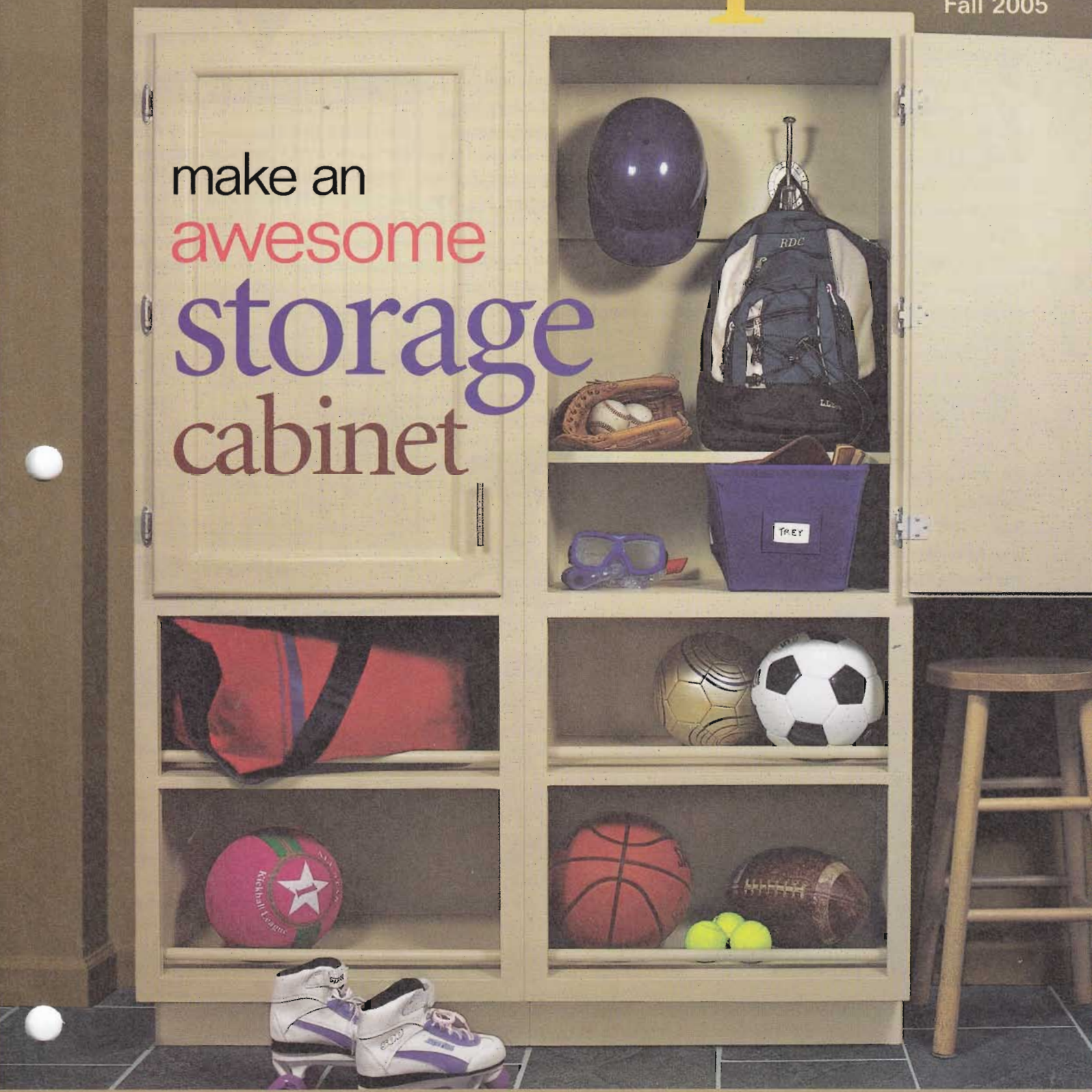
LOWE'S WOODWORKERS

# the woodpost

Fall 2005




## make an awesome storage cabinet

# From Our Shop

While spring-cleaning is probably long past in your household, autumn and its return to routine may have left you needing more organized storage options. You're in luck—each of the projects in this issue will help streamline your family's supplies and collectibles.

We've tackled a variety of gear in this issue. Versatile locker-style cabinets hold the kids' equipment in check, and a functional garden shed makes fall yard upkeep less of a chore. Our weekend project will help you create display space for special items around the house.

Along with these plans, we hope you'll find useful the information we've included on jigsaws and adjustable shelves, as well as a handy technique for building and installing wall cleats.

If you've crafted any of these projects or others from past issues, let us know how they turned out. Visit our Web site, **Lowes.com/Woodworkers**, or write us with any comments or suggestions. We always look forward to hearing from you.

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 ⅜-inch cordless drill/driver kit.**

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**FREE TO MEMBERS!**

As a member of Lowe's Woodworkers, you're entitled to a free woodworking plan with each issue of *The Wood Post*. Try our plans for these toddler-sized beds (shown at right). The instructions are available online until November 15, 2005. Visit **Lowes.com/FreePlan.**

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# Q&A With the Experts at LOWE'S

Improving Home Improvement®

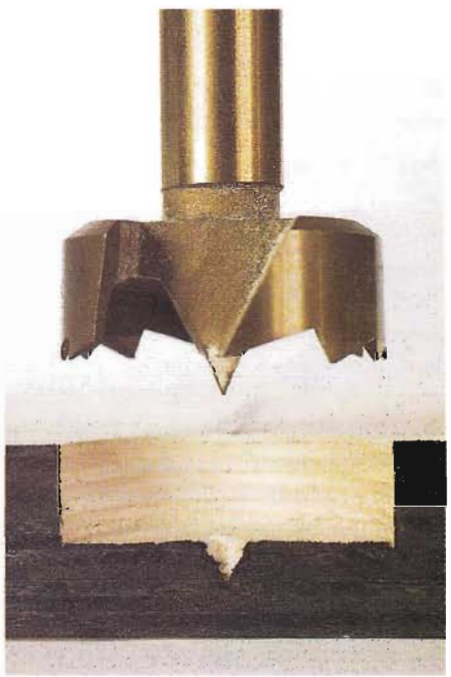
**Q: I would like to build a project that features doors with face frames joined together with pocket holes and screws. But I don't own a pocket hole jig. What other joinery options are there?**

**A:** Dowels and biscuits are two easy ways to assemble parts of a face. Both options do require a special tool—either a doweling jig or a biscuit joiner.

Doweling jigs, which clamp to a workpiece and support the drill bit to ensure a perfectly straight hole, are inexpensive and even good for narrow parts. You simply drill matching holes in the pieces to be joined, and then glue dowels in the holes as the parts are assembled. Better-quality doweling jigs take the guesswork out of alignment by automatically centering a hole on the thickness of the workpiece.

A biscuit joiner is a portable power tool that cuts half-moon shaped notches in the edge, face, or end of a workpiece. You cut matching notches in the two pieces, and then glue a thin football-shaped biscuit of compressed wood into them to join the parts. The compressed biscuit expands when it contacts the glue, creating a very strong joint that locks the pieces together. But, due to their width, biscuit joiners and the corresponding slots often are visible in narrow face frames.

**Q: I need to drill stopped holes in ¾-inch plywood for dowels. But I think the tip of a spade bit will poke through the other side—is there a special drill bit to make a flat-bottomed hole?**



**A:** In woodworking, it's often necessary to drill a hole that doesn't go all the way through a workpiece. The diameter and depth of these stopped holes plus the thickness of the wood define which bit you use. Twist bits and brad-point bits, both with small center points, leave fairly flat-bottomed holes. But the majority of woodworkers only have these bits in smaller diameters (typically up to ½ inch). For larger diameters a spade bit is most commonly used, but its long center point will protrude unless the hole is very shallow or the stock is thick.

When you need a larger flat-bottomed hole, nothing beats a Forstner bit or a multispur bit. A Forstner bit is guided by its rim instead of a center point. The rim scores the wood while a pair of lifters plane away the waste. The multispur bit is a popular derivation of the Forstner bit, and it uses a set of jagged teeth to score the cut's perimeter. The gullets between the teeth efficiently whisk away chips. Multispur bits can run at higher speeds and withstand more heat, but Forstner bits produce smoother stopped holes.

