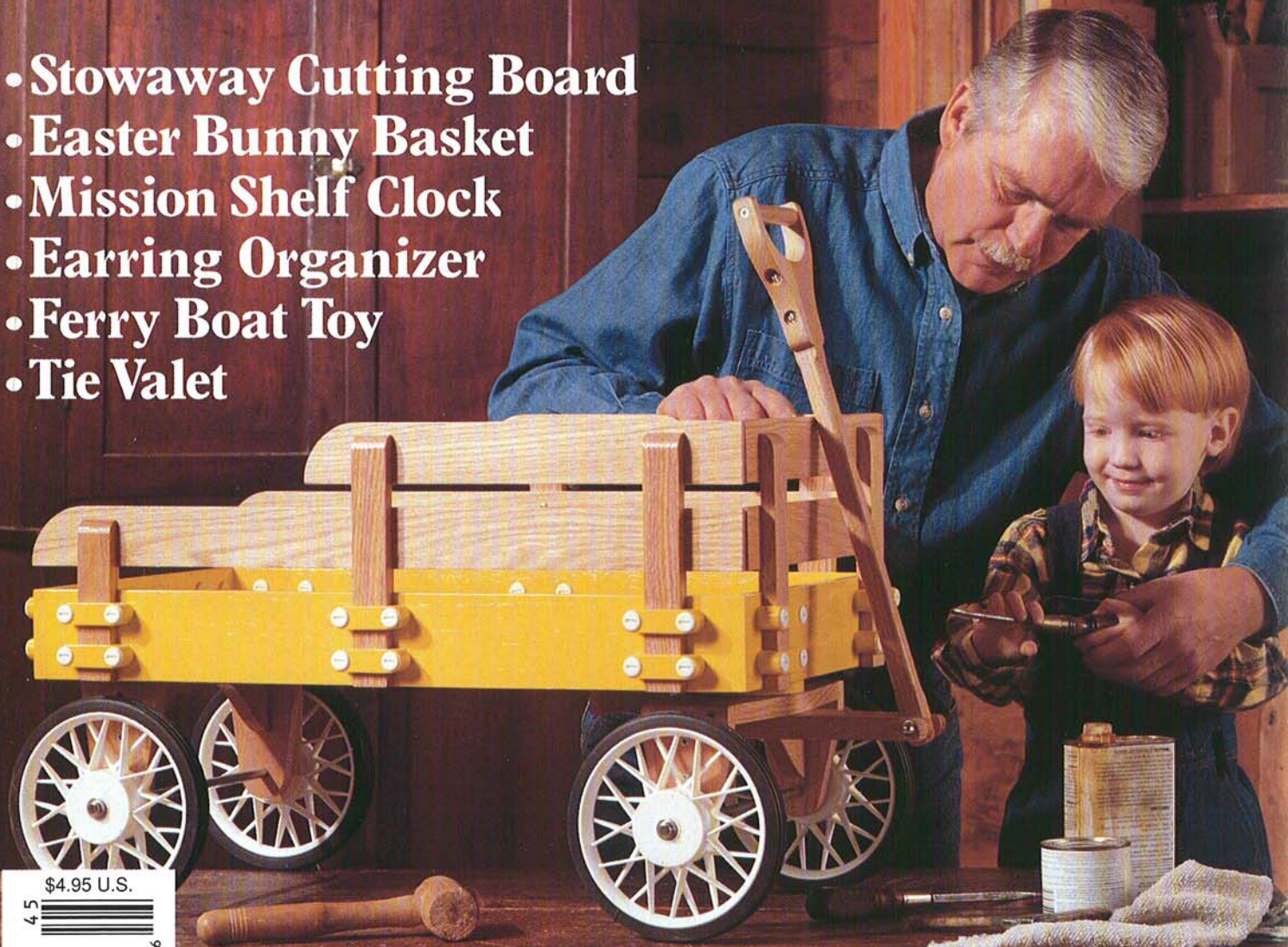


# Weekend Woodworking Projects

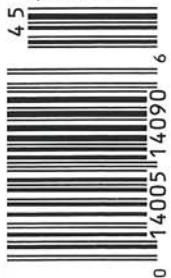
May 1995

Please display until May 1

- Stowaway Cutting Board
- Easter Bunny Basket
- Mission Shelf Clock
- Earring Organizer
- Ferry Boat Toy
- Tie Valet



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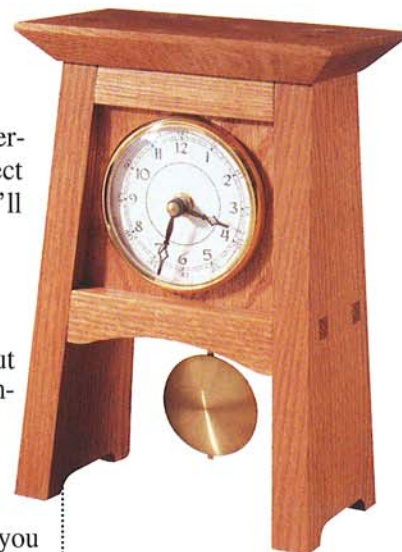
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# Weekend Woodworking Projects™

## 7 MISSION SHELF CLOCK

Our team of project designers and builders worked over-time to develop this design for you. Our finished project features classic styling with straightforward joinery. You'll enjoy the time you spend building this one.



## 10 KIDS' STAKE WAGON

This project may look complicated at first glance, but read the directions, and you'll discover that we have simplified it into easy-to-follow subassemblies.



## 16 STOWAWAY CUTTING BOARD

Here's a clever laminated design that lets you quickly add organization and convenience to your kitchen. Don't be surprised if you used it every day.

## 18 FERRY BOAT TOY

Make way for a painted maritime project that cruises over carpet as well as sand. Young captains and mates will love it.



## 22 TIE VALET

Keep your favorite neckties neat, wrinkle-free, and off the closet floor with this handy on-wall rack.

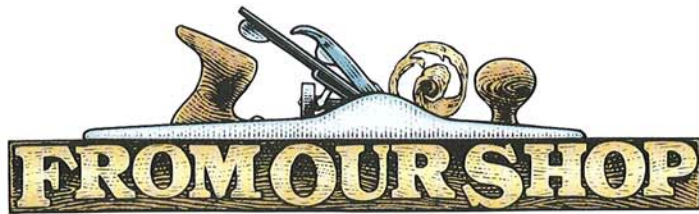
## 24 EARRING DISPLAY

Every lady will enjoy this stylish organizer as she makes her daily fashion selections. Build one this weekend and be remembered for your thoughtfulness every day.

## 28 EASTER BUNNY BASKET

You'll master the technique of spiral cutting a basket with your scrollsaw when you make this charming bunny. It's guaranteed to warm the hearts of kids of every age.



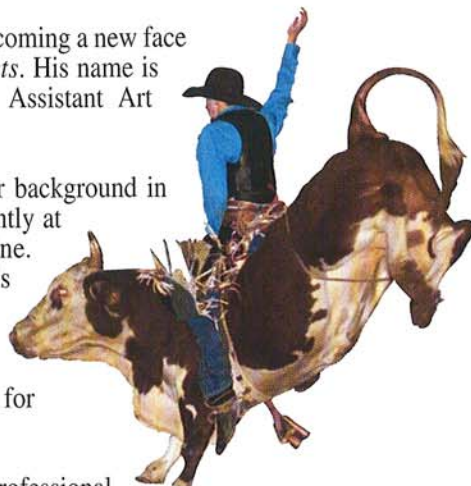


# Yeeeeeeehaaaaaaa!

Okay, what's a picture of a bull doing in the editor's column of your favorite woodworking magazine? Well, I'll tell you, but not right away.

First, I'd like you to join me in welcoming a new face at *Weekend Woodworking Projects*. His name is Rod Stoakes, and he's our new Assistant Art Director.

Rod has a rich and varied 17-year background in the publishing industry, most recently at another woodworking magazine. Although art and design are Rod's strongest points, he also has done his share of writing and editing. That means he knows how to effectively lay out information for quick and easy understanding.



In addition to those impressive professional credentials, Rod is a dedicated woodworker. This makes him a particularly valuable member of the *Weekend Woodworking Projects* team. He can recognize potentially tricky areas in a project's instructions, and can design a story so you avoid a nasty fall.

Speaking of nasty falls, about a year ago, Rod started riding bulls in the Iowa Rodeo Cowboy Association. He's taken some lessons, but mostly it has been a matter of learning in the school of hard knocks (make that the school of *really* hard knocks). In an upcoming issue, we may be able to give you an update if Rod does something spectacular, like qualifying for the State Finals, or setting a new world's record for most bones broken in a single ride.

Bob Settlch

Our apologies! In the March, 1995 issue:

The dimensions for the "Nautical Mirror" were correctly stated in the article. However, the pattern insert shows a smaller early prototype. Here are two solutions: 1.) Using a copy machine, enlarge the pattern so that its overall width (edge to edge of outer frame) is 11 3/4" (approximately 117%); or, 2.) we will mail you a correct full-sized pattern. Include a self-addressed stamped business-size envelope (#10), and mail your request to *Weekend Woodworking Projects*, Nautical Mirror Plan, 1912 Grand Avenue, Des Moines, Iowa 50309.

The design credit for the "Melon Patch Express" train pull-toy should have read:

**Project design:** Robert Trace.

The design credit for the "Curio Cabinet" should have read:

**Project design:** Bob Colpetzer.

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**Our Pledge to You:** Prior to publication, we build every project featured in *Weekend Woodworking Projects* step-by-step in our shop. Then, a team of editors reviews the how-to directions, technical drawings, illustrations, and Bill of Materials of each project to make sure the instructions we provide to you are clear, concise, and complete.

The *Weekend Woodworking Projects* Staff

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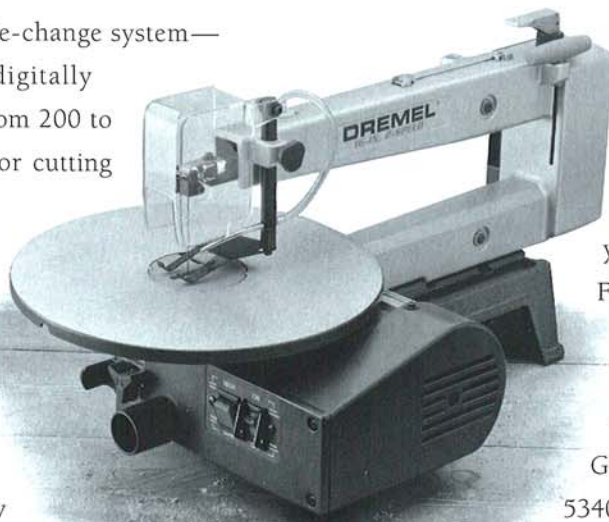
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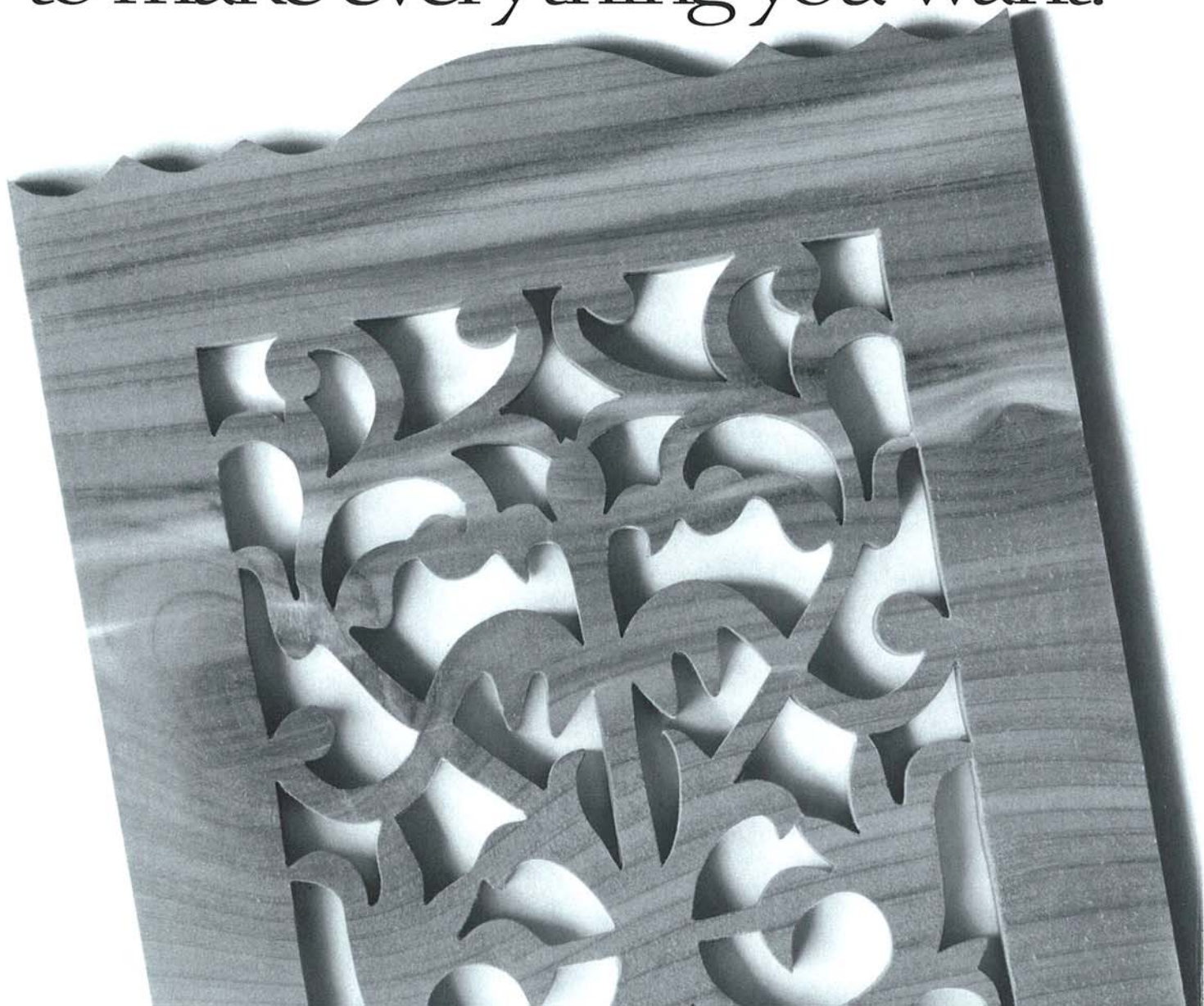
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***Note:** See the Buying Guide accompanying the Bill of Materials for our source for clock hardware and lumber.*

### **Let's Begin By Machining the Side Pieces**

**1** Rip and crosscut from  $\frac{3}{4}$ "-thick stock two initially oversized pieces to  $3\frac{1}{2} \times 10$ " to make the two side pieces (A). Next, adjust the blade angle of your tablesaw to  $4^\circ$  from vertical, and bevel-cut one end of each side piece. Next, flip both sides over, turn them end for end, and bevel-cut the opposite end for an  $8\frac{7}{8}$ " finished length. Mark the outside face of each side piece with masking tape, identifying a right and a left, and indicating the top of each. On the inside surface of each side piece, draw a pencil line parallel to the bottom  $3\frac{3}{8}$ " from that end. (This is where you will later adhere the positioning cleats for the rail assembly.)

**2** Measure and mark the location of the two screw-hole centerpoints on the outside faces of both side pieces where shown on the full-sized Side View on the WWP PATTERNS insert in the center of the magazine. Drill  $\frac{3}{8}$ " counterbores  $\frac{1}{4}$ " deep, then drill  $\frac{5}{32}$ " shank holes through the side pieces. Next, use a  $\frac{3}{8}$ " chisel to square the counterbores.

**3** Chuck a  $\frac{1}{4}$ " straight bit into your table-mounted router. Set the fence  $\frac{3}{4}$ " from the inside edge of the bit. Next, rout a  $\frac{1}{4}$ " groove,  $\frac{1}{4}$ " deep,  $4\frac{5}{8}$ " long into the inside faces of the side pieces, following the two-step procedure in the Routing the Groove drawings on page 8, top. Chisel the ends of the grooves square. ***Note:** The two sides are mirror images of each other, not identical.*

**4** Adhere the two side pieces, inside face to inside face, using double-faced tape. Make a photocopy of the full-sized side piece (A) pattern, and adhere it with spray adhesive. Next, bandsaw just to the waste side of the cut-lines, then sand to the lines.

**5** Bandsaw the notch at the bottom of the side pieces. Next, drum-sand the notch, separate the pieces, and set them aside.

### **Now, Make the Rail Assembly**

**1** Rip and crosscut from  $\frac{3}{4}$ "-thick stock two pieces initially oversized to  $1\frac{1}{16} \times 5$ " for the rails (B). Rip and crosscut two spacers (C) from  $\frac{3}{4}$ "-thick stock initially oversized to

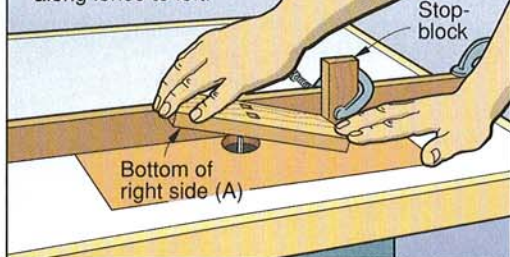
*Continued*

# *Pure and Simple* **Mission Shelf Clock**

***H**ere is a timepiece distinguished by its timeless design. The clock's clean, angular lines and tasteful details make it a fine gift...that is, if you can bear to part with it.*

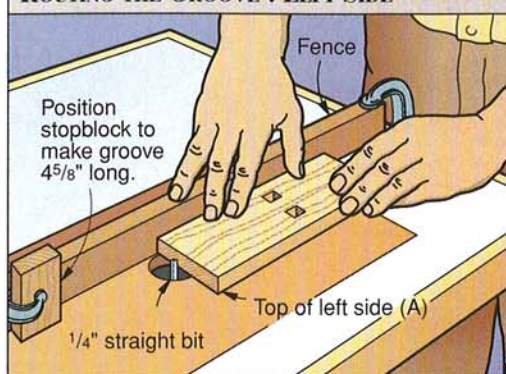
## ROUTING THE GROOVE : RIGHT SIDE

Position stopblock to make groove  $4\frac{5}{8}$ " long. Lower side onto running bit, push along fence to left.



## ROUTING THE GROOVE : LEFT SIDE

Position stopblock to make groove  $4\frac{5}{8}$ " long.



## BILL OF MATERIALS

| Part           | Finished Size   |                   |                   | Matl. | Qty. |
|----------------|-----------------|-------------------|-------------------|-------|------|
|                | T               | W                 | L                 |       |      |
| A* side pieces | $\frac{3}{4}$ " | $3\frac{1}{2}$ "  | $8\frac{7}{8}$ "  | O     | 2    |
| B* rails       | $\frac{3}{4}$ " | $1\frac{1}{16}$ " | $4\frac{1}{2}$ "  | O     | 2    |
| C* spacers     | $\frac{3}{4}$ " | $1\frac{9}{16}$ " | 1"                | O     | 2    |
| D* top block   | $\frac{3}{4}$ " | $2\frac{3}{8}$ "  | $3\frac{1}{16}$ " | O     | 1    |
| E cap          | $\frac{3}{4}$ " | $3\frac{3}{4}$ "  | $6\frac{5}{8}$ "  | O     | 1    |
| F face         | $\frac{1}{4}$ " | $4\frac{7}{8}$ "  | $4\frac{1}{8}$ "  | O     | 1    |
| G back         | $\frac{1}{4}$ " | $5\frac{1}{8}$ "  | $4\frac{3}{8}$ "  | O     | 1    |

\*Cut part to final size during construction. Please read all instructions before cutting.

**Material Key:** O—white oak.

**Supplies:** 8— $\#8 \times 1\frac{1}{4}$ " flathead wood screws; 4— $\#4 \times \frac{1}{2}$ " flathead brass wood screws;  $\#17 \times 1$ " brads; finish.

