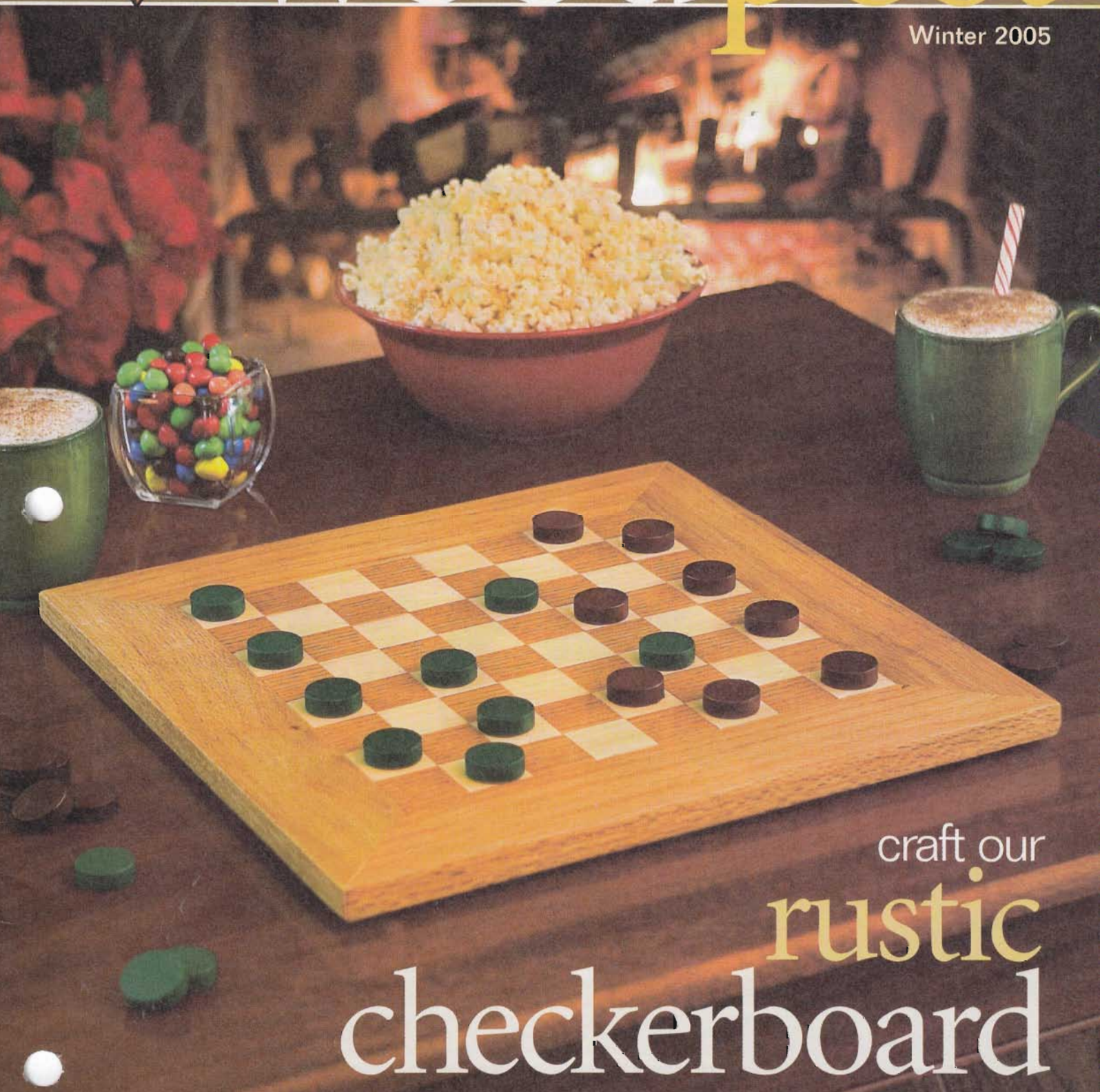
An Exclusive Lowe's Woodworkers Publication

the woodpost

Winter 2005



craft our rustic checkerboard

From Our Shop

Winter's chill means more time inside, but this issue has plenty of ideas to keep you busy in the shop. The projects you'll find here feature three tables with very different functions. Yet all of them can help you keep your New Year's resolutions to stay more organized, work more efficiently, and have more fun.

If your computer is buried beneath old mail and office supplies, you'll appreciate the spacious design of our computer desk. Drawers, adjustable shelves, and pigeonhole compartments provide lots of places to hide electronic accessories and store files, while an ample desktop will support a computer, a keyboard, and piles of paperwork.

Before you tackle the computer desk, perhaps you'll want to spend time on a table for your workshop. By holding your saw in a more accessible position, our miter saw table makes cuts more manageable and more accurate—which, in turn, makes all your woodworking projects a little easier.

If you're looking for a project that will take you just a weekend to build but will entertain your family all winter long, a checkerboard may be the answer.

Finally, don't miss our suggestions for finding the latest innovations, must-haves, and best buys on today's tools in The Right Tools section.

As always, we love to hear from our readers and encourage you to check out our Web site at **Lowes.com/Woodworkers**.

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 plan for this handy pet bed. The instructions are available online until February 17, 2006. Visit **Lowes.com/FreePlan.**

Q&A With the Experts at LOWE'S

Improving Home Improvement®

Q: Can you tell me if there are any tricks to cutting dowels safely and accurately?

A: A challenge when cutting any round part is stopping it from rotating during the cut. A V-block jig—basically a hardwood scrap with a V cut along its length—can prevent rotation. Cut the V on a table saw with the blade tilted to 45 degrees, or using a router fitted with a V-groove bit. Then place the dowel inside the V, and make your cut.

A V-block jig keeps round pieces from rotating during cutting.

Q: How can I get project parts to glue flat when I use my pipe clamps?

A: Most issues with pipe clamps are caused by the clamps themselves because the heads frequently tilt when tightened, resulting in uneven pressure. Here's where a caul can come to the rescue. A caul is just a hardwood scrap with ends that are tapered evenly away from the center. When in use, the ends of the caul are forced down with pipe clamps, and the slight bow in the caul creates uniform pressure all along the joint.

Avoid applying too much pressure during gluing, as this commonly causes slippery parts to shift. You can buy pipe-clamp heads that accept ½-inch- and ¾-inch-diameter pipe. The ½-inch-diameter sets are suitable for light to moderate pressure, whereas the ¾-inch sets can apply quite a bit of force. If you find that you need the force supplied by the larger clamps, check to make sure the parts fit correctly.

Q: No matter how carefully I lay out and position hinges on a project, they often end up at an angle when mounted. How can I prevent this?

A: Sometimes it can be tough to drill the holes for a hinge's mounting screws so that the screws will end up centered in the hinge holes. Even with careful layout and center punching, you still can wind up having indentations that are not centered, and this can lead to off-center holes and misaligned hinges. Ultimately, improperly placed screws will end up sitting at angles with tilted heads, which prevents the hinge from fully closing.

But the magic of a little gadget known as the self-centering punch—with its inner spring-mounted pin—can help tremendously. When you insert the beveled tip of the self-centering punch into a hinge hole and strike it with a hammer, the pin is driven down into the wood automatically. This leaves a nicely centered starting point for your drill bit. And when you drill all of your screw holes perfectly centered on the hinge holes, the hinge should mount exactly as you have positioned it. ■

feature project

Computer Desk

Create an organized place for your home office equipment and supplies.

Today, computers are used for almost everything, so it is helpful to have a desk that keeps all your items in one spot. In this project, two base units corral equipment, printer paper, and supplies (open shelving in the back of each base unit houses additional electronic components), while the desktop holds a keyboard and monitor. Upper units create room for other accessories.

Instructions:

General: Cut the parts as you assemble the project, adjusting the dimensions as needed for the best fit. Join parts with glue and finishing nails unless otherwise specified. Set all nails, fill holes and voids with wood filler, and sand before finishing.

