	1
D*	¾″	5⅜″ dia.		pine	1
E	¾″	1″	3½″	pine	2

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

Supplies: 1—¾x36″ dowel, ¾″ plywood or particleboard, stencil Mylar, finish.

Project Design: James R. Downing Illustrations: Kim Downing; Carson Ode Photograph: Bill Hopkins

SAFARI-SUNSET WALL PLAQUE



Looking for a way to make bad wood good? Try taking advantage of its flaws. That's how we made our African safari sunset. In fact, for this playful project, the poorer the piece, the better the effect. As you can see *above,* we artfully selected three pieces of scrap wood that seemed appropriate to our subject, cut them to shape, and secured them together, creating a spectacular wall plaque.

CUT THE PIECES TO SHAPE

1 Sort through your wood pile or visit your local lumber supplier for just the right combination of wood pieces for our safari-sunset wall plaque. Look for unusual grain figuring, knots, and other defects that may actually work to your advantage. Now, cut your selected pieces to the dimensions listed on the Bill of Materials.

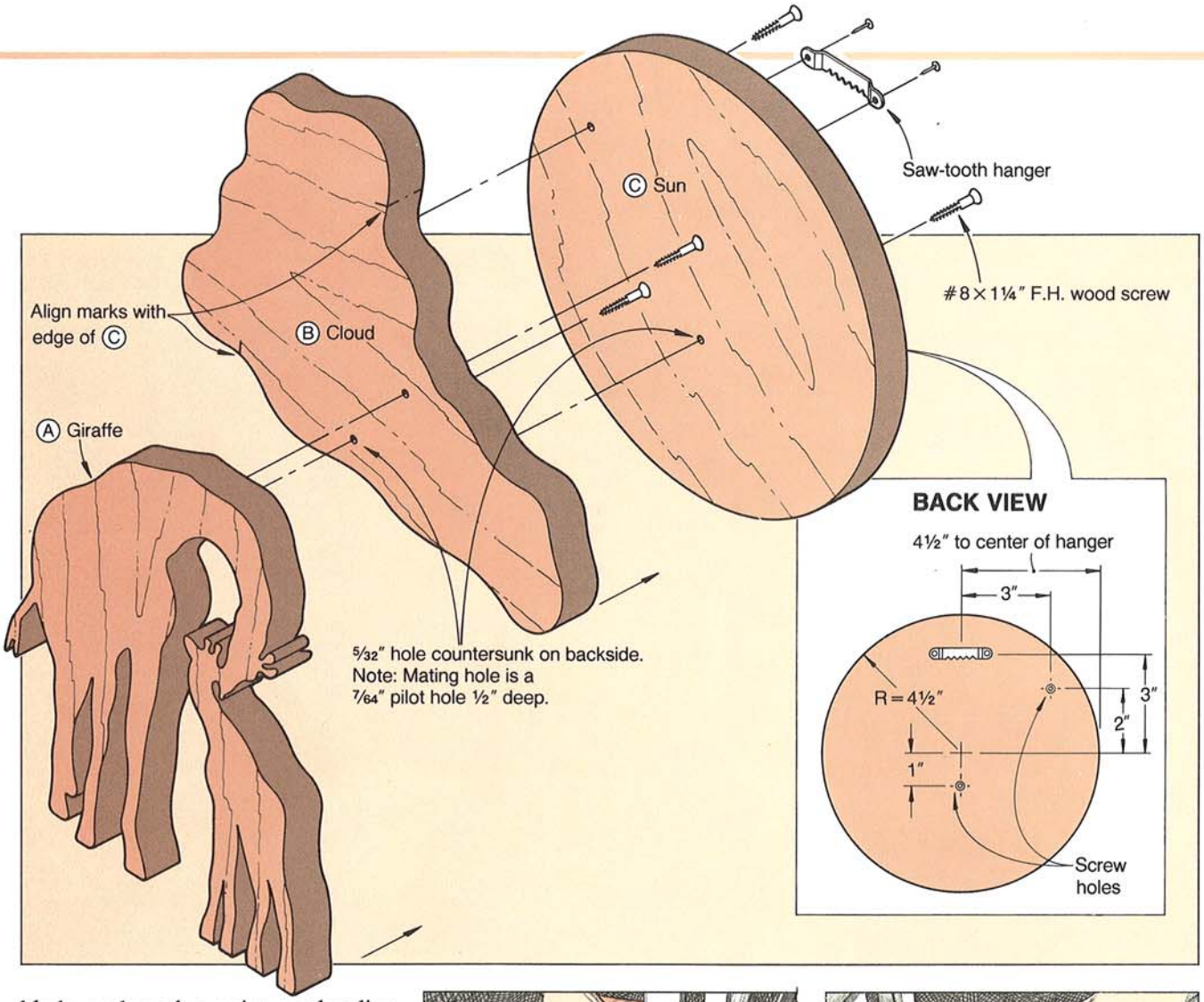
Note: *We used a piece of knotty pine for the giraffe, a piece of spalted or aged poplar for the cloud, and a piece of mahogany for the dark contrasting sun. We suggest that you experiment with different woods, colors, patterns, and grain orientations to achieve interesting effects.*

2 Using carbon paper, transfer the pattern of the giraffes (A) from page 18 onto the selected wood piece. Next, transfer the pattern of the cloud (B), including the giraffe outline, locations for the screw-hole centerpoints, and the background position to the wood you selected for it. Note on the photograph the grain directions we chose.

3 Cut the giraffes and cloud to shape. (We used a scrollsaw.) Sand saw marks and sharp edges. Set these pieces aside for now.

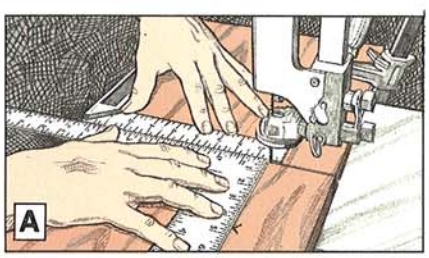
4 Turn to the sun piece (C), and strike diagonal lines from the opposing corners on one surface of the square. Drill a 1/16″ hole 3/8″ deep at the center. Using this centerpoint and a compass, scribe a 4½″-radius (9″ diameter) circle.

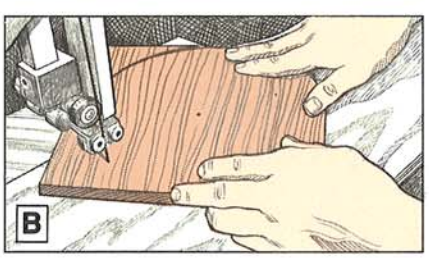
5 To saw out the disk, first make an auxiliary table top of scrap plywood for your bandsaw table. Saw into the scrap a few inches so the blade has solid wood surrounding it. Next, square it to the saw's table, and clamp it tight. Strike a line perpendicular to the front of the saw



blade, and mark a point on that line 4½" from the blade. (To draw this line, we used two squares and worked from the edge squared with the saw table as shown in drawing A at *right*.) Tap a ½" brad (to serve as a pivot pin) into the auxiliary table at the point, allowing ⅛" of it to extend above the plywood.

6 Place the sun square on the auxiliary table, and saw out a ½"-wide notch along the outside of the marked circle. Next, place the notched-out area of the piece against the saw blade, and lower the piece so that the brad protruding from the table inserts into the hole at the centerpoint. Now, saw the disc-shaped sun by slowly rotating the workpiece clockwise as shown in drawing B, *right*. Sand the disc smooth (we used a disc sander) and remove the pencil marks.





