

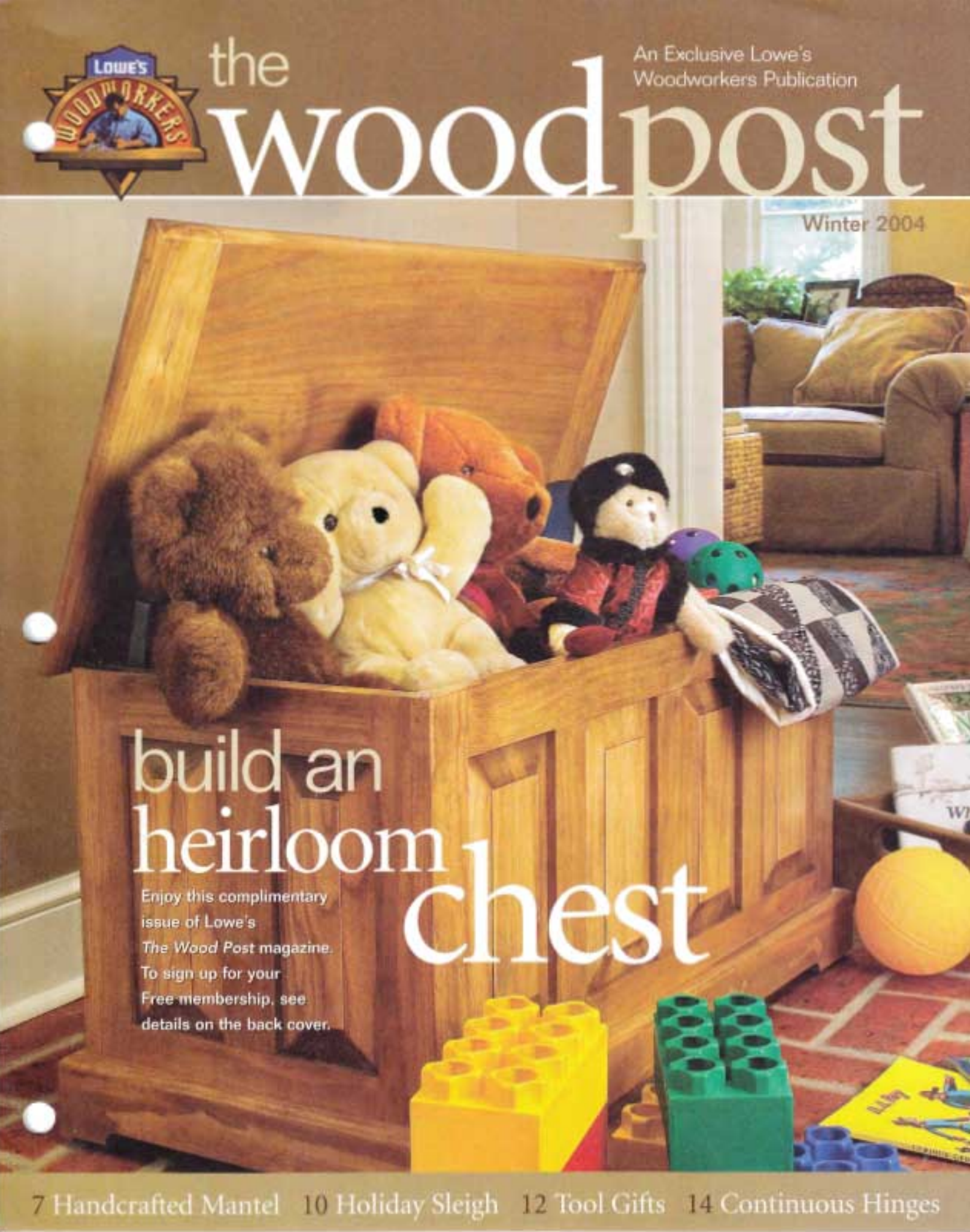


the

An Exclusive Lowe's
Woodworkers Publication

woodpost

Winter 2004



build an heirloom chest

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7 Handcrafted Mantel 10 Holiday Sleigh 12 Tool Gifts 14 Continuous Hinges

From Our Shop



There is more than a hint of the holiday season in this issue of *The Wood Post*. Our weekend project features a festive decorative sleigh made from a single piece of plywood. This handsome snow runner can be disassembled for off-season storage. Although we show it as a holiday planter on the front porch, you can use it as a lighted yard ornament filled with faux presents. Or fill it with real presents, and place it indoors near the fireplace.

Speaking of fireplaces, one of our featured projects is a handsome, classic mantel that anyone would be proud to gather 'round for hot chocolate on a chilly winter evening. You can make it from readily available birch and poplar. Can you imagine a more awe-inspiring gift for a loved one—or even yourself?

If that isn't enough, we also offer plans to build an heirloom chest that we have depicted, not surprisingly, as a toy chest. Made of white pine with a tawny stain finish, this chest features child-friendly safety hinges as well as a timeless design that complements a variety of styles.

Before you head out to do some holiday shopping, check out our list of the 10 best gifts for woodworkers; all are available at Lowe's. In addition, this issue offers plenty of tips and information on woodworking materials, hardware, and finishing details.

Please let me know your thoughts on *The Wood Post* and our Web site. Lowes.com/Woodworkers. If you have suggestions for future issues, I encourage you to write. We appreciate your comments.

Bill

Bill Sawyer,
Lowe's Woodworkers

P.S. Tell us about your projects or how you became interested in woodworking. Send your responses c/o Peggy Rees, P.O. Box 523, Birmingham, AL 35201. If we profile you in an upcoming issue of *The Wood Post*, you'll receive a free Hitachi 14.4-volt 3/8-inch cordless drill/driver kit.

tip

Don't Miss These Tips

Look for tips throughout these pages from The Taunton Press, publishers of the magazines *Fine WoodWorking*, *Fine Homebuilding*, *Fine Cooking*, and *Fine Gardening*, as well as a vast number of related book titles available at your local Lowe's store.



FREE TO MEMBERS!

As a member of Lowe's Woodworkers, you're entitled to a free downloadable woodworking plan with each issue of *The Wood Post*.

Get the simple bookcase plan (shown above). It's available online until December 17, 2004. Log on to: Lowes.com/FreePlan.



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Q&A With the Experts at



I recently tested a stain on a piece of scrap wood from a bench I was building. It looked great on the test piece, but on the finished product, it's much darker in spots. Why?

A: There are a number of reasons. Wood from the same board but from different parts of the tree will absorb stain differently. This is partially due to the fact that all wood fibers aren't oriented in a straight line or lined up in the same direction throughout the board. The fibers can change direction and, as a result, will reflect light differently. Stain often accentuates these variations. You can choose to apply a wood sealant prior to staining that limits how much stain is absorbed by the wood fibers, helping you achieve more uniformity. But if a sealant is used, the final color could be altered. No matter what, test your stain on scrap wood left over from the project. You will learn that the finishing process is as much an art as it is a science.