Step 1: Build the base units. Note: Repeat all steps for the second base unit. (See Figure 1.)

a. Build a front and a back face frame for each base unit by attaching the base rail, stiles, and toe using glue and pocket hole screws (see Figure 1). Locate the mid rail 4 inches below the bottom of the base rail. (Note that there are no mid rails on the back face frames.)

b. On the interior faces of the base sides, label the top, bottom, front, and back. Arrange them with interiors facing up, bottom edges against each other, and front edges facing you.

c. Measure and mark the divider location at 17¾ inches and 18½ inches from the front edge of each base side. Draw horizontal lines at these marks. The divider fits between the two lines.

d. Lay out the hole locations for the shelf pins per the detail in Figure 4.

e. Attach the front face frame to the front of each base side, and then attach the back face frame.

f. Attach the base floor to the face frames and the sides flush with the top of the base toes. Secure the divider to the sides and floor at the marked location.

g. Install the slide fillers with lower edges flush with the top of the mid rail. Attach the slide fillers to the sides.

h. Separate the two drawer slide halves, and attach one half to the slide fillers using the screws provided and following the manufacturer's instructions. Set the other halves aside.

i. Check the fit of the base top for each of the units, and adjust as needed. Do not attach.

j. Attach the shelf nosing to the front and the back shelves. Place each of the shelf pins in the desired locations, and set the shelves on the pins.

k. Attach the base moulding to fit around each base unit.

Step 2: Build the drawers.

a. Assemble the drawers, except for the drawer face and trim, with glue and 1-inch wire brads (see Figure 2).

b. Attach the remaining halves of the drawer slides to the drawer sides using the screws provided and following the manufacturer's instructions.

c. Insert each drawer into its opening so the matching halves of the slides engage, and check for smooth operation.

d. Insert a drawer face in each drawer opening, and adjust its position so that the gap between the face and the opening is equal around the perimeter of the drawer; use shims to lock each drawer face in place.

e. Remove the base tops. Reaching in through the top, screw the drawer face to the drawer front with pan-head screws. Drive the screws through the back of the drawer front into the face.

f. Attach the drawer trim to the drawer face with glue and 1-inch wire brads.

g. Reposition the base tops, and then secure them to the base sides and face frames.

h. If painting the base units, sand them now, and apply two coats of paint. Allow to dry, and then install the drawer pulls.

Step 3: Build the desktop.

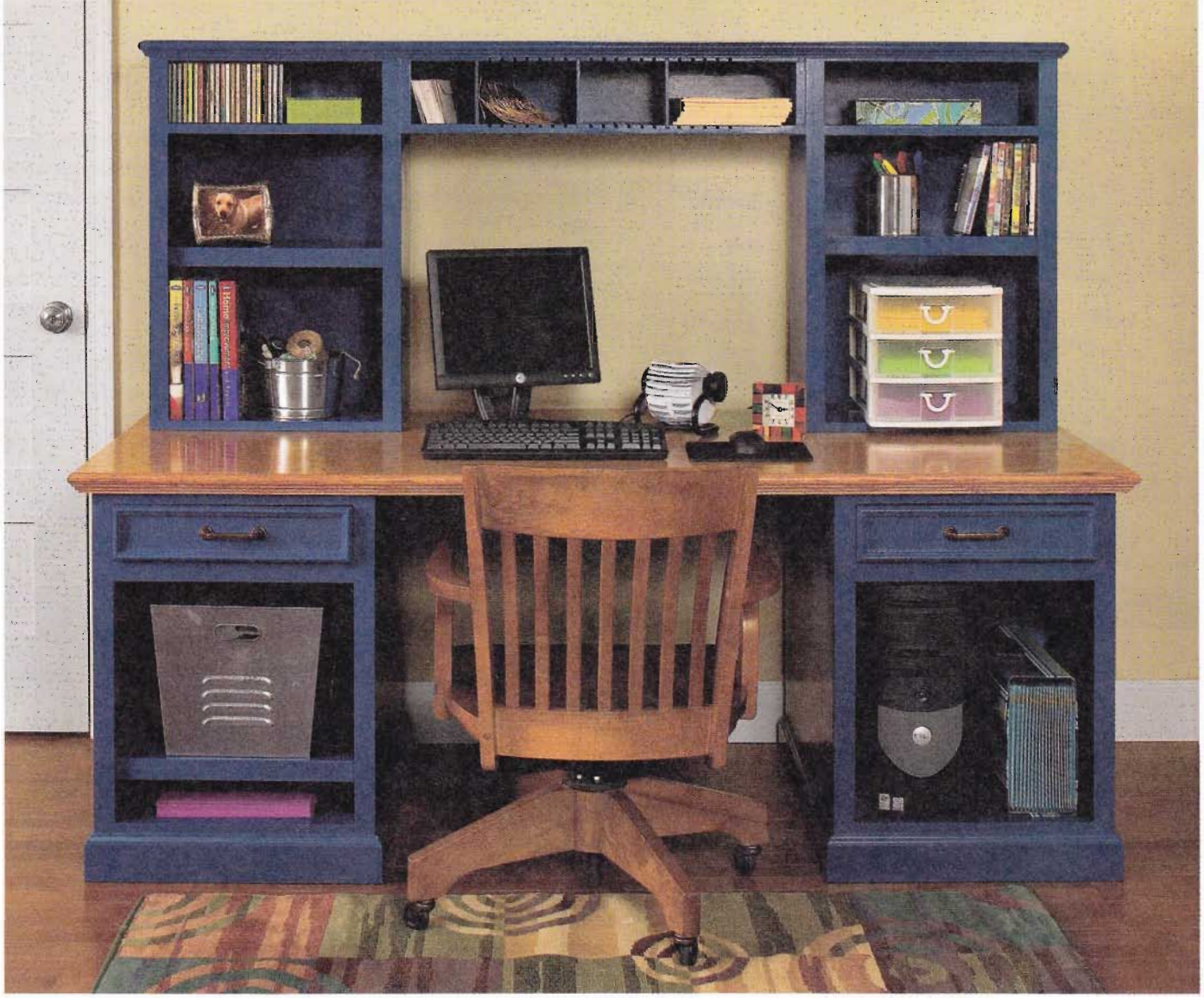
a. Attach the rim pieces to fit flush with the desktop edges. Position them on the rough face of the desktop. Then attach the top edging pieces to the desktop (see Figure 3).

b. Sand, stain, and apply several coats of polyurethane to the desktop until the desired finish is achieved. Allow to dry.

c. Place the desktop on the two base units, and measure between them to check the dimensions for the top stiffeners. Set the desktop aside.

d. Drill two pocket holes at each end of the top stiffeners. Attach them to each base unit flush with the bottom of the desktop using pocket hole screws. (See Figure 3.)

e. Replace the desktop. To make it easy to move the computer desk, the top is *not* attached to the base units. The four rim



pieces keep the top from shifting, while the upper assembly's weight holds the piece in place on the desk.

Step 4: Build the upper units.

a. Build a front and a back face frame for each upper unit by attaching the upper rails to the upper stiles with glue and pocket hole screws (see Figure 4). Locate the upper mid rail 5 inches below the bottom of the top upper rail. (Note that there are no upper mid rails on the back face frames.)

b. On the interior faces of the upper sides, label the front, back, top, and bottom. Arrange them with interiors facing up and lower edges closest to you. Lay out the locations of the holes for the shelf pins per the detail in Figure 4.

c. With a dado blade, cut a ¼-inch-deep, ⅜-inch-wide rabbet on the long back edges of the upper sides. Rabbet only the inside back edges. These rabbets will accept the upper back to be added later.

d. Attach the upper sides to the *front* face frame. Attach the upper top and upper bottom. Insert an upper back into each rabbet; secure it with glue and ¾-inch wire brads. Attach the back face frame. Secure the fixed shelf to the front face frame and upper sides.

e. Attach cove moulding to the inside edge of the back face frame unit with glue and ¾-inch wire brads.

f. Attach the shelf nosing to the adjustable shelf. Install the shelf pins and adjustable shelf at the desired location.

