

WOODWORKER'S WJOURNAL

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Classic Project

In this plan you'll find:

- Step-by-step construction instruction.
- A complete bill of materials.
- Construction drawings and related photos.
- Tips to help you complete the project and become a better woodworker.

Shaker Woodbox



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Shaker Woodbox

This classic Shaker Woodbox even has a drawer to hold the kindling, tinder and matches. These days we use newspaper for tinder, but who needs an unsightly stack on the floor? The Woodbox was made by Gene Cosloy of Wayland, Massachusetts, after an original from the North Union, Ohio, Shaker Community.

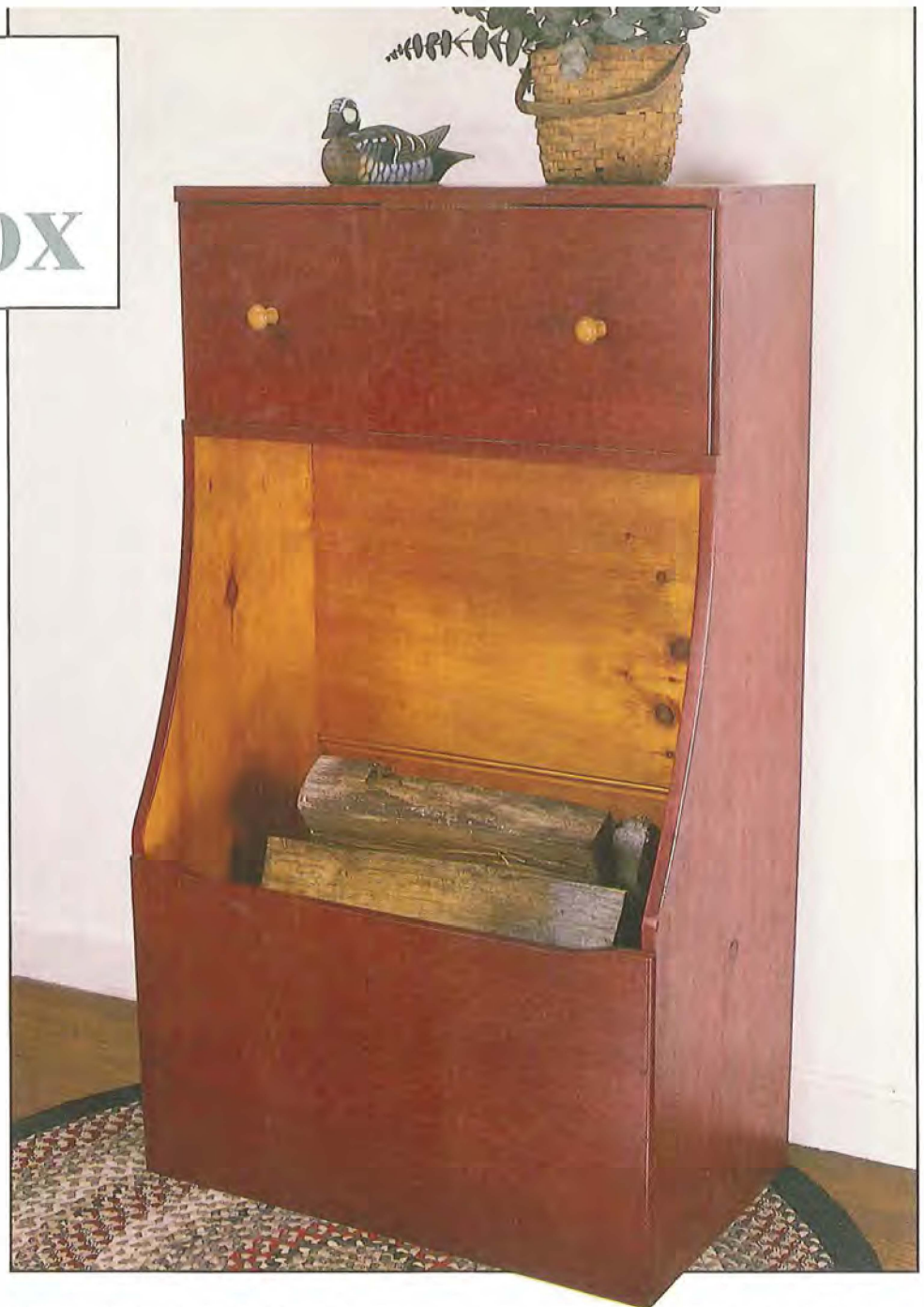
Dovetails are used throughout the Woodbox to make it a lasting legacy of your craftsmanship. You can cut them by hand the way the Shakers did, or use one of the dovetail jigs described in the tool review on page 32.