**Q: Is there a quick way to install uniformly spaced cleats on a project to support shelves?**

**A:** As long as the cleats are equally spaced, all you need to do is mark the location of the top cleat on the project's side, install it, and then cut a spacer from a scrap of wood that matches the width between the cleats. Use the spacer as a guide between the top cleat and the next cleat. While holding the next cleat in place, attach it with screws or nails. Repeat this process for all of the remaining cleats. The spacer will help you accurately position the cleat while ensuring that it won't move out of position when you secure it. ■

**feature project**

# Locker-Style Cabinets

Create a great place for your children to park their gear.

This cabinet will give your kids a place to store just about everything they'll be hauling this fall. The design is a wider version of the classic school locker, making it easier to accommodate balls, in-line skates, backpacks, and jackets. Adjustable shelves hold even more, while dowels across the lower shelves keep items contained. Hooks are placed within easy reach for most youngsters. We made two and set them next to each other for extra storage.

## Instructions:

**General:** Set all nails, and countersink all screws. Fill visible holes with wood filler and sand smooth when dry.

**Step 1:** Cut all pieces per the Cut List except for the door rails, door stiles, and door panel.

**Step 2:** Build the cabinet assembly.

**a.** Cut a recess for the toe-kick in the lower front corner of each side panel (see illustration).

**b.** Cut a ⅜-inch-wide and ¼-inch-deep rabbet opposite the toe-kick recess along the rear edge of each side panel to accommodate the plywood back.

**c.** Lay the side panels on a flat work surface with the rear edges touching and the tops flush. From the top edges, measure and mark lines on each panel at 36¼ inches for the top edge of the mid shelf, 47¾ inches for the top edge of the lower shelf, and 60½ inches for the top edge of the bottom shelf.

**d.** Measure and mark locations on the side panels for holes to hold the two dowels at 1 inch above the top edge of the bottom and 1 inch above the top edge of the lower shelf. Position all holes 1 inch in from the front edge of each side. Drill two ⅜-inch-deep stopped holes in each side panel with a ¾-inch Forstner bit (see The Pros Know on page 3).

**e.** Drill three evenly spaced pocket holes along the edges of the top's face, as well as on the underside of each of the shelves and the bottom.

**f.** Attach the top flush with the upper and front edges of one side panel using glue and pocket hole screws. Then attach the shelves and bottom to the same side panel.

**g.** Attach a base piece to the side panel flush with the back edge of the assembly's bottom. Fit the toe-kick into the recess cut in Step 2a, and then attach it in the same way. Insert the dowels into the holes in the side panel. (There is no need to glue them in.)

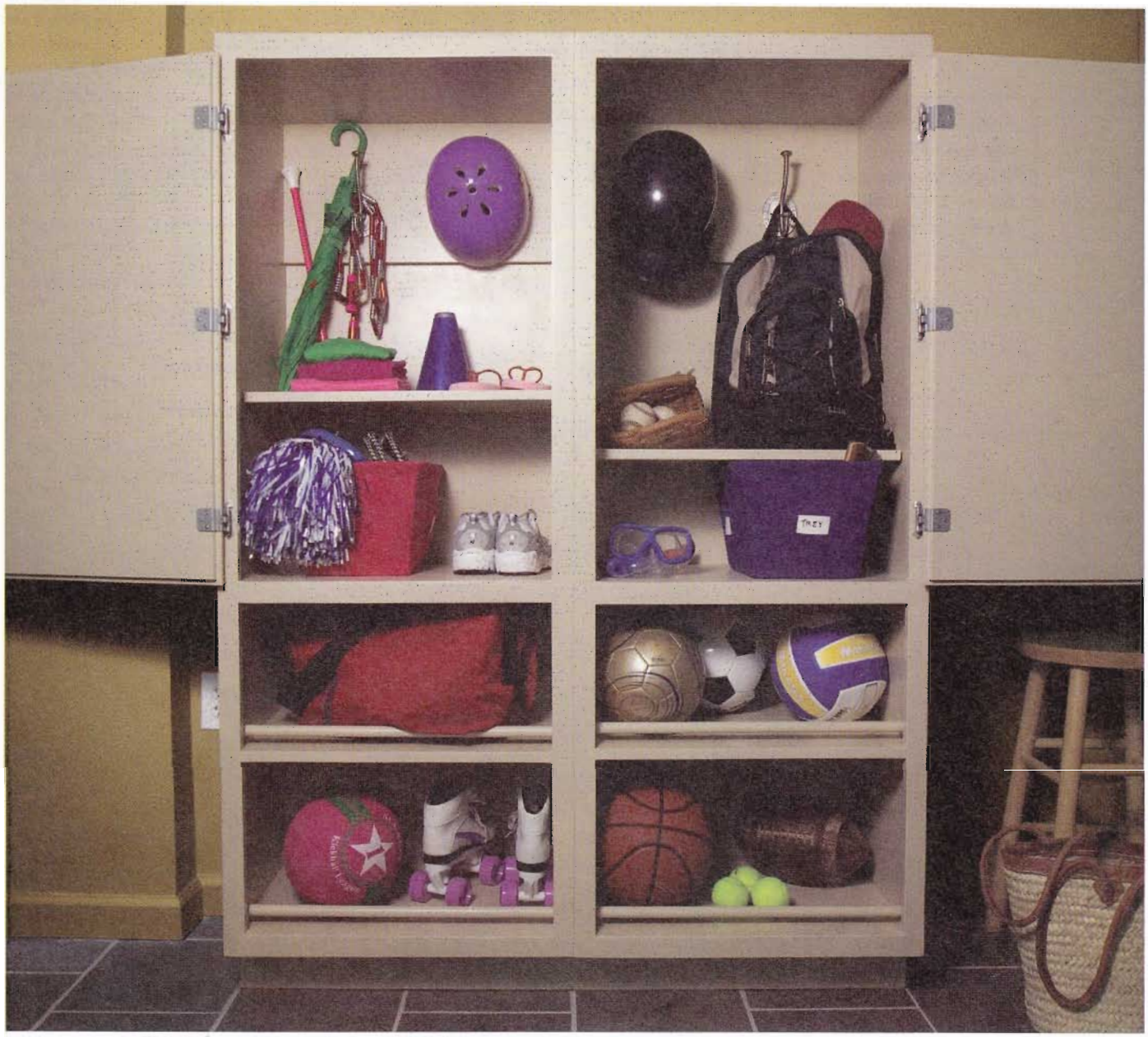
**h.** Attach the other side panel to all of the components. Install one backing piece directly under the top and flush with the rabbet. Install the second backing piece below the first and flush with the rabbet. Secure these pieces to the side panels with glue and finishing nails.

**i.** Lay the cabinet assembly on its face. Measure it diagonally to ensure squareness. Apply glue to all exposed surfaces and into the rabbets along the back edges of the side panels. Slip the back in place, and secure it with finishing nails.

**Step 3:** Build and attach the face frame.

**a.** Attach the upper and lower rails to the stiles using glue and pocket hole screws. Attach the top edge of the mid rail 34¾ inches below the bottom edge of the top rail. Dry-fit the face frame assembly on the cabinet face to be sure that the top edge of the mid rail aligns with the top edge of the mid shelf.

**b.** Position the face frame assembly on the cabinet face so that it overhangs the sides uniformly. Secure it to the cabinet with glue



**We made two of these cabinets and positioned the doors on opposing sides.**

and finishing nails. The face frame is slightly wide so that it can be trimmed flush once it's attached.

**c.** Trim the overhanging edges of the face frame flush with the sides using a router fitted with a flush trim bit.

**d.** Mount the lower nosing to the front edge of the lower shelf edge using glue and finishing nails.

**Step 4:** Build the door assembly.

**a.** Measure the opening size for the cabinet door. The overall door dimension should be ⅜ inch wider and taller than the opening. Adjusting the measurements in the Cut List for the door pieces as necessary, cut the door panel to fit.

**b.** Assemble the door frame as shown in the illustration using glue and pocket hole screws. Round over the inside and outside edges of the door frame using a router fitted with a ½-inch roundover bit.