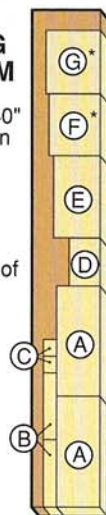
### Buying Guide

**Clock Kit.** Includes movement, pendulum, bezel, hands and dial. Kit ART-PEND, \$22.75 ppd. Add \$12.95 for enough  $\frac{1}{4}$ " and  $\frac{3}{4}$ " quartersawn oak to build this clock (kit ART-PEND-WOOD). Available from Schlabaugh & Sons, Kit Division, 720 4th St., Kalona, IA 52247. 1-800-346-9663.

## CUTTING DIAGRAM

$\frac{3}{4} \times 5\frac{1}{2} \times 40$ "  
Quartersawn  
White Oak

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



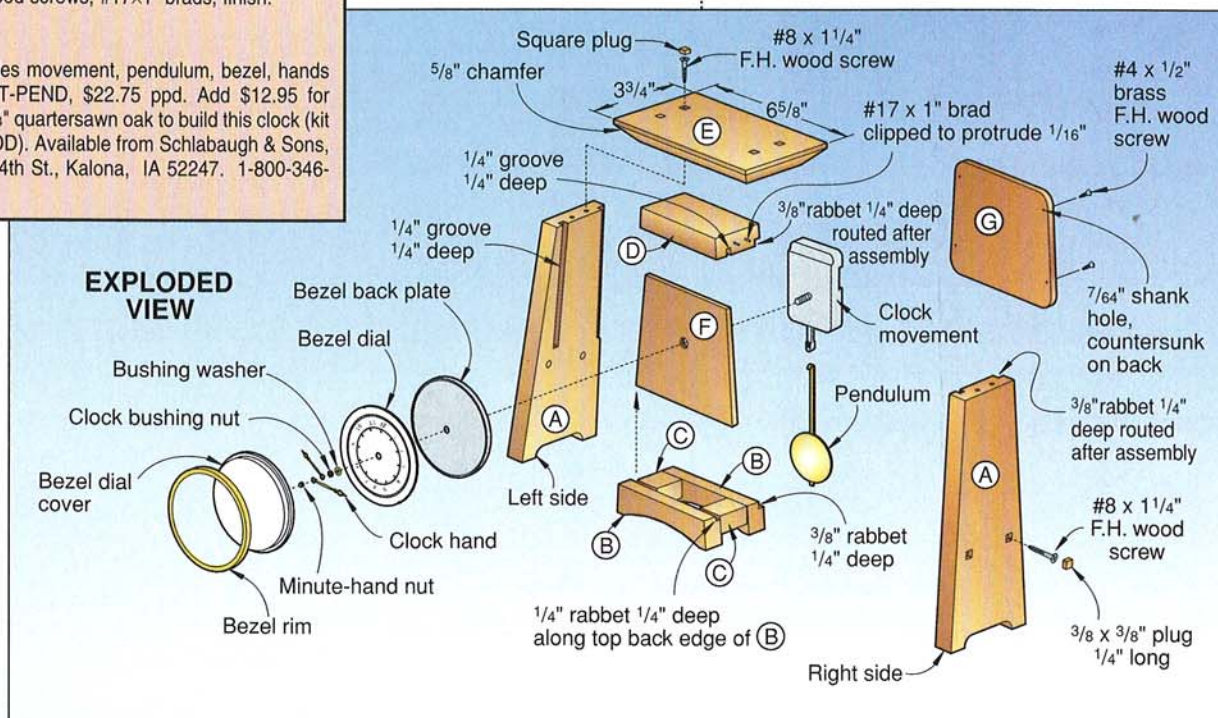
$1\frac{9}{16} \times 1\frac{1}{4}$ ". **Note:** Refer to the Rail Assembly drawing, top view, to see the grain direction of the spacers. Glue and clamp the spacers between the rails, with the ends flush and one surface flat.

**2** Adhere the full-sized Rail Assembly front-view pattern to the rail assembly, centering it side-to-side. Adjust the angle of the blade on your tablesaw to  $4^\circ$  from vertical. Bevel-cut the first end to the pattern cutline. Then, turn the assembly end for end, use a square to transfer the remaining cutline to the opposite rail, and bevel-cut the assembly to finished length.

**3** Stand the rail assembly on edge, bandsaw near the arched line, then sand to the line.

**4** Adhere positioning cleats with double-faced tape to the side pieces,  $3\frac{3}{8}$ " from the bottom end of the side pieces. Refer to the Clock Assembly drawing at right.

**5** Bevel-rip one edge of the rail assembly, removing as little stock as possible. Position the rail assembly against one of the side pieces (A), resting it on a positioning cleat. Mark the remaining bevel on the end of



the rail assembly, and bevel-rip the rail assembly to its finished width.

**6** Put the rail assembly on a positioning cleat, and mark the location of the groove onto the rail assembly. Adjust the fence on your table-mounted router, then rout a  $\frac{1}{4}$ " groove  $\frac{1}{4}$ " deep at the marked location.

### Next, Make the Top Block, Cap, and Face

**1** To make the top block (D), bevel-rip (at  $4^\circ$  from vertical) a 12" length of  $\frac{3}{4}$ " material to  $2\frac{5}{8}$ " wide. Then, reset the rip fence to cut the  $2\frac{3}{8}$ " finished width. Now, turn the workpiece end for end, and make your cut. Set the fence on your router table  $\frac{3}{16}$ " from the inside edge of a  $\frac{1}{4}$ " straight bit. Rout a groove  $\frac{1}{4}$ " deep into the underside of the front edge of the top block (D). With the grooved face up, bevel-cut one end of the block, then flip the block end for end and cut to the finished length.

**2** Rip and crosscut the cap (E) to the size listed in the Bill of Materials. Refer to the full-sized Top View of the cap on WWP PATTERNS, and transfer the screw-hole center-points to the top of the cap. Following the same procedure you used on the side pieces, counterbore, drill shank holes, then square up the counterbores. Next, rout a  $45^\circ$  chamfer  $\frac{5}{8}$ " wide along the bottom edges of the cap where shown on the full-sized patterns and Exploded View drawing.

**3** Transfer the full-sized pattern for the face (F) to  $\frac{1}{4}$ " solid stock or oak plywood, and cut it to shape. Drill a  $\frac{3}{8}$ " hole where shown.

**4** Dry-assemble the side pieces (A), rail assembly (B/C), top block (D), and face (F) to check the fit of all pieces.

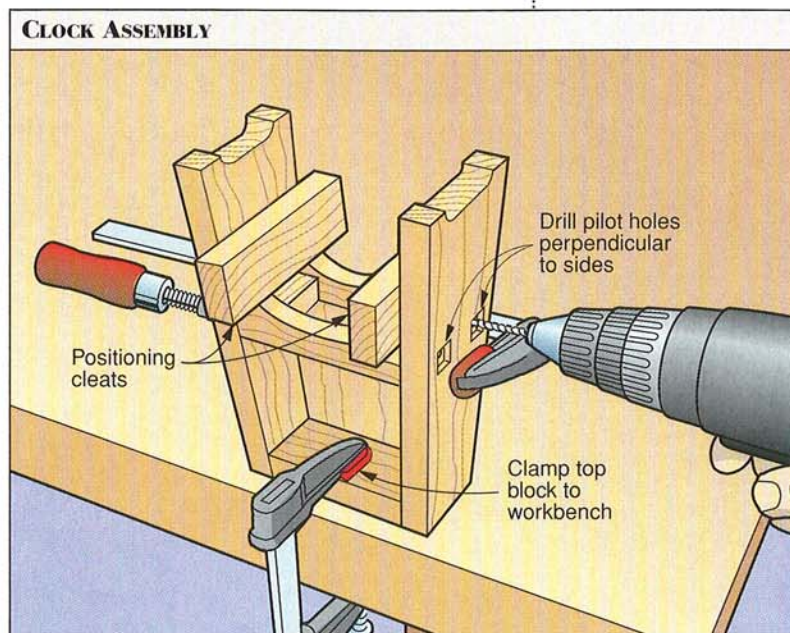
### Assemble and Finish Your Clock

**1** Finish-sand all parts. Then, drive two 1" brads halfway into each end of the top block (D), and nip them so only  $\frac{1}{16}$ " sticks out of the wood. Clamp the top block upside-down to your workbench. Next, glue and clamp the side pieces, rail assembly, and face into position as shown in the Clock Assembly drawing at right. Using the screw shank holes in the side pieces as guides, drill  $\frac{7}{64}$ " pilot holes into the rail assembly. Drive  $\#8 \times 1\frac{1}{4}$ " screws, remove the cleats, and let the assembly dry.

**2** Chuck a  $\frac{3}{8}$ " rabbeting bit into your table-mounted router and rout a  $\frac{1}{4}$ "-deep rabbet around the opening in the back of the clock.

**3** Transfer the pattern for the back (G) to  $\frac{1}{4}$ "-thick solid stock or plywood, and cut to size. Locate, drill, and countersink  $\frac{7}{64}$ " shank holes in the back where shown on the full-sized pattern. Fit the back into place, and use the holes in it as guides to drill  $\frac{5}{64}$ " pilot holes  $\frac{1}{4}$ " deep into the sides.

**4** Rip a 12" length of stock to  $\frac{3}{8}$ " square. Crosscut eight plugs to  $\frac{3}{4}$ " long. Glue a plug into each square counterbore in the side pieces. When dry, trim the plugs flush (we used an offset backsaw), then sand (we used a stationary belt sander).

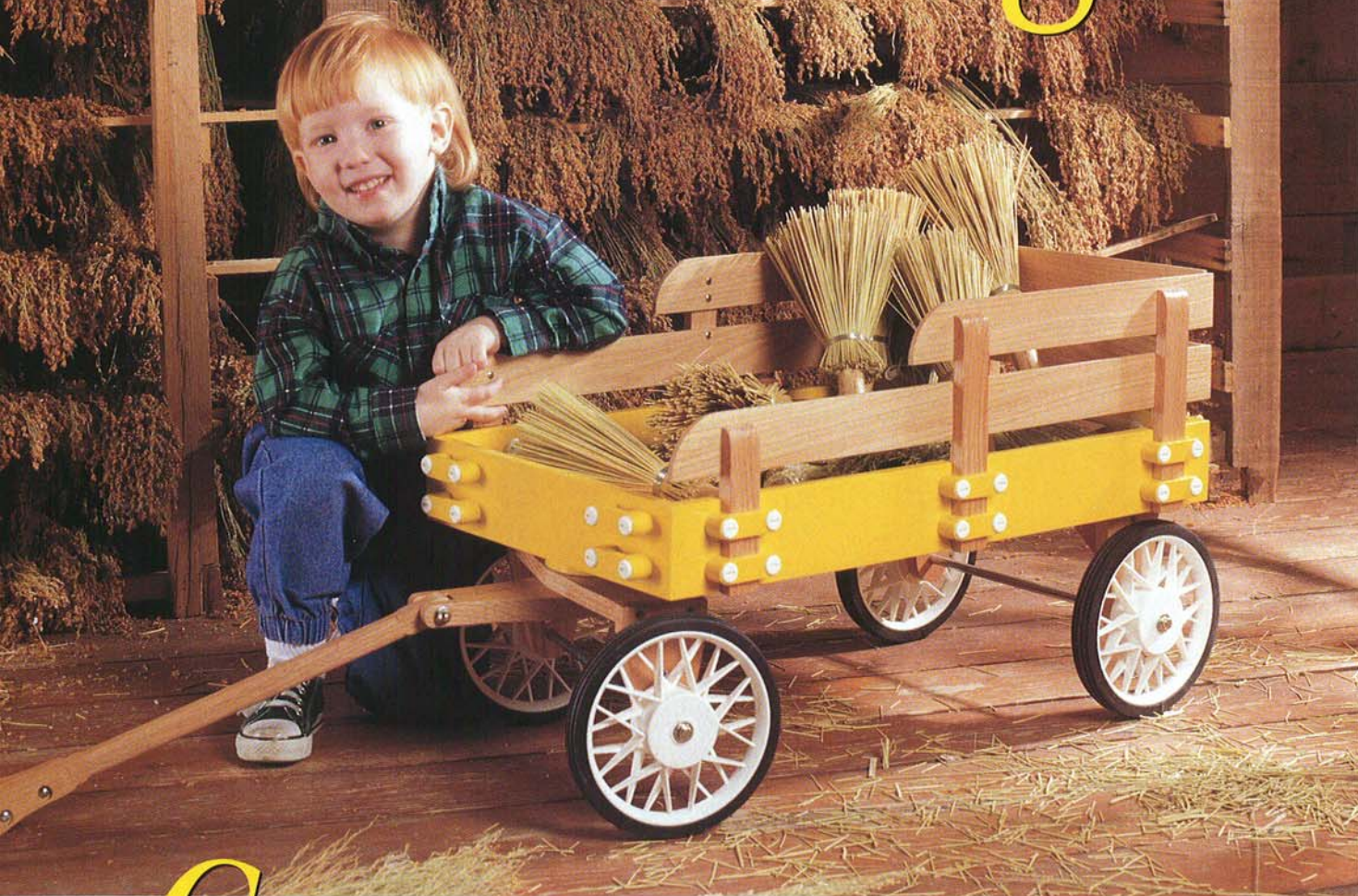


**5** Glue and clamp the cap (E) into position, then drill pilot holes, and drive the screws. Next, follow the same procedure you used earlier to glue, trim, and sand the plugs flush.

**6** Stain the clock, if desired (we used Minwax Early American stain). Next, apply several coats of finish to the clock (we used Minwax Fast-Drying Polyurethane). When it has dried, mount the clock hardware as shown in the Exploded View drawing. See the Buying Guide for our source for clock parts. Install the battery, and fasten the back into place with four  $\#4 \times \frac{1}{2}$ " brass flathead wood screws. ■

**Written by:** Jon Greising  
**Project design:** Schlabaugh & Sons Woodworking, Kalona, Iowa, and Jan Hale Svec  
**Illustrations:** Roxanne LeMoine  
**Project builder:** Jan Hale Svec  
**Photograph:** King Au

# *Kid-Tested* Stake Wagon



**C**hildren will love you forever after you build this traditional playtime favorite. The removable stake sides give them extra carrying capacity for everything from dolls to dump trucks. To keep children and cargo safe, we added a stopblock to help prevent the front-axle assembly from turning too far and tipping the wagon. Children also need to be warned against steering this or any wagon down a hill.

**Note:** See the Buying Guide at the end of the Bill of Materials for a supplier for the hardware for this project. So that the wagon will withstand the elements, we built everything except the wagon bed out of white oak. Teak or genuine mahogany also would work well. For the bed, we used medium density overlay (MDO) plywood. See the Buying Guide for our source of white oak and MDO.

## **Start With the Wagon Box**

**1** Cut the wagon box ends (A), sides (B), and box bottom (C) to the sizes listed in the Bill of Materials.

*Continued*

## BILL OF MATERIALS

| Part              | Finished Size |         |         | Mati. | Qty. |
|-------------------|---------------|---------|---------|-------|------|
|                   | T             | W       | L       |       |      |
| A ends            | 1/2"          | 3"      | 14"     | O     | 2    |
| B sides           | 1/2"          | 3"      | 24 1/2" | O     | 2    |
| C bottom          | 1/2"          | 13 1/2" | 24 1/2" | M     | 1    |
| D supports        | 5/8"          | 3"      | 5 1/4"  | O     | 2    |
| E brace           | 5/8"          | 2 5/8"  | 9 3/4"  | O     | 1    |
| F braces          | 5/8"          | 2 5/8"  | 3 3/8"  | O     | 2    |
| G supports        | 5/8"          | 3"      | 4 5/8"  | O     | 2    |
| H steering brace  | 5/8"          | 4"      | 10 1/4" | O     | 1    |
| I yoke            | 3/4"          | 3"      | 8 3/8"  | O     | 1    |
| J spacer disc     | 1/2"          | 4" dia. |         | O     | 1    |
| K handles         | 3/4"          | 1 3/4"  | 5"      | O     | 2    |
| L tongue          | 3/4"          | 3/4"    | 16 1/4" | O     | 1    |
| M steering stop   | 3/4"          | 1 1/8"  | 6"      | O     | 1    |
| N* stake supports | 3/4"          | 3/4"    | 2 1/2"  | O     | 20   |
| O* long stakes    | 1/2"          | 1 3/16" | 8"      | O     | 6    |
| P* short stakes   | 1/2"          | 1 3/16" | 5 1/4"  | O     | 2    |
| Q slats           | 1/4"          | 2"      | 15"     | O     | 2    |

## BILL OF MATERIALS

| Part      | Finished Size |         |         | Mati. | Qty. |
|-----------|---------------|---------|---------|-------|------|
|           | T             | W       | L       |       |      |
| R slats   | 1/4"          | 2"      | 25"     | O     | 2    |
| S slats   | 1/4"          | 2"      | 13 1/4" | O     | 2    |
| T spacers | 1/8"          | 1 3/16" | 3/4"    | O     | 8    |

\*Cut part to final size during construction. Please read all instructions before cutting.

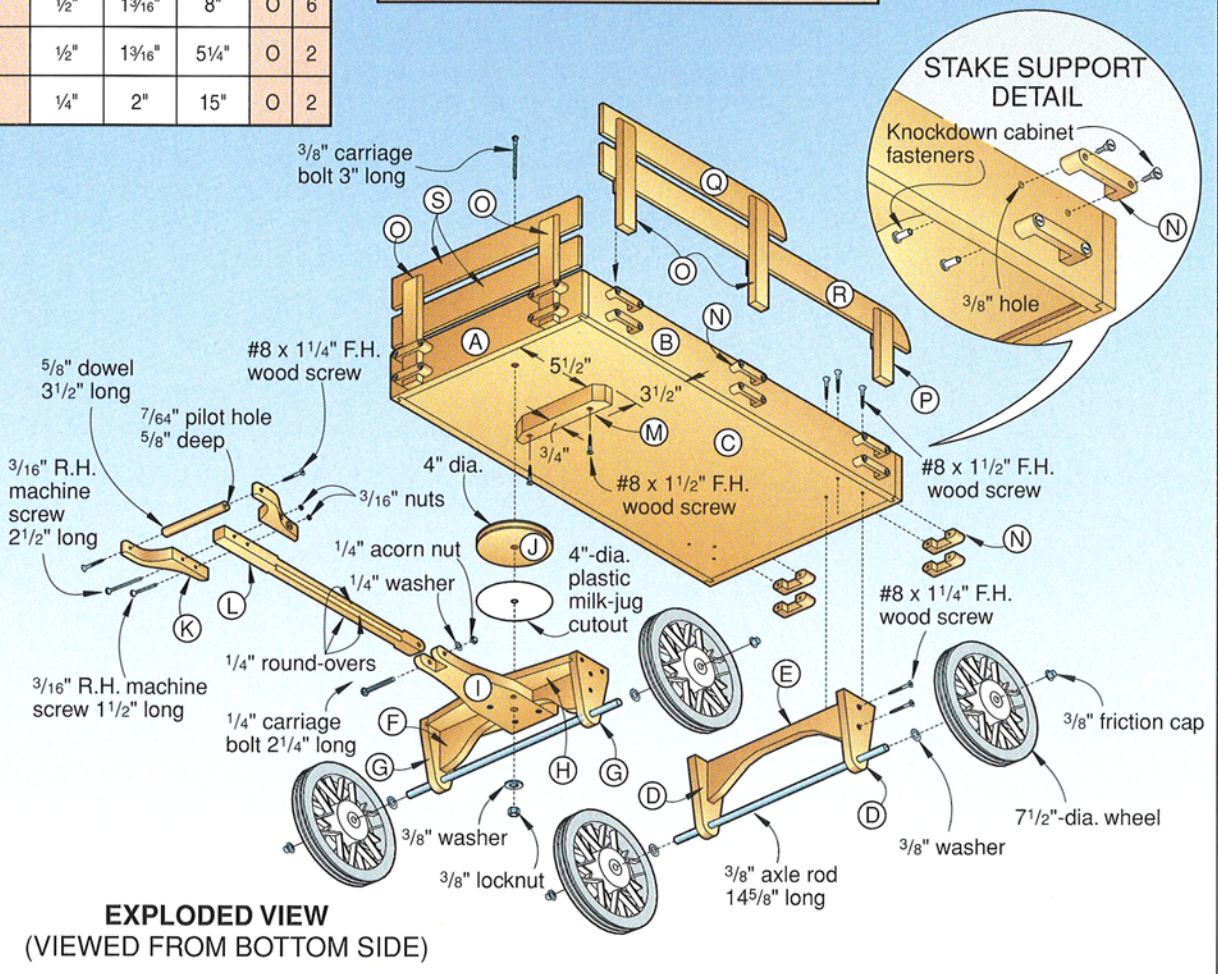
**Materials Key:** O—white oak; M—medium density overlay (MDO) plywood.