Cosloy used Eastern white pine for the woodbox. Make sure you use kiln-dried lumber for the woodbox to keep seasonal shrinkage to a minimum. In the dry environment near a woodstove or fireplace, even kiln-dried pine will shrink as much as $\frac{3}{32}$ in. over a 10 in. wide board.

When these woodboxes were first made, wide pine boards were fairly easy to come by. But unless you have access to 16 $\frac{1}{2}$ in. wide boards, you'll have to edge-glue several smaller boards to get the required widths for the sides (A) and front (E). When edge-gluing $\frac{3}{4}$ in. wide pine boards, it helps to use some system to keep them flush with each other. You can use sturdy waxed blocks clamped top and bottom across the glue-up. Or you can use dowels or splines to index the boards together during the glue-up. The dowels or splines don't add strength to the joint, but they do make it easier to line everything up.

With wide stock on hand, cut all the case parts to the dimensions shown in the Bill of Materials, but put the drawer and back stock off to one side. You'll cut that to size after completing the case. Drawers are always made to the actual case so you can take any size variations into account.

Establish the dadoes and rabbets in the sides and front next. Use a dado head set for a $\frac{3}{4}$ in. wide by $\frac{3}{8}$ in. deep cut for



the dadoes in the sides. Use the same setting to cut the rabbets in the sides for the back boards (F and G). With the dado head still mounted, also cut the $\frac{3}{4}$ in. wide by $\frac{1}{4}$ in. deep rabbet on the sides and bottom of the front, as well as the $\frac{3}{4}$ in. wide by $\frac{1}{2}$ in. deep rabbet in the bottom (C) for the back.

Lay out the curved profiles on both sides and cut them with a handheld jigsaw or a band saw. Note that there's a $\frac{1}{4}$ in. notch at the top of the curve. If you want, you can cut to that notch with a table saw, and only cut the actual curve with a jigsaw. Finish up the jog at the notch with a handsaw. That way you get a smoother cut and will have less

cleaning up to do. Also cut the notches as shown in the shelf (D).

Next, lay out the through-dovetails that join the sides to the bottom. Scribe the $\frac{3}{4}$ in. depth of the tails and pins onto both the sides and bottom. When scribing the depth for tails and pins, set the scriber a bit over the actual width. That way the dovetailed pieces will stand just a bit proud. You'll sand them flush after completing the case.

Use a dovetail saw to establish the tails on the sides. Then cut along the depth lines with a chisel or coping saw. Scribe the completed tails onto the end grain of the bottom. Use a square to carry those lines from the end grain to

the depth lines. Then cut the pins out with a dovetail saw or coping saw and chisel.