**c.** Attach the door panel to the back of the door frame with glue and brads. Because you'll be routing a rabbet along the edges of the door to create a lip, draw a line ⅜ inch from the outside edge of the frame. Do not nail along this line.

**d.** Cut a rabbet along the perimeter of the door back (see the door section detail) using a router fitted with a ⅜-inch rabbet bit.

**e.** Attach three hinges to the door using the accompanying hardware. Center the door in the opening. Attach the hinges to the face frame using a drill/driver. Install the door pull.

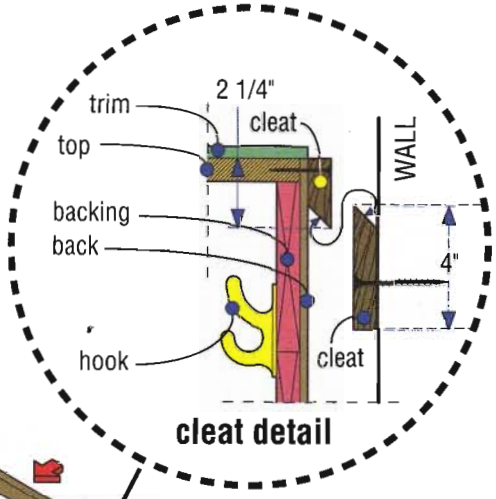
**Step 5:** Install mounting cleats.

**a.** Rip the cleats at a 45-degree angle per the cleat detail.

**b.** Using glue and 1⅝-inch screws, attach one of the upper cleats to the back of the cabinet flush with its top edge. Attach another upper cleat to the back of the cabinet 47¾ inches from the top edge of the assembly.

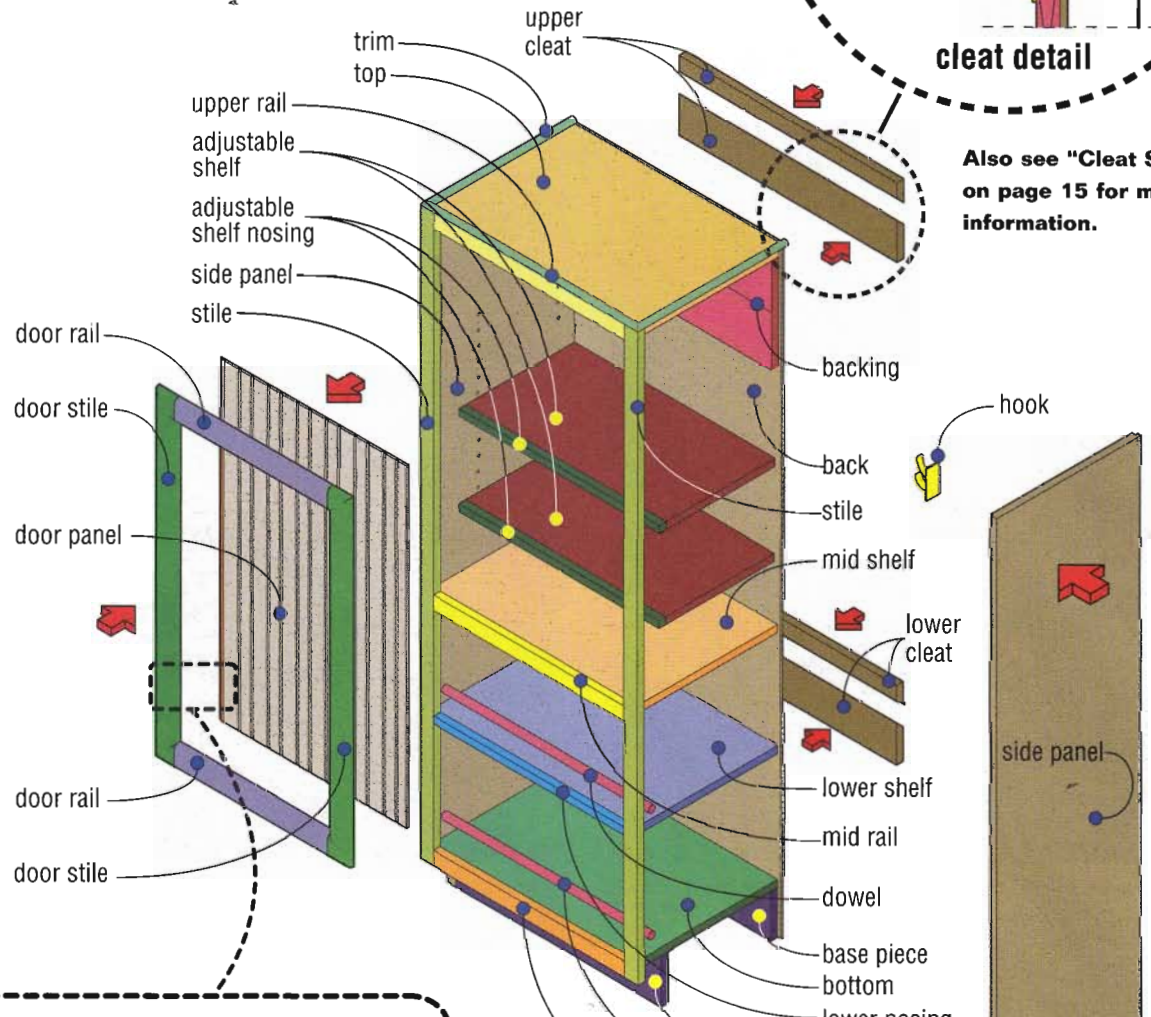
**c.** Attach the lower cleats to the wall into studs using 1⅝-inch screws. The long point of the cleats on the wall should correspond to the short points of the cleats on the cabinet.

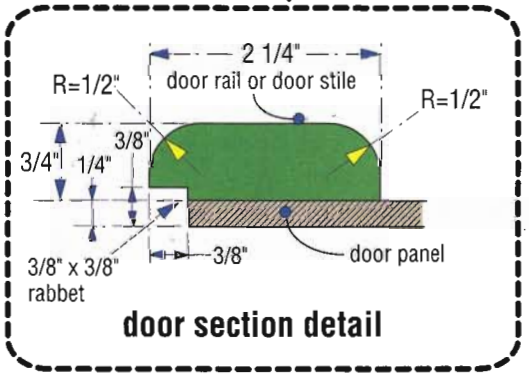
**Finished Dimensions:**
(for one locker)
Height: 66 inches
Depth: 17⅞ inches
Width: 24 inches




**cleat detail**

**Also see "Cleat System" on page 15 for more information.**




**door section detail**

**Step 6:** Attach the cabinet nosing and trim pieces. Install the adjustable shelves and the locker.

**a.** Scribe the trim pieces to fit the top's front and side edges. Miter the ends where the pieces meet, and then attach them using glue and brads.

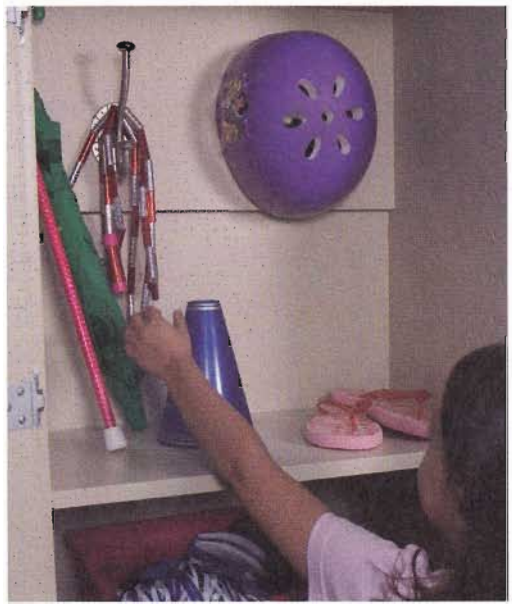
**b.** Attach the upper and mid nosing to the adjustable shelves using glue and finishing nails.

**c.** Starting 6 inches from the top edge of the mid shelf, drill two columns of holes 3 inches from the back and 4 inches from the inside of the face frame. Drill ¼-inch holes ⅜ inch deep into the side panels. The two columns of holes should extend 18 inches above the mid shelf and can be as close as 1 inch on center from each other. Place shelf pins in each of the holes for desired shelf locations.