Step 5: Build the pigeonhole unit.

a. Attach two of the pigeonhole rails to the *front* edge only of the pigeonhole top and bottom, nailing no more than 5 inches in from the ends (see Figure 5). Set aside the remaining two rails.

b. Starting at the center of what will be the inside of the pigeonhole top and bottom, cut 5/16-inch-wide by 5/16-inch-deep dadoes spaced 1 inch apart for the dividers. Cut 10 dadoes on either side of the center dado.

c. Attach the remaining two pigeonhole rails to the back edges of the pigeonhole top and bottom; attach the four stiles to the pigeonhole sides.

d. With a dado blade, cut a ¼-inch-deep, ⅜-inch-wide rabbet on the short back edges of the pigeonhole sides. Rabbet only the inside back edges; this rabbet will accept the back to be added later.

e. Attach the pigeonhole top and bottom to the sides, making sure that the dadoes on the top and bottom face to the inside.

f. Insert the pigeonhole back into the rabbets, and secure it with glue and ¾-inch wire brads.

g. Attach the cove moulding around the back of the pigeonhole unit with glue and ¾-inch wire brads.

h. Slide the dividers into the dadoes at the desired locations.

Step 6: Install the pigeonhole unit.

a. Turn over the upper units and the pigeonhole unit. Join them by driving screws through the sides.

b. Set the unit upright, and then sand and paint as desired.

Figure 1 base units

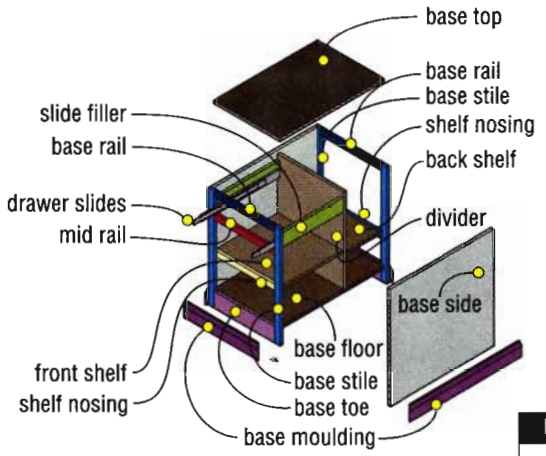


Figure 2 drawers

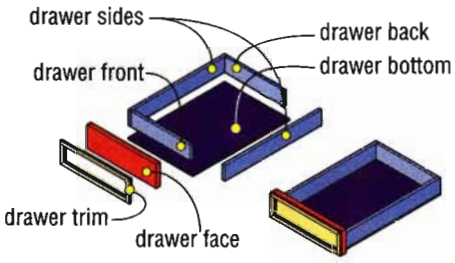
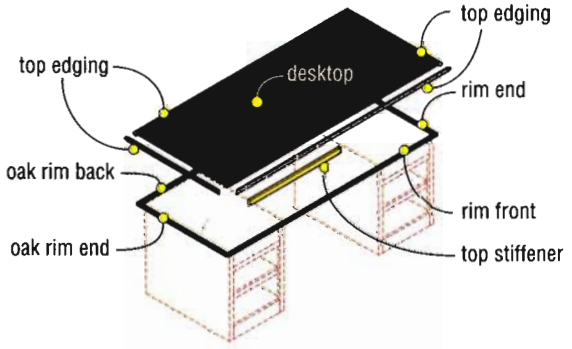


Figure 3 desktop



c. Place the assembled unit on top of the desktop centered from side to side and flush with the back edge. Secure the upper units to the desktop by driving screws through the upper bottoms into the desktop.

Step 7: Build and install the bonnet.

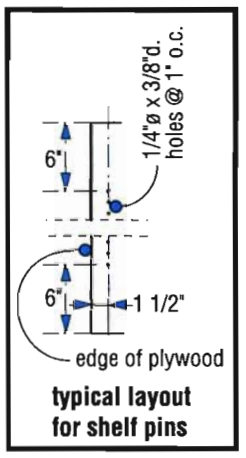
a. Measure the length and width of the upper assembly. Attach the bonnet edging to fit.

b. Sand and paint the bonnet as desired.

c. Place the bonnet assembly on the upper assembly so that the overhang is equal on all edges, and secure it to the upper assembly by driving screws down through the bonnet top.

Project #WI051 ■

Figure 4 upper units



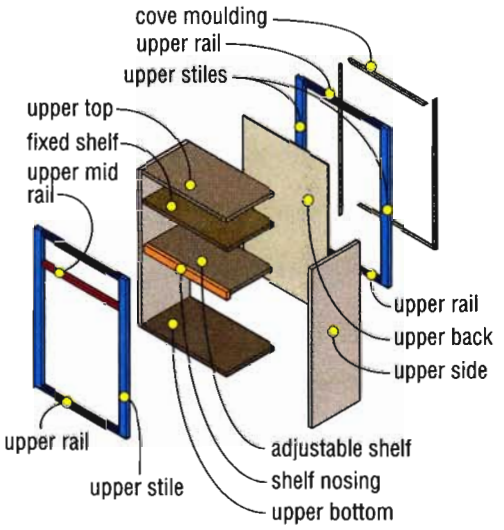
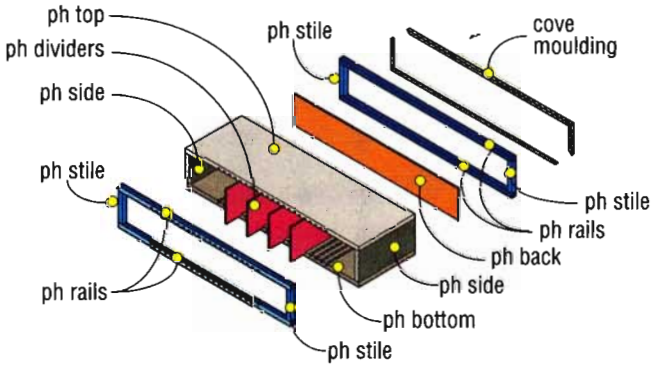


Figure 5 pigeonhole unit



TOOL LIST

- table saw with dado blades
- miter saw (or handsaw with miter box)
- power sander and various grits of sandpaper
- drill/driver with bit set, including a #2 square driver, a ¼-inch brad-point bit, and a ¼-inch stop collar
- Kreg ProPack Pocket Hole System
- combination or framing square
- hammer and nail set
- tape measure
- pencil

Finished Dimensions:
Height: 59¾ inches
Depth: 32 inches
Width: 74 inches

CUT LIST

Part Name	Material	Size (in inches)	Quantity
BASE UNITS			
base stiles	1 x 2	¾ x 1½ x 28¼	8
base rails	1 x 2	¾ x 1½ x 17	4
mid rails	1 x 2	¾ x 1½ x 17	2
base toes	1 x 6	¾ x 4 x 17	4
base top/floor	¾-inch birch plywood	¾ x 18½ x 29	4
dividers	¾-inch birch plywood	¾ x 18½ x 23½	2
base sides	¾-inch birch plywood	¾ x 28¼ x 29	4
slide fillers	1 x 4 poplar	¾ x 3½ x 17¾	4
base moulding	base moulding	cut to fit	8
front shelves	¾-inch birch plywood	¾ x 16⅞ x 18⅛	2
shelf nosing	1 x 2	¾ x 1½ x 18⅛	4
back shelves	¾-inch birch plywood	¾ x 9½ x 18⅛	2
drawer bottoms	¼-inch plywood	¼ x 16 x 17¼	2
drawer sides	½- x 3-inch poplar	½ x 2½ x 17¼	4
drawer back/front	½- x 3-inch board	½ x 2½ x 15	4
drawer faces	1 x 6	¾ x 3⅜ x 16⅞	2
drawer trim	¾-inch edging	cut to fit	8
DESKTOP			
desktop	¾-inch oak plywood	¾ x 32⅛ x 74	1
top edging	1¼-inch oak edging	cut to fit	4
rim pieces	1 x 4 oak	cut to fit	4
top stiffeners	1 x 2	¾ x ½ x 32½	2
UPPER UNITS			
upper rails	1 x 4 poplar	¾ x ¾ x 17	8
upper stiles	1 x 2	¾ x 1½ x 30	8
upper mid rails	1 x 4 poplar	¾ x ¾ x 17	2
upper sides	¾-inch birch plywood	¾ x 10½ x 30	4
upper top/bottom	¾-inch birch plywood	¾ x 10½ x 18½	4
upper backs	¼-inch plywood	¼ x 19¼ x 28½	2
cove moulding	cove moulding	cut to fit	8
fixed shelves	¾-inch birch plywood	¾ x 10¼ x 18½	2
adjustable shelves	¾-inch birch plywood	¾ x 9¼ x 18⅛	2
shelf nosing	1 x 2	¾ x 1½ x 18⅛	2
PIGEONHOLE UNIT			
ph top/bottom	¾-inch birch plywood	¾ x 10½ x 32	2
ph sides	¾-inch birch plywood	¾ x 5 x 10½	2
ph rails	1 x 4 poplar	¾ x ¾ x 32	4
ph stiles	1 x 4 poplar	¾ x ¾ x 5	4
cove moulding	cove moulding	cut to fit	4
ph back	¼-inch plywood	¼ x 5 x 32¼	1
ph dividers	¼- x 6-inch poplar	¼ x 5½ x 10¼	4
BONNET			
bonnet top	¾-inch birch plywood	¾ x 12⅛ x 72⅛	1
bonnet edging	1¼-inch poplar edging	cut to fit	4

