

Woodsmith **PLANS**

DARTBOARD CABINET



Designer Series Project



Dartboard Cabinet

This traditional cabinet is the perfect home for your dartboard. It's exactly the treatment this classic game deserves.



▲ The cabinet's frame and panel doors and detailed moldings make it an attractive addition to the game room.

Some of my favorite memories are of playing darts in an English pub. But trying to import that experience into an American setting can be a challenge. First, you need an authentic board. After that, a classic cabinet to house the board and scoreboard can lend your game room a bit of the authentic pub atmosphere.

The cabinet shown above fills the bill. And you can choose a wood that complements your other furniture, as well. (I used quartersawn white oak to match my Craftsman-style furniture.)

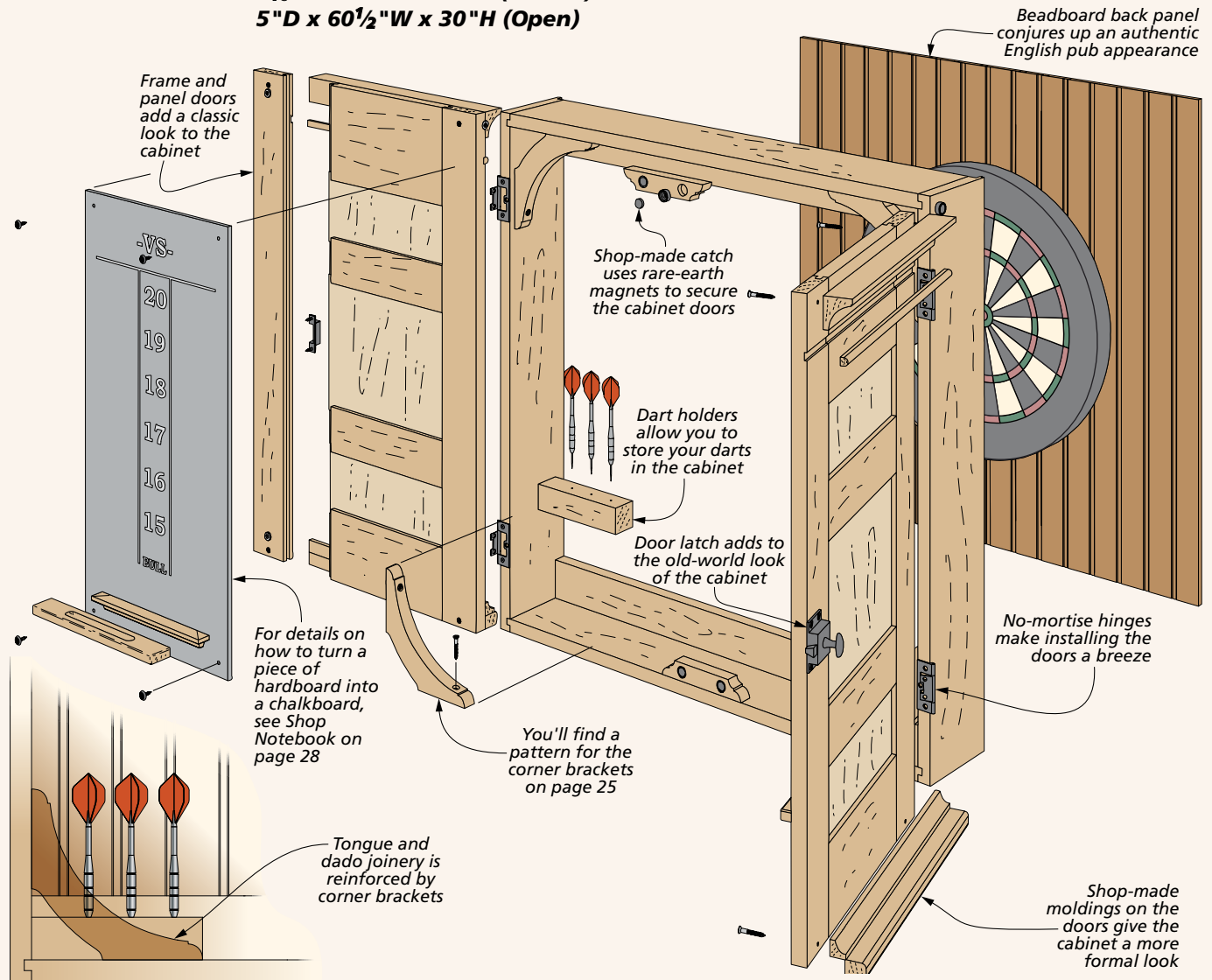
As for the woodworking, it couldn't be simpler. The basic cabinet relies on tongue and dado joinery, reinforced by the decorative corner brackets. The frame and panel doors are also pretty straightforward to build.