ASSEMBLE THE PLAQUE

1 Apply your choice of finish to each piece and let dry. (We used tung oil for a clear natural look.)

2 Drill the two 5/32" countersunk screw holes on the cloud where indicated by the pattern, and two more in the sun where shown on the Back View Detail. Align the giraffes on the cloud where indicated by the dash lines. Turn both pieces over without changing their positions, and deepen the pilot holes to the depth indicated on the exploded-view drawing, *above*. Now, screw the pieces together.

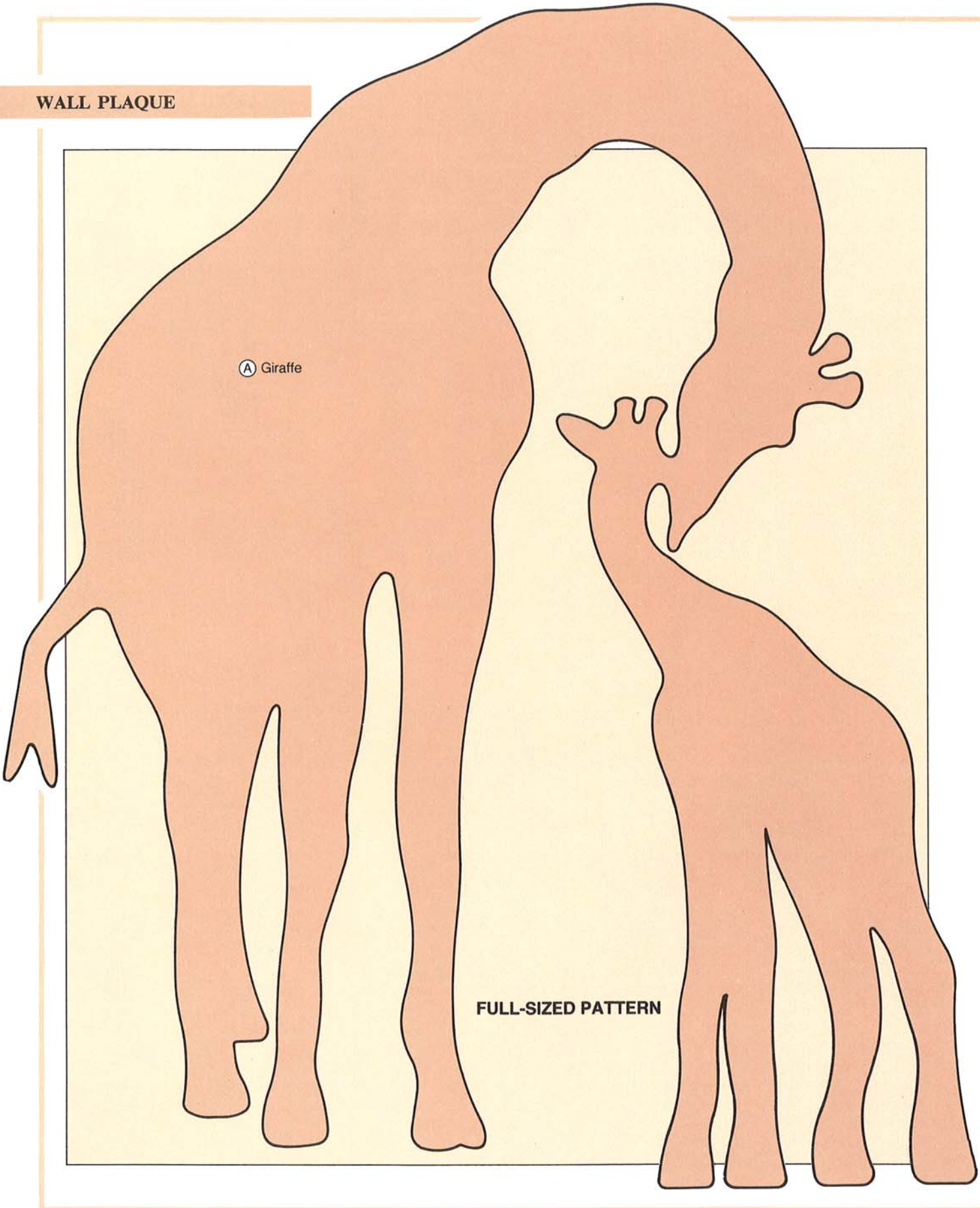
3 Attach the saw-tooth hanger to the back of the sun where shown on the Back View Detail, *above*.

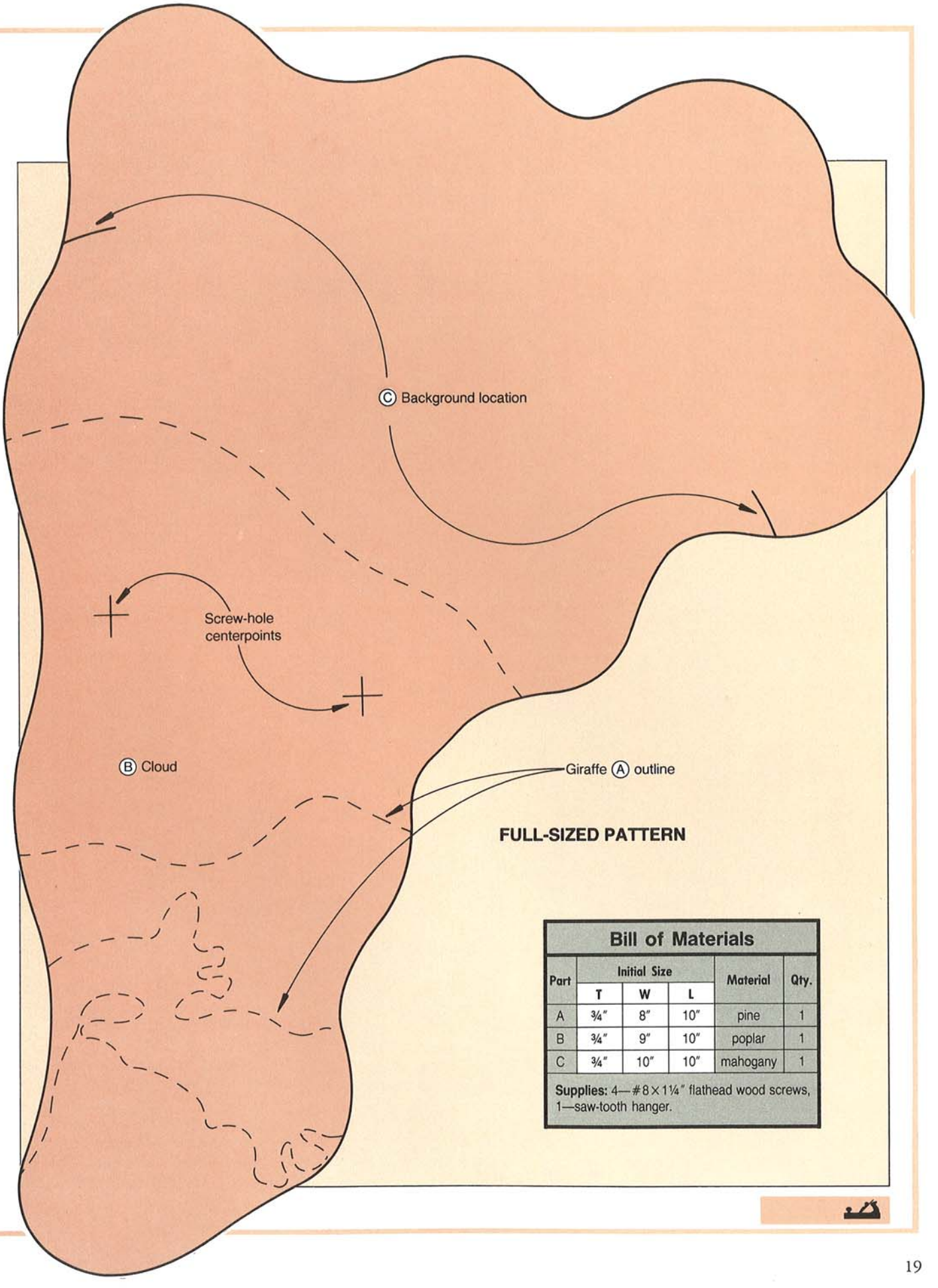
4 Unclamp the assembly and lay it on the face of the sun where indicated by the location marks. Again, turn the aligned assembly over and clamp it to the bench. Deepen the pilot holes and screw the sun to the cloud. Now, select a wall and show off your safarri-sunset.