LOWE'S SHOPPING LIST

Lumber*

- 1 (4-foot-long) ¼- x 6-inch poplar board
- 4 (4-foot-long) ½- x 3-inch poplar boards
- 10 (8-foot-long) 1 x 2s, poplar
- 1 (8-foot-long) 1 x 4, red oak
- 2 (8-foot-long) 1 x 4s, poplar
- 1 (10-foot-long) 1 x 6, poplar
- 1 (48- x 96-inch) sheet of ¼-inch-thick birch plywood
- 1 (48- x 96-inch) sheet of ¾-inch-thick oak plywood
- 3 (48- x 96-inch) sheets of ¾-inch-thick birch plywood
- 4 (8-foot-long) pieces of ½-inch cove moulding
- 1 (8-foot-long) piece of ¾-inch poplar edging
- 3 (8-foot-long) pieces of 1¼-inch poplar edging
- 3 (8-foot-long) pieces of 1¼-inch red oak edging
- 3 (8-foot-long) pieces of 3¼-inch base moulding

Hardware & Supplies

- 1 box (#17 x 1-inch) wire brads
- 1 box (#18 x ¾-inch) wire brads
- 1 box (1½-inch) 4d finishing nails
- 1 box (1¼-inch) PrimeGuard Plus screws
- 1 box (1¼-inch) Kreg pocket hole screws (coarse thread)
- 1 box (#8 x 1-inch) pan-head screws
- 1 box of shelf pins
- 2 pairs (18-inch) drawer slides
- 2 drawer pulls
- wood glue
- wood filler
- paint (American Tradition, La Fonda Deep Blue #4011-7, gloss)
- stain (Olympic, Special Walnut)
- polyurethane

*Availability varies by market.

feature project

Miter Saw Table

See how well your saw works when you add this handy table to your shop.

TOOL LIST

- circular saw with straightedge guide (or table saw)
- miter saw (or handsaw with miter box)
- power sander and various grits
- power drill/driver with bit set, including #2 square driver and #10 countersink bit
- router with laminate trim bit
- combination or framing square
- Kreg ProPack Pocket Hole System
- laminate roller (or rolling pin)
- straightedge
- hammer
- tape measure
- pencil

LOWE'S SHOPPING LIST

Lumber*

- 6 (6-foot-long) 1 x 3s
- 2 (6-foot-long) 1 x 6s
- 1 (48- x 96-inch) sheet of ¼-inch-thick plywood
- 2 (48- x 96-inch) sheets of ¾-inch-thick plywood

Materials

- 1 box (1¼-inch) PrimeGuard Plus screws
- 1 box (1¼-inch) Kreg pocket hole screws (coarse thread)
- 16 (¼- x 1-inch) lag screws
- 1 box 4d (1½-inch) bright finishing nails
- 1 box (#18 x ¾-inch) wire brads
- 4 nuts and bolts (size and length vary according to saw)
- 32 (¼-inch-diameter) flat washers
- 1 (48- x 96-inch) sheet of plastic laminate
- 6 (30-inch-long) piano hinges
- 4 (3-inch) locking swivel casters
- 1 box of shelf pins
- 1 quart of contact cement
- wood glue
- wood filler
- sandpaper
- polyurethane

*Availability varies by market.

Instructions:

General: Predrill for and countersink all screws. Use glue and 1¼-inch screws for joining unless otherwise stated. Set all nails, fill all holes and voids with wood filler, and sand smooth.

Step 1: Build the table's base.

a. Cut two sheets of ¾-inch-thick plywood into four 23¼- x 96-inch pieces before using this material per the Cut List. Cut the remaining parts per the Cut List.

b. Lay out holes for the shelf pins on the inside of the two side panels and on both sides of the divider (see shelf pin layout detail).

c. Attach the top and bottom panels to the side panels. Attach the divider vertically between the top and bottom panels so that it is centered horizontally and vertically.

d. Check the assembly for square, and attach the back panel with glue and brads.

e. Install the fixed shelves 4 inches below the top panel. Glue and then toenail each shelf to the center divider with finishing nails.

f. Cover all exposed plywood edges on the base unit by attaching nosing pieces with glue and finishing nails.

g. Turn over the base unit, and attach a caster to each corner of the bottom panel with lag screws. Use pairs of stacked flat washers to keep the screws from protruding through the bottom panel.

h. Set the base unit upright. Attach nosing to the adjustable shelves using glue and finishing nails. Insert shelf pins at the desired height, and install the adjustable shelves.

i. Sand the base unit, and apply multiple coats of polyurethane for desired finish.

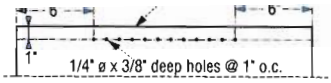
Step 2: Make the drop leaf assemblies.

a. Attach the drop extensions to the top of the arm supports. Attach the nosing to the arm supports with glue and finishing nails.

b. To allow the arms to fold on top of each other, attach each arm filler flush with the nosing on the arm support.

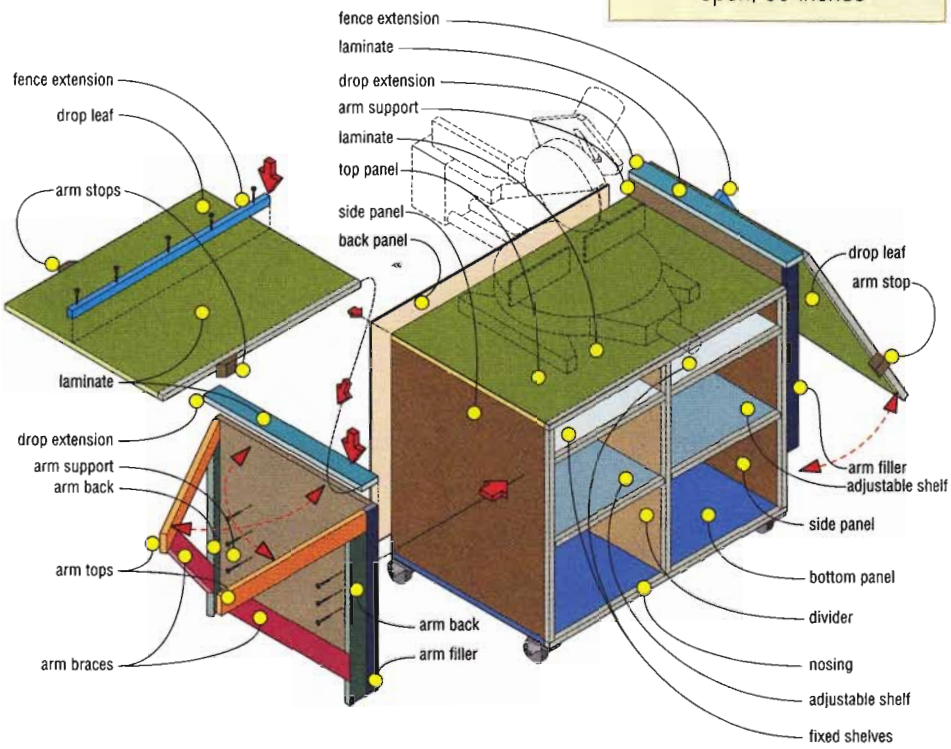
c. Attach the nosing to the drop leaf using glue and finishing nails.