**d.** Sand all parts smooth, and paint or stain as desired.

**e.** Install hooks on the interior or exterior of the locker as desired, attaching them to the backing and sides.

**f.** Set the cabinet in place on the wall by inserting the upper cleats over the lower cleats. **Project #FA051** ■



## TOOL LIST

- table saw (or circular saw with straightedge guide)
- miter saw (or miter box and handsaw)
- jigsaw
- router with flush trim bit, ½-inch roundover bit, and ⅜-inch rabbet bit
- drill/driver with #2 square driver bit and ¾-inch Forstner bit
- Kreg Rocket pocket hole system
- hammer and nail set
- tape measure
- pencil

## LOWE'S SHOPPING LIST

(for one locker)

### Lumber

- 3 (6-foot-long) 1 x 2s, poplar*
- 3 (8-foot-long) 1 x 6s, poplar*
- 1 (48- x 96-inch) sheet of ¼-inch-thick beaded-board paneling
- 1 (48- x 96-inch) sheet of ¼-inch-thick birch plywood*
- 1 (48 x 96-inch) sheet of ¾-inch-thick birch plywood*
- 1 (4-foot-long) ¾-inch-diameter dowel
- 1 (8-foot-long) ⅜- x 1 1/16-inch half-round moulding

### Hardware & Supplies

- 1 box 4d (1½-inch) finishing nails
- 1 box (1-inch) wire brads
- 1 package (1¼-inch) Kreg pocket hole screws (coarse thread)
- 1 box (1⅝-inch) PrimeGuard Plus screws
- 3 (⅜-inch offset) self-closing hinges
- 1 door pull
- 3 hooks
- 1 box shelf pins
- stainable wood filler
- wood glue
- 120-grit sandpaper
- paint (American Tradition, Cliveden Sandstone #3007-10B, eggshell)

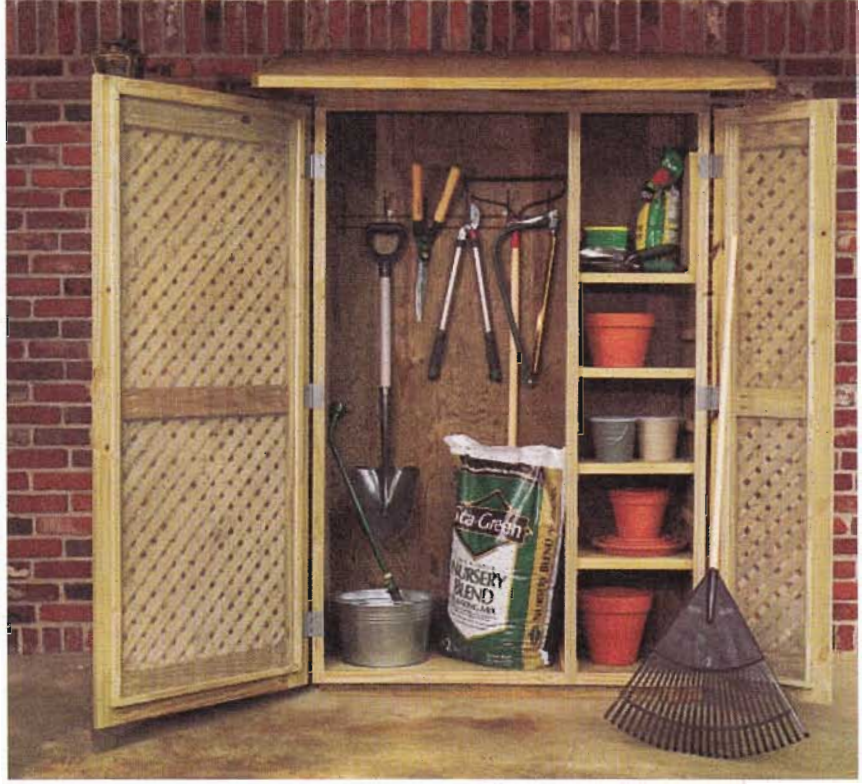
*Availability varies by market.

## CUT LIST (for one locker)

| Part Name | Material | Size (in inches) | Quantity |
|---|---|---|---|
| bottom, top, and mid/lower shelves | ¾-inch plywood | ¾ x 15½ x 22½ | 4 |
| back | ¼-inch plywood | ¼ x 23⅛ x 66 | 1 |
| base piece and toe-kick | 1 x 6 | ¾ x 4¾ x 22½ | 2 |
| backing pieces | 1 x 6 | ¾ x 5½ x 22½ | 2 |
| upper/mid/lower rails | 1 x 2 | ¾ x 1½ x 21 1/16 | 3 |
| stiles | 1 x 2 | ¾ x 1½ x 62 | 2 |
| lower nosing | 1 x 6 | ¾ x ¾ x 21 1/16 | 1 |
| adjustable shelf nosing | 1 x 6 | ¾ x ¾ x 22⅛ | 2 |
| door rails | 1 x 6 | ¾ x 2¼ x 16⅞ | 2 |
| door stiles | 1 x 6 | ¾ x 2¼ x 35⅛ | 2 |
| door panel | beaded-board paneling | ¼ x 21⅜ x 35⅛ | 1 |
| upper and lower cleats | 1 x 6 | ¾ x 5½ x 24 | 2 |
| trim pieces | half-round moulding | scribe to fit | 3 |
| dowels | dowels | ¾ x ¾ x 23⅛ | 2 |
| adjustable shelves | ¾-inch plywood | ¾ x 12 x 22⅛ | 2 |

feature project

# Garden Shed



This project can be constructed either with doors or without. Plans and a materials list for the doors can be found at **Lowes.com/WoodPost.**

## TOOL LIST

- table saw (or circular saw with straightedge guide)
- miter saw
- sander or sanding block and 120-grit sandpaper
- power drill and bits
- framing square
- combination or angle square
- caulk gun (to apply the construction adhesive)
- hammer and nail set
- tape measure and pencil

## LOWE'S SHOPPING LIST

**Lumber***

- 10 (8-foot-long) 1 x 2s
- 1 (8-foot-long) 1 x 4
- 1 (8-foot-long) 1 x 6
- 1 (12-foot-long) 2 x 4
- 3 (48- x 96-inch) sheets of ¾-inch-thick plywood

*Use lumber rated for outdoor use.

**Materials**

- 1 (1-pound) box (1¼-inch) PrimeGuard Plus screws
- 1 (1-pound) box 6d galvanized finishing nails
- 1 box (⅜-inch) stainless staples
- 1 (24- x 120-inch) roll of ¼-inch-mesh hardware cloth
- exterior-grade wood glue
- 1 (10½-ounce) tube of construction adhesive
- mineral spirits

Yard work often occurs some distance from the necessary tools and supplies stored in a garage. For that reason, we have designed a garden shed you can locate anywhere. It features a tall compartment for rakes, hoes, and shovels, plus movable shelves that can be added or removed to accommodate potting supplies. The finished shed measures 88 inches high, 48 inches wide (61½ including the roof), and 16½ inches deep.

## Instructions:

**General:** Set all nails, and clean off excess glue and construction adhesive from exposed wood surfaces using mineral spirits.

**Step 1:** Cut all parts to size per the Cut List. For the side panels and divider, cut rectangular blanks; align the front and top edges flush, and gang-cut the tops at a 15-degree angle. Cut 1½ inches from the bottom of the divider.

**Step 2:** Build the floor assembly (see Figure 1). Place the floor base pieces on a flat, clean surface. Use construction adhesive and 1¼-inch screws to attach the floorboard flush with the floor base. Drill several ½-inch drainage holes in the floorboard. Attach hardware cloth to the underside of the floor assembly using ⅜-inch stainless staples.

**Step 3:** Attach back cleats; attach the back panel to the floor assembly (see Figure 2).

**a.** Use construction adhesive and 1¼-inch screws to attach the back cleats to the back panel with ends and upper edges flush, leaving a ¾-inch gap between the inside ends of the cleats.