Project Design: John Breitengross, Pomana, Ca. Illustrations: Kim Downing; Carson Ode Photograph: Jim Kascoutas

continued

WALL PLAQUE





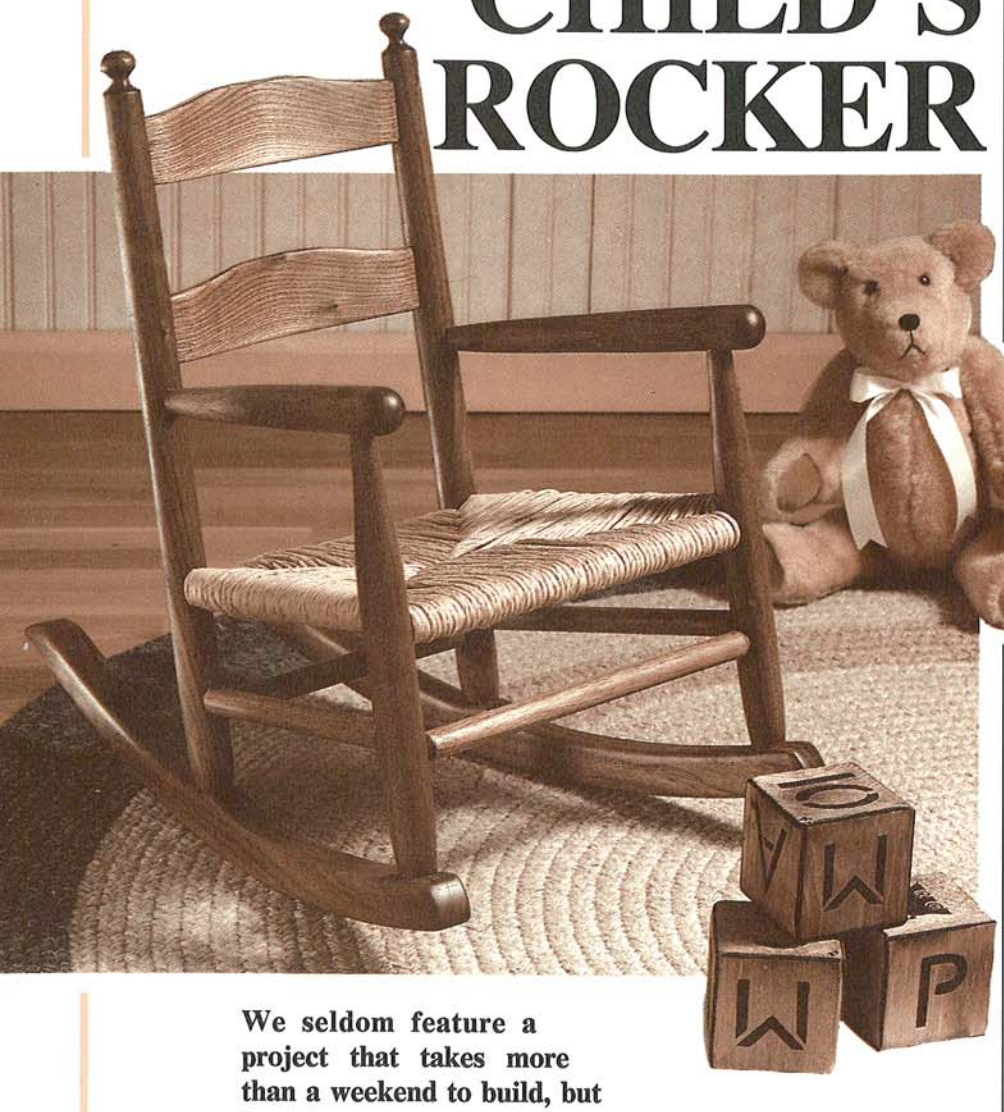
FULL-SIZED PATTERN

Bill of Materials

Part	Initial Size			Material	Qty.
	T	W	L		
A	¾″	8″	10″	pine	1
B	¾″	9″	10″	poplar	1
C	¾″	10″	10″	mahogany	1

Supplies: 4—#8×1¼″ flathead wood screws, 1—saw-tooth hanger.

A FAMILY HEIRLOOM CLASSIC
CHILD'S ROCKER



We seldom feature a project that takes more than a weekend to build, but in this case, we made an exception. Our walnut child's rocker stands almost 21" tall, and has the looks, sturdiness, and utility of a true family heirloom. The patterns and templates on the following pages help you accurately machine each part. (Or, for greater ease, write to us for the free full-sized patterns.) The instructions on the final page tell how to add the rush seating.

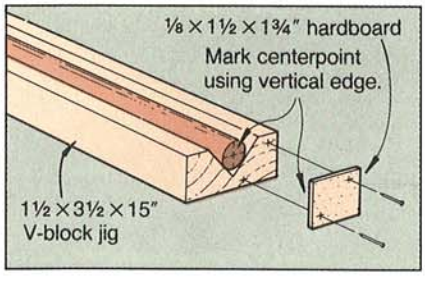
FIRST, TURN THE LEGS AND THE ARMS

1 From three straight 48"-long 1¼"-diameter walnut dowels (see the Buying Guide on page 25 for a source), crosscut two 23" lengths for two back legs (A), two 15" lengths for the front legs (B), and two 14" lengths for the chair arms (C). (See the Cutting Diagram on page 25.)

2 From two ¾ × 36" dowels, crosscut six 11⅞" lengths (four side rungs [D] and two back rungs [E]). From the third, crosscut two 15"-long lengths for front rungs (F).

3 Using carbon paper, trace the Knob Template on page 21 onto cardboard. Cut out the template.

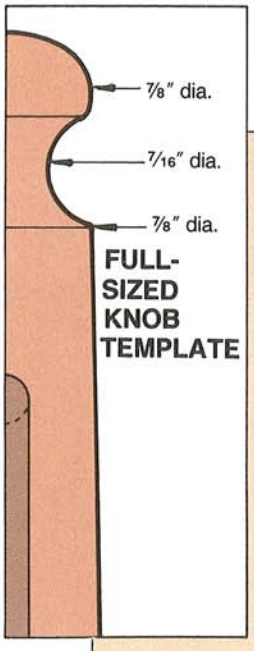
4 Make a V-block from scrap wood (we used a 2×4) using the dimensions on the drawing *below.* Scribe a vertical line below the center of the V for reference, attach a hardboard square to one end, aligning an edge with the centerline. Place the dowels in the V-block, and mark end centerpoints.