What is the best way to edge plywood?

A: There are three basic ways to do this. You can use edge banding—rolls of thin veneer strips that come in several species. Attach them to the plywood edge with either wood glue or a self-stick adhesive. Cut them slightly wider than the plywood thickness so they can be sanded flush.



The second method is to create your own edge banding. Use a table saw to rip $\frac{1}{4}$ -inch-thick strips of hardwood slightly wider than the plywood's thickness. Glue the strips to the plywood, and use a brad nailer to secure the strips while the glue dries. Sand the edges, and use a roundover bit to smooth the edge flush with the plywood face.

A third method involves using a slot-cutting bit, or wing cutter, with your router. Use this miniature saw blade to cut a $\frac{1}{4}$ -inch-wide and $\frac{1}{2}$ -inch-deep groove down the center of the plywood edge. Then, using a table saw, cut a T-shaped piece of moulding from hardwood to match the groove you've cut; secure the T-shaped piece with wood glue. The groove provides considerable surface area for the glue to hold the moulding/edging in place.

I'm reconstructing an old magazine rack and need to replace some screws.

A couple of screw holes have widened over the years, causing the existing screws to become loose. Should I use bigger screws?

A: A better fix might be to insert two or more wood toothpicks dipped in glue into the existing holes. The toothpicks offer a solid medium, which will help secure the new screws. When the glue dries, trim toothpick ends flush with the holes, and screw the same-size screws into the holes.

◀ **As you can see here, identical stain applied to three pieces of the same type of wood can produce varying results.**



Heirloom Chest

Store toys or treasures
in this handsome piece.

After building this classic piece you may decide it looks too good to store toys. Don't worry. It will be around long after the children have grown up and moved away. Then you can use the chest to keep blankets, linens, or photo albums for future generations. If the piece will be storing clothing or bedding for longer periods, consider replacing the birch plywood with $\frac{1}{4}$ -inch aromatic cedar.

feature project

Instructions:

General: Set all nails; fill holes and voids with wood filler. Remove excess glue.

Step 1: Construct the front and back frame assemblies. Cut rails, stiles, and panels per the Cut List (see Figures 1 and 2).

a. Cut a $\frac{1}{4}$ -inch-wide by $\frac{3}{8}$ -inch-deep groove in each end stile, starting $\frac{1}{8}$ inch from the edge (see joint detail in Figure 2).

b. Assemble the frames with pocket-hole screws per the dimensions in Figure 1.

c. Use a router to cut a $\frac{1}{4}$ -inch-wide by $\frac{3}{8}$ -inch-deep rabbet in the rails and stiles to accept the raised panels (see Figure 1). Square the rounded corners of the rabbet using a chisel.

tip

A corner chisel makes quick work of squaring the rounded corners left by the router. But if you use a bench chisel, make sure it is sharp, and perform the cross grain cut first to avoid splitting the wood.

d. Cut the raised panels per the detail in Figure 1. Center each in place, and attach to the frame with glue and $\frac{3}{8}$ -inch brads.

Step 2: Construct the end assemblies (see Figure 2).

a. Cut rails and stiles per the Cut List.

b. Prepare the end stiles using the table saw to cut a rabbet on the face side,

LOWE'S SHOPPING LIST

Lumber

- 4 (6-foot-long) 1 x 3s, pine
- 5 (6-foot-long) 1 x 4s, pine
- 1 (6-foot-long) 1 x 6, pine
- 3 (6-foot-long) 1 x 12s, pine
- 1 (48" x 96-inch) sheet of $\frac{1}{4}$ -inch-thick birch plywood

Hardware & Supplies

- 1 box ($\frac{3}{8}$ -inch) brads
- 1 box (1-inch) brads
- 1 box (1 $\frac{1}{2}$ -inch) brads
- 1 box (1 $\frac{1}{4}$ -inch) Kreg pocket screws
- 1 box (1 $\frac{1}{4}$ -inch) PrimeGuard Plus screws
- 1 (1 $\frac{1}{4}$ -inch x 48-inch) continuous hinge
- 2 safety hinge/lid supports (right- and left-hand)
- 1 jar (#20) joining biscuits
- 1 (4-pack) $\frac{3}{8}$ -inch nail-on furniture glides
- 1 (12-pack) $\frac{1}{2}$ -inch self-stick clear bumpers
- wood glue
- stainable wood filler