For the scoreboards, I used a chalkboard paint over hardboard. This works great and is much easier to cut and install than actual slate blackboards.

All in all, it's been a big hit here. Of course, everyone knows it's tough to beat a nice round of darts and a cold beverage.

CONSTRUCTION DETAILS

OVERALL DIMENSIONS: 7³/₁₆" D x 30" W x 30" H (Closed)
5" D x 60¹/₂" W x 30" H (Open)



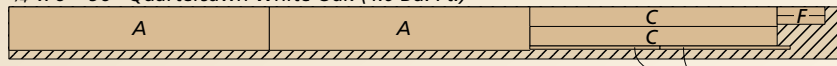
Materials, Supplies, & Cutting Diagram

A Sides (2)	$\frac{3}{4}$ x 5 - 30
B Top/Bottom (2)	$\frac{3}{4}$ x 45 ⁵ / ₈ - 29
C Cleats (2)	$\frac{3}{4}$ x 2 ¹ / ₄ - 28 ¹ / ₂
D Back (1)	$\frac{3}{8}$ bdbd. - 29 ¹ / ₂ x 30
E Corner Brackets (4)	$\frac{3}{4}$ x 6 - 6
F Door Catch Blocks (2)	$\frac{3}{4}$ x 1 - 5 ¹ / ₂
G Dart Holders (2)	1 ¹ / ₂ x 1 ¹ / ₂ - 6
H Mounting Plate (1)	$\frac{1}{4}$ ply. - 3 x 3
I Stiles (4)	$\frac{3}{4}$ x 2 ³ / ₄ - 30
J Top Rails (2)	$\frac{3}{4}$ x 5 ³ / ₄ - 10 ¹ / ₄

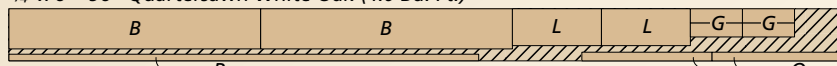
K Mid Rails (4)	$\frac{3}{4}$ x 2 ³ / ₄ - 10 ¹ / ₄
L Bottom Rails (2)	$\frac{3}{4}$ x 4 ¹ / ₄ - 10 ¹ / ₄
M Top/Btm. Panels (4)	$\frac{1}{4}$ ply. - 10 ³ / ₁₆ x 4 ³ / ₁₆
N Center Panels (2)	$\frac{1}{4}$ ply. - 10 ³ / ₁₆ x 8 ³ / ₁₆
O Upper Cove Molding (2)	1 ³ / ₈ x 1 ¹ / ₂ - 15
P Bead Molding (2)	$\frac{3}{8}$ x $\frac{3}{8}$ - 15
Q Base Molding (2)	$\frac{3}{4}$ x 1 - 15
R Cove Molding (1)	$\frac{3}{4}$ x $\frac{3}{4}$ - 55 rgh.
S Scoreboards (2)	$\frac{1}{4}$ hdbd. - 12 x 24
T Chalk Trays (2)	$\frac{1}{2}$ x 1 ¹ / ₄ - 10

- (16) #8 x 1¹/₄" Fh Woodscrews
- (20) #6 x $\frac{3}{4}$ " Fh Woodscrews
- (8) #6 Finish Washers
- (8) 1¹/₄" Pocket Hole Screws
- (6) 1¹/₂" Rare-Earth Magnets w/Cups
- (6) $\frac{5}{8}$ " Magnet Washers
- (2 pr.) No-Mortise Hinges w/Screws
- (1) Door Latch

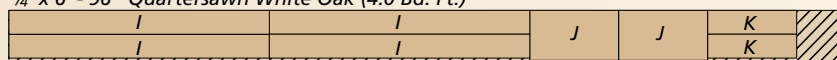
$\frac{3}{4}$ " x 6" - 96" Quartersawn White Oak (4.0 Bd. Ft.)