5 To prepare the dowels for turning, bandsaw ⅛"-deep kerfs across the centerpoint in one end.

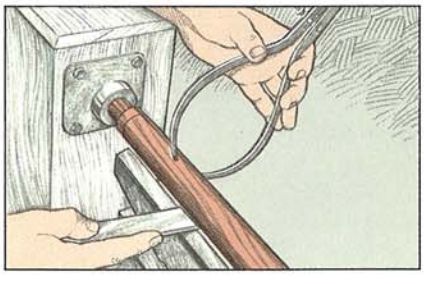
Note: *After mounting the leg and arm dowels between centers on the lathe, we first reduced their diameter to 1⅛", using a ¾" skew and checking the diameter with a preset outside calipers as shown at* right. *To finish the parts, we removed the tool rest,*

and sanded them with progressively finer sandpapers (80-, 100-, 150-grit). We then stopped the lathe and finish-sanded each piece with the grain using 220-grit paper. For turning, we ran the lathe at 500-800 rpm, for sanding, 1,000-1,500 rpm.



6 Mount a 23"-long dowel, and using the dimensions on the Back Leg Drawing at *right*, and the cardboard knob template you made, mark the leg reference points with a pencil. Measure all dimensions from the shoulder of the bottom tenon. Now, turn on the lathe, and mark the reference lines as the piece turns.

7 Using a parting tool, turn the ⅝"-diameter tenon on the bottom of the back leg. (We cut the tenons about 1" long extending them into the waste, and cut the parts to final length later.) Next, using a skew, turn the tapered areas. Check the diameter frequently. Now, using a ⅜" spindle gouge, and the knob



template, turn the knob but do not part it from the waste. Sand the leg. Turn the other back leg.

8 Mount a 1¼ × 15" dowel between centers and reduce its diameter to 1⅛". Using the dimensions on the Front Leg Drawing shown *above right*, mark the reference lines for the front leg (B). Using a parting tool, turn the ⅝"-diameter tenons at both ends. Next, with a skew, shape the tapered areas. Sand the leg and remove it from the lathe. Turn the other front leg.

9 To turn the arm (C), mount a 1¼ × 14" dowel between centers on your lathe. Reduce its diameter to 1⅛", then using the drawing's dimensions, turn the tenon. Switch to a skew or gouge and turn the end's curvature. Cup the spinning arm in one hand, and finish shaping the rounded front end of the arm, catching it when the cut has been completed. Finish-sand the end. Now, shape the other arm.

10 One by one, mount the precut ¾"-diameter dowels. Turn the ½"-diameter, ⅜"-long tenons, and the ¼"-long tapering shoulders to make

continued

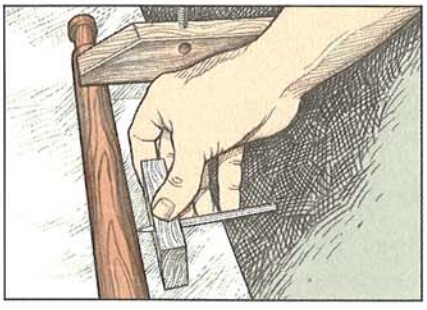
four side, two back, and two front rungs. (See the Side-View Drawing on page 23 for reference, and the Bill of Materials for final rung lengths.) Shape the tapered shoulder at a 45° angle, and sand. Cut the pieces to final length use a parting tool, and cut the dowel to about ¼" diameter. Stop the lathe, and finish the cut with a dovetail saw.

NEXT, DRILL THE LEGS AND ARMS

1 Using plain paper, make two full-sized copies of the two gridded Leg Drilling Templates at *right.* With scissors, cut out the templates along the heavy black line. With a nail, poke through the two holes where indicated on the drawings.

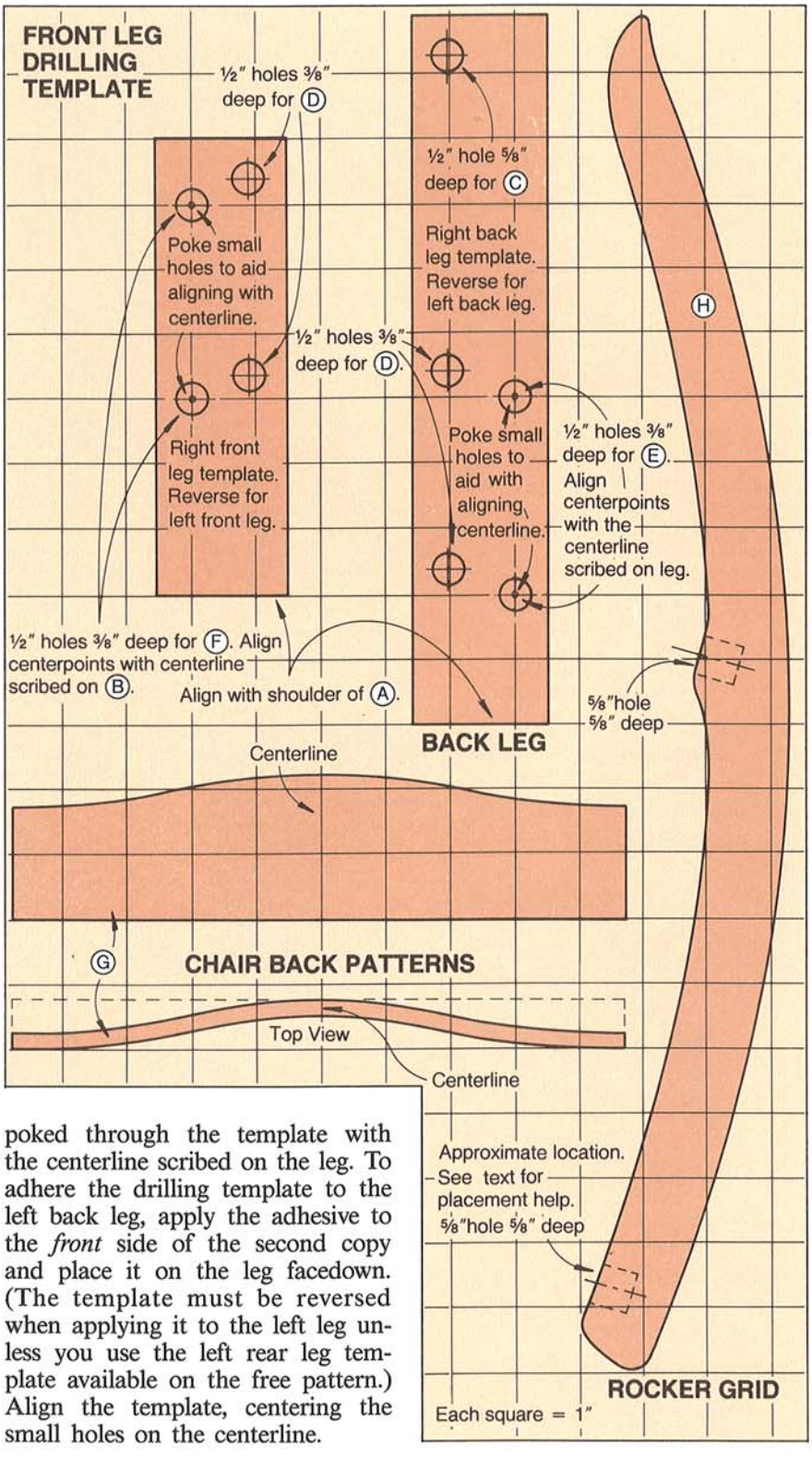
2 Clamp each leg and arm to the bench and scribe a straight line along each leg as shown *below.*