d. Apply laminate to the drop leaves, drop extensions, and top panel using contact cement. Measure the part to be covered, and then cut a piece of laminate that's ⅜ inch larger all around. Apply cement to the back of the laminate and the part surface. Allow the cement to dry to the touch. Place scrap strips that are ¼ inch thick on the part to keep the glue from making contact with the laminate. Position the laminate so that it overhangs the ends and sides of the part equally.



shelf pin layout detail

Finished Dimensions:
Height: 36 inches
Depth: 24 inches
Width: closed, 44 inches;
open, 99 inches



CUT LIST

Part Name	Material	Size (in inches)	Quantity
side panel	¾-inch plywood	¾ x 23¼ x 27¾	2
top/bottom panels	¾-inch plywood	¾ x 23¼ x 36	2
back panel	¼-inch plywood	¼ x 29¼ x 36	1
divider	¾-inch plywood	¾ x 23¼ x 27¾	1
fixed shelves	¾-inch plywood	¾ x 23¼ x 16⅞	2
nosing	1 x 6	scribe to fit	15
adjustable shelves	¾-inch plywood	¾ x 23¼ x 16¾	2
drop extensions	1 x 6	¾ x 2⅝ x 24	2
arm supports	¾-inch plywood	¾ x 23¼ x 24	2
arm fillers	1 x 3	¾ x 1¾ x 24	2
drop leaves	¾-inch plywood	¾ x 23¼ x 30	2
arm tops	1 x 3	¾ x 2½ x 22	4
arm backs	1 x 3	¾ x 2½ x 21½	4
arm braces	1 x 3	¾ x 2½ x 26¼	4
arm stops	1 x 3	¾ x 1½ x 3	4
fence extensions	1 x 3	¾ x 1⅛ x 30	2
laminate	48- x 96-inch sheet	cut to fit	as needed

Starting at the center, slide the strips out from between the laminate and the part. Press the laminate until it makes contact with the part. Repeat, working your way from the center out to the ends. Use a laminate roller or rolling pin to press the laminate firmly onto the part.

e. Trim excess laminate using a router fitted with a laminate trim bit. Sand any sharp edges.

Step 3: Build four arm assemblies, each consisting of an arm top, arm back, and arm brace per the illustration.

a. Attach the arm assembly parts using glue and pocket hole screws.

b. Sand the components, and apply multiple coats of polyurethane for the desired finished look.

a. Install a piano hinge connecting the back of one arm assembly and the face of the arm support along the back edge. Install the second hinge on the back of another arm assembly and the edge of the arm filler. Install the third hinge between the drop extension and the drop leaf. Repeat for the other drop leaf assembly using the remaining three hinges.

b. With a drop leaf in the open position, attach arm stops along the front and back edges of the leaf so each stop is centered from end to end on the arm support and flush with the top of the drop leaf. Repeat for the other drop leaf assembly using the remaining two arm stops. Bevel the ends of the arm stops if desired.

c. Place your miter saw on the top panel, and center it from side to side. Mark and drill mounting holes in the top panel; then bolt the saw in place with nuts and bolts. The size and length of the hardware will depend on your saw.

d. To position each drop leaf assembly, start by placing a straightedge on the miter saw cutting surface, extending it over the edge on one side. (Consider enlisting the aid of a helper here.) With a drop leaf open, butt it against the base side panel so it's just below the extended straightedge. Slide the drop leaf assembly up until it just makes contact with the straightedge and is flush with the base panel.

e. Mark the arm support where it touches the top panel directly below the straightedge. Remove the drop leaf assembly, and extend the mark across the face of the arm support.

f. Reposition the drop leaf assembly against the base panel aligning the arm support mark with the top panel. Attach the drop leaf assembly to the table base, driving screws through the arm support and into the side of the base panel. Repeat for the other side.

Step 5: Add the fence extensions.

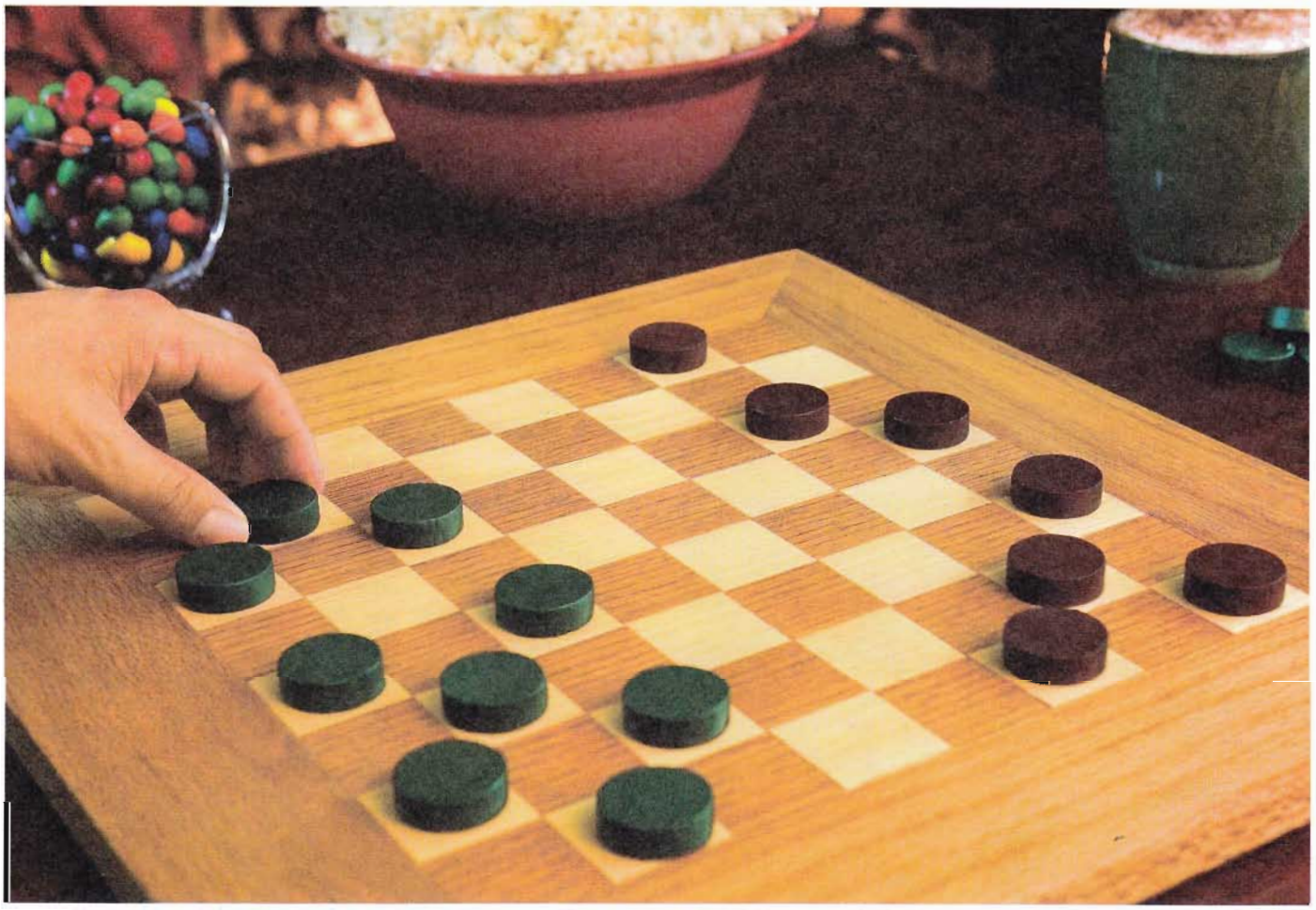
a. With a drop leaf open, locate the face of one fence extension with a straightedge against the fence of the miter saw. Draw a line across the drop leaf.

b. On the ¾-inch edge of the fence extension, starting 1 inch from each end, drill a ⅜-inch-deep countersunk hole. Drill three additional holes between these at 7 inches on center.

c. Align the fence extension with the line on the drop leaf, and attach it with screws. Repeat to attach the other fence extension to the other drop leaf. **Project #WI052** ■

Time To Play

Strips of oak and poplar create a unique checkerboard.