**Supplies:** #8x1 1/4" flathead wood screws, #8x1 1/2" flathead wood screws #6x1 1/2" flathead brass wood screws, 5/8" dowel stock 3 1/2" long, 3/16" roundhead machine screw 2 1/2" long with 3/16" nut, 3/16" roundhead machine screw 1 1/2" long with 3/16" nut, 3/8" carriage bolt 3" long with 3/8" flat washer and locknut, 4-3/8" flat washers for axle rods, 1/4" carriage bolt 2 1/4" long with 1/4" flat washer and acorn nut, primer and paint, clear exterior finish, plus items listed in hardware kit below.

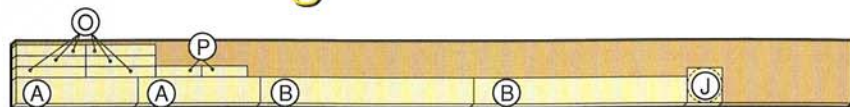
### Buying Guide

**Wagon hardware kit.** 4-7 1/2"-diameter plastic wheels, 3/8" steel axle rod, friction caps and 40 knockdown cabinet fasteners. Kit no. 1196, \$39.95 plus \$5.95 shipping. (Minn. residents add 6.5% sales tax.) Meisel Hardware Specialties, P.O. Box 70WEW, Mound, MN 55364-0070. Call 800/441-9870 to order.

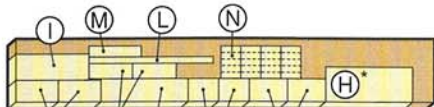
**Lumber kit.** All the individual pieces shown in the Cutting Diagram cut slightly oversized in length and width; in the thicknesses stated. Stock no. WP295, \$49.95 ppd., Heritage Building Specialties, 205 North Cascade, Fergus Falls, MN 56537. Call 800/524-4184 to order.



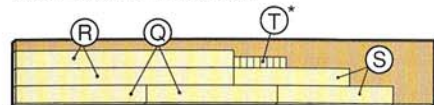
# Kid-tested Stake Wagon



1/2 x 7 1/4 x 96" White Oak



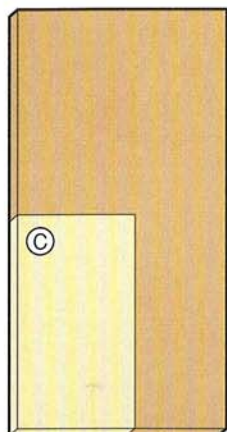
3/4 x 7 1/4 x 48" White Oak



1/4 x 7 1/4 x 48" White Oak

## CUTTING DIAGRAM

\*Plane or resaw to thickness listed in Bill of Materials



1/2 x 24 x 48" Medium Density Overlay (MDO) plywood

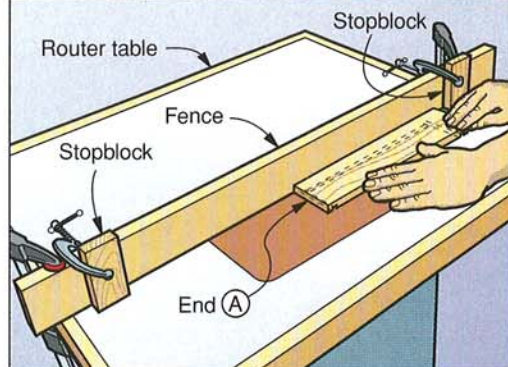
**2** Fit your table-mounted router with a 1/4" straight bit and fence, and rout the 1/4" grooves, dados, and rabbets in the box ends (A) and sides (B) where shown on the Wagon Box drawing.

Note that the groove near the bottom edge of the ends (A) stops at the 1/4" dado. (We clamped stops to our router fence as shown in the Routing the Stopped Groove drawing above right.)

**3** Cut or rout a 1/4" rabbet 1/4" deep along all four edges of the box bottom (C). Check the fit of the pieces to form the box.

**4** Using the Wagon Box drawing below for reference, carefully mark all the hole centerpoints on the box ends, sides, and bottom. Drill the holes to the sizes stated on the drawing. For a proper fit of the stake supports (N) later, the distance between the holes in the box sides and ends must be consistent (1 3/4").

## ROUTING THE STOPPED GROOVE

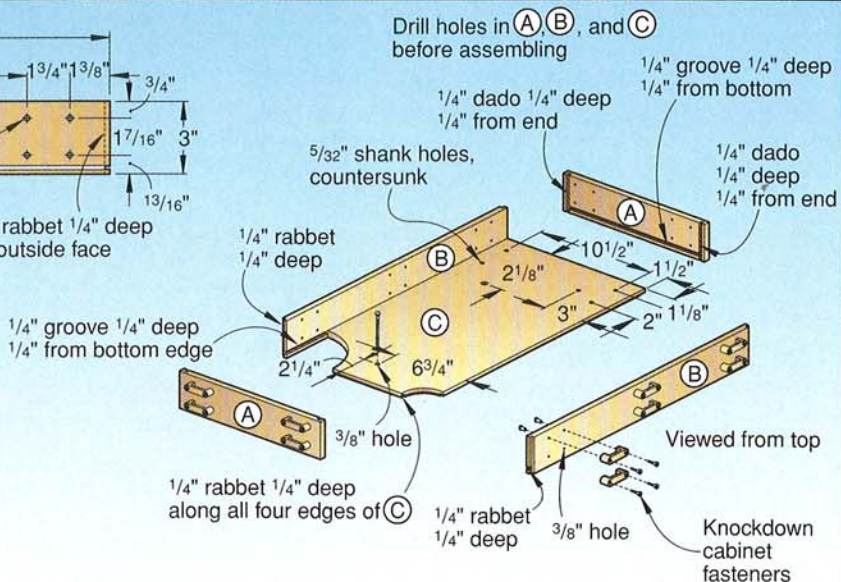
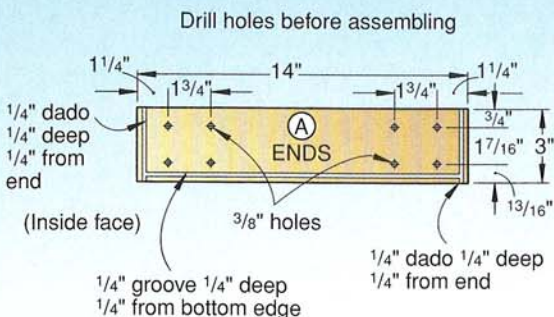
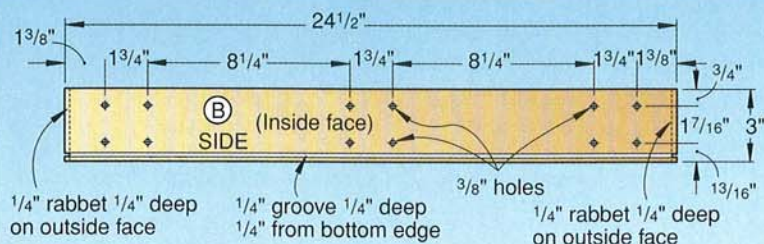


**5** Using a waterproof glue (we used Titebond II), glue and clamp the wagon box (A, B, C) together, checking for square.

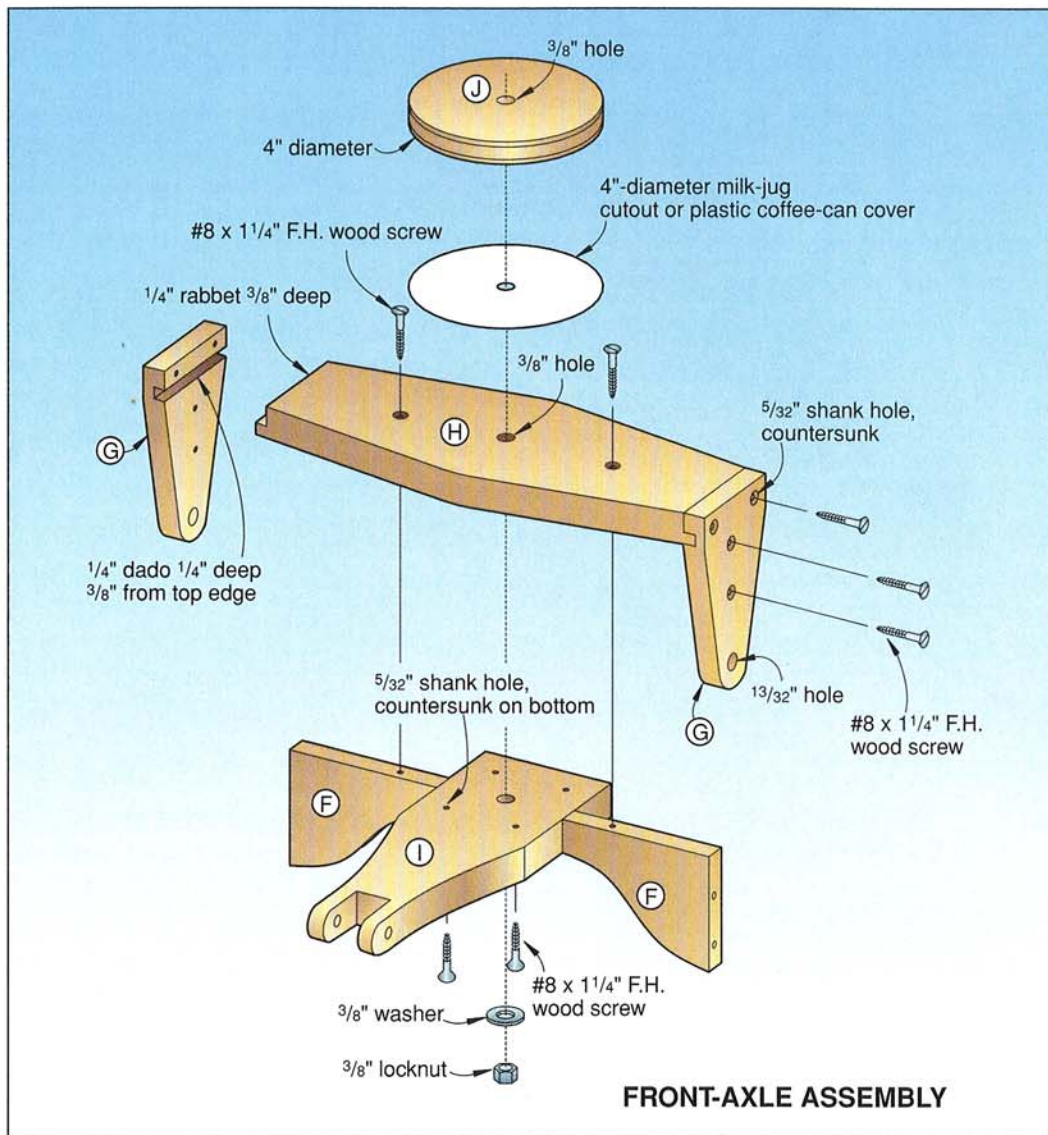
## Now, Build the Rear And Front-Axle Assemblies

**1** From 5/8" white oak, cut two pieces to 3x5 1/4" for the rear-axle supports (D). Using double-faced tape, stick the two pieces together, with the edges and ends flush. Adhere a photocopy of the full-sized Rear-Axle Support pattern from WWP PATTERNS in the center of the magazine to the taped-together stock.

**2** Drill the axle and countersunk screw holes through the taped-together pieces. Bandsaw the pieces to shape, and sand the cut edges smooth. Use a wooden wedge to separate the parts. Remove the tape.



WAGON BOX



**TIP** Tip No. 1—To keep axle holes aligned, insert an axle through the supports while gluing and screwing the sub-assemblies together.

**TIP** Tip No. 2—Use waterproof glue for assembly of all parts of the the wagon (We used Titebond II). It will help the wagon survive both the elements and active youngsters.

**3** Transfer the pattern for the rear brace (E) to  $\frac{5}{8}$ "-thick stock, and cut the brace to shape.

**4** Glue and screw the rear-axle assembly (D, E) together where shown on the Exploded View drawing. See Tip No. 1 *above right* for a method of keeping the axle holes aligned.

**5** Using the same method as used in Step 1, cut two pieces of  $\frac{5}{8}$ " stock for the front braces (F) and front supports (G), and tape the pairs together. Drill the countersunk mounting and axle holes through the taped-together Gs. Cut the braces and supports to shape, separate the pieces, and remove the patterns.

**6** Adhere copies of the patterns for the steering brace (H) and the yoke (I) to  $\frac{5}{8}$ " and  $\frac{3}{4}$ " stock respectively. Cut the pieces to shape, and remove the paper pattern from the steering brace only.

**7** Using the Front-Axle Assembly drawing *above* for reference, cut a  $\frac{1}{4}$ " dado  $\frac{1}{4}$ " deep  $\frac{3}{8}$ " from the top edge of each front support (G). Now, cut a mating rabbet along the ends of the steering brace (H).

**8** Clamp the yoke (I) to the bottom of the steering brace (H). Drill countersunk mounting holes through the yoke and into the steering brace. Use an awl to indent the center-point for the  $\frac{3}{8}$ " hole on the yoke.

**9** Remove the clamps, and then remove the paper pattern from the yoke. Screw the two pieces (H and I) back together with four #8x1 $\frac{1}{4}$ " wood screws. Now, drill a  $\frac{3}{8}$ " hole through the assembly where indented.

**10** Glue and screw the front-axle supports (G) and front-axle braces (F) to the steering brace (H), using an axle to help assure

*Continued*

# Kid-tested Stake Wagon

accurate alignment of the axle holes in the completed assembly.

**11** Use a compass to mark a 4"-diameter circle on  $\frac{1}{2}$ " oak for the spacer disc (J). Now, drill a  $\frac{3}{8}$ " hole through the centerpoint. Bandsaw the spacer disc to shape.

**12** Cut a 4"-diameter disc from a plastic milk jug or plastic coffee-can lid to use as a bearing between the steering brace (H) and the spacer disc (J).

## For Lots Of Pull, Add the Handle

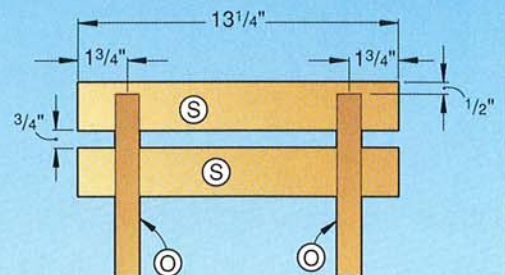
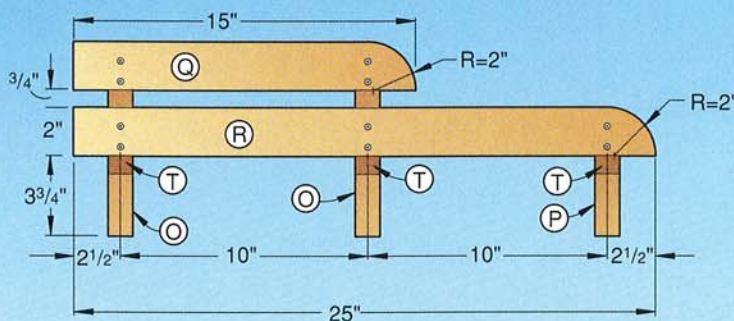
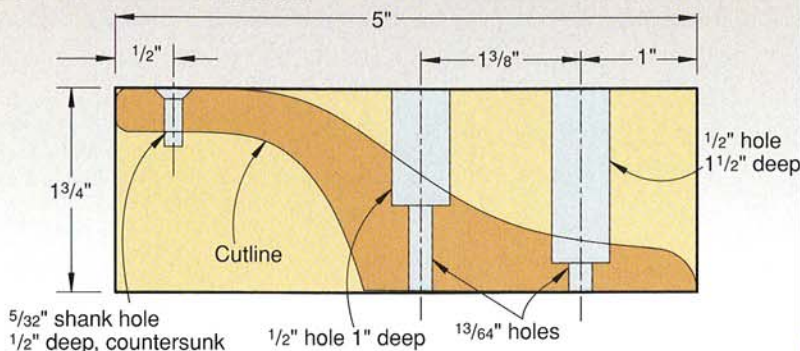
**1** To form the handles (K), cut two pieces of  $\frac{3}{4}$ "-thick stock to  $1\frac{3}{4} \times 5$ ". Transfer the full-sized handle patterns from WWP PATTERNS to the handle blanks. See the drawing titled Forming the Handle for reference.

**2** Using a square, transfer the hole center-points to the outside edge of each handle blank. Then, drill the holes in each blank to the sizes stated on Forming the Handle drawing. The  $\frac{1}{2}$ " holes form the counterbores for the machine screw heads and nuts.

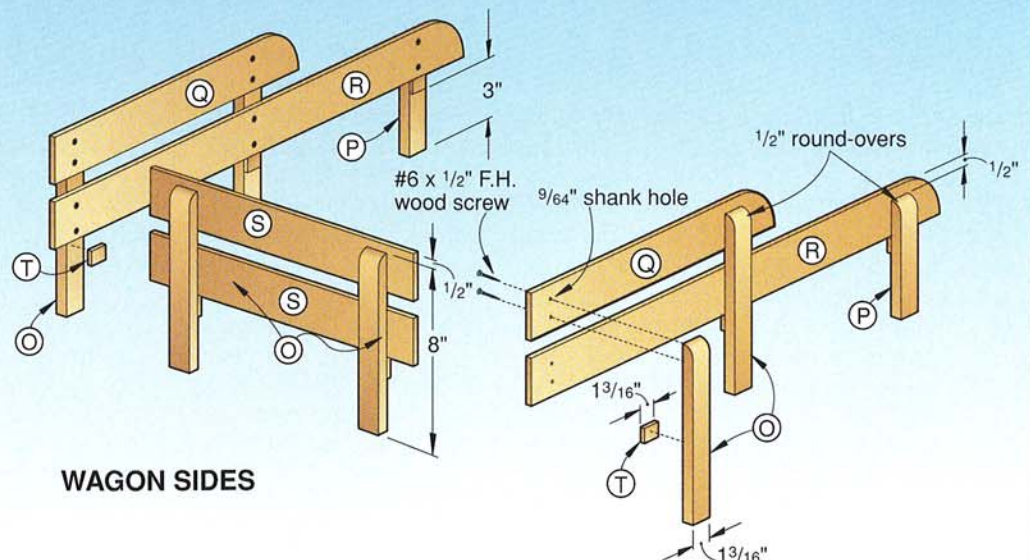
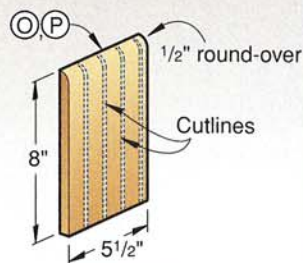
**3** Tape the handle blanks together face-to-face, bandsaw to shape, sand the edges, then pry the pieces apart, and remove the tape.

**4** Cut the tongue (L) to size. Transfer the full-sized patterns to the ends of the tongue, and drill the holes. Rout  $\frac{1}{4}$ " round-overs along the edges of the tongue, stopping them  $1\frac{1}{2}$ " from the bottom end and  $3\frac{1}{2}$ " from the top end where shown on WWP PATTERNS.

### FORMING THE HANDLE



### CUTTING THE STAKES DETAIL



### WAGON SIDES

**5** Crosscut a piece of  $\frac{5}{8}$ " dowel stock to  $3\frac{1}{2}$ " long. Drill a  $\frac{7}{64}$ " hole  $\frac{5}{8}$ " deep centered in each end of the handle dowel. Now, screw the handles (K), the tongue (L), and  $\frac{5}{8}$ " dowel together in the configuration shown on the Exploded View drawing.