Figure 1

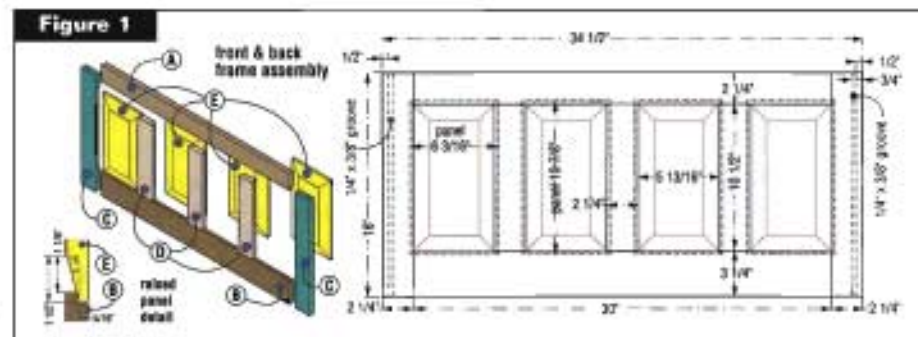


Figure 2

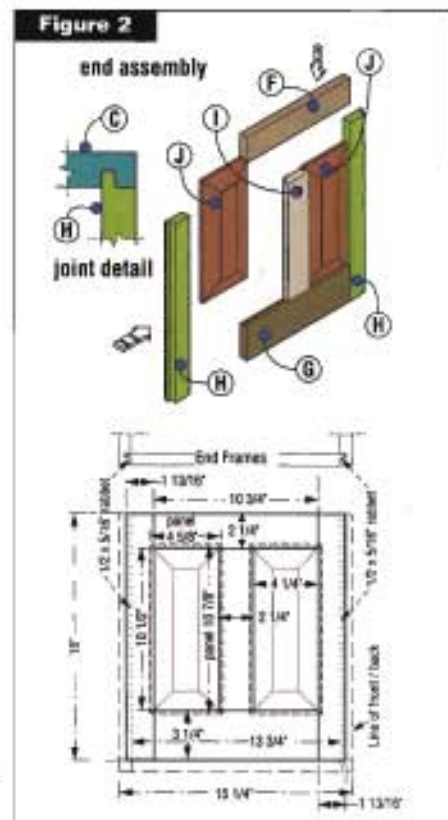


Figure 3

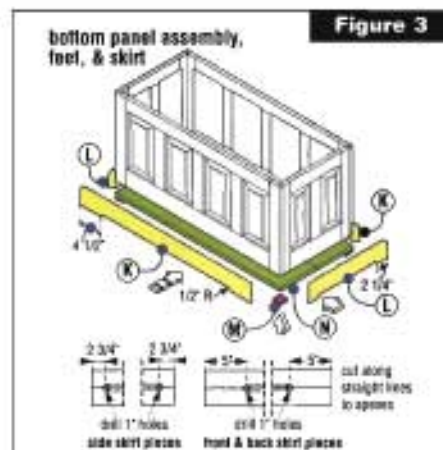
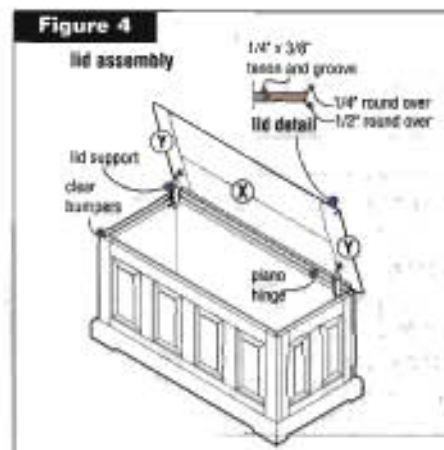


Figure 4



$\frac{3}{8}$ inch deep by $\frac{1}{8}$ inch wide, to make the tongue for the corner joint (see joint detail).
c. Assemble the frames with pocket-hole screws per the dimensions in Figure 2. Cut and attach the raised panels as instructed in Step 1d (see Figure 2).

Step 3: Assemble the four assemblies using glue and 1 $\frac{1}{2}$ -inch brads. Check the piece to be sure it's square.

Step 4: Attach the bottom, feet, and skirt (see Figure 3).

a. Join the two bottom panels with joining biscuits and glue.

b. Cut the bottom-panel assembly to fit the frame assembly flush with the sides. Attach the bottom with glue and 1 $\frac{1}{4}$ -inch PrimeGuard Plus screws.

c. Attach the feet to each corner with glue and 1-inch brads.

For plans for a drop-in drawer for this chest, visit Lowes.com/WoodPost.

CUT LIST

Part Name	Material	Size (in inches)	Qty.
FRONT & BACK FRAME ASSEMBLY			
(A) top rails	1 x 3 pine	$\frac{3}{4}$ x 2 $\frac{1}{4}$ x 30	2
(B) bottom rails	1 x 4 pine	$\frac{3}{4}$ x 3 $\frac{1}{4}$ x 30	2
(C) end stiles	1 x 3 pine	$\frac{3}{4}$ x 2 $\frac{1}{4}$ x 16	4
(D) mid stiles	1 x 3 pine	$\frac{3}{4}$ x 2 $\frac{1}{4}$ x 10 $\frac{1}{2}$	6
(E) raised panels	1 x 12 pine	$\frac{3}{4}$ x 6 $\frac{1}{2}$ x 10 $\frac{1}{2}$	8
END ASSEMBLY			
(F) top rails	1 x 3 pine	$\frac{3}{4}$ x 2 $\frac{1}{4}$ x 10 $\frac{1}{2}$	2
(G) bottom rails	1 x 4 pine	$\frac{3}{4}$ x 3 $\frac{1}{4}$ x 10 $\frac{1}{2}$	2
(H) end stiles	1 x 3 pine	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 16	2
(I) mid stiles	1 x 3 pine	$\frac{3}{4}$ x 2 $\frac{1}{4}$ x 10 $\frac{1}{2}$	2
(J) raised panels	1 x 6 pine	$\frac{3}{4}$ x 4 $\frac{1}{2}$ x 10 $\frac{1}{2}$	4
BOTTOM PANEL ASSEMBLY, FEET, & SKIRT			
(K) front & back skirt	1 x 4 pine	$\frac{3}{4}$ x 3 x 36*	2
(L) end skirt	1 x 4 pine	$\frac{3}{4}$ x 3 x 16 $\frac{1}{2}$ *	2
(M) feet	1 x 3 pine	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	4
(N) bottom panels	1 x 12 pine	$\frac{3}{4}$ x 7 $\frac{1}{2}$ x 34 $\frac{1}{2}$	2
INTERIOR PANELS			
(O) front/back panels	$\frac{1}{2}$ -inch plywood	$\frac{3}{4}$ x 14 $\frac{1}{2}$ x 32 $\frac{1}{2}$	2
(P) end panels	$\frac{1}{2}$ -inch plywood	$\frac{3}{4}$ x 12 $\frac{1}{2}$ x 13 $\frac{1}{2}$	2
(Q) front/back trim	1 x 12 scrap pine	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 32 $\frac{1}{2}$	2
(R) end trim	1 x 12 scrap pine	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 13 $\frac{1}{2}$	2
LID			
(X) center panels	1 x 12 pine	$\frac{3}{4}$ x 8 $\frac{1}{2}$ x 29 $\frac{1}{2}$	2
(Y) bread boards	1 x 4 pine	$\frac{3}{4}$ x 3 $\frac{1}{2}$ x 16 $\frac{1}{2}$	2

*Approximate length, long point to long point. Miter both ends to fit.

TOOL LIST

- table saw (or circular saw with straightedge guide)
- miter saw
- jigsaw
- power sander or sanding block
- power drill with 1-inch and 1 $\frac{1}{4}$ -inch bits
- Kreg ProPack Pocket Hole System or Kreg Mini Kit
- air compressor and finish or trim nailer
- router with $\frac{1}{4}$ -inch, $\frac{3}{8}$ -inch, and $\frac{1}{2}$ -inch roundover bits, and $\frac{1}{4}$ -inch rabbeting bit
- biscuit joiner
- clamps
- hammer
- chisel
- hacksaw
- nail set
- framing square
- tape measure
- pencil

tip

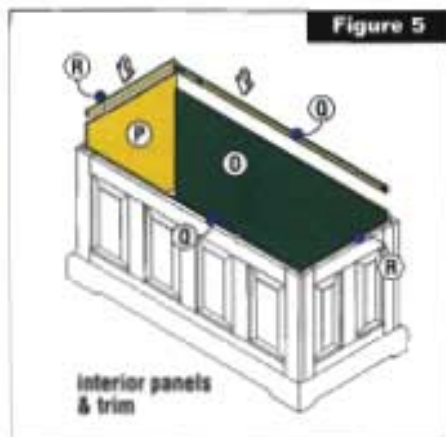
Careful layout will make the difference in the accuracy of your cuts. Scribe your pieces on a flat surface.

d. Rip 1 x 4 stock to construct the skirt, and use a $\frac{1}{4}$ -inch roundover bit to roll the edge. Scribe the lengths; miter both ends. Lay the two long pieces together on a flat surface with bottom edges touching. Clamp them together. Repeat with two shorter pieces. Using the skirt detail in Figure 3, drill holes where marked, separate the boards, and then draw a rule from the apex of one hole to the other. Use a jigsaw to cut along that line.

e. Attach the skirt pieces with glue and 1 $\frac{1}{4}$ -inch brads.