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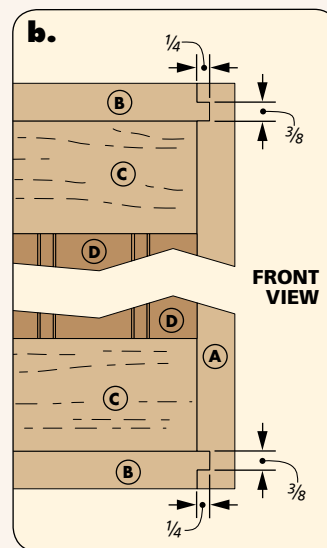
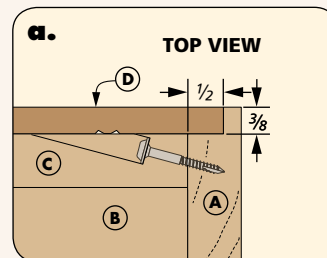
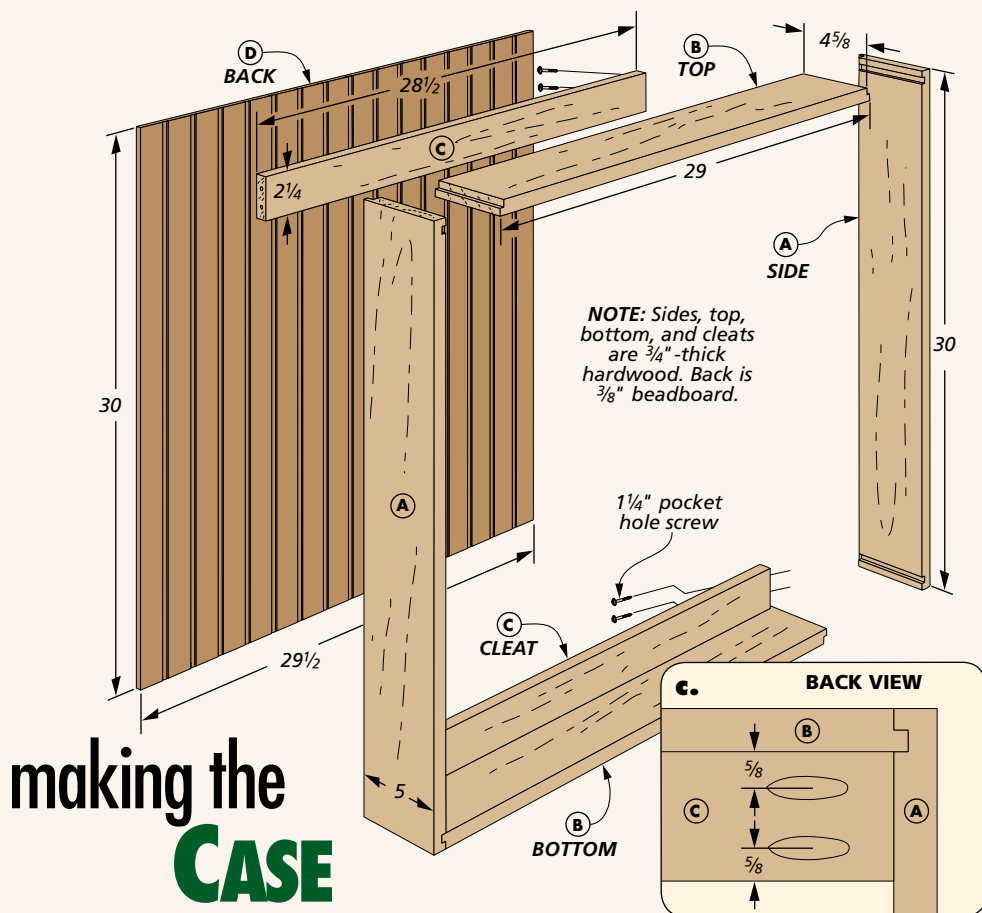
$\frac{3}{4}$ " x 6" - 96" Quartersawn White Oak (4.0 Bd. Ft.)



$\frac{3}{4}$ " x 9" - 48" Quartersawn White Oak (2.0 Bd. Ft.)



ALSO NEEDED: One 48" x 48" Sheet of $\frac{3}{8}$ " Yellow Pine Beadboard Paneling, One 24" x 24" Sheet of $\frac{1}{4}$ " Riftsawn White Oak Plywood, One 30" x 30" Sheet of $\frac{1}{4}$ " Hardboard



The basic case for the cabinet is pretty straightforward to build. The drawing above shows how I used tongue and dado joinery to connect the top and bottom to the sides. Cleats at the top and bottom of the case add strength to the joints. The addition of the beadboard back and corner brackets make the case rock-solid.

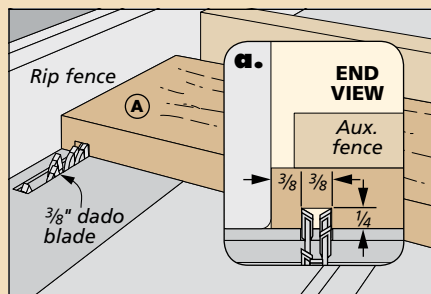
To round out the case, you'll add a pair of magnetic door catches and a couple of dart holders to keep your darts ready for competition.

SIDES. After cutting the sides to final size, the next step is to cut a pair of dados that will hold the tongues in each end of the top and bottom. The left drawing below shows how I used an auxiliary fence on the miter gauge to guide these cuts. In detail 'a,' above, you can see how the sides also need a rabbet on the rear edge to hold the back. To cut the rabbet, just install an auxiliary rip fence and bury part of the blade.