**6** Cut the steering stop (M) to shape, drill mounting holes where shown on WWP PATTERNS, and screw it to the wagon box bottom (C) where shown on the Exploded View drawing. (The steering stop helps prevent the front-axle assembly from turning too far and tipping the wagon.)

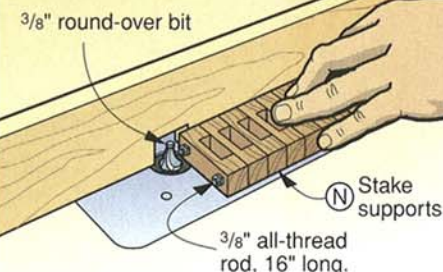
### The Staked Sides Come Next

**1** To form the stake supports (N), follow the steps on the Forming the Stake Supports drawings. For a proper fit later, make sure the distance between the holes is the same as the distance between the mating holes on the wagon box sides and ends.

**2** Using the Wagon Sides drawing *opposite page, bottom left*, for reference, cut the pieces for the staked wagon sides (O, P, Q, R,

#### FORMING THE STAKE SUPPORTS: STEP 4

**STEP 4:** Rout  $\frac{3}{8}$ " round-overs along all edges.



S) and spacers (T). This is enough for two side assemblies (O,P,Q,R), and one front or back assembly (O, S).

**3** As shown on the Cutting the Stakes detail accompanying the Wagon Sides drawing *opposite page, bottom left*, crosscut stock wide enough for several stakes. Rout a  $\frac{1}{2}$ " round-over across the top end of each stake blank, and then rip the stakes from the blank.

**4** Glue and clamp the spacers (T) to the stakes (O) where shown on the Wagon Sides drawing. Let the glue dry.

**5** Glue the stake supports in position on the wagon box, using knockdown cabinet fasteners (see the Buying Guide for our source of hardware) to hold them in place while the glue dries. Use a stake to make sure the supports align accurately.

**6** Fit the stakes into the stake supports. Carefully locate and then clamp and screw the slats (Q, R, S) into place, checking for square. See Tip No. 3 *above right* for an accurate spacing technique.

### Final Assembly and Painting

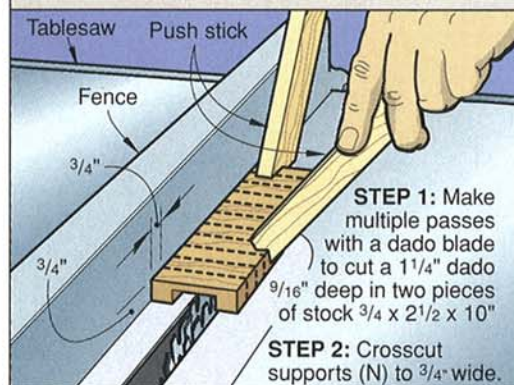
**1** Remove the knockdown cabinet fasteners, then finish-sand all the components. As shown on the opening photo, paint the wagon box assembly (A, B, C) and stake supports (N). Next, apply a clear finish to the other pieces and assemblies. Re-install the knockdown cabinet fasteners after the paint dries.

**2** Screw the rear axle assembly (D, E) to the wagon, and use a carriage bolt to attach the front axle assembly (F, G, H, I, J, and plastic bearing) to the wagon. Now, bolt the handle/tongue assembly to the front axle support. Install the axles and wheels, and fit the stake assemblies into place. ■

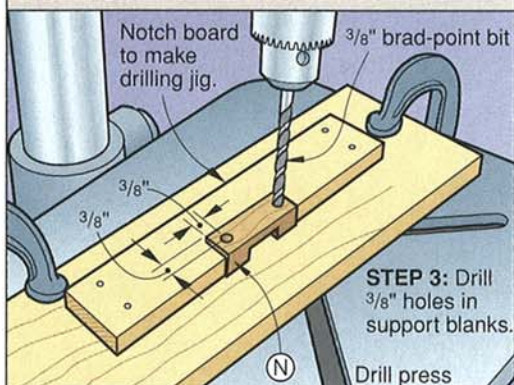
**TIP** Tip No. 3—To accurately space the slats, clamp a  $\frac{3}{4}$ "-wide spacer to the stakes after attaching the lower slat. Glue and screw the upper slat into position, then unclamp the spacer.

Written by: Marlen Kemmet  
Project Design: James R. Downing  
Illustrations: Roxanne LeMoine, Carson Ode  
Project Builder: Erv Roberts  
Photograph: King Au

#### FORMING THE STAKE SUPPORTS: STEPS 1 & 2



#### FORMING THE STAKE SUPPORTS: STEP 3





# Down-under Cutting Board

*L*aying your hands on a cutting board when you need one can be a daunting task. But it won't be if you build our ever-at-the-ready cutting board. Just remove it from its undercounter housing when you're ready to use it, and return it when you're done. No muss! No fuss! This project also makes a great gift item for showers, weddings, and Christmas.

## Start with the Cutting Board

**1** Cut ten pieces of  $1\frac{1}{16}$ "-thick hard maple to  $1\frac{1}{16}$ " wide for the cutting board (A) to form an oversized lamination  $10\frac{5}{8}$ " wide by 10" long. (Remember, length is measured with the grain). For an explanation of why we aligned the grain this way, see Tip No. 1.

**2** Use waterproof glue (we used Titebond II) to glue the pieces edge-to-edge. Clamp and let set overnight. Then, trim the cutting board (A) to the dimensions shown on the Exploded View drawing.

**3** Cut a  $\frac{5}{16}$ " rabbet  $\frac{1}{4}$ " deep along the sides of the cutting board lamination where shown.

**4** Rout a cove with a  $\frac{5}{8}$ " core box bit set  $\frac{1}{4}$ " deep and with its edge  $\frac{1}{2}$ " from the bottom front edge of the cutting board.

## Now, Form the Decorative Front Trim Pieces

**1** Cut the three front trim pieces (B, C, D) to the thicknesses and lengths listed in the Bill of Materials, but from stock 1" wide. These will later be trimmed to a final width of  $\frac{3}{4}$ ".

**2** Sand a round-over on the ends of each strip to the radii shown on the Trim Detail *opposite page, below*. Next, glue and clamp the pieces together, with the edges flush and the pieces centered one on top of the other. Refer to the Trim Detail drawing for the dimensions of the overhangs.

**3** Plane one edge of the lamination flat. Then, rip the opposite edge to a  $\frac{3}{4}$ " finished width.

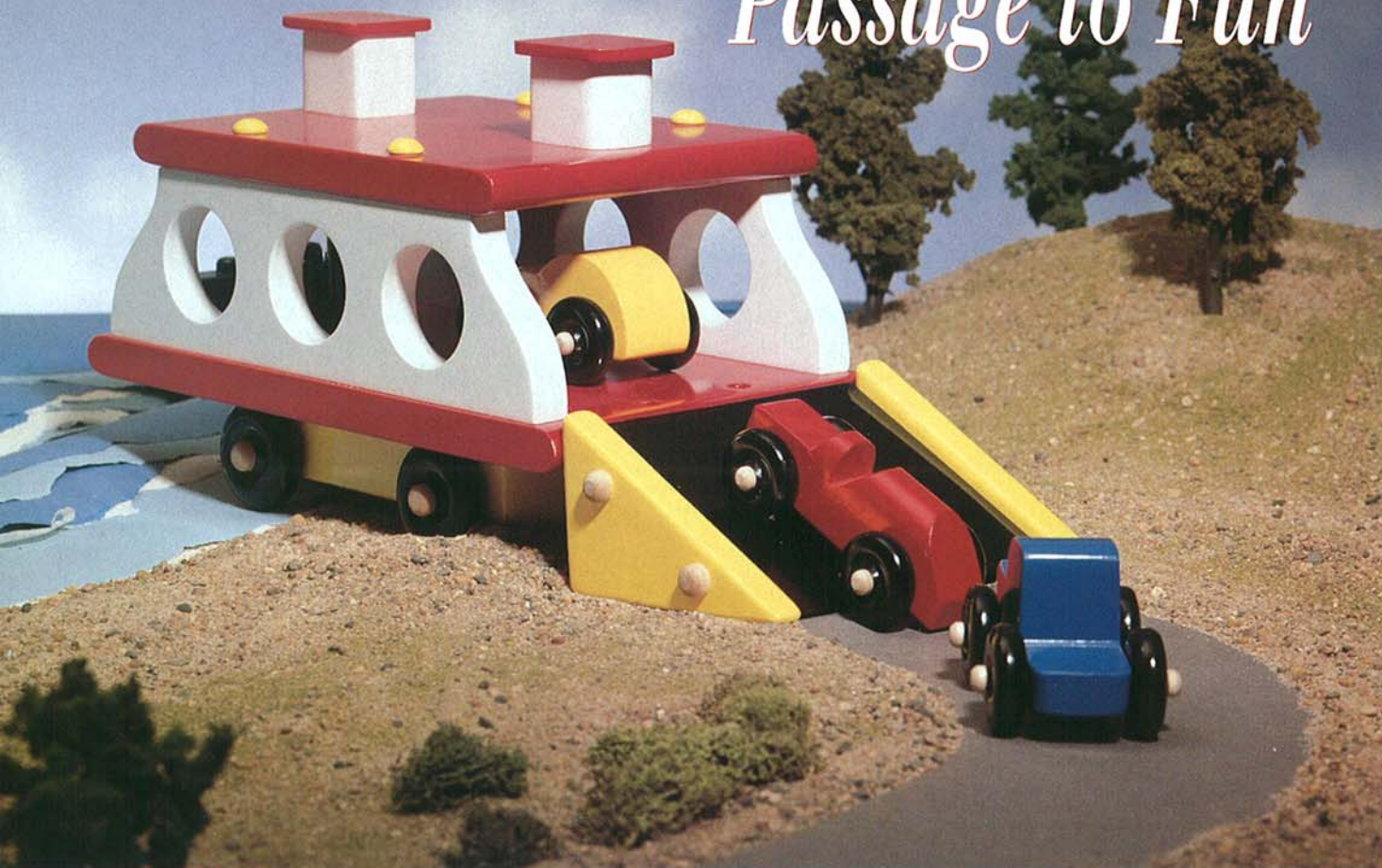
**4** Crosscut the two 2"-long end pieces from the lamination. Measure, mark, and cut carefully; you want the two end pieces to be the same length. Cut the remaining piece from the center of the lamination to the exact width of the cutting board (A).

**5** Joint  $\frac{1}{16}$ " off the top edge of the center trim piece. This keeps the center trim piece lined up with the ends while allowing  $\frac{1}{16}$ " of clearance between the top edge of the cutting board and the bottom edge of the cabinet bottom face-frame rail. See the full-sized Front View in WWP PATTERNS for reference.



# Ferry Boat

## Passage to Fun



***Y***ou'll delight a little sailor with hours of creative play delivered by this fascinating toy ferry. Your tiny captain will love rolling the colorful vehicles up the ramp and onto this sturdy boat for a ride over the briny deep of the family room carpet. At journey's end, the young mariner will lift the opposite gate and position the ramp, continuing a journey into the land of imagination and fun.

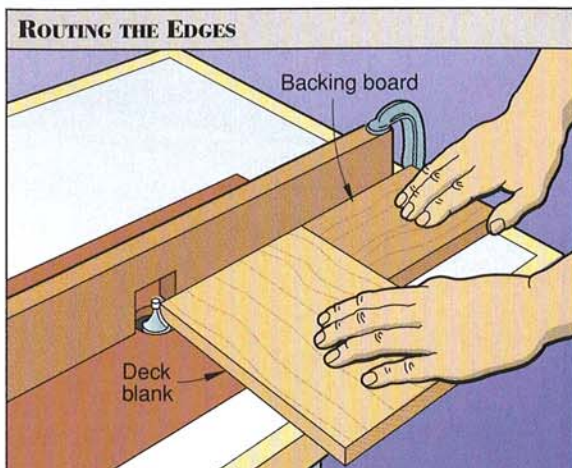
### Start with the Cargo Section

**1** Rip and crosscut the main deck (A) and the upper deck (B) from  $\frac{3}{4}$ "-thick stock to the sizes listed in the Bill of Materials. Then, lay out and drill the four  $\frac{3}{8}$ " holes through the main deck where shown on the Exploded View drawing and on WWP PATTERNS in the center of the magazine. Next, drill four  $\frac{1}{2}$ " counterbores  $\frac{1}{4}$ " deep into the upper deck where shown. Drill and countersink the  $\frac{5}{32}$ " holes in both decks where shown. **Note:** the two holes in the middle of the main deck are countersunk from above, while the four holes near the corners are countersunk from below. The two holes that are not counterbored in the upper deck are countersunk from below.

*Continued*



# Ferry Boat



**2** Set up a  $\frac{3}{8}$ " round-over bit on your table-mounted router and rout the ends of the main deck and upper deck. Use a backing board to prevent tearout as shown in the Routing the Edges drawing above.

**3** Form the sides (C). To do this, rip and crosscut two  $3\frac{1}{4} \times 11\frac{1}{2}$ " blanks and temporarily join them face-to-face using double-faced cloth carpet tape. Next, copy the full-sized pattern located in WWP PATTERNS and adhere it to the top blank with spray adhesive. Indent centerpoints of the holes with a nail or awl. Drill the 2" holes on a drill press (we used a circle cutter). See Tip No. 1 at left for tips on drilling through thick stock. Then, sand the interior of the holes (we used a  $1\frac{1}{2}$ " drum sander). Bandsaw the end profiles to shape, and sand the cuts. Separate the sides.

**4** Dry-clamp the decks (A) and (B) to the sides (C). Next, use the holes in the decks as guides to drill  $\frac{7}{64}$ " pilot holes  $\frac{3}{4}$ " deep into the sides. Remove the clamps, finish-sand all pieces and set them aside for now.

## Next, Assemble the Hull

**1** Cut two pieces of  $\frac{3}{4}$ "-thick stock to  $5\frac{1}{2} \times 11$ ". Glue and clamp them face-to-face to make an oversized blank for the hull (D). When the glue has dried, transfer the full-sized pattern to the stock, and cut the blank to shape.

**2** Lay out and drill four  $\frac{7}{32}$ " holes  $2\frac{5}{8}$ " deep into the edges of the hull where shown on the Exploded

View drawing. Now, center the hull under the main deck, clamp into position, and using the  $\frac{5}{32}$ " screw-shank holes as guides, drill  $\frac{7}{64}$ " pilot holes  $\frac{3}{4}$ " into the hull. Sand the hull and set it aside for now.

## Now, Assemble the Gates and Pilotheuses

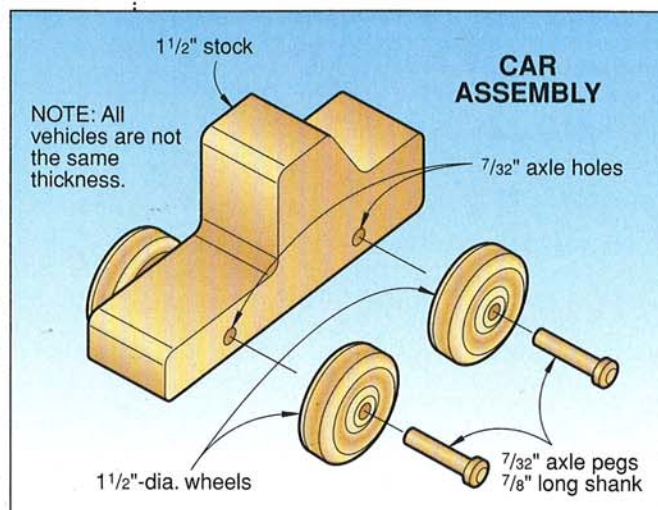
**1** Transfer the full-sized pattern twice to  $1\frac{1}{2}$ "-thick stock and bandsaw the pilothouses (E) to shape. Position the pilothouses against the upper deck, and drill  $\frac{7}{64}$ " pilot holes  $\frac{3}{4}$ " deep into the bottoms of the pilothouses. Sand these parts, and set them aside for now.

**2** Resaw two  $\frac{1}{4}$ "-thick pieces for the pilothouse roofs (F) from  $\frac{3}{4}$ "-thick stock. Adhere the pieces face-to-face with double-faced tape. Then, transfer the full-sized pattern to the stock, scrollsaw the roofs to shape, sand, separate the parts, and set them aside.

**3** Cut the gates (G) to the size listed in the Bill of Materials. Drill two  $\frac{5}{16}$ " holes in each part where dimensioned on the Gate detail accompanying the Exploded View drawing. Rout or sand a  $\frac{3}{8}$ " radius on the end of each gate. Glue a  $\frac{5}{16}$ "-dia. axle peg with a  $1\frac{5}{8}$ "-long shank into each hole.

## Build the Cars and Ramp

**1** Plane or resaw a 12" length of  $1\frac{1}{2} \times 3$ " stock to 1" thick. Then, transfer the car patterns (H) and (I) to the stock. Transfer car patterns (J) and (K) to  $1\frac{1}{2}$ "-thick stock. Now, use a nail or scratch awl to indent the centerpoints of the axle holes through the pattern.



**TIP** Tip No. 1—Drill a pilot hole though thick stock before using your circle cutter. Then, drill halfway through the stock, flip it over and finish drilling from the opposite side. Match the pilot hole size to the circle cutter's own pilot. (We drilled a  $\frac{1}{4}$ " hole through the sides because our circle cutter uses that size for its pilot.)

2 Drill  $\frac{7}{32}$ " axle holes through the cars. Next, scrollsaw or bandsaw all cars to shape. Sand the cars, softening all edges, and set them aside for now.

3 Plane or resaw stock to  $\frac{1}{2}$ "-thick for the ramp. Rip to width, but allow extra length for the bevel cuts you will make next.

4 Adjust the angle of your tablesaw blade to  $32^\circ$  from vertical. Next, set the rip fence so that the blade just clears the width of a 2x4 as shown in Step 1 of the Cutting the Ramp drawings *below right*. Adhere the ramp to the 2x4 with double-faced tape; then, bevel-cut the bottom of the ramp.

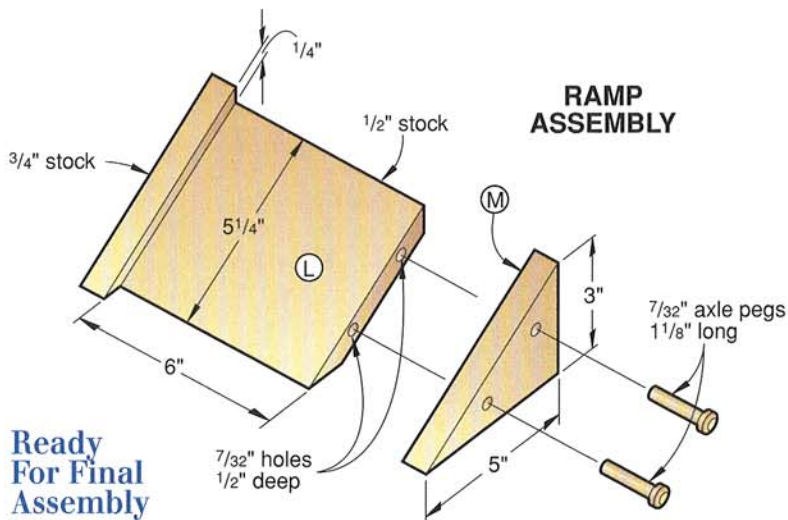
5 Remove the ramp from the 2x4, and mark its finished length. Adjust the rip fence, lay the ramp flat on the saw table and bevel-cut the top edge as shown in Step 2 *below right*.

6 Twice transfer the full-sized pattern for the ramp side (M) to  $\frac{3}{4}$ "-thick stock, and indent the hole centerpoints. Drill the  $\frac{7}{32}$ " holes, then cut the pieces to shape. Now, dry-clamp the ramp and use the holes just drilled as guides to drill  $\frac{7}{32}$ " holes  $\frac{1}{2}$ " into the ramp. Disassemble the ramp, and sand all pieces smooth.