Step 5: Install interior panels and trim (see Figure 4).

a. Cut the end panels first, and attach them with glue and $\frac{3}{8}$ -inch brads. Cut and attach the front and back panels in the same way.



b. Rip the front, back, and end trim pieces from the leftover 1 x 12 stock. Attach the trim even with the top edge of the frame assembly using glue and $\frac{3}{8}$ -inch brads.

Step 6: Assemble and install the lid (see Figure 4).

a. Cut the center panels per the Cut List. Join with joining biscuits and glue.

b. Cut a $\frac{1}{4}$ - by $\frac{1}{4}$ -inch-deep rabbet on the top and bottom of each end to form a stubbed tenon. Cut a $\frac{1}{4}$ - by $\frac{1}{4}$ -inch-deep groove in each bread board (see detail in Figure 4).

c. Attach the bread boards to the lid assembly with glue and $\frac{3}{8}$ -inch brads.

d. Use a $\frac{1}{4}$ -inch roundover bit on the top perimeter of the lid, and use a $\frac{1}{2}$ -inch roundover bit on the bottom edges.

e. With a hacksaw, cut the continuous hinge to 33 inches and attach it for fit with just a few of the included screws. You will remove the hinge for finishing, and then reattach it with all screws.

tip

Mortising for the hinge makes for a better fitting top. Use a $\frac{1}{4}$ -inch straight bit set to just half the thickness of the hinge on both the chest and the lid. A straight edge clamped to the lid will keep the router from wandering.

f. Install the safety hinge/lid supports. Check for smooth functioning of the continuous hinge and lid supports.

g. Remove all hardware to finish. We used Olympic semitransparent stain, ginger.

h. Reattach the lid, and add clear bumpers to the box's top corners. Add furniture glides to the feet.

Project #W041 ■



Handcrafted Mantel

Give your room an intimate and inviting centerpiece.

Few things set the tone in a living area like an elegant, well-crafted mantel. This traditional version was designed to fit flush with a brick surround built out from a wall, but with some dimension changes, it can be customized to fit most any firebox.

d. Place the shelf assembly upside down, and position the breast board/pilaster assembly upside down on the underside of the shelf assembly with the back edges flush. Mark the position of one nailing strip on the underside of the shelf assembly (see Figure 1). Cut the nailing strip to length, and then attach the nailing strip to the shelf assembly.

Step 5: Install the mantel.

a. Center the pilaster/breast board assembly on the face of the fireplace, and mark this position on the wall. Using suitable fasteners, attach the mounting strips to the wall $\frac{1}{2}$ inch inside of your marks.

b. Attach the pilaster/breast board assembly to the mounting strips by nailing from the sides.

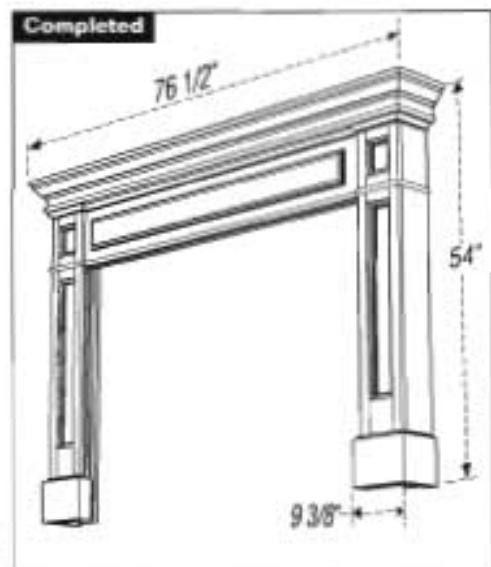
c. Center the shelf assembly on top of the pilaster/breast board assembly. Mark the upper edge of the shelf assembly on the wall. Using suitable fasteners, attach a nailing strip to the wall $\frac{1}{2}$ inch below the mark.

d. Place the shelf assembly on top of the pilaster/breast board assembly, resting the shelf assembly on the nailing strip. Attach the shelf assembly to the nailing strip through the upper shelf. Secure the pilaster/breast board assembly to the shelf assembly by nailing through the breast board into the other nailing strip.

e. Attach all upper trim and middle trim pieces to the pilaster/breast board assembly per the illustration.

f. Scribe to fit. Next, cut and attach the surround trim snug to the face of the surround material using glue and $\frac{1}{8}$ -inch brads.

g. Caulk all gaps between the mantel and the wall. Finish as desired. **Project #W042**



MANTEL BOARD CUT LIST (FIGURE 1)

Part Name	Material	Size (in inches)	Qty.
A upper shelf	$\frac{3}{4}$ -inch plywood	$\frac{3}{4}$ x 9 x 75 $\frac{1}{2}$	1
B lower shelf	$\frac{3}{4}$ -inch plywood	$\frac{3}{4}$ x 7 $\frac{1}{4}$ x 72 $\frac{1}{4}$	1
C front panel	$\frac{3}{4}$ -inch plywood	$\frac{3}{4}$ x 3 $\frac{1}{8}$ x 72 $\frac{1}{4}$ *	1
D side panels	$\frac{3}{4}$ -inch plywood	$\frac{3}{4}$ x 3 $\frac{1}{8}$ x 7 $\frac{1}{4}$ **	2
E nailing strips	1 x 2 pine	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 70	2
F upper shelf trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x 76 $\frac{1}{2}$ *	1
F upper shelf trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x 9 $\frac{1}{2}$ **	2
G front moulding	crown moulding	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 75 $\frac{1}{2}$ *	1
G side moulding	crown moulding	$\frac{3}{4}$ x 2 $\frac{1}{2}$ x 8 $\frac{1}{2}$ **	2
H lower shelf trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x 73*	1
H lower shelf trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x 7 $\frac{1}{4}$ **	2

BREAST BOARD CUT LIST (FIGURE 2)

Part Name	Material	Size (in inches)	Qty.
I upper trim	base cap moulding	$\frac{1}{2}$ x 1 $\frac{1}{2}$ x 55 $\frac{1}{2}$ *	1
J breast board	$\frac{3}{4}$ -inch plywood	$\frac{3}{4}$ x 9 $\frac{1}{2}$ x 67 $\frac{1}{2}$	1
K panel trim	shelf edging	$\frac{3}{4}$ x $\frac{3}{4}$ x 52 $\frac{1}{2}$ *	2
K panel trim	shelf edging	$\frac{3}{4}$ x $\frac{3}{4}$ x 5*	2
L raised panel	1 x 4 poplar	$\frac{3}{4}$ x 3 $\frac{1}{4}$ x 50 $\frac{1}{2}$	1
M lower trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x 55 $\frac{1}{2}$ *	1