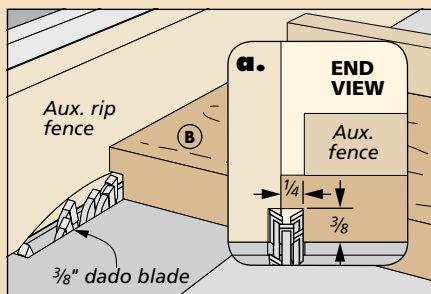
TOP & BOTTOM. Since the table saw is already set up to cut rabbets, now is the perfect time to cut the tongues on the case top and bottom. Here again, I used the auxiliary miter gauge fence to make the cuts. The center illustration below shows how it works. Start with the blade a bit low and sneak up on the cut. Test the tongue in the dado until it's a snug fit.

CLEATS. A pair of cleats help tie the case together. I used pocket hole joinery to secure the cleats.

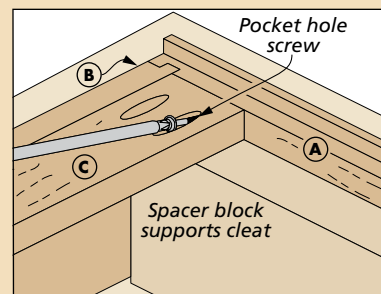
How-To: Case Joinery



Dadoes. With a dado blade installed and an auxiliary fence on the miter gauge, use the rip fence to locate the dados.



Tongues. Bury the dado blade in an auxiliary rip fence to cut the tongues. Sneak up on a snug fit to the dados.



Cleats. To hold the cleat in place while driving the screws, I cut a spacer block from a piece of scrap.

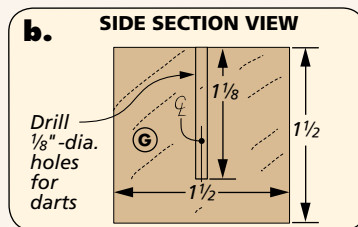
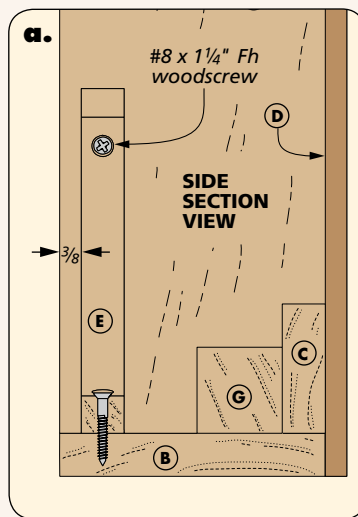
The big advantage to this type of joint is that it pulls the sides together and traps the top and bottom in the dadoes. On top of that, it's easy to make using a pocket hole jig. The right drawing at the bottom of the previous page also shows the spacer block I used to hold the cleat in position while I drove the screws.

BACK. Now you're ready to cut the beadboard back to fit. But before you make any cuts, take a minute to lay out the size and center the beadboard. This will give you a much nicer look in the finished cabinet. With that done, you can attach the back using a few screws for now. (You'll paint it later, before the final installation.)

CORNER BRACKETS. Four corner brackets strengthen the cabinet and add a pleasant decorative accent. The pattern at right provides all the details you need to make the brackets.

The important thing to keep in mind is the grain direction. The grain should run the length of the bracket. The drawings below show what I mean and walk you through the process of cutting and shaping the brackets.