## Bright Paint Colors Are Your Best Choice

1 Finish-sand all parts, and dust with a tack cloth. (We found it easier to sand and finish the pieces of the ferry before assembly, so we could easily paint parts that would be inaccessible later.) Apply a coat of sealer to all parts. Use masking tape to leave a bare patch in the middle of the bottom of pilohouse roofs, and a corresponding bare patch on the top of the pilohouses; you will glue this joint at final assembly, and glue won't stick to paint.

2 Paint the pieces with acrylic enamel. (We used aerosol cans.) See Tip No. 2 at *right* for spray-painting advice. Refer to the color photo for our paint choices. Use red for the decks and the pilohouse roofs, white for the sides and pilohouses, yellow for the hull and the top of the screw-hole buttons, blue for the gates, and black for all wheels. We painted the cars: (H) green, (I) red, (J) yellow, and (K) blue, with black wheels. The heads of all axle pegs got a clear finish. Plug the dowel holes in the cars during painting to ensure a clean assembly. The ramp is black with yellow sides.



## Ready For Final Assembly

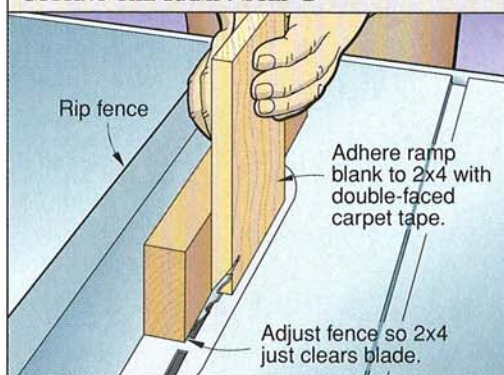
1 Glue the roofs onto the pilohouses. Screw the completed pilohouse assemblies onto the upper deck.

2 Glue axle pegs with 2" wheels to the hull. Now, screw the main deck to the hull. Screw the decks and sides together. Then, glue the four  $\frac{1}{2}$ " buttons into place to conceal the screw holes in the upper deck.

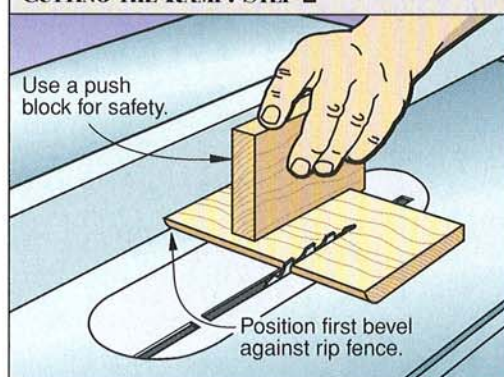
3 Shorten eight  $\frac{7}{32}$ "-dia. axle pegs to a shank length of  $\frac{7}{8}$ ". Place  $1\frac{1}{2}$ " wheels on the shortened pegs and glue them into the axle holes of the cars (Parts H, I, J, and K). Glue the sides to the ramp using  $\frac{7}{32}$ "-dia. axle pegs. ■

**TIP** Tip No. 2—Build color gradually with spray paints. If you try to cover with thick coats, you'll risk ruining the paint job with runs and sags.

### CUTTING THE RAMP: STEP 1



### CUTTING THE RAMP: STEP 2



Written by: Jon Greising  
Project Design: Joe O'Berg  
Illustrations: Roxanne LeMoine,  
Carson Ode  
Project Builder: Bill Wright  
Photograph: King Au



## Cut the Pieces and Assemble the Frame

**1** From  $\frac{3}{4}$ "-thick stock, rip and crosscut the top (A), back (B), ends (C), arms (D), and cross brace (E) to the sizes listed in the Bill of Materials.

**2** Mark the centerpoints and drill the holes in the top (A) and back (B) where located and to the sizes dimensioned on the Exploded View drawing.

**3** Rout  $\frac{1}{4}$ " round-overs along the front and side edges of the top.

**4** Mark the  $2\frac{3}{4}$ " radius on the lower front corner of both end pieces (C). Cut them to shape.

**5** Using the Section View and Exploded View drawings for reference, mark the three hole centerpoints on each end piece (C). Drill the holes where marked.

**6** Finish-sand the top, back, and end pieces. Glue and screw the pieces (A, B, and C) together in the configuration shown on the Exploded View and Section View drawings. Note the top overlaps the ends by  $\frac{3}{4}$ ".

**7** From  $\frac{5}{16}$ "-thick stock (we planed thicker stock to this thickness), cut eight  $\frac{3}{8}$ " plugs. Glue one into each of the counterbored holes, aligning their grain to match the grain direction of the surrounding wood. When the glue has dried, sand the plugs flush.

## Add the Tie-Hanger Assembly

**1** Using double-faced tape, stack the arms (D) face-to-face aligning the edges and ends flush. Using dimensions on the Arm drawing and Slot detail, lay out on the top arm the centerpoints for the slot holes and end radii.

**2** Cut and sand the ends to shape. Drill the  $\frac{3}{16}$ " slot-end holes. Saw out the stock between the holes to form the slot.

**3** Cut the notches where marked. Then, separate the arms.

# Tie Valet

## Foldaway Organizer

*Deciding on what to give Dad, Junior, or a friend will be easy once you see how our space-saving tie valet works. To choose a tie, you simply lift the arm up and out, then slide it back to lock it in place. After making a selection, pull the arm forward and drop it down. In its folded position, the valet extends just 4" from the wall.*

**4** Referring to the Arm drawing, lay out the centerpoints for the  $\frac{1}{4}$ " dowel holes on the inside faces. Drill the holes  $\frac{3}{8}$ " deep.

**5** Crosscut three 14½" lengths of ¼" dowel. Cut three 13¾" lengths of ¼" I.D. rubber automotive vacuum hose (available at your local auto parts store), and slip them over the dowels. (We rubbed paraffin wax on the dowels to help the hose slide over the dowels.) Now, glue, assemble, and clamp the arms, cross brace, and dowels.

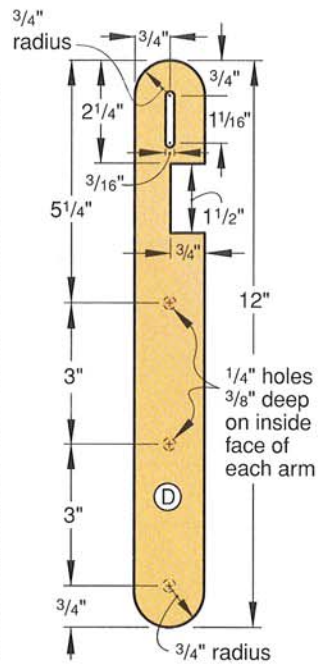
## Assemble and Finish the Tie Rack, and You're Done

**1** Apply the finish of your choice, after masking off the rubber-covered rods. (We wiped on a light oak stain, then wiped off the excess with a dry cloth. After the stain dried thoroughly, we applied one coat of lacquer sanding sealer, and two coats of clear, semigloss lac-

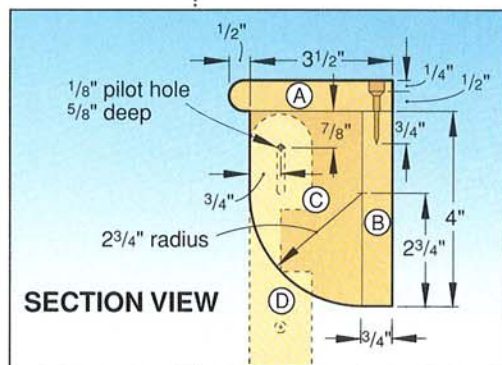
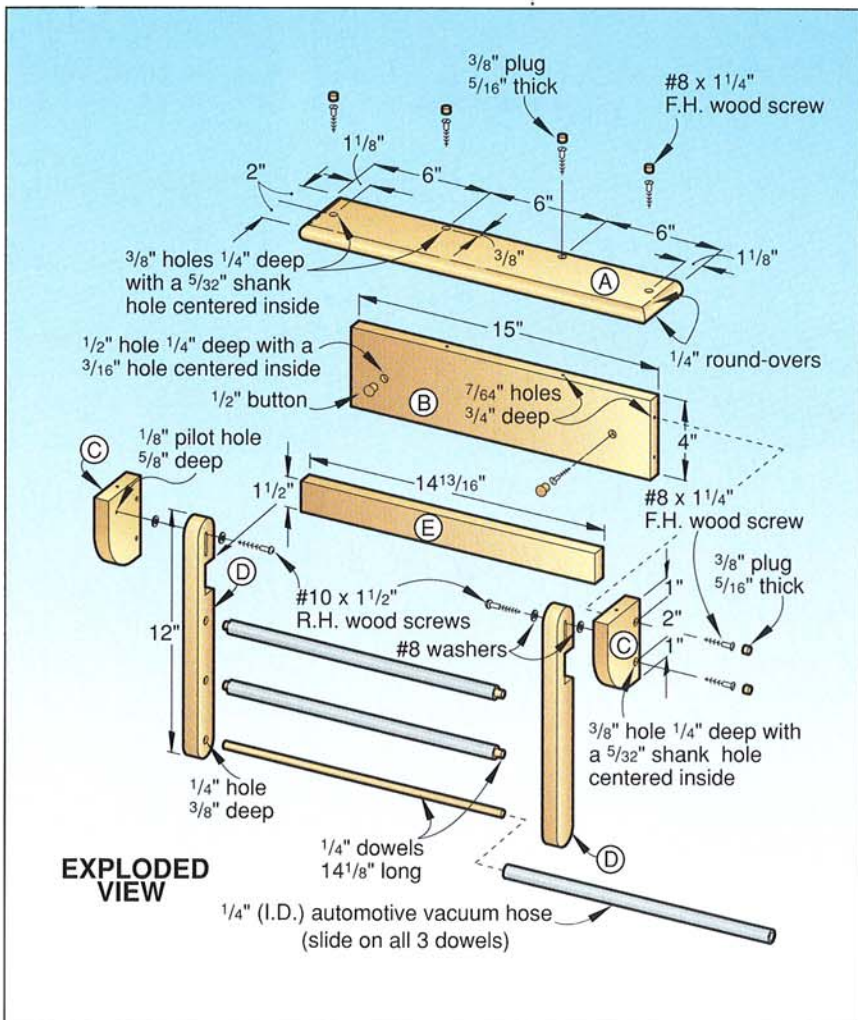
quer. We sanded the sealer and first coat after it dried with 320-grit sandpaper.) Finish the two screw-hole buttons at the same time.

**2** Place the arm assembly inside the frame where shown on the Exploded View drawing. Insert a #10x1½" roundhead screw through the slot in the arm and drive it into the pilot holes in the end. While mounting the tie arm to the holder assembly, insert the four #8 flat washers where shown on the Exploded View drawing. Do not over-tighten these screws—you want the arm assembly to slide freely on the screws for folding.

**3** Position the tie rack where desired. Mark the location of the mounting holes on the wall with a scratch awl, then drill the holes. Screw or bolt the tie rack to the wall. Apply a drop of glue to the edges of two 1/2" screw-hole buttons, and insert them into the counterbored holes to conceal the wall-mounting screws. ■



## ARM



## SECTION VIEW

## BILL OF MATERIALS

| Part          | Finished Size |     |                                    | Mtl. | Qty. |
|---------------|---------------|-----|------------------------------------|------|------|
|               | T             | W   | L                                  |      |      |
| A top         | ¾"            | 4"  | 18"                                | O    | 1    |
| B back        | ¾"            | 4"  | 15"                                | O    | 1    |
| C ends        | ¾"            | 3½" | 4"                                 | O    | 2    |
| D arms        | ¾"            | 1½" | 12"                                | O    | 2    |
| E cross brace | ¾"            | 1½" | 14 <sup>13</sup> / <sub>16</sub> " | O    | 1    |

\*Cut part to final size during construction. Please read all instructions before cutting.

**Materials Key:** O—red oak

**Supplies:** ¼" dowel stock, 2—½" mushroom-type screw hole buttons, 4—#8 flat washers, 2—#10×1½" round-head wood screws, 8—#8×1¼" flathead wood screws, 42" length of ¼" I.D. rubber automotive vacuum hose, stain, finish.

**Written by:** Marlen Kemmet  
**Project Design:** David Ashe  
**Illustrations:** Roxanne LeMoine  
**Photographs:** John Hetherington



# Earring Display

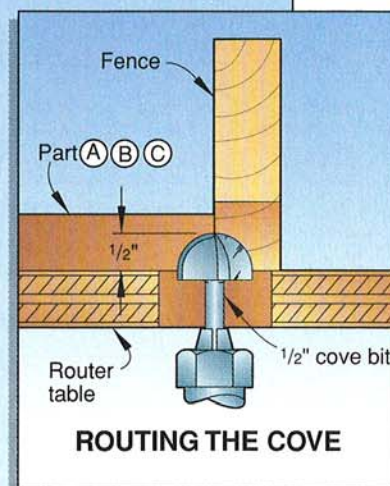
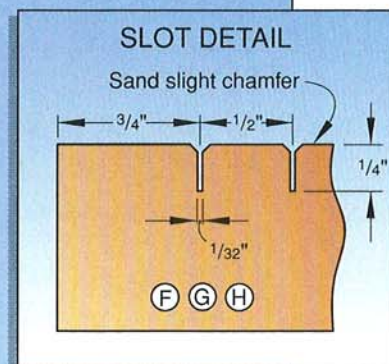
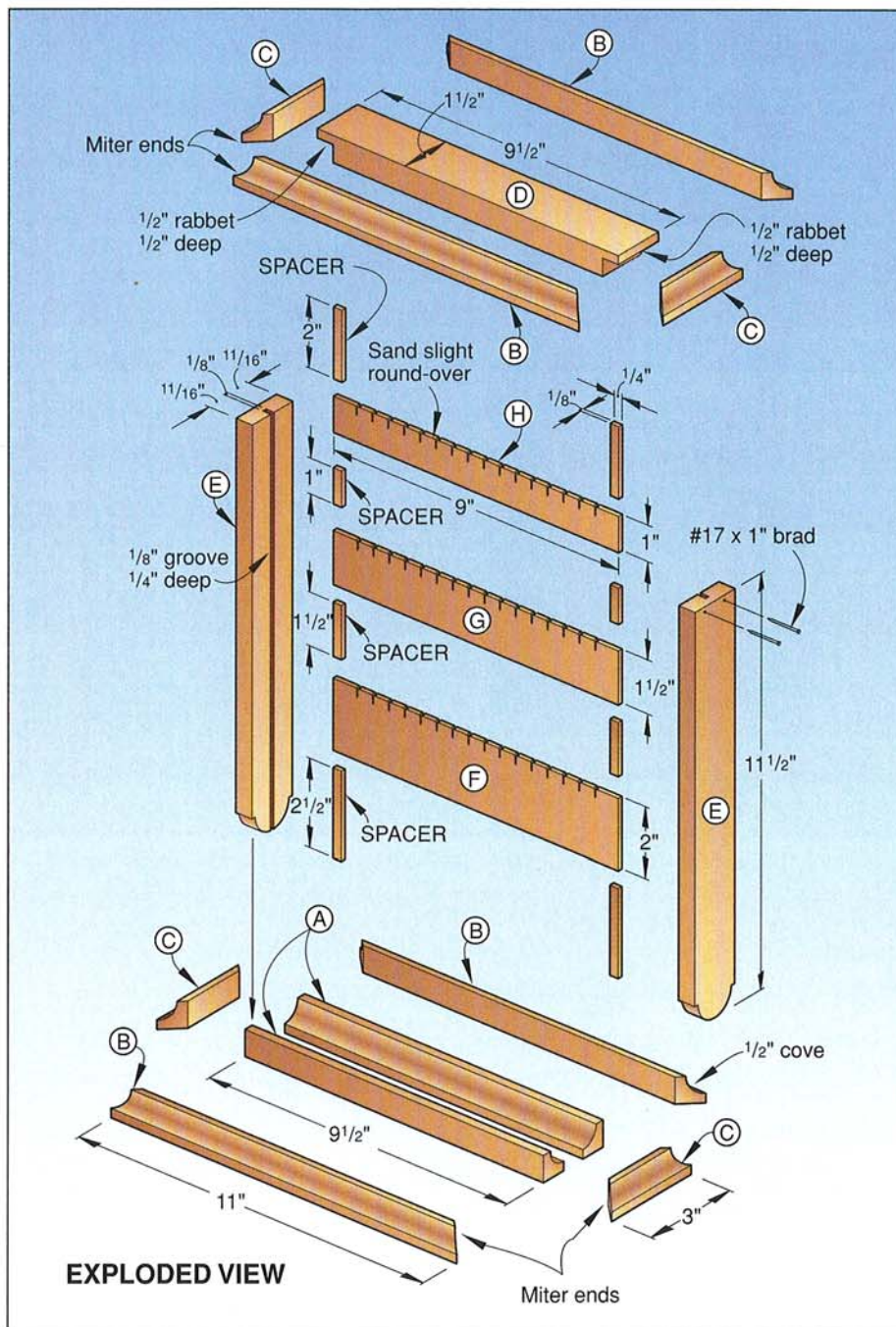
*She'll find her earrings conveniently accessible whether you wall-mount this super holder or use it free-standing. We've widened the bars to minimize tangling of long, dangling earrings, and chamfered the notches for easy insertion of the earring wires (or Shepherd's hooks) and posts in the individual slots. And, with the short materials list, you can make several for gifts using pieces from your scrap bin.*

***Note:** This project calls for 1/8", 1/2", and 3/4"-thick stock. Because only a small quantity of thin material will be needed, we suggest you resaw it on your tablesaw or bandsaw.*

## **Let's Cut the Base Parts First**

**1** For the coved trim pieces A, B, and C, start by cutting a piece of 3/4"-thick stock (we used cherry) to 4" wide by 44" long. Joint or plane both edges of the piece.

*Continued*



### BILL OF MATERIALS

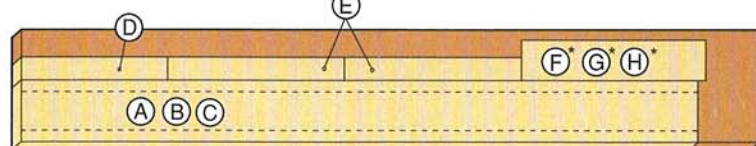
| Part     | Finished Size |        |         | Matl. | Qty. |
|----------|---------------|--------|---------|-------|------|
|          | T             | W      | L       |       |      |
| A* base  | 3/4"          | 1 1/2" | 9 1/2"  | EC    | 1    |
| B* trim  | 3/4"          | 3/4"   | 11"     | C     | 4    |
| C* trim  | 3/4"          | 3/4"   | 3"      | C     | 4    |
| D top    | 3/4"          | 1 1/2" | 9 1/2"  | C     | 1    |
| E* sides | 1/2"          | 1 1/2" | 11 1/2" | C     | 2    |
| F* bar   | 1/8"          | 2"     | 9"      | C     | 1    |
| G* bar   | 1/8"          | 1 1/2" | 9"      | C     | 1    |
| H* bar   | 1/8"          | 1"     | 9"      | C     | 1    |

\*Cut part to final size during construction. Please read all instructions before cutting.

**Materials Key:** C—cherry; EC—edge-joined cherry.

**Supplies:** #17x1" brads, double-faced tape, finish.

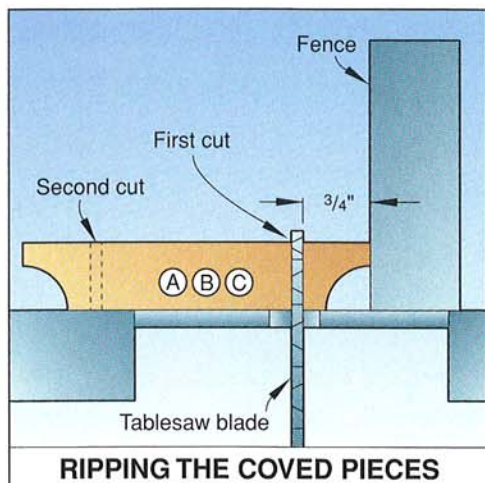
### CUTTING DIAGRAM



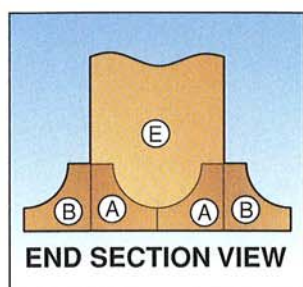
3/4 x 7 1/4 x 48" Cherry

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

# Earring Display



**2** Set up your router as shown in the Routing the Cove drawing page 25, middle right, and rout a  $\frac{1}{2}$ " cove along both edges (but not the ends) of the 44"-long piece. Next, rip a  $\frac{3}{4}$ "-wide trim piece from each routed edge of the stock as shown in the Ripping the Coved Pieces drawing at left. **Note:** If you plan to mount your earring rack flush against the wall, do not apply any trim on the back side of the display. To finish the trim so the display fits against the wall, crosscut the ends of the end trim pieces (C) square with the sides, as shown on the Optional Base drawing below left.