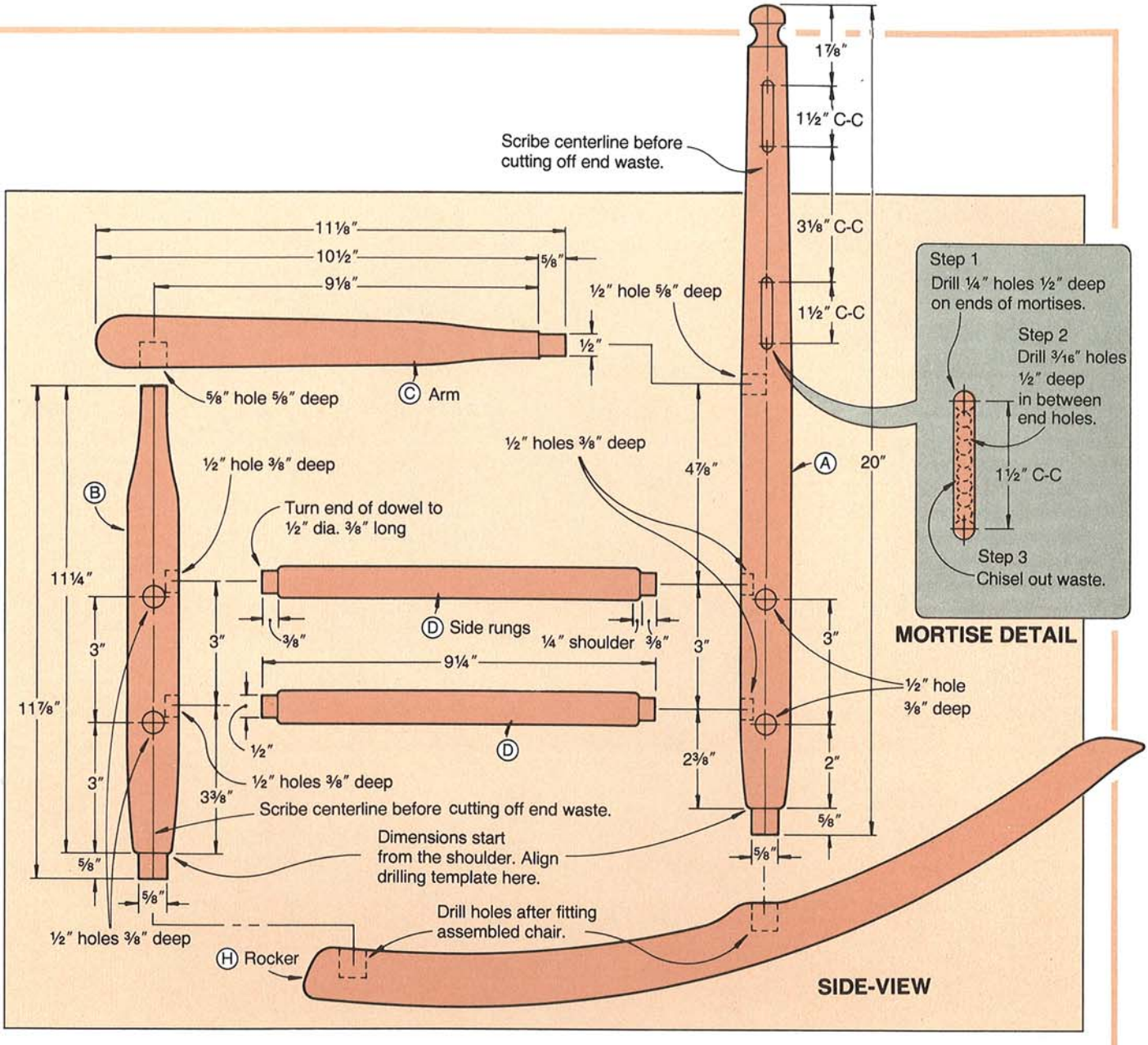
3 Using the dimensions on the Side-View Drawing, lay out the mortise locations, centering them on the line you just scribed on the two



back legs. Orient the legs so the mortises face each other, and mark the legs *right* rear and *left* rear. The right side of the chair would be on your right when sitting in the chair.

4 Apply spray adhesive to the *back* side of one copy of the Back Leg Drilling Template. Position the bottom of the template at the bottom tenon shoulder, and then align the centerpoints of the two holes you poked through the template with the centerline scribed on the leg. To adhere the drilling template to the left back leg, apply the adhesive to the *front* side of the second copy and place it on the leg facedown. (The template must be reversed when applying it to the left leg unless you use the left rear leg template available on the free pattern.) Align the template, centering the small holes on the centerline.





5 Place one of the back legs in the V-block, and position the V-block and leg so the bit aligns with a centerpoint of one of the holes to be drilled. When positioned, clamp the leg and the V-block so it can't move. Using a ½" Forstner bit, drill the hole ⅜" deep. Drill the other four holes in the leg the same way, and then repeat the procedure on the other back leg.

6 Adhere the Front Leg Drilling Templates to the front legs aligning the correct set of holes with the centerline. Remember, reverse the template for the left front leg unless using the left front leg template on the free pattern. Clamp each leg and the V-block, and drill the four ½"-diameter holes ⅜" deep. Repeat the process on the second front leg.

7 Switch to a ¼" drill bit. Now, following the three steps shown in the Mortise Detail on the Side-View Drawing, form the two mortises in both back legs.

8 Using the dimensions on the Side-View Drawing, mark the centerpoint of the dowel hole in both chair arm pieces. Drill the ⅝"-diameter holes ⅝" deep.

9 To finish the knobs on the tips of the back legs, crosscut the leg from the waste, allowing 1/16" extra length. Next, shape the ball on the tip with a bastard file, and hand-sand. Now, using the dimensions on the Side-View Drawing, and the Bill of Materials, crosscut the chair legs, and arms to length, leaving the correct tenon lengths. Match the paired parts to make sure they are identical in length.

SHAPE THE BACKS AND THE ROCKERS

1 Rip and crosscut two pieces of ¾" walnut for the back (G).

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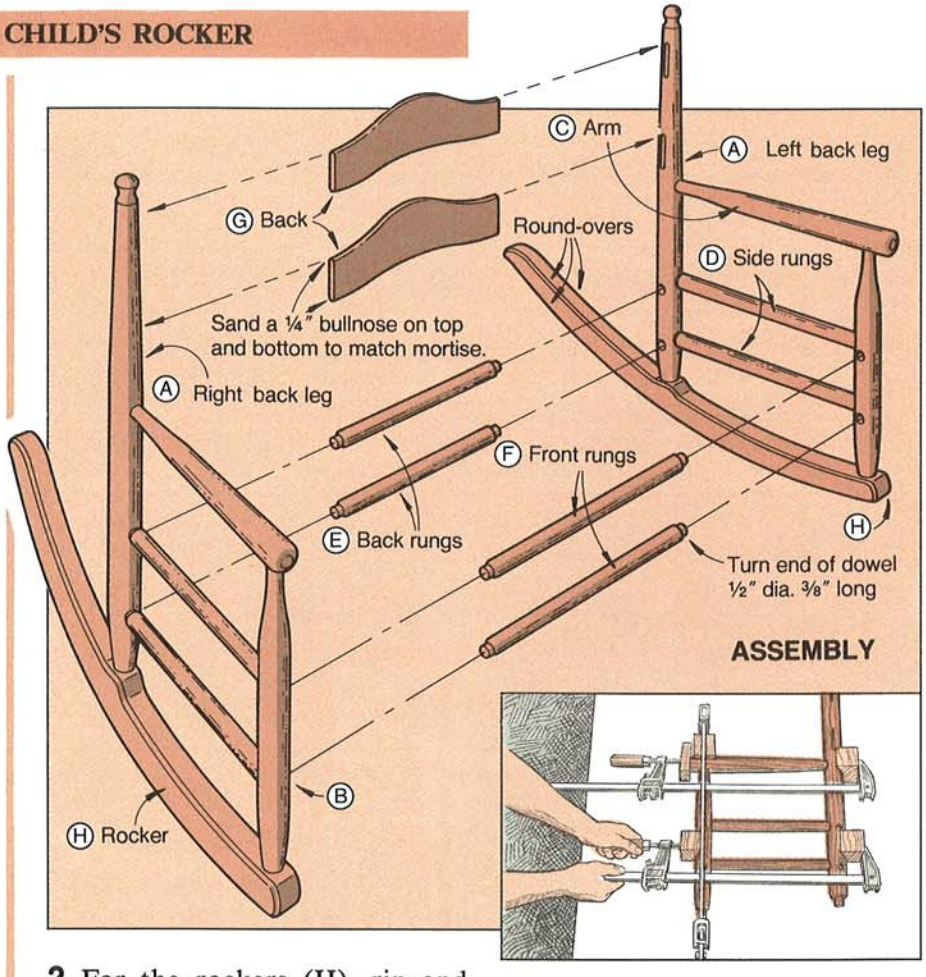
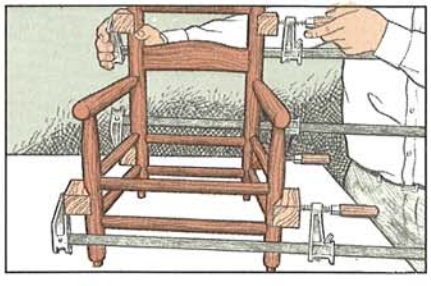