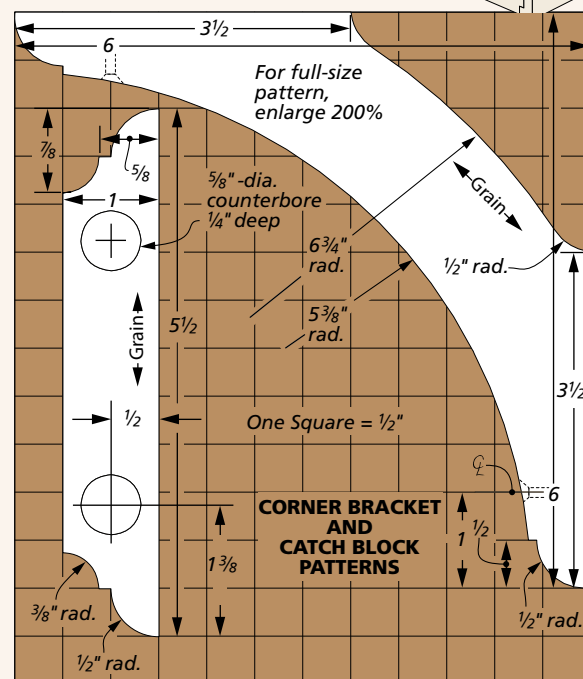
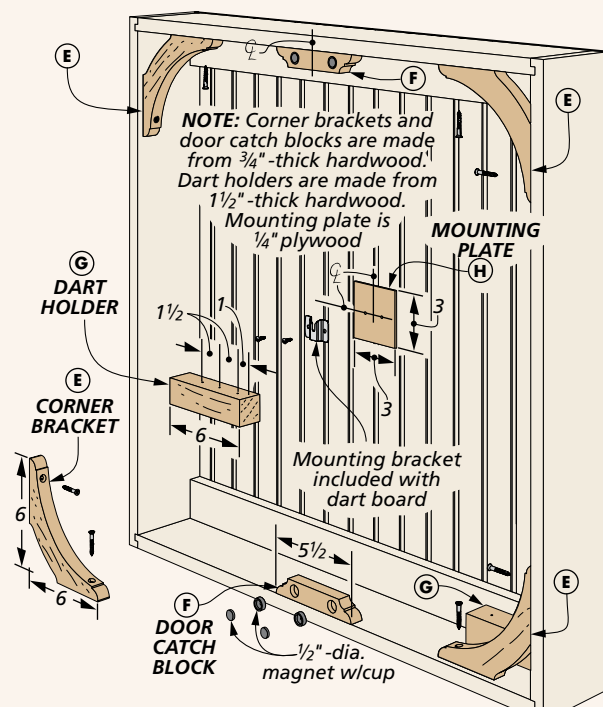
Finish them up by drilling countersunk screw holes at the locations shown in the pattern. Now you can install the brackets with screws and glue. Once again, I placed a spacer block behind them while I drove the screws.



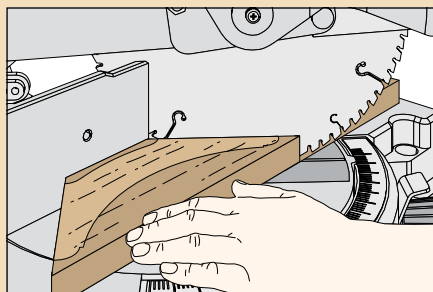
DOOR CATCH BLOCKS. You'll also find the pattern for the door catches at right. As before, cut and sand them to final shape. Then drill the holes for the magnets. The catches are glued in place, flush with the front edge of the case.

DART HOLDERS. I glued up narrow stock to make the 1 1/2-inch-thick dart holders. After that, just cut them to final size and drill holes for the points of your darts (detail 'b').

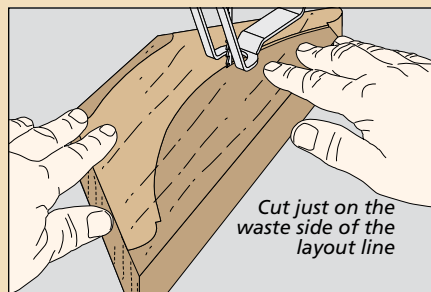
MOUNTING PLATE. Now, add the mounting plate. It provides a base for the metal bracket that comes with the dartboard. Center it on the back and glue it in place.



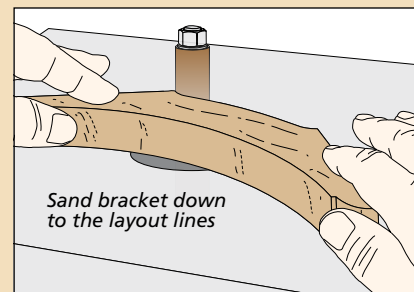
Shaping the Brackets



Start with the Mitters. After tracing the pattern for the bracket on an oversize blank, miter both ends.



Cut Out the Shape. You can cut out the shape of the brackets using a scroll saw, jig saw, or band saw.



Sanding. A spindle sander works great for removing the saw marks and cleaning up the edges of the brackets.

completing the CABINET

After assembling the basic case, the next step is to add a pair of frame and panel doors. I used simple stub tenon and groove joinery to build the doors.