**3** Crosscut two pieces of your coved stock to 10" long for the base (A). Glue the pieces edge-to-edge where shown on the End Section View drawing at left. Later, remove the clamps and crosscut both ends to square and form the  $9\frac{1}{2}$ "-long base.

**4** Cut the top (D) to size. Cut or rout a  $\frac{1}{2}$ " rabbet  $\frac{1}{2}$ " deep along both ends of this piece.

## Next, Cut the Side Pieces

**1** To make the earring display sides (E), cut a piece of  $\frac{3}{4}$ "-thick stock to  $1\frac{1}{2}\times 24$ ". Resaw or plane the piece to  $\frac{1}{2}$ " thick.

**2** Cut a  $\frac{1}{8}$ " groove  $\frac{1}{4}$ " deep in one face of the 24"-long workpiece where dimensioned on the Exploded View drawing. Next, crosscut the piece in half, and finish-sand both pieces.

**3** Cut the bottom ends of the side pieces to fit inside the base. See the End Section View drawing above left for reference. (We traced the base profile on the bottom end of each side, and sawed them to that shape.) Now, cut each side to final length ( $11\frac{1}{2}$ ").

## Now, We'll Cut the Earring Bars

**1** From  $\frac{3}{4}$ "-thick cherry stock measuring  $2\frac{5}{8}\times 12$ ", resaw three  $\frac{1}{8}$ "-thick slats for the earring bars (F, G, H)

**2** Sand the sawn surfaces of the slats to remove any saw marks, and test-fit their ends in the  $\frac{1}{8}$ " groove you cut earlier into the sides (E). Next, using double-faced tape, stack

the three slats together face-to-face, aligning them along their top edges.

**3** Using the dimensions on the Slot detail accompanying the Exploded View drawing, mark the locations for the 16 slots along the top edge of the stacked slats.

**4** Cut the  $\frac{1}{4}$ "-deep slots using your bandsaw, scrollsaw, or coping saw. Sand or file a chamfer on the edges of each slot. (We found that a triangular file did a quick and neat job.) Crosscut the bars to length.

**5** Separate the earring bars and remove the double-faced tape. Rip the bars to their final widths indicated on the Bill of Materials. Sand a slight round-over along the top edges. Keep the cutoff scraps to use as spacers in the side grooves later.

## Get Ready to Assemble the Display

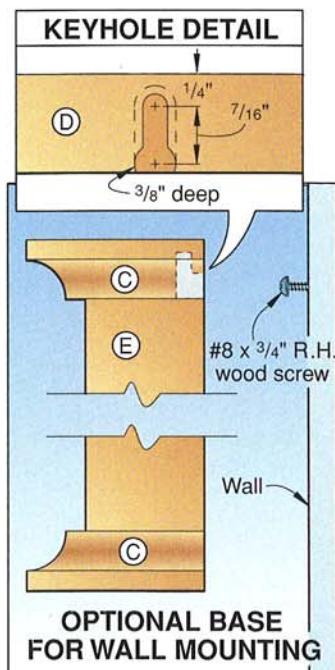
**1** Dry-assemble (no-glue) the base, sides, and top, and clamp temporarily to hold this assembly together. From the  $\frac{1}{8}$ "-thick scrap, cut spacers to fit the side grooves between the earring bars where shown on the Exploded View drawing, then glue the spacers into position. Wipe off glue squeeze-out with a damp cloth. Disassemble the unit, and sand the spacers flush with the inside face of the sides (E).

**2** Glue, and clamp the display. Wipe off any glue squeeze-out with a damp cloth. Drive two #17x1" brads through the sides and into the ends of the top where shown on the Exploded View drawing.

**3** From the remaining coved stock, miter-cut the trim pieces to fit the top and base. (We fit the long pieces first; then the short ones.)

**4** Finish-sand all of the earring display parts using 150-, 180-, and 220-grit sandpaper. Set the brads, and fill the holes.

**5** Apply the finish of your choice. We left the cherry wood of our earring display unstained. We applied one coat of lacquer sanding sealer, then followed it with two coats of clear semigloss lacquer. After each coat had dried thoroughly, we rubbed the finish with 0000 steel wool to smooth the surface, and then wiped with a tack cloth to pick up dust and stray pieces of steel wool. ■



Written by: Marlen Kemmet  
Project Design: David Ashe  
Illustrations: Roxanne LeMoine  
Photograph: Wm. Hopkins

# The Adventures of Dusty Pyles



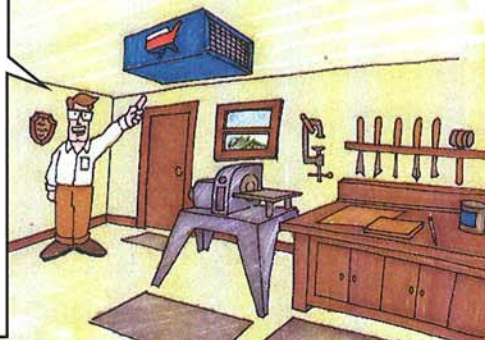
HEY B.E., HOW'D YOU WIN THE CLEAN SHOP AWARD? I SWEEP BUT I CAN'T SEEM TO KEEP MY SHOP CLEAN.



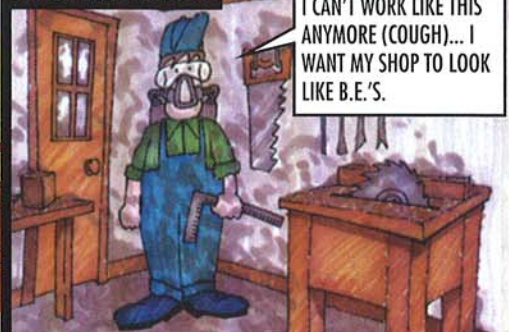
DUSTY, IT'S EASY WITH THE CLEANAIR SYSTEM. LET ME SHOW YOU...



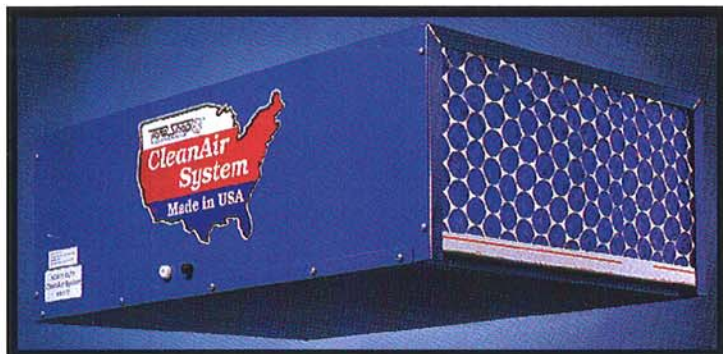
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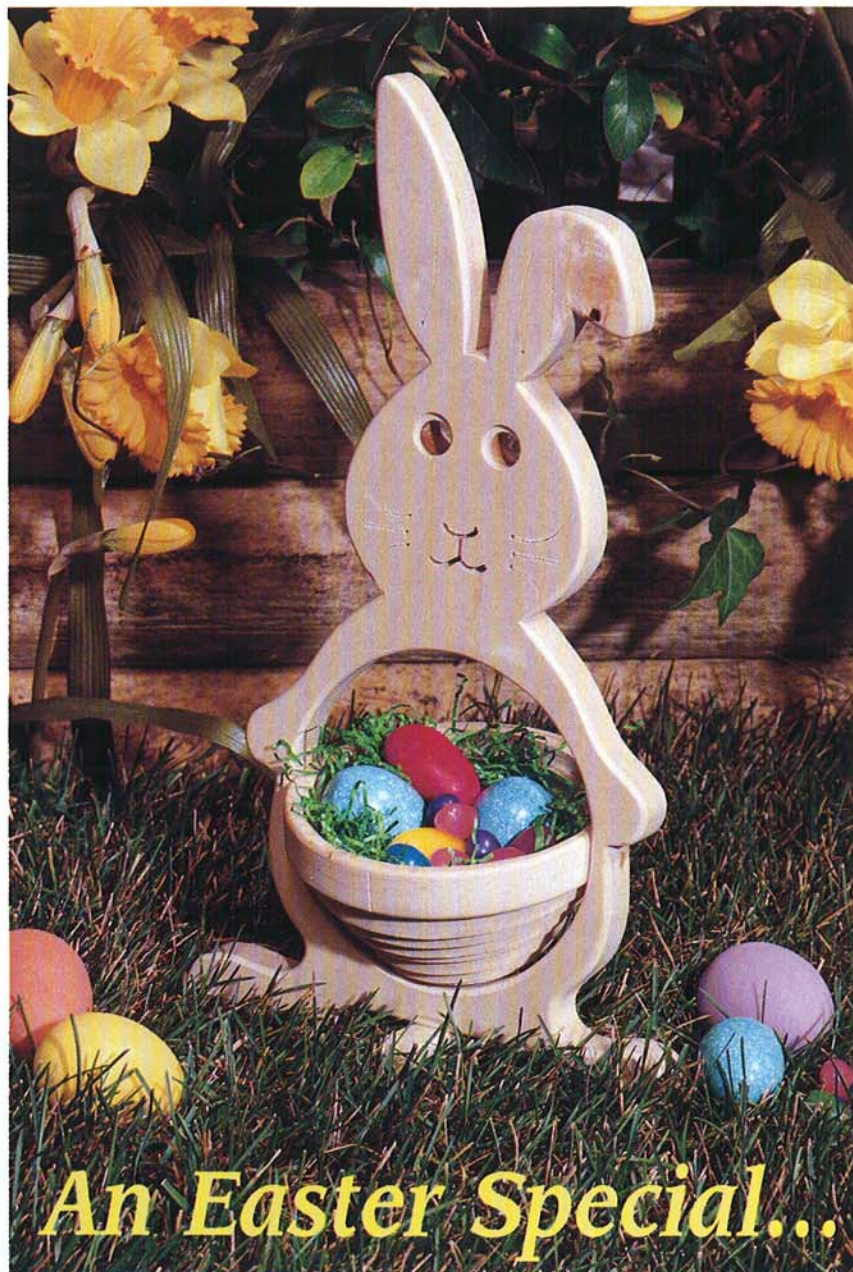
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# Bunny Basket

*Want to surprise and delight the little ones at your house this Easter? If so, spend just a few hours in your shop crafting this fanciful project. The spiral-cut baskets are surprisingly easy to make, and with the full-sized WWP PATTERNS in the center of the magazine, the bunny is a breeze to cut, too. Note: We've also included full-sized plans for an owl basket in WWP PATTERNS.*

**Note:** We used a piece of  $\frac{3}{4} \times 8\frac{1}{2} \times 15$ " soft maple for the bunny and a piece of  $\frac{3}{4} \times 8 \times 11$ " red oak for the owl.

## OK, Let's Hop To It!

**1** Rip and crosscut a blank for the bunny from  $\frac{3}{4}$ "-thick clear stock. Next, sand both the front and back surfaces (it is much easier to sand before scrollsawing). Make a photocopy of the bunny or owl pattern from the full-sized WWP PATTERNS in the center of the magazine. Adhere the pattern to your stock with spray adhesive, aligning the pattern's bottom edge with the straight bottom edge of the stock.

**2** Chuck a  $\frac{1}{16}$ " bit into your drill press, and drill all of the blade-start holes. Refer to Tip No. 1 on page 30, top left to determine which blade-start hole to drill for the spiral basket. Next, switch to a  $\frac{1}{2}$ " bit, and drill through at the marked centerpoints of the eyes. Now, chuck a  $\frac{5}{8}$ " Forstner bit into your drill press, and counterbore  $\frac{1}{8}$ " deep from both sides of the stock. Refer to the Eye Section View and Eye Options drawings on page 30.

**3** Now, cut the outline of the bunny. (We used a No. 7 scrollsaw blade for all cuts.) Note that the optional swivel base is made from a separate piece of stock, with its grain direction running along the length for increased strength. First, cut the swivel base opening in the bottom of the bunny. Next, peel off the pattern, and discard the piece you just cut. Now, adhere the pattern to stock with the correct grain direction, and cut the swivel base. Hold the swivel base in position, drill a countersunk pilot hole for the  $\#6 \times \frac{3}{4}$ " screw where shown on WWP PATTERNS, and drive the screw.

**4** Chuck a  $\frac{1}{4}$ " brad-point bit into your portable electric drill, and drill holes  $\frac{1}{2}$ " deep, centered into the edges of the bunny where shown on the full-sized pattern.

## Spring Ahead to Spiral Cutting

**1** Tilt your scrollsaw table about  $2^\circ$ , and insert the blade into the blade-start hole of the basket's spiral. Refer to the Setting the Blade Angle box on page 30 for helpful cutting tips. Cut the spiral, following the line in a smooth cut. If you begin to stray from the line, do not back up; get back on track by gradually steering the blade in a smooth curve. When you get to the end of the cut, turn off the saw and remove the blade.

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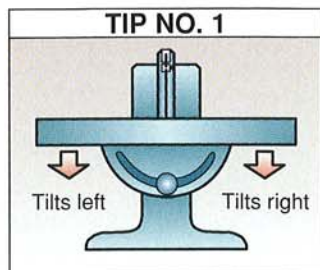


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# Bunny Basket

**TIP** Tip No. 1—Choose the blade-start hole location in the spiral basket based on the direction your scrollsaw table tilts as you face it. If your table tilts to the right, choose the blade-start hole at the center of the spiral: if it tilts to the left, choose the hole at the outer end of the spiral.



**TIP** Tip No. 2—To square your scrollsaw table to the blade, make a cut into the edge of a piece of scrap wood. Turn off the saw, and flip the scrap end-for-end, placing it behind the blade. If the table is square, the blade will slip into the saw kerf. If the table is not square, the angle you see will be twice the adjustment you need to make. This trick also lets you accurately square your bandsaw.

**Project Design:** Jan Hale Svec  
**Illustrations:** Roxanne LeMoine  
**Project Builder:** Rick Hutcheson  
**Photograph:** John Hetherington

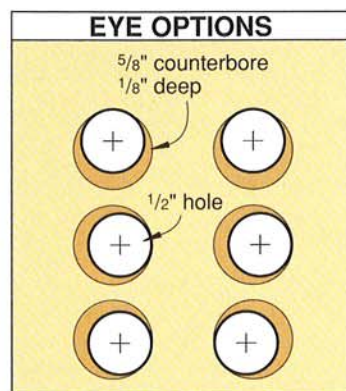
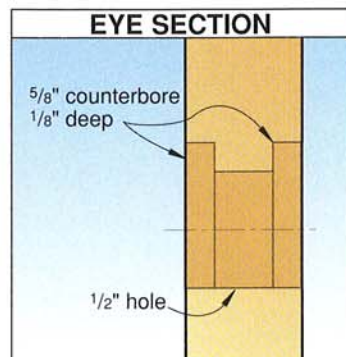
2 Return the saw table to square. See Tip No. 2 below left for an easy method of squaring the table to the blade. Then, cut the outside circle of the basket. Next, cut the lines for the whiskers, ears, and nose/mouth.

3 Sand the edges of all parts with 120-grit paper. Then, chuck a piloted  $\frac{1}{8}$ " round-over bit in your table-mounted router, and rout the edges of all parts on both sides. To round-over between the bunny's ears where the router bit can't reach, work a narrow piece of emery cloth back and forth to quickly form the radius.

## You're Almost Finished

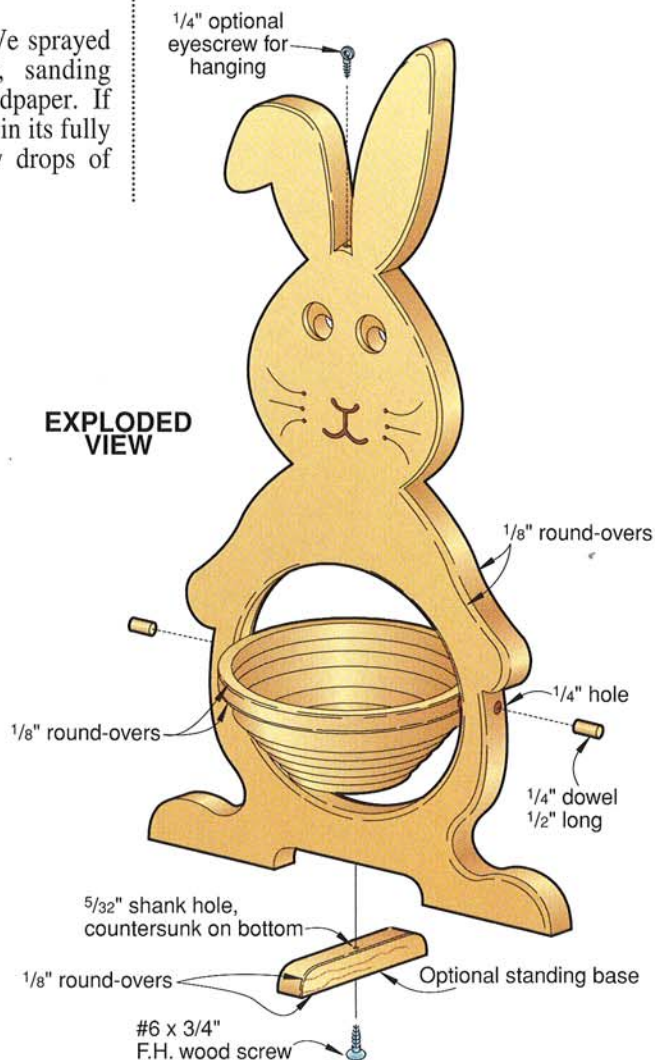
1 Crosscut a  $\frac{1}{4}$ " dowel rod to make two  $\frac{1}{2}$ " pieces. Position the basket, insert the dowels halfway, then apply glue to attach them to the bunny's body. Sand away any excess dowel length, if necessary.

2 Apply your choice of finish. We sprayed two coats of Deft lacquer, sanding between coats with 320-grit sandpaper. If you want, you can glue the basket in its fully opened position. We used a few drops of cyanoacrylate (instant glue). ■



## SETTING THE BLADE ANGLE

The correct blade angle for the spiral cut in the basket is affected by a great number of factors: the species of the stock you select, its precise thickness, the width of your scrollsaw blade's kerf, your cutting technique, and so on. For stock  $\frac{3}{4}$ " thick, a  $2^\circ$  tilt is a good starting point, but you may have to fine-tune the angle with practice cuts in scrap stock to get just the amount of tightness you want in the basket. If the fit is too loose, you can change to a slightly steeper angle; if it is too tight, adjust to a more vertical setting.