ASSEMBLE THE CHAIR

1 Dry clamp the left and right sides separately. Check one side against the other, and then dry-fit the left side to the right side by installing the rungs and back pieces. Label all parts so you can reassemble them in the same position. Disassemble.

2 Glue (we used white woodworker's glue) and clamp each chair side together as shown *below left*. (We used bar clamps and V-blocks.) Wipe off any glue squeeze-out.

3 Next, glue the two side assemblies together. Twist to level the chair frame if necessary. Clamp the assembly as shown *below*, and wipe off any glue squeeze-out. Set the chair aside until the glue dries.



4 Set the chair on the rockers, align, and then mark the location for the leg drill holes.

5 Make the rocker drilling jig shown *opposite top*. Clamp each rocker to the jig and drill the ⅝" back holes ⅝" deep where you marked them. Now, set the chair on the rockers once more and recheck the front tenons. Reclamp the rockers to the jig and bore the holes.

6 Dry-fit the rockers to the chair. Adjust the fit, apply glue, reassemble, and clamp. Wipe off any glue squeeze-out.

7 Apply the finish of your choice. (We applied four coats of an oil and

2 For the rockers (H), rip and crosscut a 1¼"-thick piece of walnut to 4×48". Plane it to 1 1/16" thick, and then crosscut two 22"-long pieces from it.

3 Make two full-sized patterns from the gridded chair back patterns on page 22. (Or make two copies of the free full-sized patterns.) Adhere a top-view pattern to the top edge on each back piece.

4 Bandsaw the back pieces to shape, sawing just outside the line. Then, belt sand to the line.

5 Adhere a front-view pattern to the front face of each back piece. (We aligned the front pattern with the top pattern by matching the centerlines.) Cut the tops to shape. Now, remove the patterns, sand a bullnose along the top and bottom edges, and trim the pieces to final length, measuring out 4¾" from each side of the centerline.

6 Test-fit the back pieces in the back leg mortises. Widen the mortises or sand the tenons of the backs if needed for a good fit. Letter the joints and parts so you can reassemble them correctly later on.

7 To shape the rockers, stack the two 4×22" walnut pieces you cut earlier together with double-faced tape. Make a full-sized pattern of the rockers (H) from the gridded pattern on page 22 (or use the free full-sized pattern) and adhere it to the top piece. Using a bandsaw, saw the rockers to shape. Sand the cut surfaces. Now, separate the rockers and remove the tape. Round over the edges with a ¼" round-over bit.

varnish mixture [2 parts Danish oil and 1 part varnish] and wiped off the excess after 30 minutes.)

8 Weave the fiber rush seat. (See the Buying Guide for a source.) For instructions, see page 26.

Buying Guide

- **Walnut dowels.** 3—1¼ × 48", catalog no. B2746, $11.95 each; 3—¾ × 36" catalog no. B1084, $3.85 each. Postage and handling: $3.50. The Woodworkers' Store, 21801 Industrial Blvd., Rogers, MN 55374-9514. Phone: 612/428-2199.
- **Fiber rush.** Paper fiber rush, 5/32" diameter. Catalog no. H1602. $5.95 for two pounds. Source: same as above.
- **Rush Seats for Chairs.** Illustrated 15-page booklet, catalog no. G1802. Price: $1.95. Source: same as above.

HOW TO ORDER OUR FULL-SIZED ROCKER PATTERNS

To obtain the free full-sized patterns of the turned pieces, drill-hole templates, back pieces, and rockers, send a self-addressed #10 business envelope with 45¢ postage to:

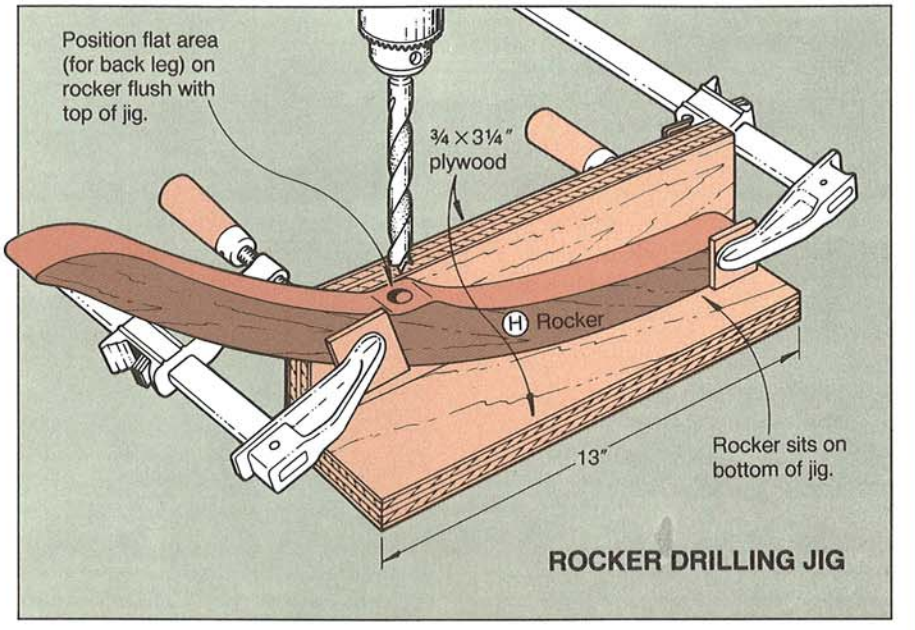
Child's Rocker
Weekend Woodworking Projects
1716 Locust Street
Des Moines, IA 50336

This offer expires January 31, 1990.