**b.** Place the floor assembly right side up. Set a ¾-inch spacer along the rear edge, and then set the lower edge of the back panel on it. Use construction adhesive and 1¼-inch screws to attach the back panel (see detail in Figure 2).

**Step 4:** Attach shelf supports and side/center cleats to side panels and divider (see Figure 3).

**a.** Lay the right side panel and the divider flat, with their long edges butted together and top corners flush. On the divider, mark the layout lines for the shelf supports (per dimensions in Figure 3), and use a framing square to transfer these lines to the right side panel. Attach the shelf supports to each panel using glue and 1¼-inch screws.

**b.** Use glue and 1¼-inch screws to attach the side/center cleats to the side panels and divider as shown. Align these parts at their front ends and top edges.

**Step 5:** Attach the side panels and divider to the back/floor assembly; install shelf supports (see Figure 3).

**a.** Set the back/floor assembly on a flat surface, backside down, and set the right side panel in place on the right edge. Align edges and check fit; attach with construction adhesive, then 1¼-inch screws through the face of the side panel into the edges of the back panel and the floorboard. Use the same technique to install the left side panel.

**b.** Fit the divider in place against the back panel and floorboard. Mark its position on the floorboard and back, and then attach the divider to the floorboard with construction adhesive and 1¼-inch screws. Set the assembly upright, and then attach to the back panel in the same manner.

**c.** Attach the shelf trim to the shelves using glue and 1¼-inch screws.

**Step 6:** Attach rails, stiles, roof, and roof trim (see Figures 4 and 5).

**Figure 1**

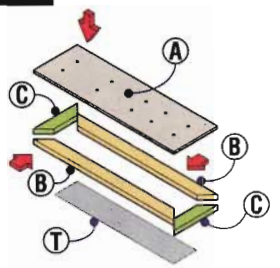



**Figure 2**

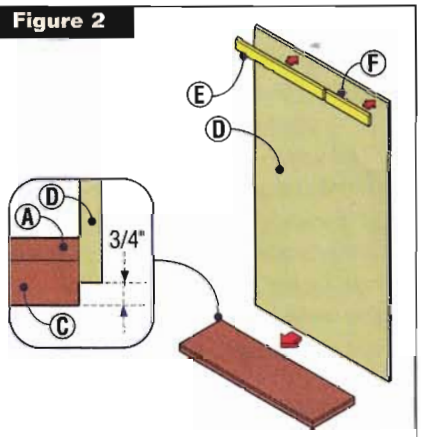



**Figure 3**

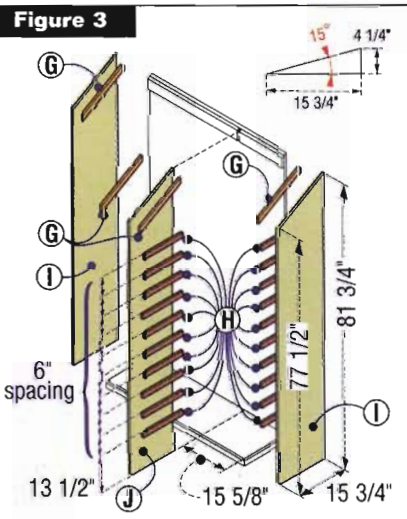



**Figure 4**

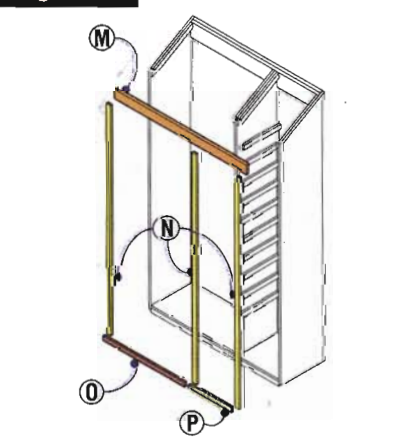
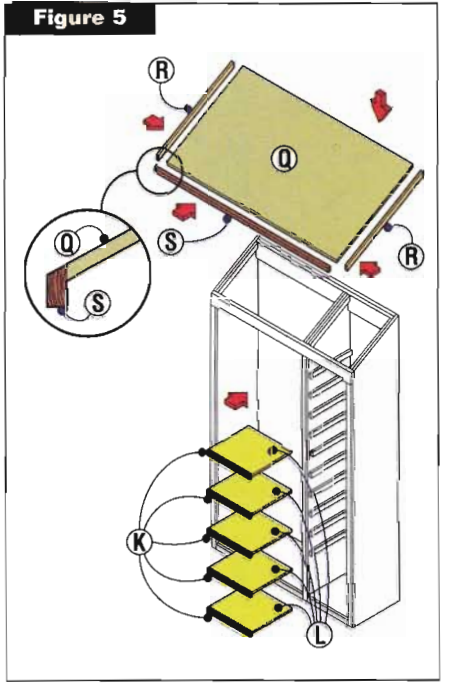
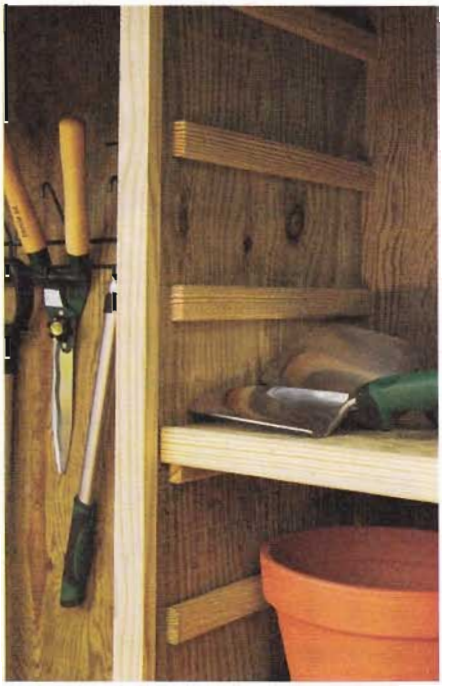



**Figure 5**



**a.** Use construction adhesive and 6d nails to attach the upper rail and stiles to the front of the shed assembly as shown, with the outside edges aligned flush. Fit and attach lower rails as shown.

**b.** Fit the roof panel onto the upper edges of the shed assembly, centered side to side and flush with the rear corners. Attach using construction adhesive and 1¼-inch screws.

**c.** Use 6d nails and glue to attach the roof trim pieces as shown.

**d.** Fit shelves into place.

**Step 7:** Sand and finish. Use shims to level the shed when installed. **Project #FA052** ■

## CUT LIST

| Part Name | Material | Size (in inches) | Qty. |
|---|---|---|---|
| (A) floorboard | plywood | ¾ x 15 x 48 | 1 |
| (B) floor base (long) | 2 x 4 | 1½ x 3½ x 48* | 2 |
| (C) floor base (short) | 2 x 4 | 1½ x 3½ x 15* | 2 |
| (D) back panel | plywood | ¾ x 48 x 81¾** | 1 |
| (E) back cleat (long) | 1 x 4 | ¾ x 3½ x 31⅝** | 1 |
| (F) back cleat (short) | 1 x 4 | ¾ x 3½ x 15⅝** | 1 |
| (G) side/center cleats | 1 x 2 | ¾ x 1½ x 16⅞*** | 4 |
| (H) shelf support | 1 x 2 | ¾ x 1½ x 14 | 20 |
| (I) side panels | plywood | ¾ x 15¾ x 81¾ | 2 |
| (J) divider | plywood | ¾ x 15 x 80 | 1 |
| (K) shelf trim | 1 x 2 | ¾ x 1½ x 15¼ | 5 |
| (L) shelf | plywood | ¾ x 14⅛ x 15¼ | 5 |
| (M) upper rail | 1 x 6 | ¾ x 5½ x 49½ | 1 |
| (N) stiles | 1 x 2 | ¾ x 1½ x 74⅜ | 3 |
| (O) lower rail (long) | 1 x 2 | ¾ x 1½ x 30½ | 1 |
| (P) lower rail (short) | 1 x 2 | ¾ x 1½ x 14½ | 1 |
| (Q) roof panel | plywood | ¾ x 30 x 60 | 1 |
| (R) roof trim (side) | 1 x 2 | ¾ x 1½ x 30¾*** | 2 |
| (S) roof trim (front)** | 1 x 2 | ¾ x 1½ x 60** | 1 |
| (T) floorboard cloth | hardware cloth | cut to fit | 1 |

*Miter ends at 45 degrees. **The sloped roof requires that some edges of these parts be beveled at a 15-degree angle. On the roof panel, cut parallel bevels on the front and rear edges; for all other designated parts, bevel the upper edge only. ***Cut ends at parallel 15-degree miters.