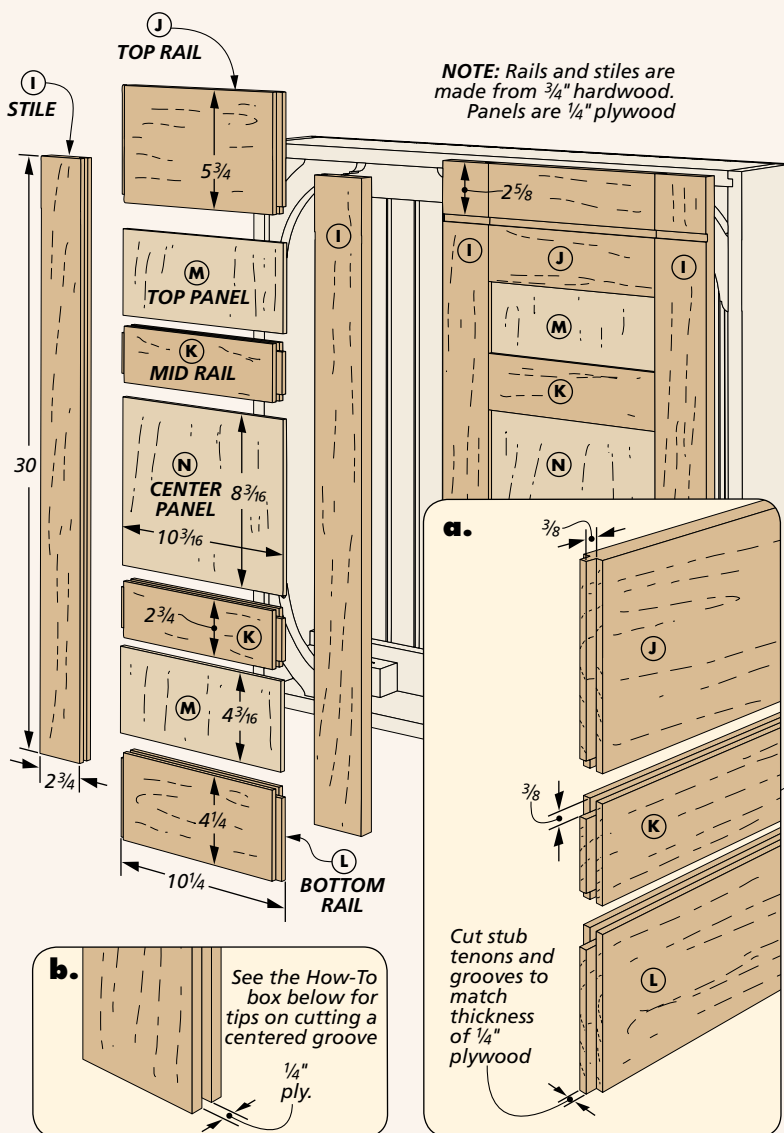
On the inside, I installed a scoreboard on each door with a chalk tray below. Then it's just a matter of adding some moldings, and the cabinet will be ready to install.

DOORS. I started by cutting the stiles and the rails to final size. Then you'll add a groove on the inside edge of each piece. Note that the mid rails have a groove on both edges.

The box below shows how to cut the grooves and stub tenons for the door parts. Each door also requires three plywood panels.

ASSEMBLY. Now you can assemble the doors. When the glue dries, take the doors back to the table saw and cut the groove along the front face that holds the bead molding. The right drawing below has the details.

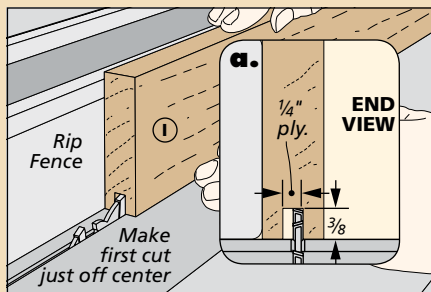
MOLDINGS. I used a commercially available cove molding at the top of each door. (Refer to Sources on page 8 for information.) The rest of the moldings



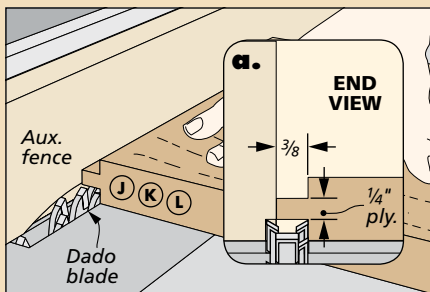
are shop made. The left and center drawings at the bottom of the next page show you how to make them. There's no mitering necessary. Just cut each piece to fit the door and install them with glue and screws.

SCOREBOARDS. It wouldn't be much of a dart cabinet if it didn't include a scoreboard. I put one on each door because they're so easy to make. They're just hardboard sprayed with a chalkboard paint. Shop Notebook on page 7.

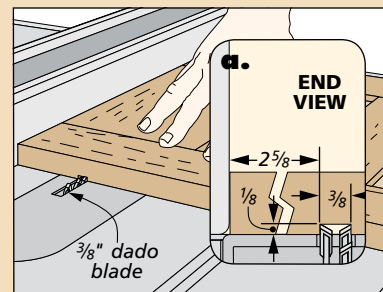
How-To: Door Frame Parts



Groove. To cut the centered grooves, make the first cut, then flip the workpiece and make the second cut.



Tongues. Bury a wide dado blade in an auxiliary fence to cut the tongues. Sneak up on a snug fit to the grooves.