PILASTERS ASSEMBLY CUT LIST (FIGURE 3)

Part Name	Material	Size (in inches)	Qty.
N upper trim	base cap moulding	$\frac{1}{2}$ x 1 $\frac{1}{2}$ x cut to fit	6
O stiles	1 x 2 poplar	$\frac{3}{4}$ x 1 $\frac{1}{2}$ x 49	4
P side panels	1 x 8 poplar	$\frac{3}{4}$ x 5 $\frac{1}{4}$ x 49	2
Q recessed board	1 x 8 poplar	$\frac{3}{4}$ x 6 $\frac{1}{4}$ x 39 $\frac{1}{4}$	2
R recessed trim	shelf edging	$\frac{1}{2}$ x $\frac{3}{4}$ x cut to fit	16
S middle trim	half-round moulding	$\frac{3}{4}$ x $\frac{1}{4}$ x cut to fit*	6
T base	1 x 8 poplar	$\frac{3}{4}$ x 6 $\frac{1}{4}$ x cut to fit	6
U base trim	cove moulding	1 $\frac{1}{4}$ x $\frac{1}{4}$ x cut to fit	6
V surround trim	pine stop moulding	$\frac{3}{4}$ x $\frac{3}{4}$ x cut to fit	3
W bottom rail	1 x 8 poplar	$\frac{3}{4}$ x 4 x 11 $\frac{1}{4}$	2
X middle rail	1 x 8 poplar	$\frac{3}{4}$ x 4 x 3 $\frac{1}{4}$	2
Y top rail	1 x 8 poplar	$\frac{3}{4}$ x 4 x 2 $\frac{1}{4}$	2
Z mounting strip	1 x 4 pine	$\frac{3}{4}$ x 3 $\frac{1}{2}$ x 48	2

*Approximate length, long point to long point. Miter both ends to fit.

**Approximate length, square end to long point. Miter one end to fit.

Notes: Check all local, regional, and national fire codes before building your mantel. Check with a local building inspector, firebox manufacturer, or gas-log manufacturer for clearance requirements of flammable materials. Some manufactured fireboxes and gas logs have greater clearance requirements than some building codes.

A Mantel in Minutes

During the busy holiday season you may find yourself too short on time or energy to create such a woodworking masterpiece. If you'd like to give your fireplace a face lift, Lowe's offers an extensive array of mantels that can be special ordered and then customized to fit your space.

In addition, Lowe's stocks a wide variety of mantel shelves as well as full surrounds. (The manufacturer may vary based on where you live.) Check with a Lowe's Millwork Sales Specialist to order a customized mantel or for assistance in selecting a ready-made mantel for your home.

Holiday Sleigh

This charming project adds a festive touch to your yard or porch.

Quick to make and simple to store, this sleigh is an easy project to whip up right before the holidays. It's cut from a single sheet of plywood and can be disassembled for flat storage during the rest of year. Use it as a decoration on your front porch or inside your home to hold plants or presents.

TOOL LIST

- table saw (or circular saw with a straightedge guide)
- jigsaw
- power sander or various grit sandpaper
- power drill and bits
- compass
- clamps
- framing square
- tape measure
- pencil

LOWE'S SHOPPING LIST

Lumber

- 1 (48- x 96-inch) sheet of $\frac{3}{4}$ -inch-thick exterior-grade plywood

Hardware & Supplies

- 1 box (1½-inch) Simpson Strong-Tie wood screws
- exterior wood glue
- interior/exterior wood filler
- exterior primer

Instructions:

Step 1: Make your major cuts first as shown by Cut #1, Cut #2, and Cut #3 in Figure 1. There may be slight discrepancies in the dimensions due to the saw kerf (the width of the saw blade cut), but these will not matter.

Step 2: Join the side panels (good sides facing) with a wood screw at each corner. Mark all cuts according to Figure 2 (mark the runner cutouts square at this point), using the compass to sketch the large curves. Attach additional screws inside the markings to hold the two pieces together as you cut.

Step 3: Cut the remaining parts from the pieces you cut in Step 1, according to the Cut List. Using a 1-inch bit, drill drainage holes in the bottom panel as shown in Figure 1.

Step 4: Using the same bit, drill holes in the side panels as shown in Figure 2. These holes will give your cuts curved corners and make the cuts easier to start. Using a jigsaw, make the cuts marked on the side panels.

Step 5: Fill all holes and voids with wood filler. Remove the temporary screws from the side panels, and sand all the parts. Apply two coats of exterior primer.

Step 6: Using screws and glue, attach the side cleats to the rough faces of the side panels as shown in Figure 2. Attach end cleats to the front

panel and back filler with glue and wood screws according to placement shown in Figure 1.

Step 7: Lay one side panel, good face down, on a flat surface. From this point on, use only screws for joining pieces. Attach the front panel to the side panel as shown in Figure 3, checking for square as you go. Attach the back filler to the side panels 6½ inches above the top of the runner. Set the assembly upright, and attach the other side panel using the same procedure. Attach the back panel to the side panels with the upper edges flush. Insert the bottom panel to check for fit.

Step 8: Disassemble the parts, and apply your finish as desired. Reassemble for use, and disassemble later for storage.

Project #W043 ■

CUT LIST

Part Name	Size (in inches)	Qty.
front panel	$\frac{3}{4}$ x 14 x 24	1
back panel	$\frac{3}{4}$ x 13 x 24	1
side panels	$\frac{3}{4}$ x 24 x 48	2
bottom panel	$\frac{3}{4}$ x 22½ x 35½	1
end cleats	$\frac{3}{4}$ x 1½ x 18	1
side cleats	$\frac{3}{4}$ x 1½ x 24	2
back filler	$\frac{3}{4}$ x 4½ x 24	1