**weekend project**

# Valance Shelf

## Take your collectibles to new heights.

Craft unique shelving that sits high on your wall to display and safeguard valuable mementos, delicate items, and fragile art.

### Instructions:

**General:** Set all nails, and countersink all screws. Fill visible holes with wood filler, let dry, and sand smooth.

**Step 1:** Install the shelf cleats.

**a.** Determine the height of your shelf. It should be mounted higher than the windows and door frames. Measure up from the floor or down from the ceiling, and mark the desired height on the wall. Use a level to extend this mark along the wall. Or, measure and mark each end of the shelf's location, and then use a chalk line between these marks.

**b.** Using a stud finder, mark stud locations along the marked line (typically every 16 inches on center). This shelving is designed to attach through ½-inch-thick gypsum drywall into 2 x 4 studs. If your wall is constructed differently, ask a Lowe's employee for help finding the proper type of wall fasteners.

**c.** Position a shelf cleat on the wall by aligning the bottom edge of the cleat with the marked shelf line. Attach the cleat using a bead of construction adhesive applied along the back. Drive 1⅝-inch screws through the cleat into each stud (as shown in Figure 1).

**Step 2:** Build and install the braces.

**a.** Using a miter saw, cut blanks for each brace per the Cut List.

**b.** Lay out the shape of the brace as shown in the brace detail. Then cut a brace to shape with a jigsaw or band saw. Mark this piece as your pattern, and trace its shape on the remaining three blanks. Cut all braces, and sand edges smooth.

**c.** Cut the brace-backs per the Cut List.

**d.** Construct the brace assembly by positioning a brace-back on a brace with the top edges flush and the long edge of the brace-back flush with one edge of the brace (see Figure 4). Attach using glue and 1⅝-inch screws. Repeat for the remaining assemblies.

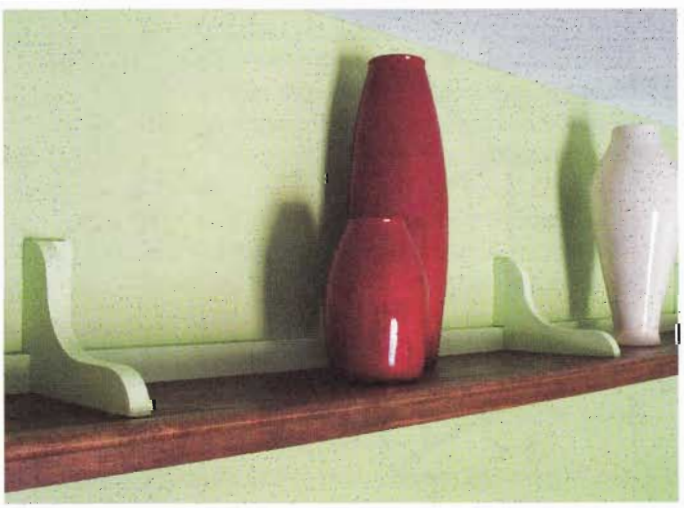
**e.** Rest a brace assembly on the shelf cleat every 32 inches at alternating stud locations. Attach the brace assemblies to the studs using three 2½-inch screws per brace (see Figure 2 for placement of the screws).

**Step 3:** Install the shelving.

**a.** Locate the centerline of the braces, and mark on the underside of the shelf. This is for the placement of the screws attaching the shelf to the brace assemblies (see Figure 1).

**b.** Then mark on the underside of the shelf 16 inches on center and ⅜-inch from the wall. Screws attaching the shelf to the shelf cleat will be placed at these marks.

**c.** From the underside of the shelf, attach the shelf to the shelf cleat using 1⅝-inch screws, and attach the shelf to the brace assemblies using 1⅝-inch screws.



**d.** If ends of two pieces of shelving don't align flush, attach 2-inch mending plates with ¾-inch screws where the shelf pieces meet (see Figure 3).

**Step 4:** Install the nosing and trim.

**a.** Use glue and finishing nails to attach the nosing to the front of the shelf. If your shelf is longer than 8 feet, join the pieces by cutting the nosing square at the starting end and at 45 degrees on the opposite end (see Figure 3). Additional nosing will have a 45-degree cut on one or both ends depending on the length of the wall. Be sure that nosing joints don't align with shelf joints.

**b.** Attach the trim with glue and brads flush with the top front edge of the nosing. If needed, cut the trim in the same manner as the nosing (see Figure 3).

**c.** Stain or paint the shelving as desired.

**Project #FA053** ■

## TOOL LIST

- miter saw (or miter box and handsaw)
- band saw or jigsaw
- power drill/driver (with #2 square driver and #10 countersink bit)
- stud finder
- hammer
- level or chalk line
- compass
- tape measure
- pencil

## LOWE'S SHOPPING LIST

(for one 8-foot section)

### Lumber

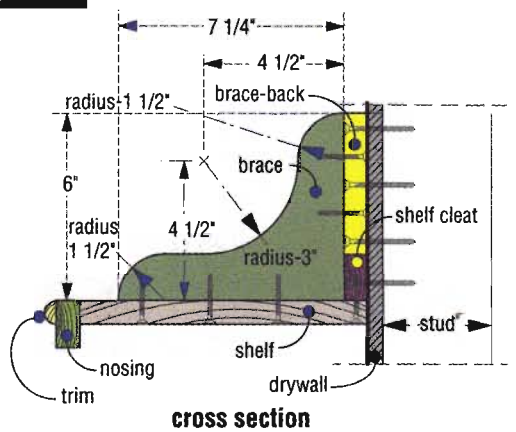
- 3 (8-foot-long) 1 x 2s, poplar*
- 2 (6-foot-long) 1 x 10s, pine*
- 1 (24-inch-square) sheet of ¾-inch-thick birch plywood*
- 1 (8-foot-long) piece of ⅜- x 1⅛-inch half-round moulding

### Hardware & Supplies

- 1 box (2½-inch) PrimeGuard Plus screws
- 1 box (1⅝-inch) PrimeGuard Plus screws
- 1 box (¾-inch) PrimeGuard Plus screws
- 1 box (1½-inch) 4d finishing nails
- 1 box (1-inch) wire brads
- 2 (2-inch) zinc mending plates
- wood glue
- 1 tube construction adhesive
- stainable wood filler
- sandpaper
- stain (Olympic, Special Walnut)
- polyurethane (Olympic, semigloss)

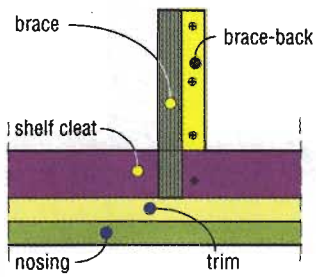
*Availability varies by market.