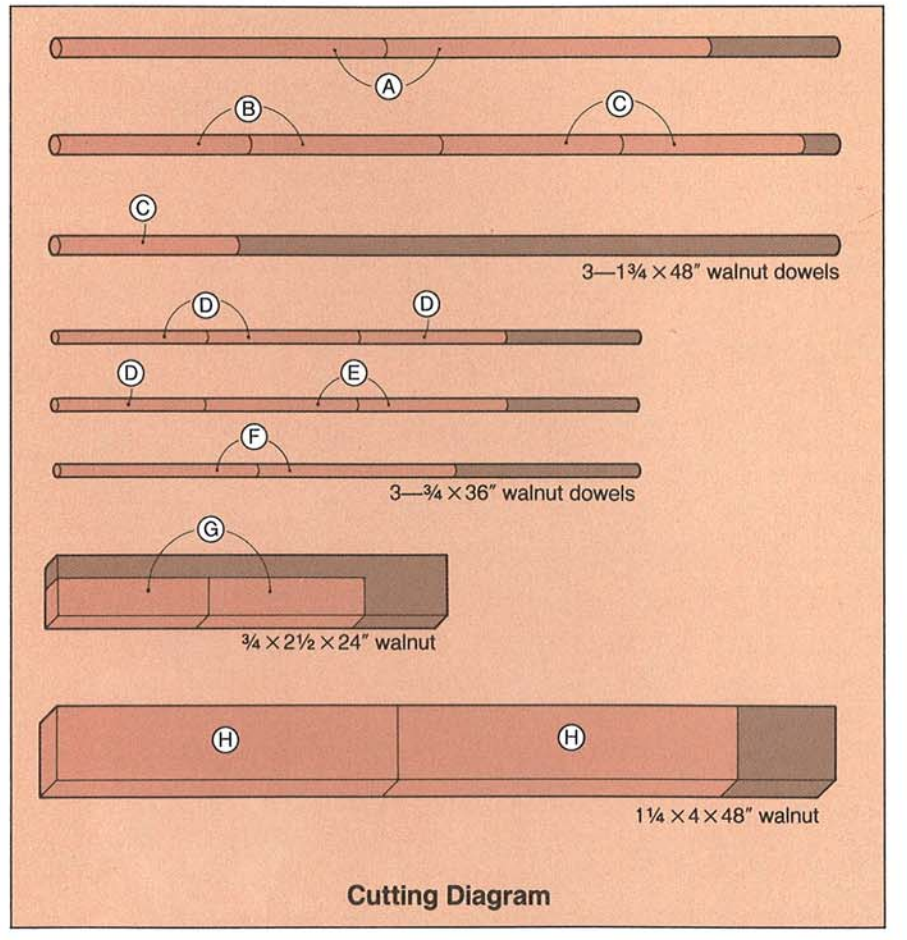
Bill of Materials

Part	Finished Size T	W	L	Material	Qty.
A	1⅛" dia.		20"	walnut	2
B	1⅛" dia.		11⅞"	walnut	2
C	1⅛" dia.		11⅛"	walnut	2
D	¾" dia.		9¼"	walnut	4
E	¾" dia.		9⅜"	walnut	2
F	¾" dia.		12¼"	walnut	2
G	5/16"	2¼"	9½"	walnut	2
H	1 1/16"	3¼"	21"	walnut	2

Supplies: 3—1¼ × 48" walnut dowels, 3—¾ × 36" walnut dowels, double-faced tape, white glue, finish.



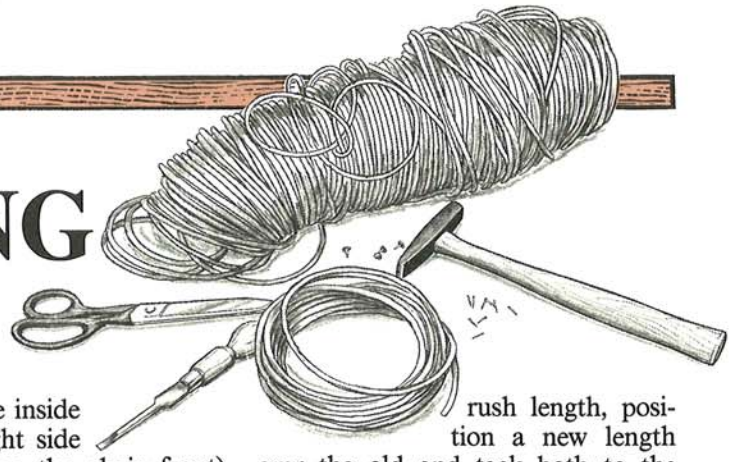
ROCKER DRILLING JIG



Cutting Diagram

Project Design: Kim Downing Illustrations: Kim Downing; Carson Ode Photograph: Bill Hopkins

RUSH SEATING *MADE EASY*



GETTING READY

The small seat on our child's rocker requires about one pound of fiber rush. We used 5/32"-diameter rush supplied by our source on page 25. To make it easier to handle when weaving, unwind some of it from the roll and cut it into working lengths of about 25 yards. Roll these into a ball. When weaving, you can cut it into shorter, more manageable lengths. To make the fiber more pliable and easier to handle, dip the ball in warm water for about 10 seconds to moisten.

Besides the rush, you'll need upholstery tacks or small nails, a hammer, scissors, and screwdriver.

LET'S WEAVE

Because the rocker seat is wider at the front than at the back, you first must weave the front and sides to create square inside corners in the center of the seat.

To do this, cut six 3' lengths of dampened rush. Fasten one end of one length to the inside center of the right side rung (as you face the chair front) with an upholstery tack. Now, lead the other end along the path of arrows shown in drawing 1 below. Tack this end to the inside of the left side rung. Cut off the excess rush at each end.

Repeat the process, adding as many additional front weaves as needed to create the square seat opening shown in drawing 2.

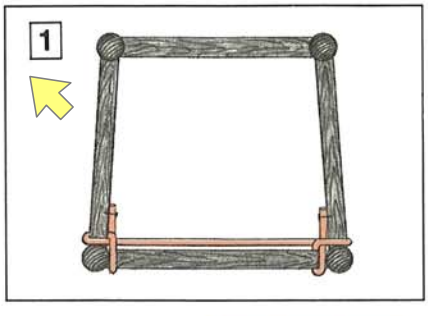
Using a long length of fiber, begin weaving clockwise around the four corners following the arrows shown in drawing 3. Continue weaving until you reach the end of the strip.

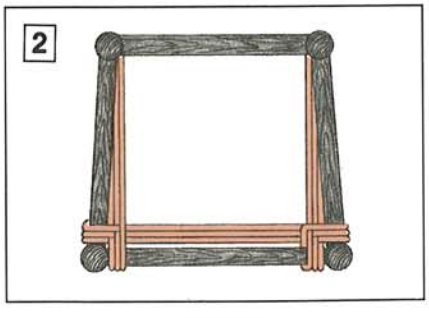
For a tight, uniform seat, keep the fiber taut as you weave. The dampened fiber will also dry and shrink slightly, further tightening the seat. Use a screwdriver to straighten the strips by gently pushing them together so they space evenly and align as shown in drawing 4. When you reach the end of a rush length, position a new length over the old and tack both to the rung. Or, splice the two ends together with a square knot. Position the knot where weaving will hide it.

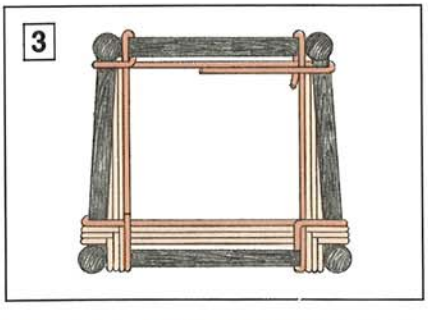
Continue weaving, moving from corner to corner. Since the seat is wider than it is deep, you will complete the sides before the front or back. Fill in the center by weaving front to back, making a figure "8" through the center opening as in drawing 5. Turn the chair upside down and tie off the end of the length. Cut off any excess rush with sharp scissors.