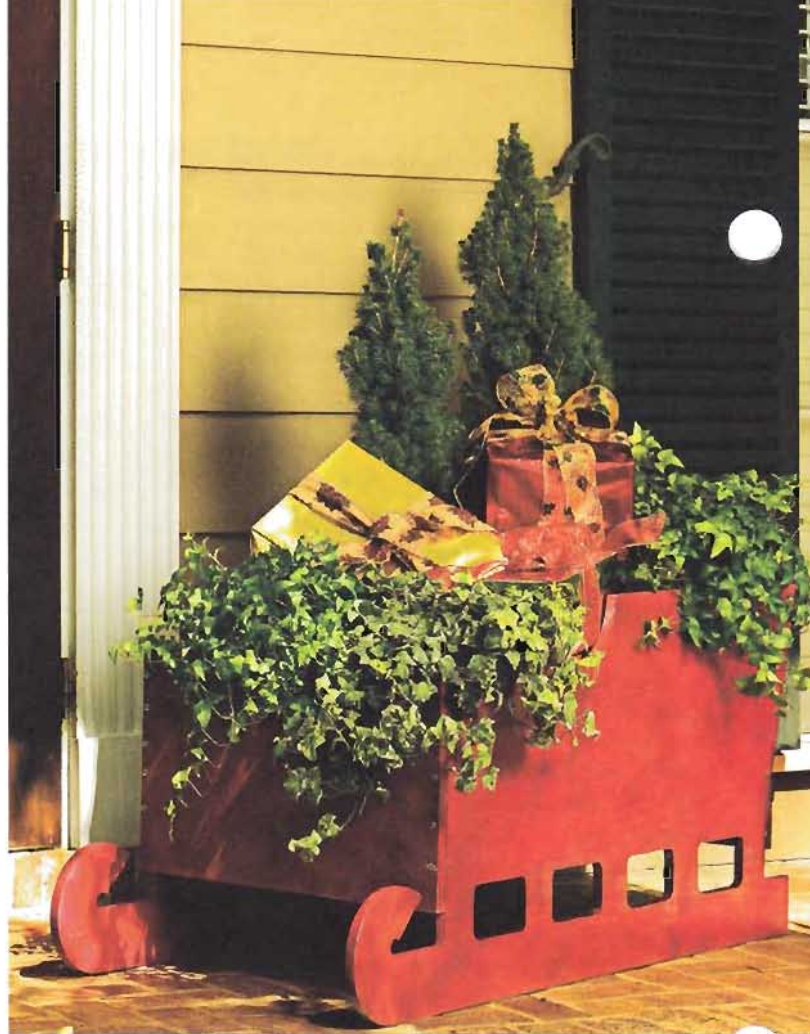


Figure 1

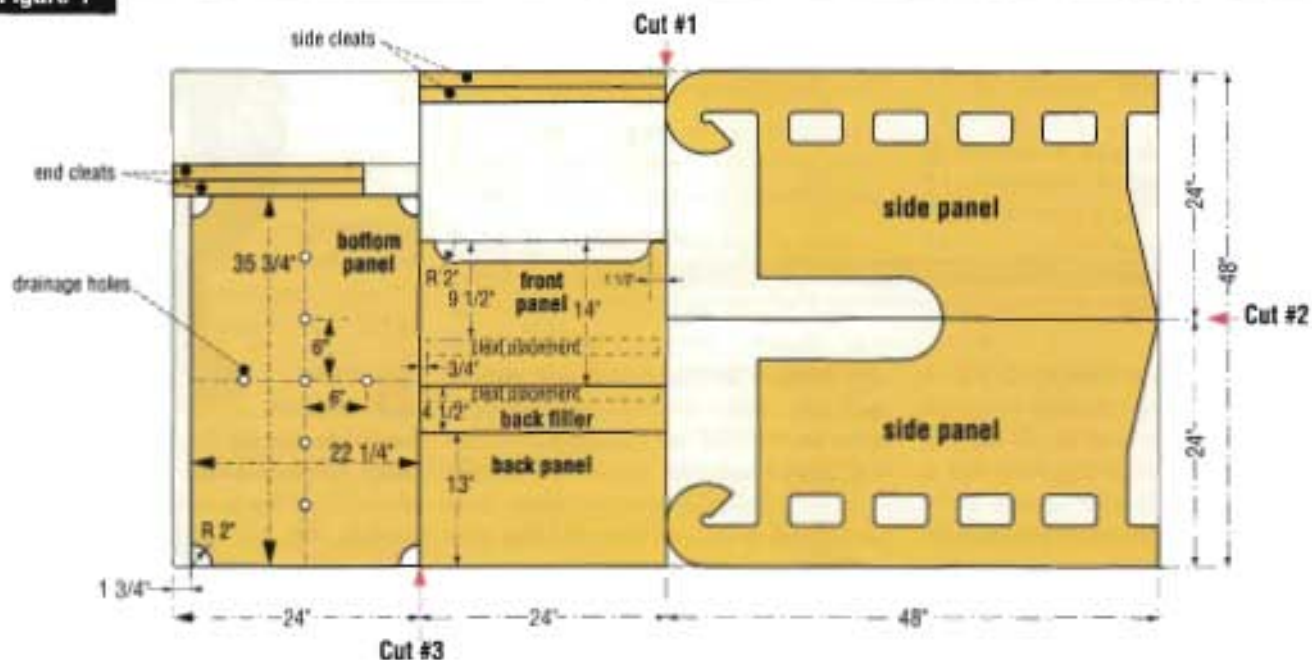


Figure 2

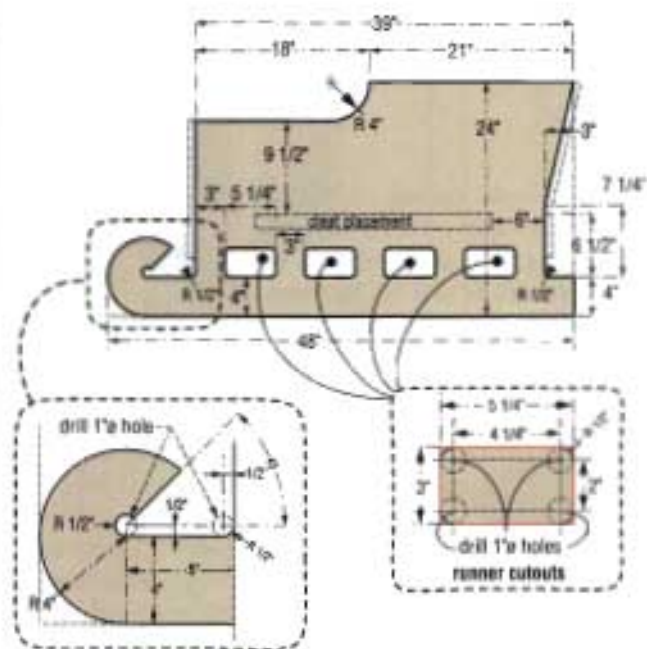
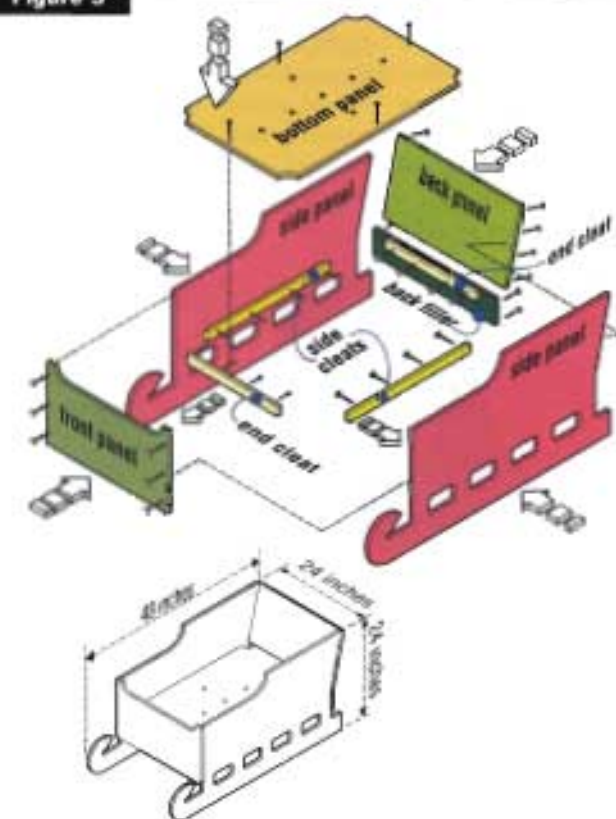