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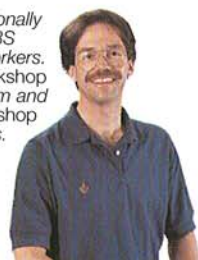
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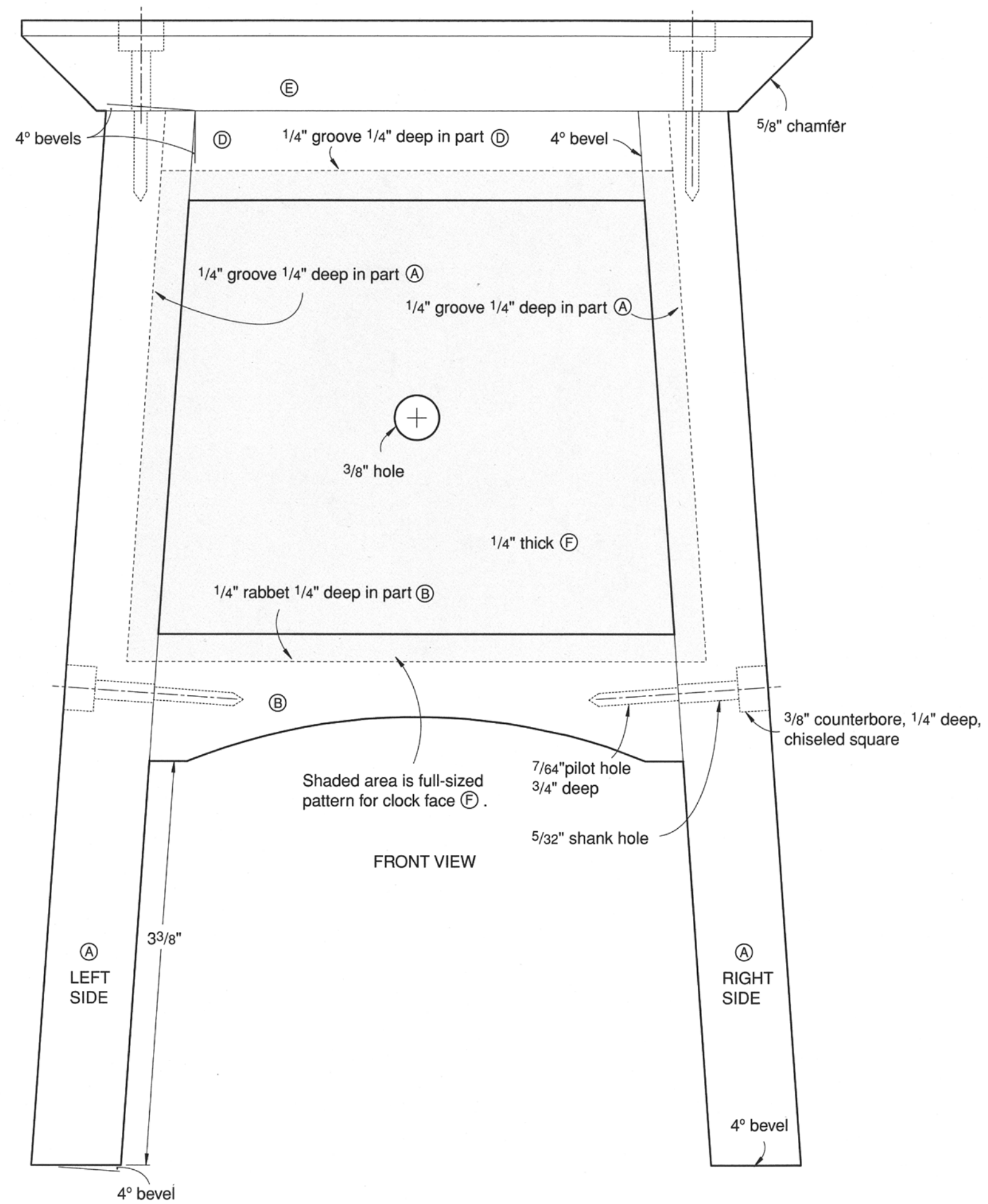
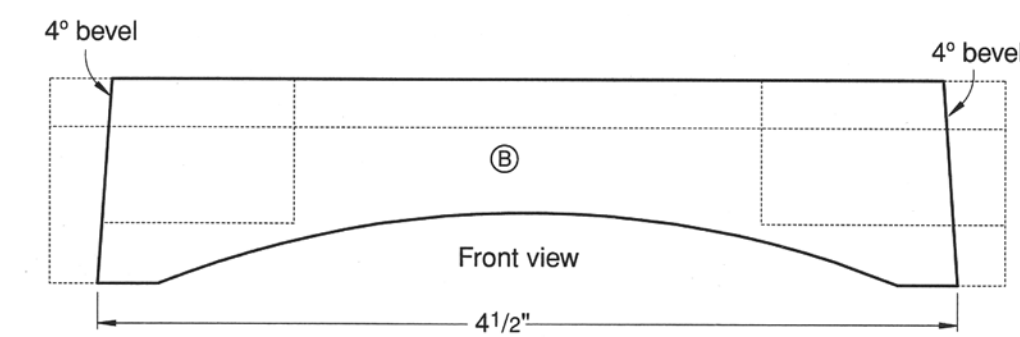
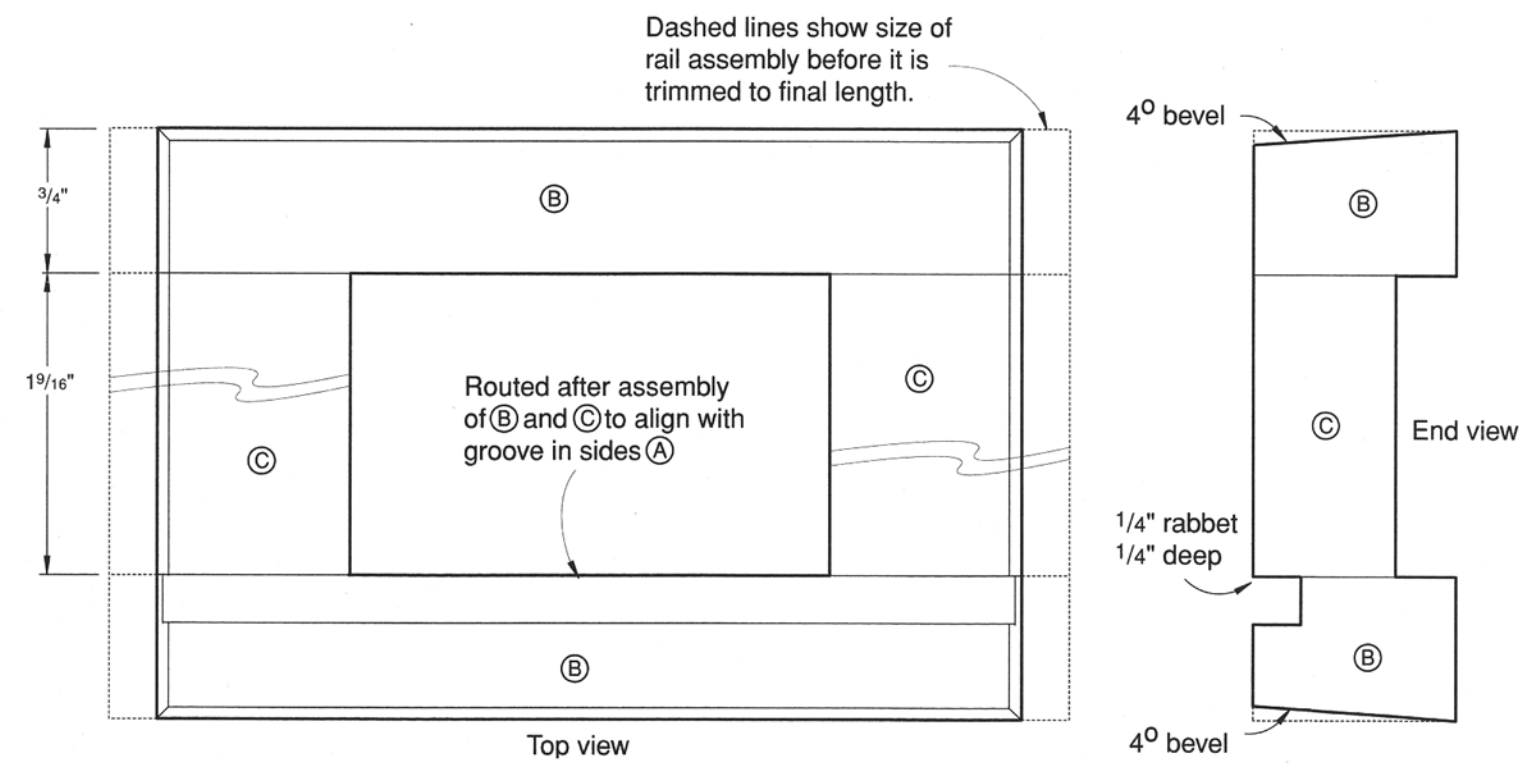
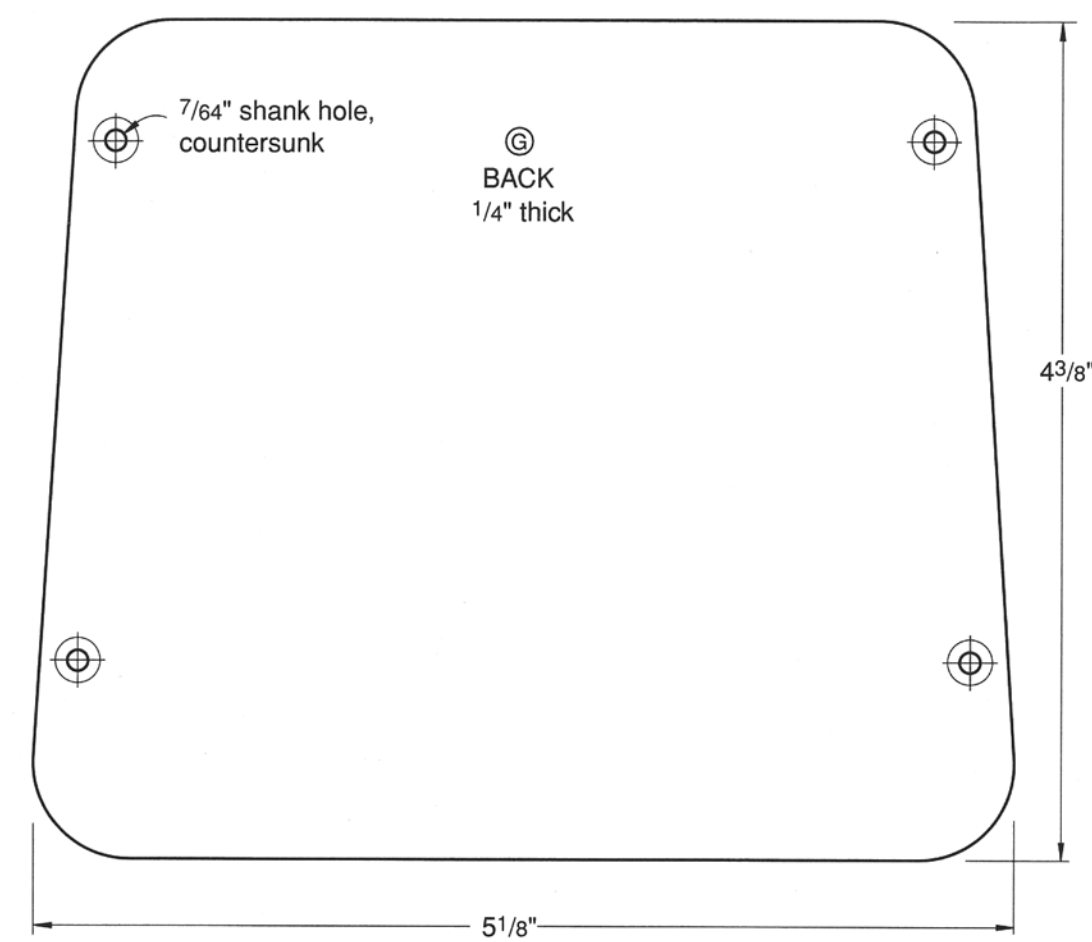
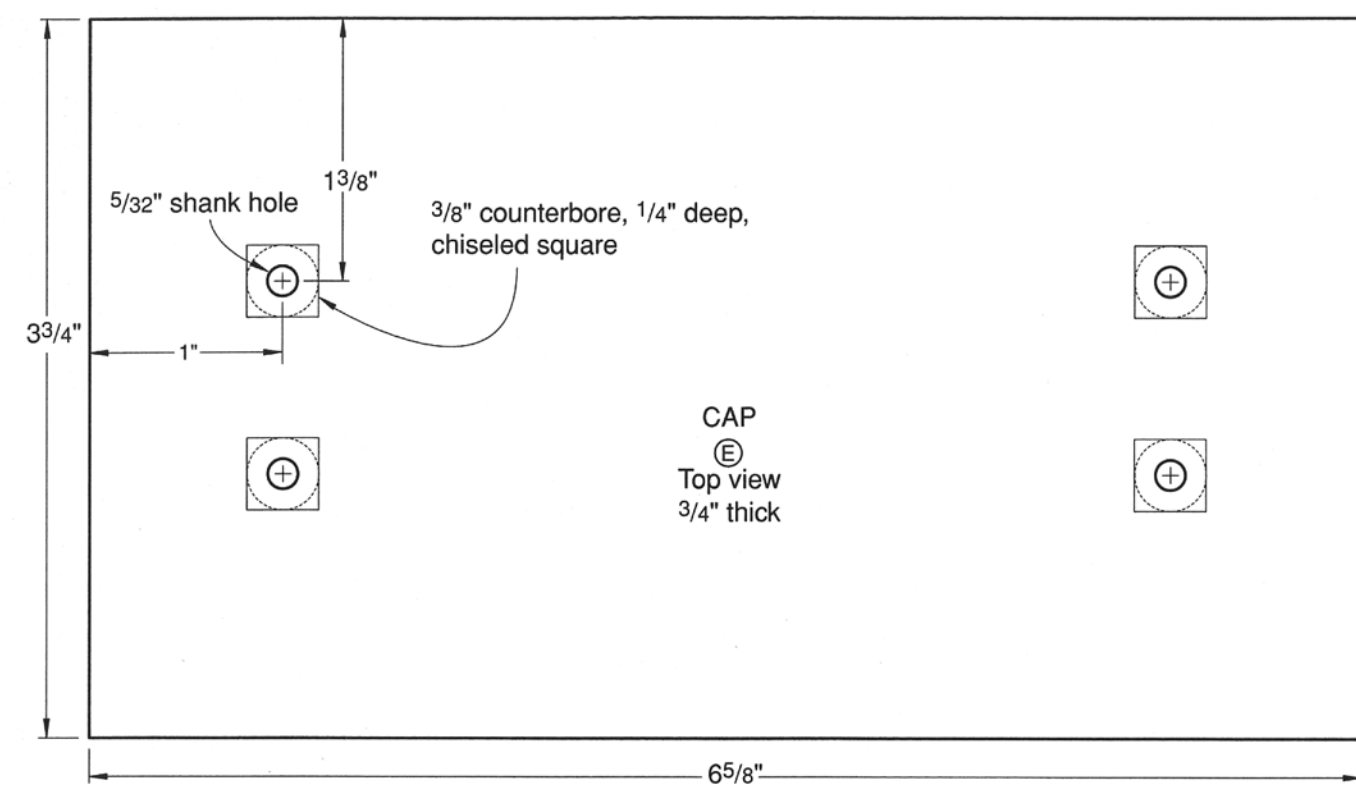
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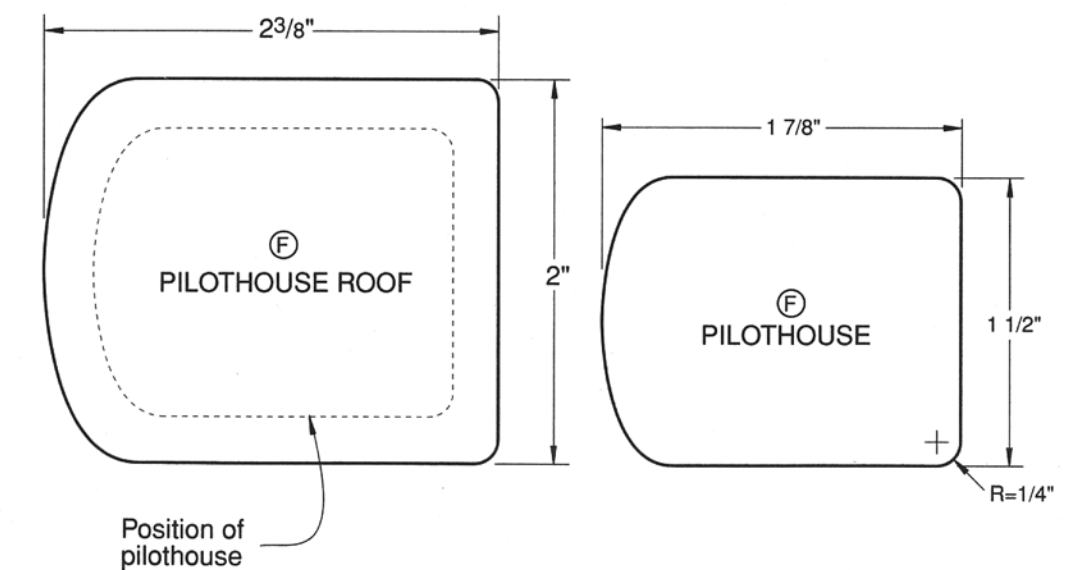
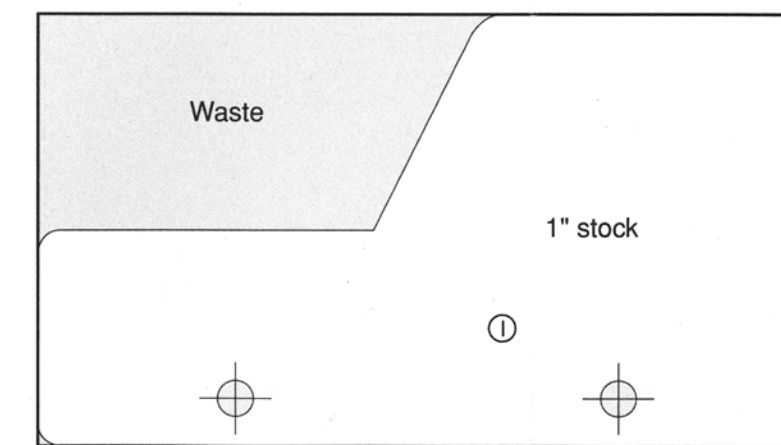
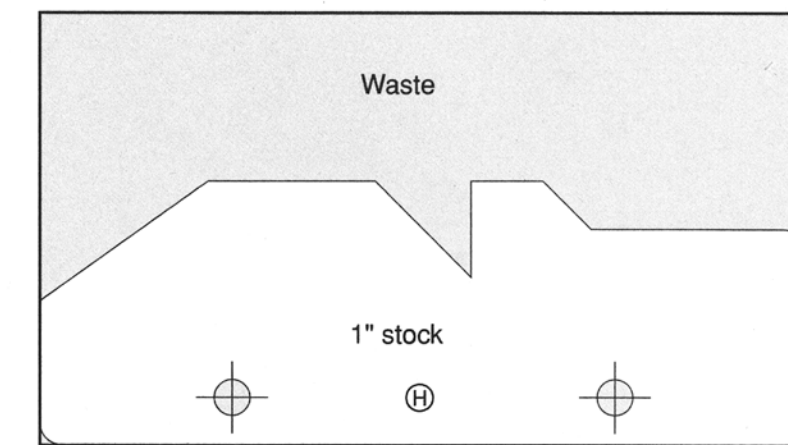
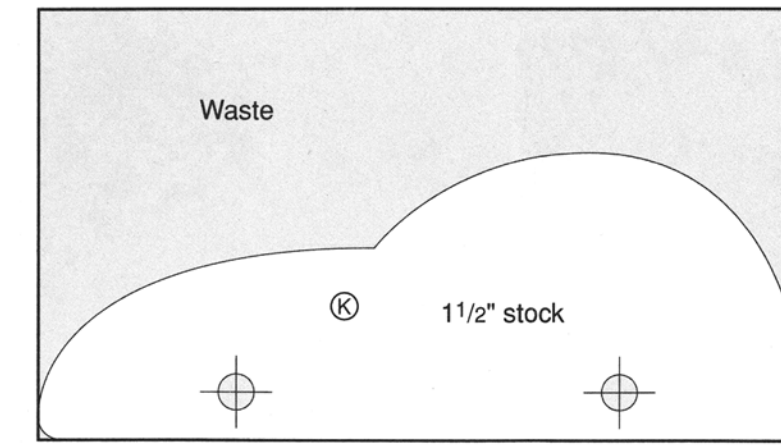
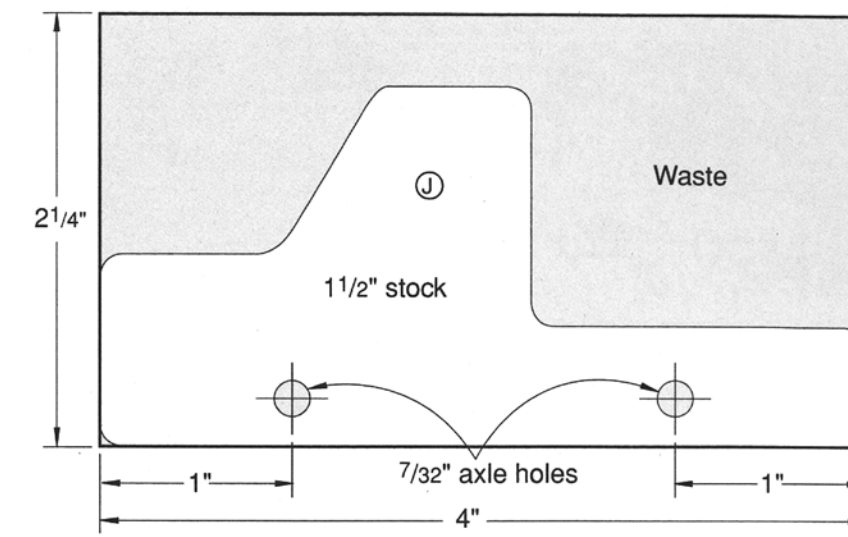
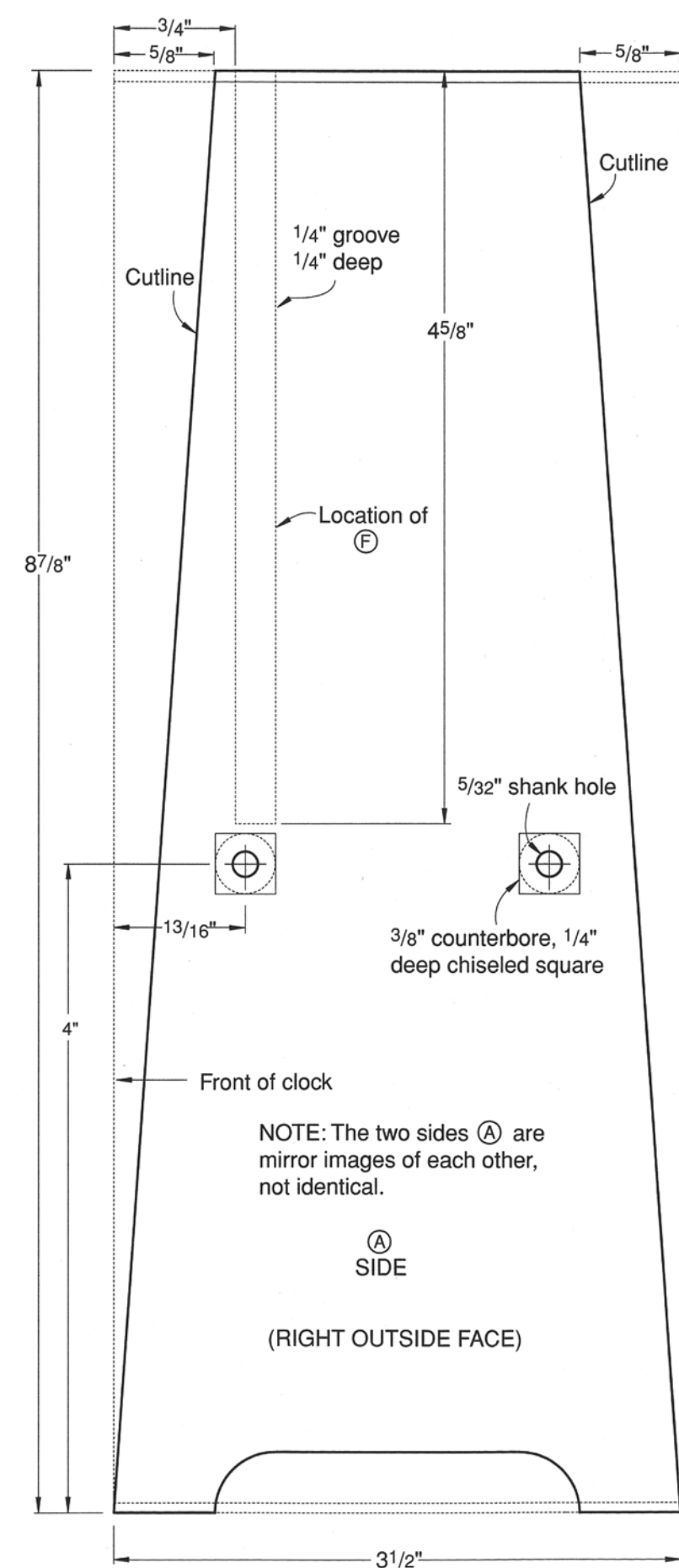
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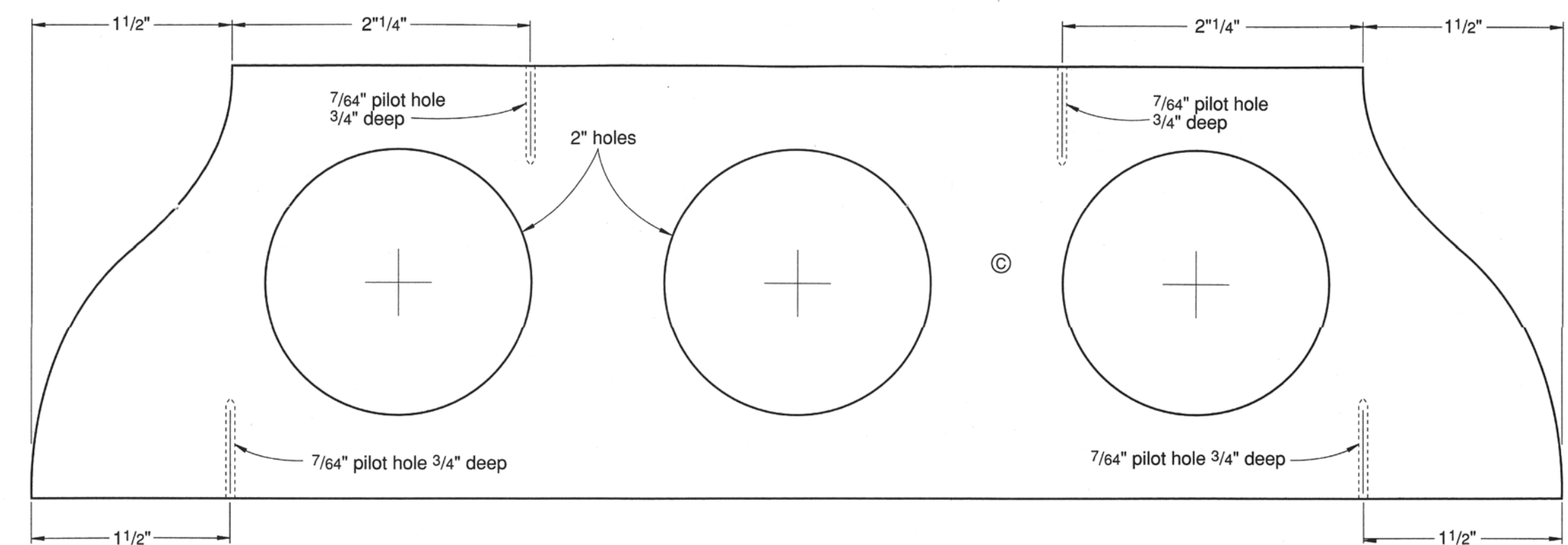