Molding Channel. Use a dado blade and the rip fence to cut the shallow groove for the bead molding.

covers the process of painting and adding the numbers.

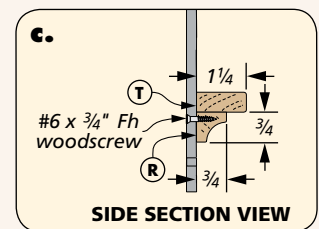
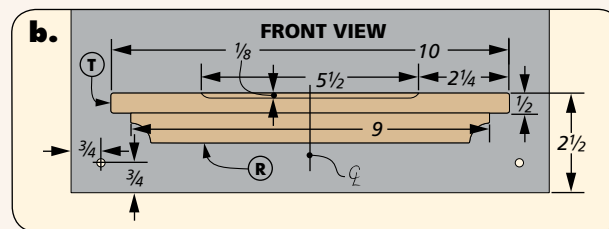
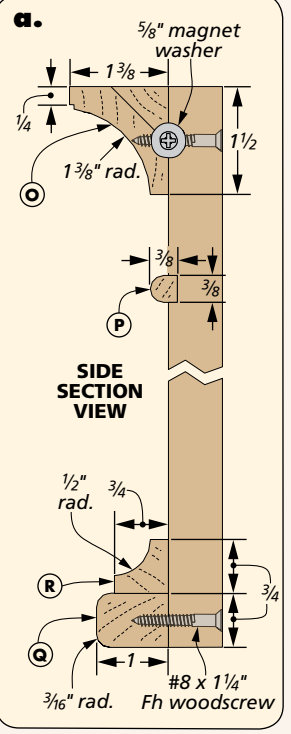
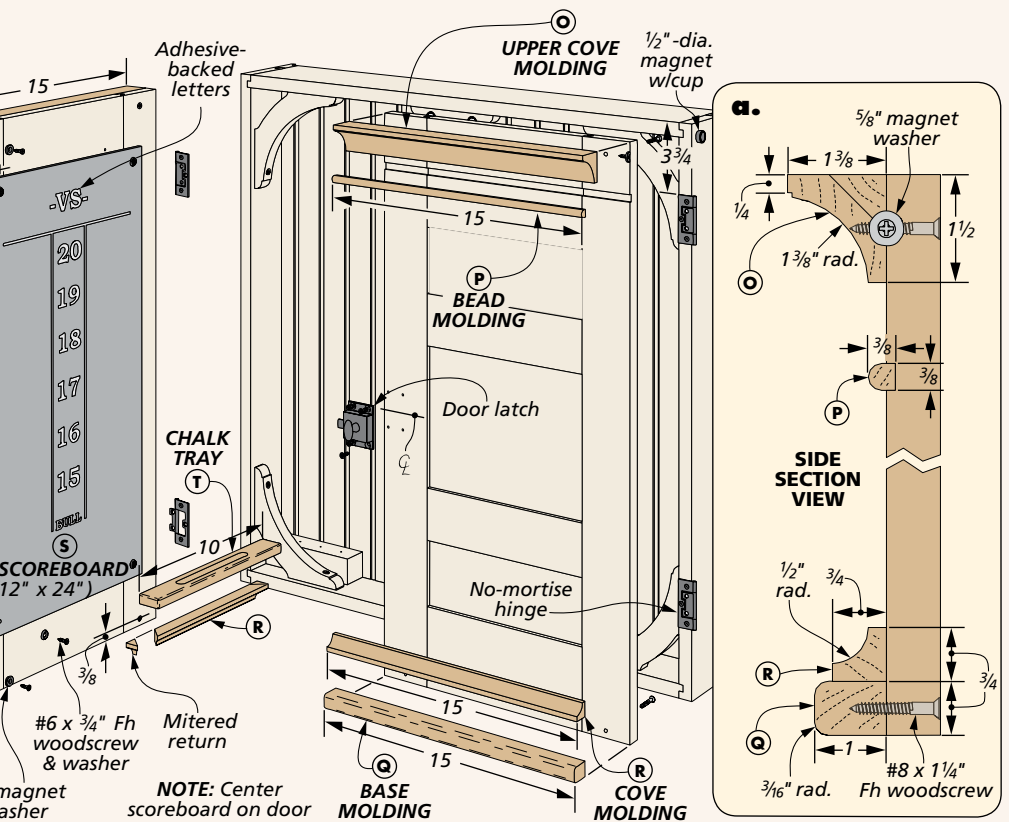
CHALK TRAYS. A handy chalk tray gets mounted under each scoreboard. The right drawing below illustrates how I used a couple of stop blocks to “drop in” the blank and rout the shallow, centered recess in each. The blocks not only limit the length of cut, but they allow you to keep your hands well out of the way during the process.