Figure 3



the right tools

Holiday Gear

Give tools that will assist your favorite woodworker for years to come.



1 Bessey 24-inch Flex K clamp In the woodworking shop few things are better than a clamp that won't let your work slip—and clamps that use the K Body system are some of the best in the business. This version (#22119) is made of hardened steel and includes guide rollers and anchor pins.

2 Hitachi LCD digital laser Compound Miter Saw Exclusive to Lowe's and a Hitachi patented design, this tool (#113872) takes miter cutting to a high-tech level. A laser marker allows cuts to be made even more precisely and cut angles are easily changed. An LCD screen gives a digital readout on the miter or bevel angle allowing you to be exact. This tool is kind to the senses with a quieter motor and a dust collection system.



3 Kobalt professional nut driver set This compact, yet complete, driver set (#14730) has cushion grip handles that make it easier for anyone to assemble a project. These drivers are made from strong heat-treated and tempered alloy steel in sizes from $\frac{3}{16}$ -inch to $\frac{1}{2}$ -inch.



4 Columbian 90-degree angle clamp Equipped with an ergonomic handle, this clamp (#43397) can hold miter and butt joints at 180° angles. The rear jaw swivels to adjust to various wood thicknesses. It's an ideal gift for those who build cabinets or furniture.



5 GMC 16-inch variable speed scroll saw with Redeye Laser You can enter the world of fine woodworking and intricate designs with this scroll saw (#10573). Its laser generates an exact line for more accurate cuts and superior finishes. The saw has an adjustable bevel angle from 0° to 45°. Plus, the blades can be changed without using a single tool.



6 Bosch ¼-sheet Quick Change Sander You can single-handedly change the sandpaper on this machine (#07957) and tighten the sheet. Plus, you'll work in comfort because this sander includes a soft-grip handle and operates with minimal vibration and noise. A microfilter dust canister pulls particles away from you.



7 Freud 3¼-HP ultimate router table system Ready to use on its own sturdy table, this plunge router (#29957) has a versatile split fence design along with an aluminum T-track for added stability on large projects. The stand, made of heavy-gauge steel, sits at optimum height for routing. There is also a convenient pre-drilled mounting plate for the router and two snap-down rings, depending on the size of the bit being used.



8 Milescraft Orbiter Allow this drill/driver attachment (#168937) to handle the tough angles so that you don't have to. The body halves of the Orbiter can be rotated up to 360° to drill holes, drive screws, and buff or polish without losing any of its power. In addition, this tool is easy on your hands with an ergonomic handle that can be positioned to accommodate either right- or left-handed users.



9 Stanley FatMax Wood Chisel Set A woodworker's tool bench staple, these chisels (#107105) have large, unbreakable ergonomic handles with recessed thumb grips for excellent control. Large striking caps safeguard the handles and are easy to hit. The high carbon chrome steel blades are hardened and tempered, which allow them to stay sharper, longer.



10 Tradesman 10-inch Table Saw This sturdy workhorse (#53535) features telescoping die-cast aluminum extension wings. They allow you to rip wood up to 24 inches to the right or left. The saw comes atop its own steel stand and is equipped with a large collection bag to pull the dust away from you.



11 Skil 15-piece router bit set These bits (#209175), enclosed in a handsome wood case, will fit any ¼-inch collet router. Each bit is heat-treated for durability and offers a controlled depth-of-cut feature, minimizing kickback. The precision-ground cutting edges stay sharp longer.



Continuous Hinges

Get a great-fitting lid or door by following these tips.

Continuous hinges (also known as piano hinges) are very sturdy and will support a structure along its entire length. They work well for blanket chest lids and cabinet doors. If a large gap between the door and frame doesn't matter, continuous hinges can be surface mounted. However, such a gap would be unsightly for a chest. Solve this problem by recessing the hinge in a mortise.

There are two ways to create the mortise. The easiest method is to make the back panel of the chest slightly shorter than the side panels. As an alternative, mortise the back panel after assembly. If you choose the mortise version, first clamp a piece of scrap wood to the outside of the chest and flush with the top of the back panel to keep the router from tipping.

To compute the depth of the mortise, measure the diameter of the hinge's knuckle with the hinge closed, and then subtract the amount of the gap from that measurement. (If the mortise is too deep, the hinge could bind and not close properly.)

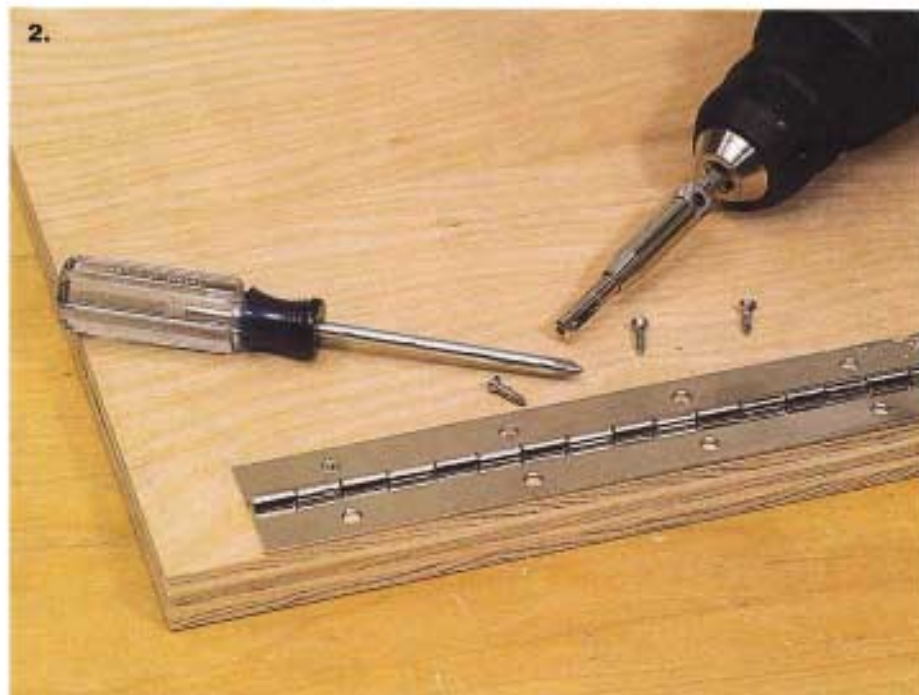
Continuous hinges often are cut $\frac{1}{8}$ inch shorter than the length of the opening to allow for some expansion and contraction of the wood. For cosmetic reasons, the hinge should not be more than 2 inches shorter than the door or lid. Once you've determined the desired length of the hinge, mount it to a piece of scrap wood with screws and cut the hinge with a hacksaw. File away any burrs.