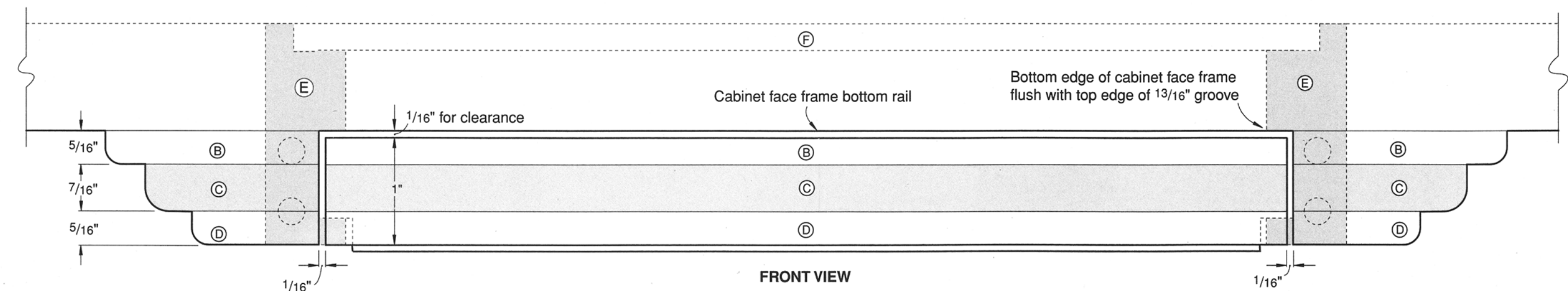
### Mission Clock page 7-9



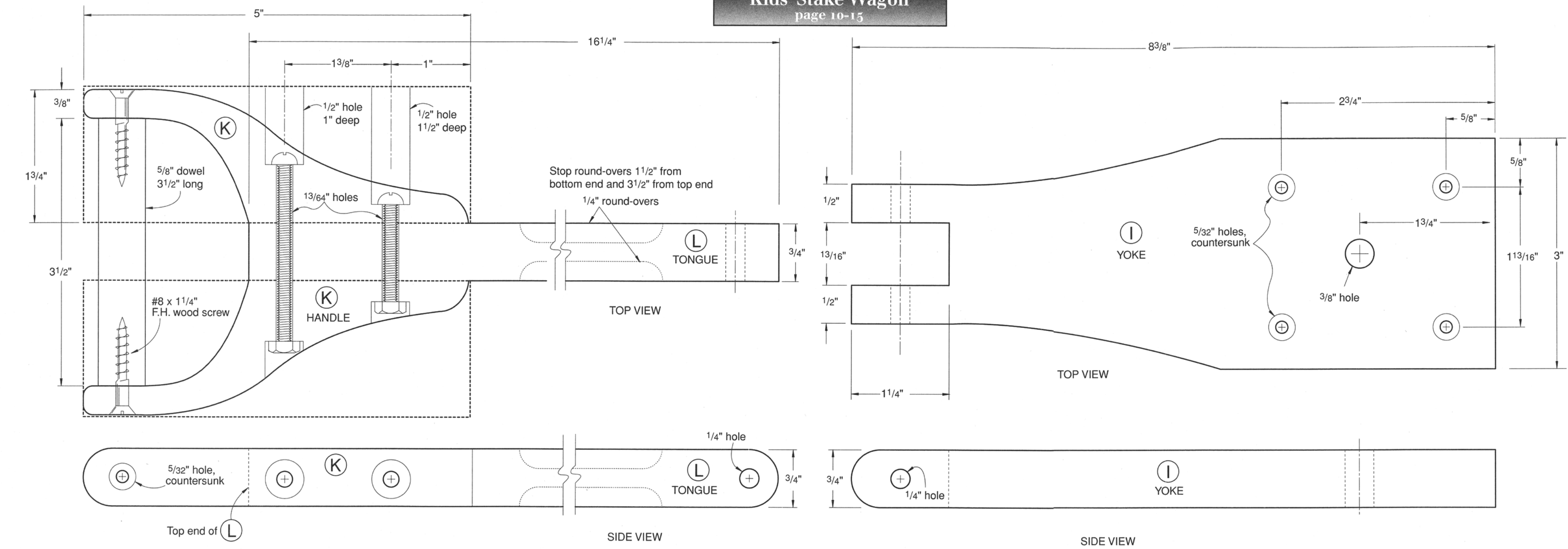
### Ferry Boat page 18-21



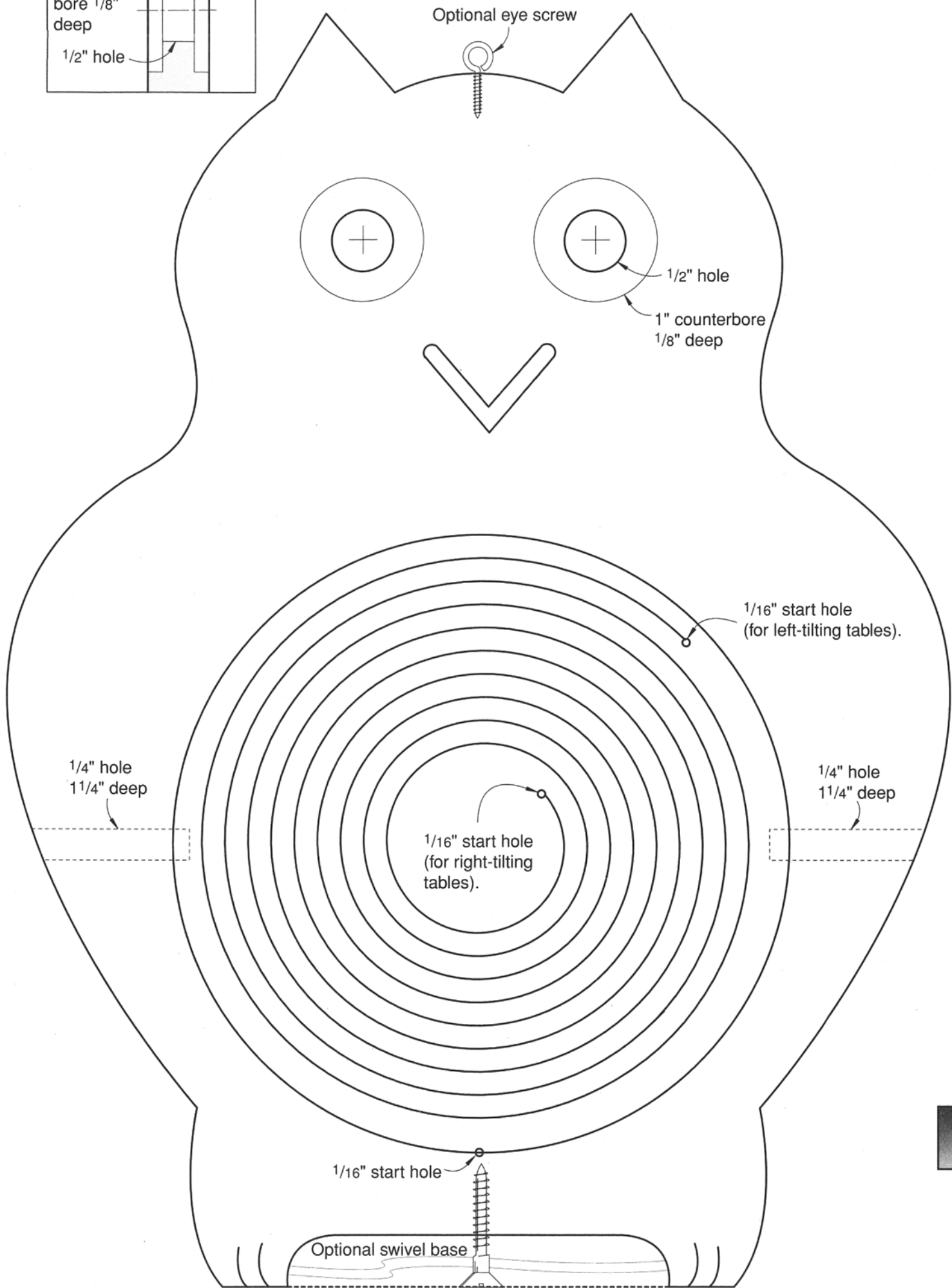
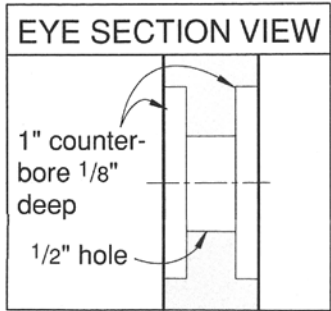
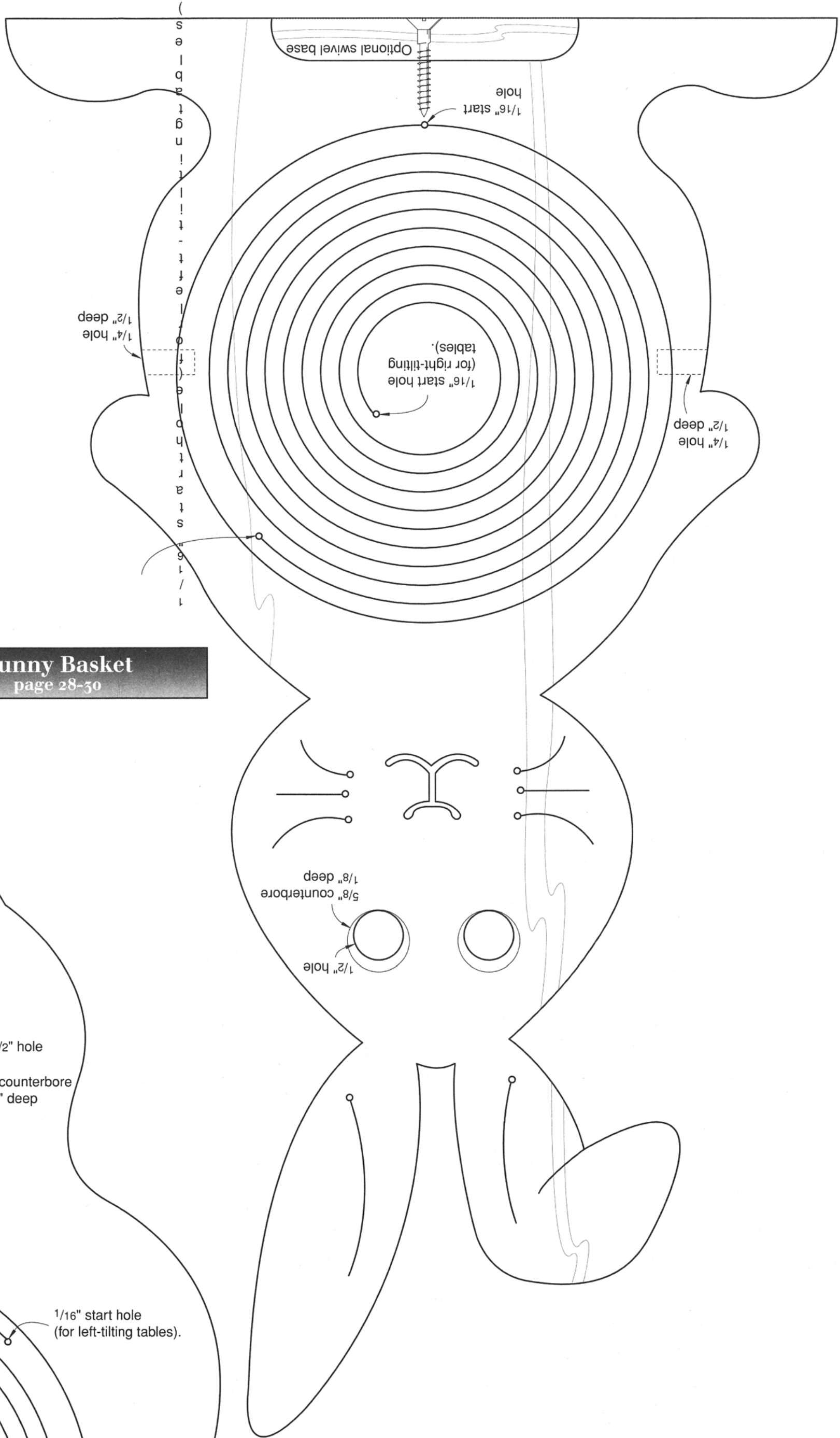
### Cutting Board page 16-17



Kids' Stake Wagon  
page 10-15



Bunny Basket  
page 28-30



Optional Owl Basket  
page 28-30