What better way to while away an afternoon than playing checkers with a friend or loved one. The checkerboard and checkers can be finished smooth or left rough.

Instructions:

General: Cut all parts to size per the Cut List.

Step 1: Cut and assemble the strips (see Figure 1).

a. Stain the oak strips with a dark stain as desired. To prevent the stain from interfering with the glue joint, first apply masking tape along the long narrow edges of the strips. Remove the tape after the stain dries.

b. Using clamps and wood glue, assemble the strips, alternating between oak and poplar, keeping the ends flush. Allow the glue to dry overnight.

Step 2: Cut the strip assembly in the opposite direction to form alternately colored squares, and then glue the board together (see Figure 2).

a. Cut the glued board into eight (1½-inch) strips.

b. Alternate colors on the ends for reassembly, and use glue and clamps to form the checkerboard. Make sure the ends are flush. Allow the glue to dry overnight.

Step 3: Add the frame and backing (see Figure 3).

a. Miter the frame pieces to wrap around the board.

b. Use a biscuit joiner to cut slots for #10 biscuits in the joining ends and inside edges of the frame pieces, as well as in the outside edges of the board.

c. Apply glue to the biscuit slots, the inside and mitered edges of the frame pieces, and the edges of the checkerboard. Clamp the frame pieces to the checkerboard, and then allow the glue to dry completely.

d. Cut the backing 1 inch less than the overall dimension of the board assembly, including the frame.

e. Center and attach the backing on the board assembly using glue and brads.

Step 4: Apply a finish.
a. Sand the assembly using 320-grit sandpaper.
b. Apply multiple coats of wipe-on polyurethane until the desired finish is achieved.
c. Apply felt pads to the backing after the finish has dried.
Step 5: Make the checkers.
a. Cut ⅜-inch-thick slices from the dowel (see The Pros Know on page 3 for tips on cutting round stock). Cut 28 pieces (or more to replace lost checkers later; see Figure 4).
b. Sand the checkers smooth, and apply primer.
c. Paint or stain half of the checkers in one color and the other half in a contrasting color.

Project #WI053 ■

LOWE'S SHOPPING LIST

Lumber

- 1 (6-foot-long) 1 x 2, poplar*
- 1 (8-foot-long) 1 x 2, oak*
- 1 (6-foot long) 1 x 3, oak*
- 1 (48- x 96-inch) sheet of 3/16-inch-thick hardboard
- 1 (4-foot-long) 1¼-inch-thick dowel rod

Hardware & Supplies

- 1 package (⅜-inch) felt pads
- stainable wood filler
- 1 box (¾-inch) finish wire brads
- wood glue
- 1 package (#10) joining biscuits
- (320-grit) sandpaper
- stain (Olympic, Golden Oak)
- primer
- paint (American Tradition; Poker Green #6010-6 and Dust Bunny #2005-10B)
- wipe-on polyurethane

*Availability varies by market.

TOOL LIST

- table saw (or circular saw and straightedge guide)
- power miter saw (or miter box and handsaw)
- power sander and various grits
- biscuit joiner
- bar clamps
- combination or framing square
- masking tape
- tape measure
- pencil

Finished Dimensions:
17 inches square x 1 inch thick

Figure 1

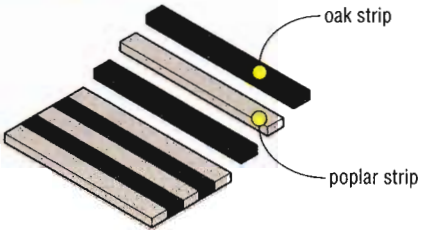
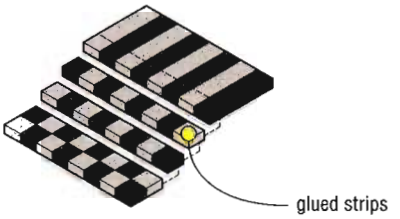


Figure 2



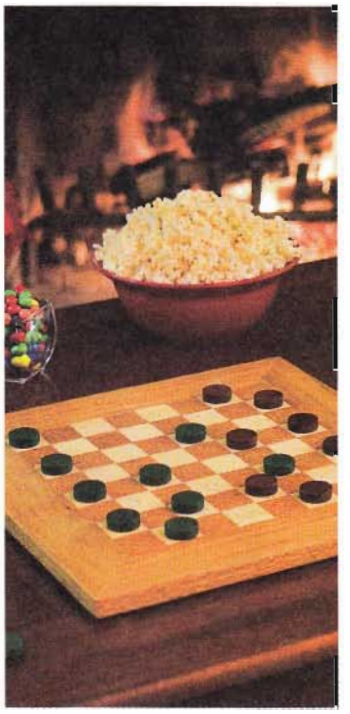


Figure 3

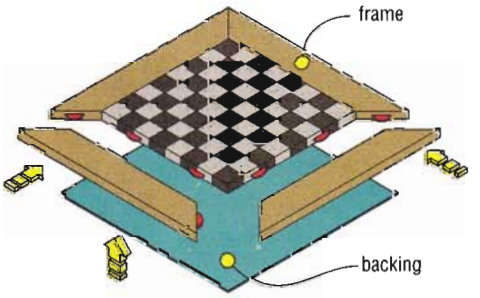
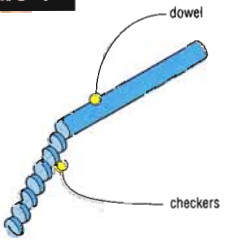
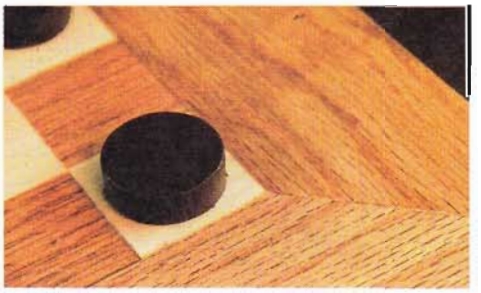


Figure 4





CUT LIST

Part Name	Material	Size (in inches)	Quantity
poplar strips	1 x 2	¾ x 1½ x 14	4
oak strips	1 x 2	¾ x 1½ x 14	4
frame pieces	1 x 3	¾ x 2½ x 17*	4
backing	hardboard	3/16 x 16 x 16	1
checkers	dowel	⅜ x 1¼	28

*Scribe to fit.

Tools of the Season

We show you the latest tools, plus must-haves for your shop and budget buys.

Strait-Line X3 laser level

This long-range laser line level (#226183) can level on two walls at a time. Designed for indoor use, the X3 level microadjusts within a 60-foot range. The 3M command strips allow for hands-free adjustment.

Hitachi 5.8-amp jigsaw

The blade on this versatile unit (#31619) is easy to change without a single tool—so you can concentrate on the job at hand. Its orbital design and range of 850 to 3,000 strokes per minute (spm) afford even more flexibility. With an LED blade light, you'll be able to see your work easily.

Hitachi 12-inch sliding compound miter saw with LCD display and laser marker

Workshop space often is limited, but that's not a problem with the revolutionary compact design of this sliding compound miter saw (#118985). The saw head moves along fixed rails, allowing for use on a bench top or other small areas. The high-tech pivoting LCD screen mounted on the top provides clear, accurate miter and bevel readings. The laser marker is fully adjustable and pivots to hone in on cut lines.

Give them the newest technology via these smart tools.