**Figure 1**



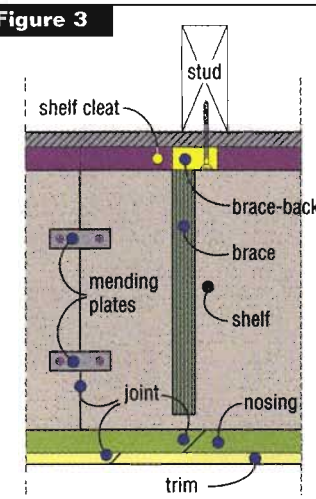

cross section

**Figure 2**



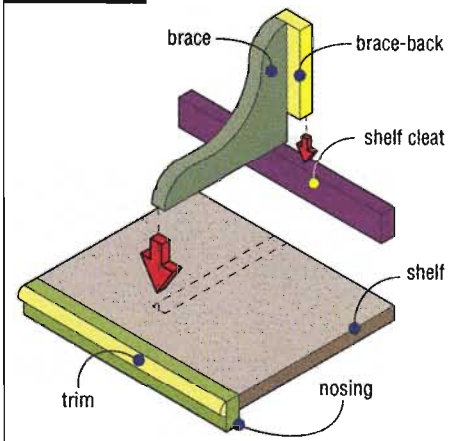

front view

**Figure 3**

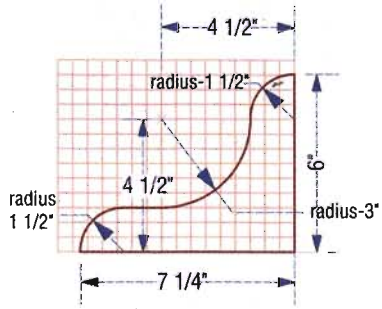



top view

**Figure 4**




isometric




brace detail

1/2-inch grid

## CUT LIST (for one 8-foot section)

| Part Name | Material | Size (in inches) | Quantity |
|---|---|---|---|
| shelf cleat | 1 x 2 | ¾ x 1½ x 96 | 1 |
| braces | plywood | ¾ x 6 x 8 | 4 |
| brace-backs | 1 x 2 | ¾ x 1½ x 4½ | 4 |
| shelves | 1 x 10 | ¾ x 9¼ x 72 | 2 |
| nosing | 1 x 2 | ¾ x 1½ x 96 | 1 |
| trim | moulding | ⅜ x 1⅛ x 96 | 1 |

# Jigsaws

## Find the one that's right for you.

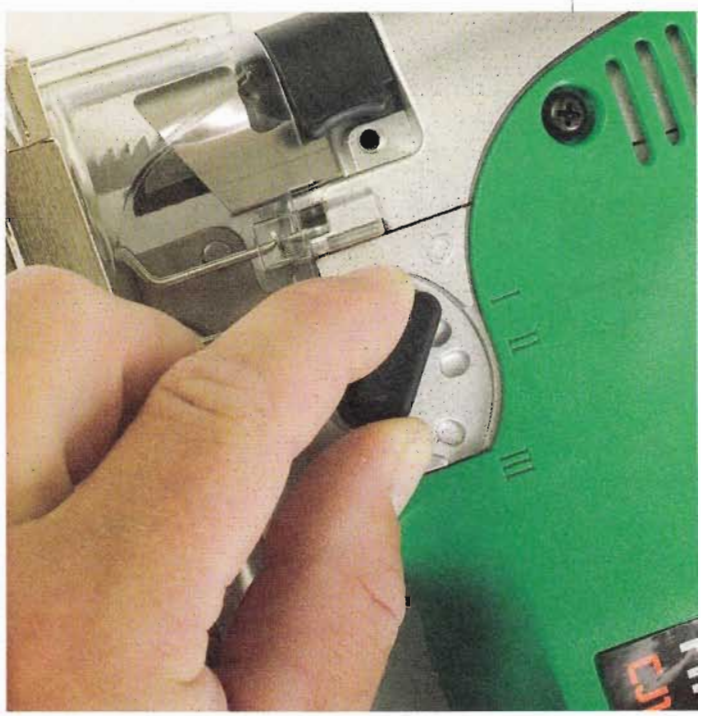
No other portable power tool can cut curves like a jigsaw. And when used with an optional fence, this tool will excel at making straight cuts. Unlike its larger stationary tool cousins—the band saw and the scroll saw—the jigsaw holds only one end of the blade so it's easier to change. This also allows for plunge cutting, which the band saw and scroll saw can't do. Consider the following when you're shopping for a jigsaw.


Available by special order.

### Power Type

Corded or cordless? Think about the type of work you plan to do.

- Choose corded for when you are working primarily in your shop, where mobility isn't as much of an issue.
- Go with a cordless saw when your work takes you outdoors or on-site. You'll be able to move freely around your project with no worries about getting tangled up in the cord or pulling it from the outlet.
- Be sure to check the motor's amperage rating for an indication of the tool's power; generally, the higher the rating, the more forceful the jigsaw.



### ▲ Variable Speed

One feature that most woodworkers will find extremely useful on a jigsaw is variable speed. The benefits are many.

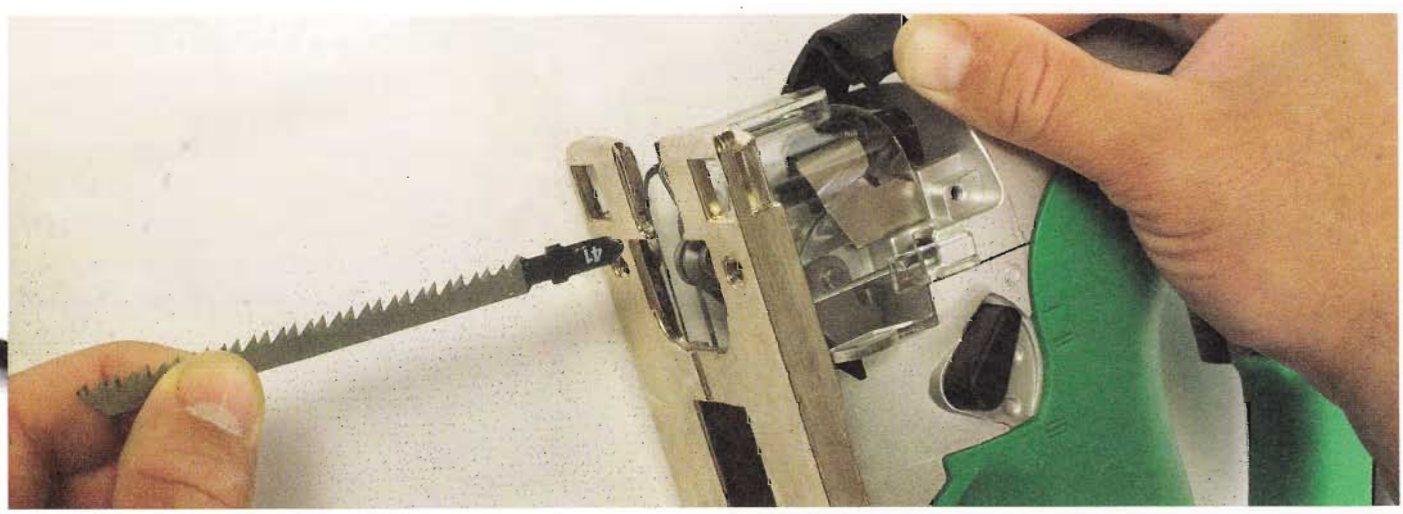
- You can match the saw's speed to the blade you're using and the type of material you're cutting, which is particularly important when dealing with metals and other non-wood materials.
- The feature allows you to slow down a cut to ensure accuracy.
- The variable speed function is simple to operate. Some saws have a wheel on top of the saw casing, while others incorporate the speed control into the trigger mechanism to allow you to make adjustments with one hand.

### ▼ Blade Changing

This may not seem like a big deal in a jigsaw, but it can have a big impact on the quality of your work. Many jigsaw manufacturers offer an easy-to-use, no-tools-required system for changing blades. Look for one that is quick and locks the blade securely in place. ■

### ▼ Orbital Action

Most jigsaws with this feature offer three to four ranges, including an off position. In the off position, the blade cuts straight up and down. As the orbital switch is increased, the blade begins to pivot out during the cut. This pivoting, or orbital action, creates a much more aggressive cut. The greater the orbital action, the quicker it'll chew through wood. This is great for rough cuts, but turn it off for a smooth cut, or when cutting plywood (the orbital action tends to tear up the thin face veneer).



# Beaded-Board Paneling

Add a touch of distinction to your next project.

With its roots based in four different styles—Victorian, folk, cottage, and Queen Anne—the versatility of beaded-board paneling has made it popular in modern homes. Although primarily used as wainscot, beaded-board paneling also works well as an accent on the back of a cabinet or bookcase, or as panels in a door, such as the one created for the sports locker featured on pages 4–7.