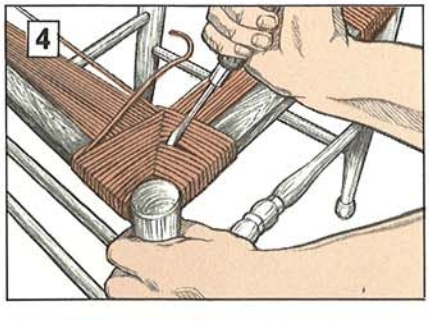
Turn the chair right side up and check the weave closely for overlapping rush strands. Press these down gently into the weaving with the tip of a screwdriver as shown in drawing 6 below.

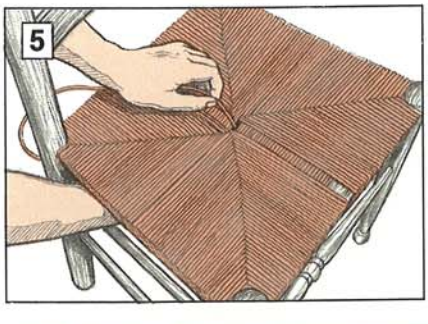
To protect the rush and extend the life of the seat, brush on three coats of shellac. Let the shellac dry completely between coats.

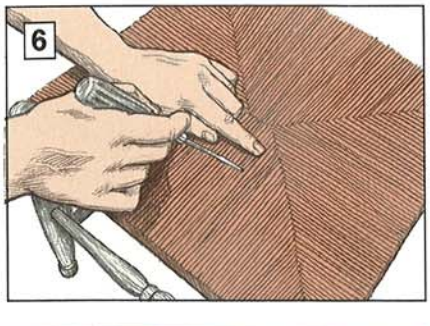












FROM OUR SHOP to yours

Dear Reader,

REVIVING THE BEST OF THE PAST

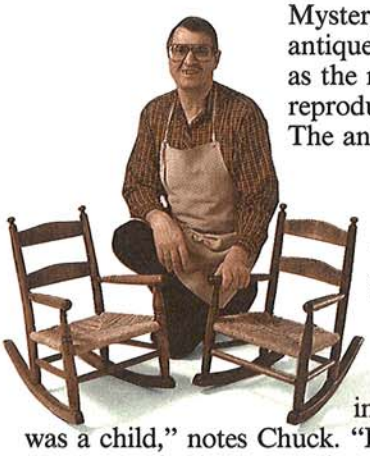
Every time we do a reader survey, the majority or you tell us you like projects with country or traditional styling. I'm plenty thankful for that, because hunting around for projects of this type can be just as much fun as building them.

As you might expect, visiting antique shops ranks as one of my favorite pastimes. Inside these shops, I feel like a time traveler surrounded by the sights of my grandparents' day. I see wood-framed washboards, oak-clad iceboxes, and old drawer chests in need of repair.

I study the joinery, embellishments, and construction of antique pieces, while in awe of the craftsmanship.

It's here, too, in the antique world where some of our best projects originate, such as the child's rocker and clothes dryer featured in this issue.

HEIRLOOM OF UNKNOWN ORIGIN



Mystery shrouds the antique rocker that served as the model for the reproduction on the cover. The antique shown to the left of Project Editor Chuck Sommers, *left,* has been in the Sommers family since the turn of the century. "I remember reading in the rocker when I was a child," notes Chuck. "Dad says the piece was in the family long before that, but nobody remembers where the rocker came from."

After the joints loosened and the rush seating gave way, Chuck's parents retired the rocker to the attic. Then, several years ago, Chuck repaired and refinished it for his granddaughter Mallory.

The rebirth of great ideas describes, in part, our mission for this issue. Keeping these ideas alive for future generations may be the best way we can pay tribute to our woodworking ancestors.

Jim Harrold
Managing Editor

CHECK OUT THESE GREAT TIPS

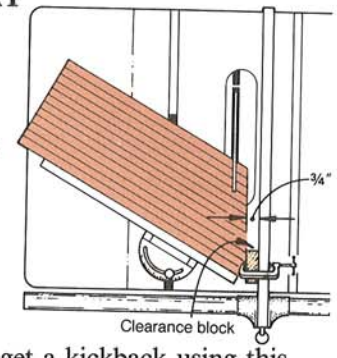
Note: To find the tips quickly, turn to the above pages and look for the tinted numbers.

Reader's Corner

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.

A SAFER WAY FOR THE ZIGZAG TRAY



Your zigzag serving tray in issue 8 is a beautiful work of art. My problem is accepting your unsafe operation of cutting the strips on the tablesaw. The fence and miter gauge should never be used like this. I'm surprised you did not get a kickback using this unsafe practice. I use my fence but I clamp a short piece of wood to the fence well in front of the saw blade to serve as the spacer.
--J.L. Piper, Selma Ala.

J.L., you make a very good point and I hope all of our readers check out the revised drawing above *before beginning this project. If you align the tablesaw fence perfectly with the blade, the method originally shown in step 2 on page 5 will work, but, as you point out, there is a serious risk of kickback. We suggest using a ¾"-thick clearance block clamped to the fence. The outside surface of the block should measure 1" in from the blade. Doing this allows you to cut several strips to identical width without the pieces binding between the fence and the saw blade.*

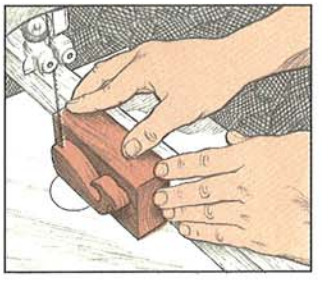
THE SAME MUSIC MOVEMENT, ONLY CHEAPER

Your readers might like to know that they can purchase the music movement for the piano music box in issue 6 from a different source at a lower price. When I ordered my movement, I discovered that its cost plus shipping from your source ran $63. You can order the exact same movement from the Klockit catalog for several dollars less.
--Anthony Rupar, Tustin, Calif.

Anthony, on behalf of the readers, thanks for the tip. I checked it out and you're right. The Klockit 36-note Swiss movement in question (catalog number 30010) plays Edelweiss and Lara's Theme and sells for $49.95, with a $4.60 charge for shipping and handling. That's a savings of $8.45. To order, write to Klockit, P.O. Box 629, Lake Geneva, WI 53147. Or call 1-800-556-2548.

IT'S ALL HOW YOU SLICE THE WHALE

During my review of the "Whale of a Stamp Box" project on pages 12 and 13 in issue 8, I noticed a technique that, although feasible, could be approached with a safer process. While constructing the safety jig and using the duct tape does make the operation a little better, I'm dubious when I see any tablesaw operation that does not use a blade guard. This is particularly true where both hands are next to the blade. Since this project can not be done without owning a bandsaw, it may be better to use it to perform these cuts. With it, you'll get splinter-free cuts. The safety jig could still be valid.
--Dale Grundon, Mt. Gretna, Penn.



Dale, we appreciate your input. When we first sliced the drawer for the whale stamp box in the shop, we used a bandsaw. The cuts were a little uneven. We then experimented by slicing the sides of the whale on the tablesaw. Here, the results were perfect. For safety, we developed the jig shown in issue 8 and used duct tape to pull away the thin slice. These ideas worked like a charm, though the technique prevented us from using the guard. Keep in mind, however, that where appropriate, we always recommend using the saw guard on a tablesaw. Your method works, and I've illustrated it above. *For a straight cut you will need an auxiliary fence.* **--JH**