Cutting Edge
TOOL OF THE SEASON

Kobalt digital air compressor
Featuring Digitech Plus technology, Kobalt's 1.5-horsepower, 30-gallon air compressor (#103798) will power a variety of tools with the touch of a button. This functional machine features two preset pressure settings and delivers 4 cubic feet per minute (cfm) at 90 pounds per square inch (psi) and 6.0 cfm at 40 psi, with an industry-leading maximum of 155 psi. Pre-assembled wheels and a quick-connect air outlet add portability and convenience.

digital display

DeWalt heavy-duty 12-inch single-bevel compound miter saw
This versatile miter saw (#122210) increases cut capacity with bevel increments of 0 to 48 degrees to the left and –2 degrees to the right, with positive stops at 0, 33.9, 45, and 48 degrees. A right miter capacity of 0 to 50 degrees provides even more functionality. Bonuses include a carbide blade for high-density cuts, a dust bag, extension kit for larger stock, and blade wrench. An optional laser attachment (#127575) will allow for more precise cuts.

laser attachment

Shop-Vac 5.5 (peak) 12-gallon contractor wet/dry vac
Up to 50% quieter than competitive models, Shop-Vac's new wet/dry vac (#126801) runs in stealth mode. Its features include a 20-foot-long power cord for plenty of reach, plus attachments that allow you to clean tight spaces and pick up large or small debris.

As you do your holiday shopping, remember that the Lowe's gift card is available both in-store and at **Lowes.com**, and it is always the perfect gift.

Your Choice of Firestorm Tools

Giveaway Details

Celebrate the season of giving with this great offer. Buy any 18-volt Firestorm by Black & Decker tool or combo kit, and get another 18-volt Firestorm product FREE via mail-in rebate. Qualifying purchases include the ½-inch Fast Drive Metal Chuck 2-Speed Cordless Drill/Driver (#136587), 5⅜-inch Cordless Circular Saw (#136617), Cordless Reciprocating Saw (#136626), cordless jigsaw (#225050), 3-piece cordless combo kit (#18222), 4-piece cordless combo kit (#161092), and 6-piece cordless combo kit (#225041). Free tools include your choice of those pictured above. Take advantage of this offer from November 1 through December 24, 2005. See store for details.

Stay within your shopping budget with these economical tools.

Best Buy
TOOL OF THE SEASON
LOWE'S

Delta ShopMaster 10-inch compound miter saw

Power and value come together in Delta's ShopMaster miter saw (#21384). The 13-amp, 120-volt motor gives you plenty of strength for tough cutting jobs, such as crosscutting a 2 x 6 or 4 x 4 at 90 degrees. The saw also miters 2 x 4s flat or on edge at 45 degrees right and left. Quick-tilt and miter settings are a snap with the easy-to-read bevel scale, adjustable positive stops, and the convenient miter indexing mechanisms. Extra-wide materials are no problem with the large, one-piece fence. Included are a 10-inch-diameter carbide-tipped blade, retractable blade guard, and dust bag.

These Delta tools for $99 offer lots of features at a great value. Look for them together at your local Lowe's.

Delta ShopMaster 10-inch bench drill press

This drill press (#40162) is all about agility, with a slotted tilting table for fast clamping and an adjustable-position locking depth stop. Speed changes are easy with the pivoting motor mount that maintains correct belt tension, and the three-jaw, ½-inch capacity chuck provides positive gripping for multiple cutting tools. The ¼-hp, 120-volt induction motor offers smooth performance that lasts as long as you do.

Delta ShopMaster 9-inch band saw

Flexible and precise are the best ways to describe Delta's 9-inch band saw (#59928), with its rack and pinion table tilt adjustment for settings from 3 degrees left to 45 degrees right. The ⅓-hp, 120-volt ball-bearing motor gives a smooth cutting experience. The built-in dust chute can be attached to a dust collection system, and predrilled base holes allow for easy mounting on any bench top. Added to the package are a rack and pinion upper blade guide and table tile assemblies, flexible lamp, and a 59½-inch blade.

Delta ShopMaster 10-inch table saw with stand

Delta's portable table saw (#105831) is lightweight, so you can easily take it where it's needed. Controlled cuts are simplified with the self-aligning rip fence that locks itself parallel to the blade via a single control lever. Control knobs for the blade are conveniently placed in the front of the saw, and the toggle switch features a removable lock-out key. Safety features include a see-through blade guard with a splitter and anti-kickback fingers, and a T-slot table groove that prevents the miter gauge from falling during wide cut-off operations. The saw is capable of cutting 3-inch stock at 90 degrees and 2½-inch stock at 45 degrees.

OXO Good Grips 6-piece quick fix kit
Practically any project can be tackled with this handy tool set (#127850). OXO's universal design ensures that the 6-inch long nose pliers, curved claw hammer, 16-foot tape measure, utility knife, and 6-in-1 screwdriver are both simple and comfortable to use. A lifetime guarantee delivers peace of mind.

Milescraft Orbiter drill attachment
An infinite number of drill angles can be achieved via the Orbiter's unique beveled-gear assembly. The split-body construction of this attachment (#168937) adds flexibility, with each half independently rotating 180 degrees, allowing you to drill at any angle. Featuring a keyless chuck, the piece fits bits up to ⅜-inch, plus it has a ⅜-inch Hex shaft that fits ⅜-inch and larger drills.

Bostitch 16-gauge magnesium oil-free finish nailer with free stapler
Dependability and safety are the prerequisites of finish nailers, and Bostitch provides both in this tool (#64875). The 70- to 120-psi nailer comes with bonus pieces, including a case, 1,000 fasteners, and a 1-inch narrow-crown stapler. Beyond these extras, this product can operate in a nail range of 1 to 2½ inches using 16-gauge straight finishing nails. Safety features include sequential trigger and dry fire lockout.

Skil 2¼-inch router combo kit with worklight
Precision is the name of the game for this plunge router (#109589). The micro-fine depth-adjustment knob steadies the job at capacities of 1½ inches for the fixed base and 2 inches for the plunge base. A built-in light ensures maximum visibility, a collet lock simplifies bit changes, and soft-grip handles ensure comfort. And at variable speed rates and 25,000 rpm, it gets the job done. A heavy-duty case, collet wrench, dust mat, and edge guide are included.

Beef up any tool collection with these workshop staples.

Must Have
TOOL OF THE SEASON
LOWE'S

Bosch 2.25-hp combination plunge and fixed-base electronic router

In this router kit (#136633), accuracy converges with the ability to meet the exact needs of any project. The variable speed dial—8,000 to 25,000 revolutions per minute (rpm)—matches the speed of each workpiece and task, and the micro-fine bit-depth adjustment system on the bases allows for fast and precise fine-tuning. The kit also features a 7-piece bonus accessory kit, including carrying case, edge guide, ¼- and ½-inch S.R. collet chucks; 16-mm shaft wrench; 24-mm collet nut wrench; tool-free template guide adapter; and fixed- and plunge-base chip shields.

IRWIN 6-inch QUICK-GRIP mini bar clamp (2-pack)

For small projects, you will like the speed and comfort provided by these clamps (#96054). IRWIN's design incorporates a pistol grip for comfort—perfect when working with 150 pounds of clamping pressure. For easy storage, this compact model is 25% smaller than Quick-Change styles.

For more information on woodworking products, please visit **Lowes.com/Workshop**.

Package Values

Now's the time to give your workshop a makeover for a great value. At Lowe's, it's easy to find the pre-selected tool package values that suit both your skill level and your budget. Choose the package, pick up an order form, and bring it to the checkout for scanning. Your order will be delivered to your home. Free delivery if purchased by December 19, 2005. See the options below, and pick the one that's right for you.

- For casual woodworkers, a 10-inch miter saw (#21384), 10-inch table saw (#105831), 9-inch band saw (#59928), belt/disc sander (#40162), jigsaw (#30347), and router (#136550) offer high-quality features at a low price.

- The more serious handyman can take projects to the next level with Hitachi's table saw (#159372), 10-inch laser miter saw (#40806), router (#118359), sander (#139612), and jigsaw (#31619).