Finally, another small piece of cove molding fits under the chalk trays. To give the molding a more finished look, I mitered a small return for each end.

Once you’ve attached the chalk tray and molding to the painted scoreboard, you can mount the board on the door. For this, I used small screws and finish washers.

MAGNETS & WASHERS. You can now drill screw holes in the doors to hold the magnetic washers as shown in the main drawing. The washers work with the magnets in the door catch blocks.

Detail ‘a’ shows the position for the washers I installed on the upper outside edge of both doors. Magnets mounted in the case sides hold the doors open when in use.

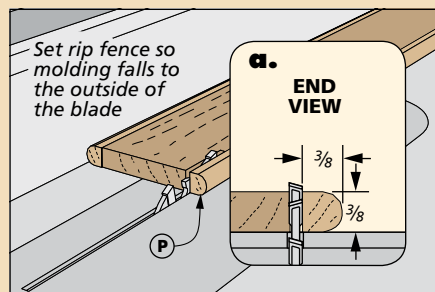


I used no-mortise hinges to hang the doors. There’s nothing tough about installing these hinges. Just lay out the position on the cabinet sides and attach the hinges with screws. Put the door in position with shims to give it an even gap all around. Then screw the hinge to the door.

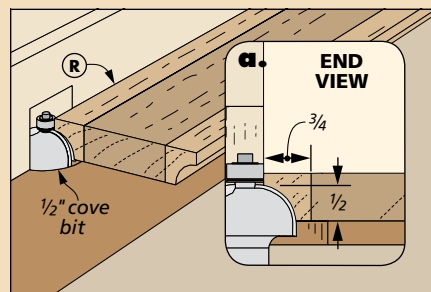
After hanging the doors, I installed the latch with screws. Now, you can paint the beadboard back and screw it in place.

You can find the details of how I stained and finished the cabinet on page 8. When you’re done, just hang the cabinet and mount the dartboard.

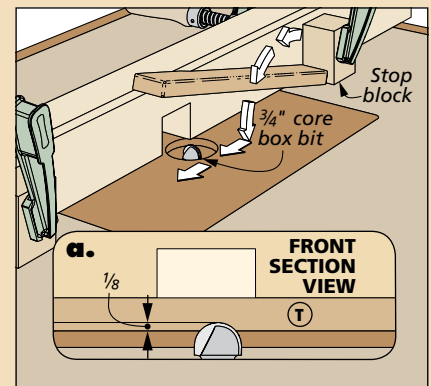
Door Moldings & Chalk Trays



Bead Molding. Rout the bead profile on an extra-wide blank. Then rip the strips of molding free at the table saw.



Cove Molding. With a cove bit in the router table, rout the molding in two passes to avoid tearout.



Chalk Trays. Clamp stop blocks to the fence to limit the length of cut and lower the workpiece onto the bit.

SHOP NOTEBOOK

Chalk It Up

The dartboard cabinet needed a pair of scoreboards, but I couldn't find actual slate chalkboards in the right size. Instead, I turned to a can of spray paint and a piece of tempered hardboard.

The chalkboard spray paint shown in the photo at right worked like a champ. All you need to do is cut the hardboard to size and drill the countersunk screw holes to mount it to the cabinet.

After that, I started the paint job by first spraying on a couple coats of gray primer. You'll want to let the primer dry and sand it smooth before spraying on the chalkboard paint. I used two coats to get a nice, flat look. Best of all, it works like a regular chalkboard.

To complete the scoreboards, I used adhesive-backed, plastic letters and numbers. They gave the boards a professional look.



◀ With a can of chalkboard spray paint and a pack of stick-on letters and numbers, you can turn a piece of hardboard into a handy scoreboard.



**MAIL
ORDER
SOURCES**

Woodsmith Store
800-444-7527

Ferche Millwork
800-328-7867
ferche.com

Horton Brasses, Inc.
800-754-9127
horton-brasses.com

Lee Valley
800-871-8158
leevalley.com

General Finishes
800-783-6050
generalfinishes.com

Project Sources

For the dartboard cabinet, you'll need 1½" magnets (99K31.03), ½" magnet cups (99K32.53), and ⅝" washers (99K32.63) from *Lee Valley*. And *Horton Brasses* has the no-mortise hinges (NM-7) and the pantry latch (SL-6).

The upper cove molding used on the cabinet is from *Ferche Millwork* (F606).

The beadboard back of the dartboard cabinet was painted with *General Finishes' Somerset Gold Milk Paint*. The rest of the cabinet was stained with a mixture of equal parts *General Finishes' Candlelight* and *Brown Mahogany* stains. After that, the entire cabinet was glazed with *General Finishes' Java gel* stain and sprayed with two coats of satin lacquer.