When securing the hinge to a blanket chest, first attach the hinge to the lid and then to the back panel. Drill a pilot hole for a screw at the center of the lid, and then drive the screw. Do the same for one screw at each end of the hinge, making sure that the hinge remains in the correct position. Repeat this procedure to attach the hinge to the back panel.

Test the fit and location of the hinge with these few holes drilled before completing

all pilot holes. Once you are certain that the hinge position is accurate, drill the remaining screw holes. A self-centering bit or punch can help ensure that the pilot holes are centered in the openings. Finally, drive all remaining screws to secure the hinge.

From the editors of
Fine WoodWorking magazine.



1. By cutting the back panel of a chest slightly shorter than the sides, you can avoid having to create a mortise.

2. Attach the hinge to the lid of the chest first.

3. Use a self-centering bit or punch to drill pilot holes before you attach all screws.



begin with the wood

Topcoats Explained

They all will protect and enhance your work.



If you are new to woodworking (and maybe even if you aren't), you'll be impressed with the large array of clear finishes available at Lowe's. The terms polyurethane, urethane, varnish, shellac, and lacquer don't have to be daunting. Any of these products can be used to preserve your work.

We finished the heirloom chest featured in this issue with a coat of oil-based polyurethane after staining the wood (Olympic semitransparent stain, ginger). But many other options would have worked just as well. Knowing more about your choice of products will help you make your decision.

Varnish

This broad group is comprised of synthetic resins (you can look for alkyd, phenolic, or urethane on the label) combined with drying oils of one type or another. Once applied, the oil solidifies while the resin makes the finish lustrous and durable.

Shellac. This naturally derived wood-working standby has been used for decades. It's known for giving a piece a lustrous finish. Most shellac dries to form either a clear or amber coat.

Lacquer. This product also has been in use for many years, in many forms. Generally, lacquer is made up of a nitrocellulose and alkyd resin

combined with other solvents. Once applied, the solvents evaporate and the hardened resins form a protective finish. Lacquer gives wood a rich depth, but it can take on a yellow patina as it ages—a trait that may be desirable for some projects.

Urethane or Polyurethane

These similar products have nearly supplanted varnish as the generic term for giving wood a protective finish. These more modern resins are found in many varnishes, and they are available in both water-based and oil-based solutions. ■

Apply Here

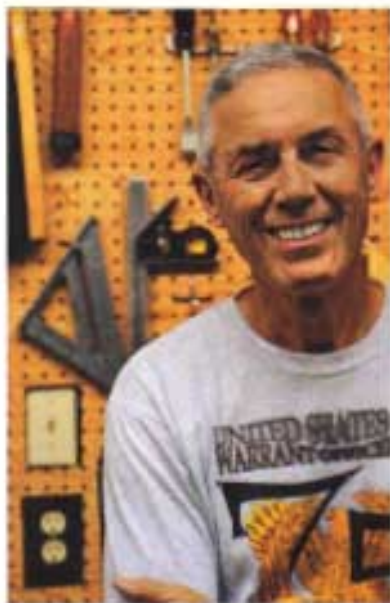
Many clear finishes can be brushed, sprayed, or wiped on a surface. Applying a finish with a brush is great for flat, easy-to-access surfaces. Aerosol and hand-applied finishes work well for touch-ups, smaller pieces, or projects that are not easily brushed.

When applying a finish with a brush, use one with natural bristles for oil-based finishes and one with synthetic bristles for water-based varieties. Whether you are using a water- or oil-based finish, sand the project (using 220-grit sandpaper or finer) between coats. Most finishes recommend at least two coats.

member profile

Seaworthy Skills

Steve Kohn



When Steve Kohn

was 15 years old, he tried to impress a girl by building a flat-bottomed row-

boat. Armed with marine-grade plywood and a circular saw, he went to work in the backyard. "It wasn't much of a boat," Kohn says. "And the girl may not have been impressed, but the boat didn't sink."

That relative success prompted Kohn to enroll in woodworking classes in high school. Once out of school, he continued woodworking when he could, but with the frequent moves required by his Army career, he wasn't always able to find the time or the space. Now stationed in Georgia, Kohn finally has what he considers an adequate workshop.

His latest project is a pair of bookshelves that will flank a woodstove in his home. Asked about one of his prized past creations, Kohn mentions his nearly 6-foot-tall media rack that stores CDs, videos, and books. "Foolishly, I included space to hold albums," he laments of that now-dated feature.

Kohn concedes that he's actually a woodworking amateur, but he says he has learned one important lesson through the years.

"You can't be a perfectionist," he advises. "The corner miters will never be perfect, there always will be gaps between pieces of wood, and the varnish will get too thick in one spot. If you can get over that stuff..."

Not surprisingly, Kohn smiles and doesn't finish his sentence. Like all woodworkers, he'll continue to strive for the perfect project. ■

put it together

Safety Hinges

Make hinged lids safe and secure
with the right hardware.

Doors and lids with hinges often are to blame when fingers get pinched or heads get bumped. And when you are crafting furniture for children, eliminating this possibility is essential. Safety hinges or lid supports protect fingers and heads, large and small, from such painful mishaps.

Usually safety hinges are used in conjunction with conventional hinges. They are placed on both sides of the lid and work through springs, friction, or hydraulics (like your vehicle's hatch support) to prevent it from slamming shut. Another type of safety hinge or lid support is made to work on one side or in the center of the lid.

These safety devices typically specify a strength rating. It is important to pick one that will support your lid properly. To determine the strength rating you need, multiply half the lid's depth (in inches) by the lid's weight (in pounds). In the case of the chest pictured, the front-to-back distance (depth) is 18 inches. The weight of the lid is 7½ pounds. So that means 9 inches (half of the depth of 18 inches) multiplied by 7½ pounds (the lid's weight) equals a strength rating requirement of 67½ inch pounds.

Most strength ratings range from 35 to 140 inch pounds. If you require more than 140 inch pounds of strength, you should use additional supports, but don't combine types with different ratings. ■



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