- Expert woodworkers will achieve great results with top-quality Delta and DeWalt tools such as a 10-inch table saw (#33719), 12½-inch planer (#36274), bench-top jointer (#33781), 14-inch band saw (#59964), jigsaw (#44507), P.C. router (#51597), ¼-sheet sander (#117320), and 12-inch compound miter saw (#122210).

Perfectly Painted

Different types of wood require specific preparation for a coat of paint.

Because paints are highly pigmented and film-forming, they create an effective seal against dirt and moisture. But not all woods and wood products accept paint in the same way. Additionally, how you prepare the wood for painting will affect its final appearance.

Solid Wood

Tight, close-grained hardwoods, such as maple and poplar, take paint well. The pores of open-grained woods, such as oak and walnut, should be filled with a suitable wood filler, and then sanded smooth prior to painting. Softwoods often are challenging to paint because of their high resin content and knots that can bleed resin into a finish coat. Pine in particular should be conditioned with a sanding sealer or a wash coat of shellac to seal all of the pores and knots.

Wood Products

Man-made or engineered wood products take paint with varying degrees of success. Grade B plywood or better accepts paint well. The good, or A, face of AC plywood works best. The rough surface of C or CDX plywood should be prepared for paint by filling its voids and sanding it smooth. OSB (oriented strand board) has a rough surface too, plus a high resin content, making it tough to get a smooth surface. Particleboard can be painted, but its absorbent exterior requires multiple coats. MDF (medium-density fiberboard) is painted easily because its smooth face requires little or no sanding.

Preparation

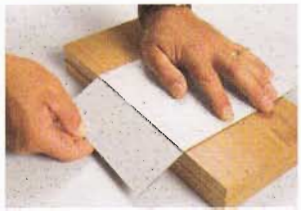
The key to any successful paint job is ensuring that the wood surface is clean, dry, and smooth. Vacuum any sanding dust and grit residue before priming to effectively prepare bare wood for paint. In addition to obscuring the grain and any imperfections, primer creates a better bond between the wood and the paint. Make sure to apply a primer that's compatible with the type of paint you're using. For the smoothest paint job, lightly sand the painted surface between the coats with 220-grit or higher open-coat sandpaper, wiping away the dust each time. ■

Proper priming gives these woods (bottom to top: southern yellow pine, poplar, oak, grade C and better select pine, and white wood) a uniform look.

workshop

Clean Cut

To cut laminate, use hand or power tools. Stain and scratch resistant, laminate is virtually moisture proof—perfect for hard-working projects such as children's pieces or shop furniture. It's also easy to cut. For the best results, make your cuts slightly oversize to allow for trimming. Also, a strip of masking tape placed along the cut line prevents chipping and makes the line easier to see.



Cutting by Hand

To cut laminate with a utility knife, score the sheet first, guiding the knife with a steel square or a straightedge. Snap the piece along the scored line by lifting the shorter end and applying slight pressure. A fine-tooth handsaw also cuts well from the face, or good side, at a low angle. Break down a large sheet of laminate into manageable pieces with ordinary tin snips, which work perfectly if you need to cut a series of narrow strips, such as those for edging a workpiece.

Using Power Tools

Another option is the power saw for quick, accurate sizing. A fine-tooth blade works best; because the stout plastic of laminate can dull a blade quickly, opt for a carbide-tipped blade. When using a circular saw or saber saw, cut from the back side of the laminate so that there's no chipping with the upstroke. You also can prevent chip-out when cutting with a saber saw by using a reverse-cut blade. Its teeth point down, so the veneer isn't pulled away from the core with each stroke. If you do use one of these blades, cut the laminate with the good face up.

If you cut on a table saw you'll need an auxiliary fence—a plywood scrap with a thin hardwood strip at least twice the plywood width screwed to the bottom. Clamp together your rip and auxiliary fences, and then place your laminate piece on top of the fence's thin base to execute the cut. This should prevent any slipping under the rip fence. It also is a good idea to attach a guide block about 3/32 inch above the thin hardwood base to trap the laminate and keep it from vibrating during the cut.

Routing Laminate

A router fitted with a flush trim bit is the perfect tool for cutting oversize pieces once the laminate is glued in place. Set the router on the laminate, and then apply firm pressure as you slowly guide it along the edge. ■

member profile

Randy Hutchison

When Randy Hutchison received the Winter 2004 issue of *The Wood Post,* he was unaware that he would be spending the following year crafting not one, but three toy chests, one of the publication's featured projects. When Randy saw the piece, he immediately decided to create a special chest for each of his three young grandchildren.

"This was my first attempt at 'fine' furniture, so I was apprehensive about the outcome," admits Randy. His initial sense of apprehension soon turned to pride as he received a number of compliments after completing the first of the toy chests.

"My wife liked it so much she wanted me to build one for our house before building any more for the grandkids."

Randy first began working with wood when he and his wife, Debie, decided to remodel part of their automotive repair shop. After completing the shop's renovation, Randy says he "wanted to learn more about better woodworking [techniques] than just the essentials used in cabinets and countertops." This desire led him to join Lowe's Woodworkers almost a year and a half ago.

Today, Randy is open to trying his hand at new projects in order to hone his talent. Next on his list is a set of built-in shelves for his study.

Using his garage as a workshop, Randy looks forward to creating even more lasting pieces such as the toy chests he built for his grandchildren. ■

Across the Grain

Set up a dado cut correctly.

Dado Sets

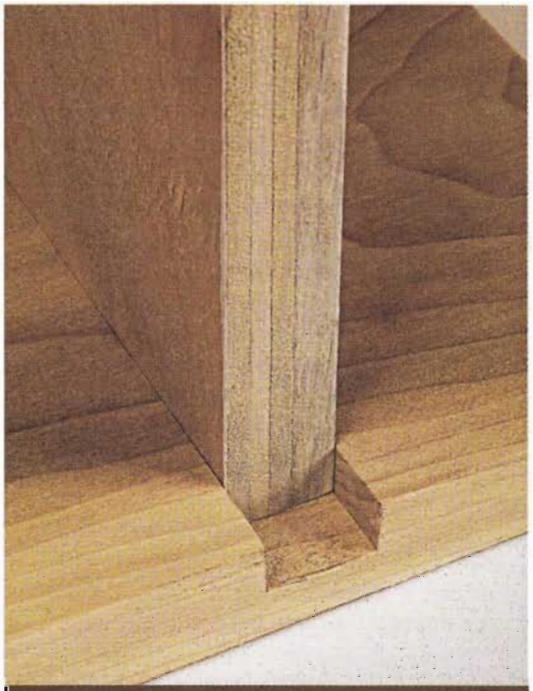
A stacked dado set consists of two blades with chippers sandwiched between them. Varying the number of the chippers changes the width of the dado. When you need a wider cut, insert a plastic or metal shim between the chippers.

Setting It Up

Because a dado set does not cut all the way through the workpiece, it's necessary to remove the saw guard and the splitter assembly first. Once it's installed, position the dado set at the desired height with a straightedge or a combination square. The size and shape of the workpiece will determine how it's guided for the cut.

Large pieces can be guided with the rip fence. For smaller pieces, use your miter gauge to push the workpiece past the blade. Placing one end of the piece against the rip fence sets the location of the dado. If you are using a miter gauge, attach an auxiliary fence to it so that it extends past the dado set. This fence backs up the cut and prevents splintering as it exits the workpiece. Also, as long as your trunnion, rip fence, and miter gauge are aligned, it's safe to use the rip fence as a stop to define the cut.

Safety note: Always use a push stick to feed the stock piece into the blade—never press your hand on the workpiece as it passes over the dado set. Slip a backer board in between the miter gauge and the workpiece to prevent any chip-out from the exiting dado set.



A dado is a square, U-shaped cross-grain cut that is sized to accept another piece. You can cut dadoes in multiple passes using a table saw with a single blade, or in a single pass with a dado set.

Smooth Finish

Prevent tear-out by running a layer of masking tape over the cut line (you will need to redraw this line on the tape). Or you can score through the face veneer with a utility knife. Either way, your blade should stay on the waste side. You can prevent chip-out as the blade exits the wood by using a backer board as described in the safety note above. ■

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