### Types of Beaded-Board Paneling

Traditionally this material was made from varying widths and lengths of solid wood. A groove was machined along one edge and a tongue along the other so that the strips could be easily joined together. As a decorative touch, single or double beads were machined on the strips' faces. You still can purchase ¼-inch-thick, 4- to 6-inch-wide paneling strips in solid pine, oak, or cedar. Common lengths are 32- and 36-inch pieces for wainscot and 96-inch pieces for wallcoverings or woodworking. Leave the strips natural by applying a clear topcoat, or stain or paint the paneling to match any decor.

Because natural wood tends to warp and/or shift over time, paneling now is made of engineered wood that's usually pre-primed for easy painting. These products (such as medium-density fiberboard) minimize seasonal movement and eliminate gaps and seams. Some manufacturers even offer matching rails, caps, and shoes that snap together in less than half the time of solid wood. Plywood look-alike products are also available in full 48- x 96-inch sheets that are extremely stable and quick to install. ■

### Installation Tips

Reduce the expansion and contraction of your paneling by conditioning it before installation. Open all of the packages, and place the planks flat with spacers in between the planks for air circulation. Allow at least 72 hours for the planks to adjust to the humidity and temperature of the room before installing or painting them. If you are placing the paneling in a high moisture area, paint the back as well. For sheet stock, leave 1/16 inch between the panels and 3/16 inch at the top and bottom for expansion and contraction. Install 1/16-inch-thick sheet stock over a backer (such as drywall); ¼-inch-thick sheets can be attached directly to the studs.

**workshop**

# Cleat System

Follow this method to easily and securely handle your heavy cabinets.

There are a number of ways to hang a cabinet—the most common is to attach it to the wall studs by inserting screws through the back. But all of the screws usually show, and transferring the wall stud locations to the inside of the cabinet is time-consuming.

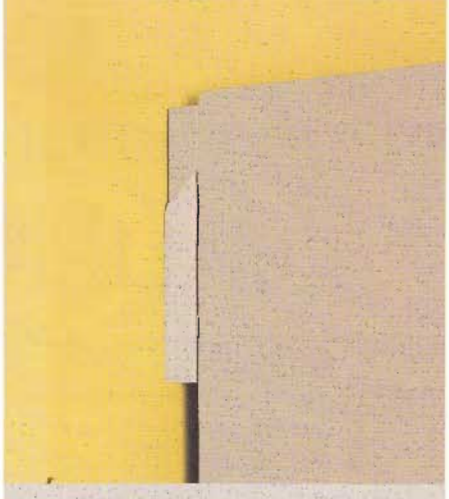
So when it came to hanging our sports locker (see page 4), we decided to come up with an easier mounting method. Our system uses a pair of cleats, bevel ripped along the long edges at 45-degree angles. You just attach one cleat to the back of the cabinet, and screw the other into the wall studs.

### Benefits

It's simple to mount the wall cleat to the studs you've located—just hold the cleat in place on the wall and drive screws through it into the studs. There's no need to prop up a heavy cabinet while trying to hang it. With our system, once you have attached both cleats, you then lift the cabinet up, set its attached cleat onto the corresponding wall cleat, and you're done. Note: Use this system only when the wall cleat spans a minimum of two studs for a secure attachment to the wall.

### Mounting Options

You can attach the cleat directly to the back of the cabinet (shown at right), or you can attach it to a cabinet back that's been recessed into the sides. With the first option, add a spacer cleat to the bottom back edge of the cabinet to prevent it from hanging at an angle. A cabinet with a recessed back will sit flush against the wall on its own. ■



### Step-by-Step

1. Set your table saw blade to 45 degrees, and then position the rip fence to bevel cut the blank. Use a push block and a featherboard for safety.
2. Apply glue to the back of the cabinet cleat. Place it flush with the top of the cabinet and centered from side to side, and then drive screws through the cleat into the cabinet back.
3. Use a stud finder to locate the wall studs at the desired position, and then mark these points with a pencil.
4. Holding the wall cleat at the desired height, make sure it spans at least two studs. Level the cleat, and then drive screws through it into the wall studs.
5. Lift the cabinet up onto the wall so that the lip of the cabinet cleat fits over the wall cleat.

**member profile**

# Family Ties

## Susan J. Millard

Susan J. Millard's love of woodworking developed more slowly than it did for her father and grandfather, both carpenters. When Susan was a child, helping her father craft projects seemed like a chore.

"Back then I really used to hate helping him," Susan remembers. "Every time he'd say, 'Sue,' I'd think to myself, 'Don't I have something else to do?'"

It was not until after her father passed away six years ago that Susan truly began to appreciate all those long hours he used to spend mastering his skills. "This winter I came across something my dad made and realized how much I missed working with him and how much I really liked working with wood," she said.

This realization prompted Susan to purchase her first band saw, and then for Christmas her husband surprised her with a belt/disk sander. With her growing stable of woodworking tools, Susan is now drawing her own plans, plus she is making key chains and figurines, many of which she has donated to her church's fund-raising efforts. Her latest project is an interesting set of shelves—instead of cutting away the bark from the edges of the wood, she decided to leave it for its rustic appeal.

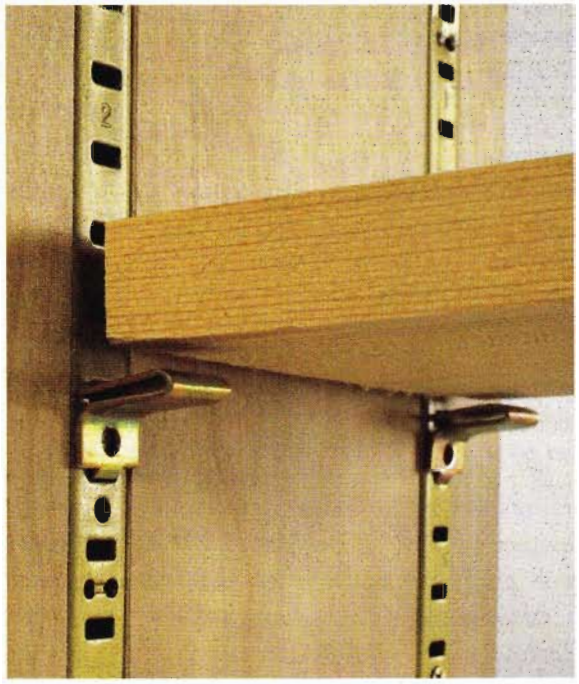
"No one will have another [shelf] like it!" she says. It may have taken her some time, but today Susan is happy to count herself as part of the longstanding woodworking tradition in her family. ■

**put it together**

# Adjustable Shelves

## Choose metal shelving systems to simplify your woodworking projects.

Many plans call for adjustable shelves, but accurately drilling the holes and mounting the shelves can be challenging. An easier solution is to use one of the many metal systems available. The most common types are single and dual tracks with matching brackets and wire shelving.



**Single and Dual Track Shelving** Metal tracks are typical of woodworking projects. These U-shaped tracks have a series of single or double slots in the face—each shelf bracket includes a pair of tabs on the end that slip into the track slots and lock in place when pushed down. Single tracks are useful for lightweight objects, while dual tracks are better suited for heavier loads.

Track lengths include 20, 24, 25½, 36, 48, 70½, and 72 inches. Three finishes are commonly available: white, black, and platinum. Shelf brackets come in various sizes to accommodate different shelving widths (single track: 8, 9, 10, and 12 inches; dual track: 7, 9, 11, 12, 14, and 16 inches). All brackets are available in finishes that match the tracks. You also can purchase heavy-duty pins to support the ends of the shelving—these are ideal for a project such as a bookcase.

**Wire Shelving** Generally designed as part of a system—usually for a closet—it also can be used inside large cabinets. For the shelves to be truly adjustable, you'll need to use the standards that come with the system. You can purchase wire shelving in a kit or separately. The shelving itself is heavy gauge wire that's covered with plastic (usually white), and it comes in 12-foot lengths and 4-, 6-, 8-, and 12-inch widths.

**Installation** If you're installing adjustable shelves in a cabinet, you can either attach the track directly to the cabinet walls or cut a groove the length of the sides to accept the track. Insetting the track in a groove makes the face flush with the sides and creates a more finished appearance. To ensure full support for the brackets, insert screws in every mounting hole provided. ■