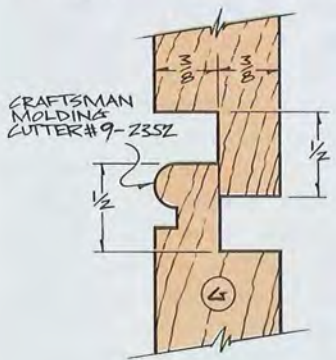
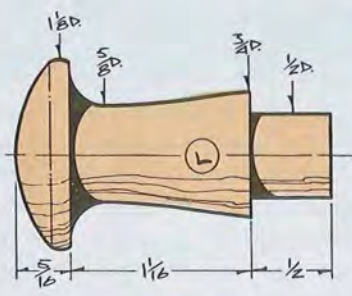
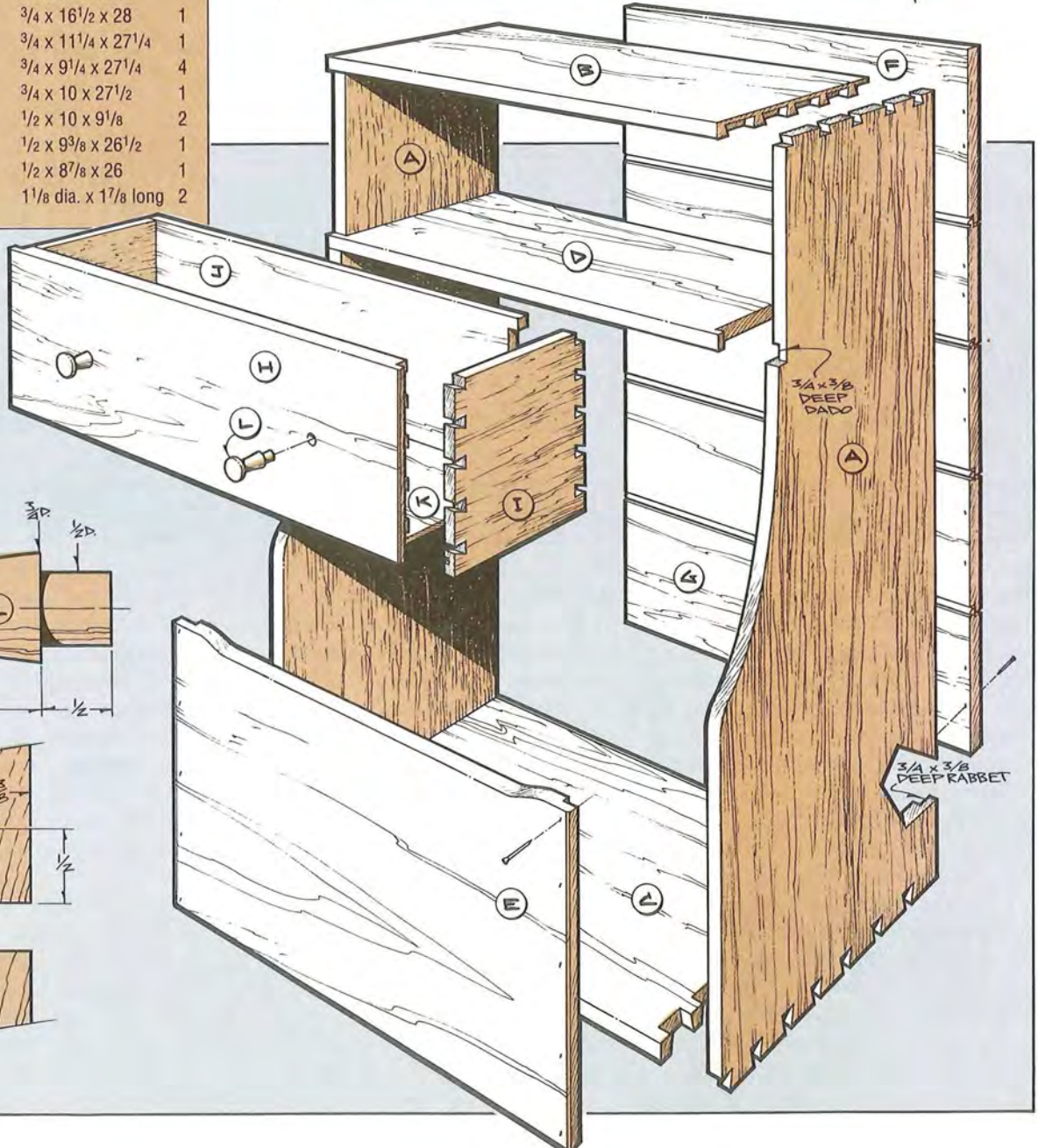
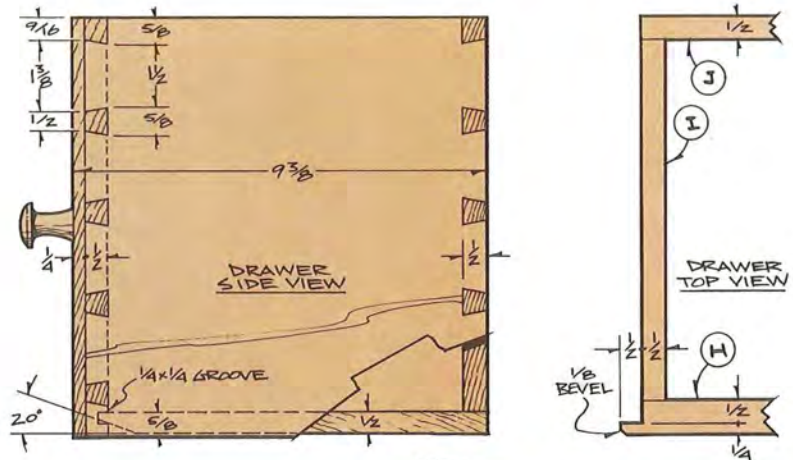
The half-blind dovetails at the top (B) are cut in much the same way as the through-dovetails. But instead of a $\frac{3}{4}$ in. depth on the sides, you establish a $\frac{1}{2}$ in. depth line. The depth line on the top board is $\frac{1}{2}$ in. across the end grain from the bottom, but $\frac{3}{4}$ in. from the ends, on the bottom surface only.

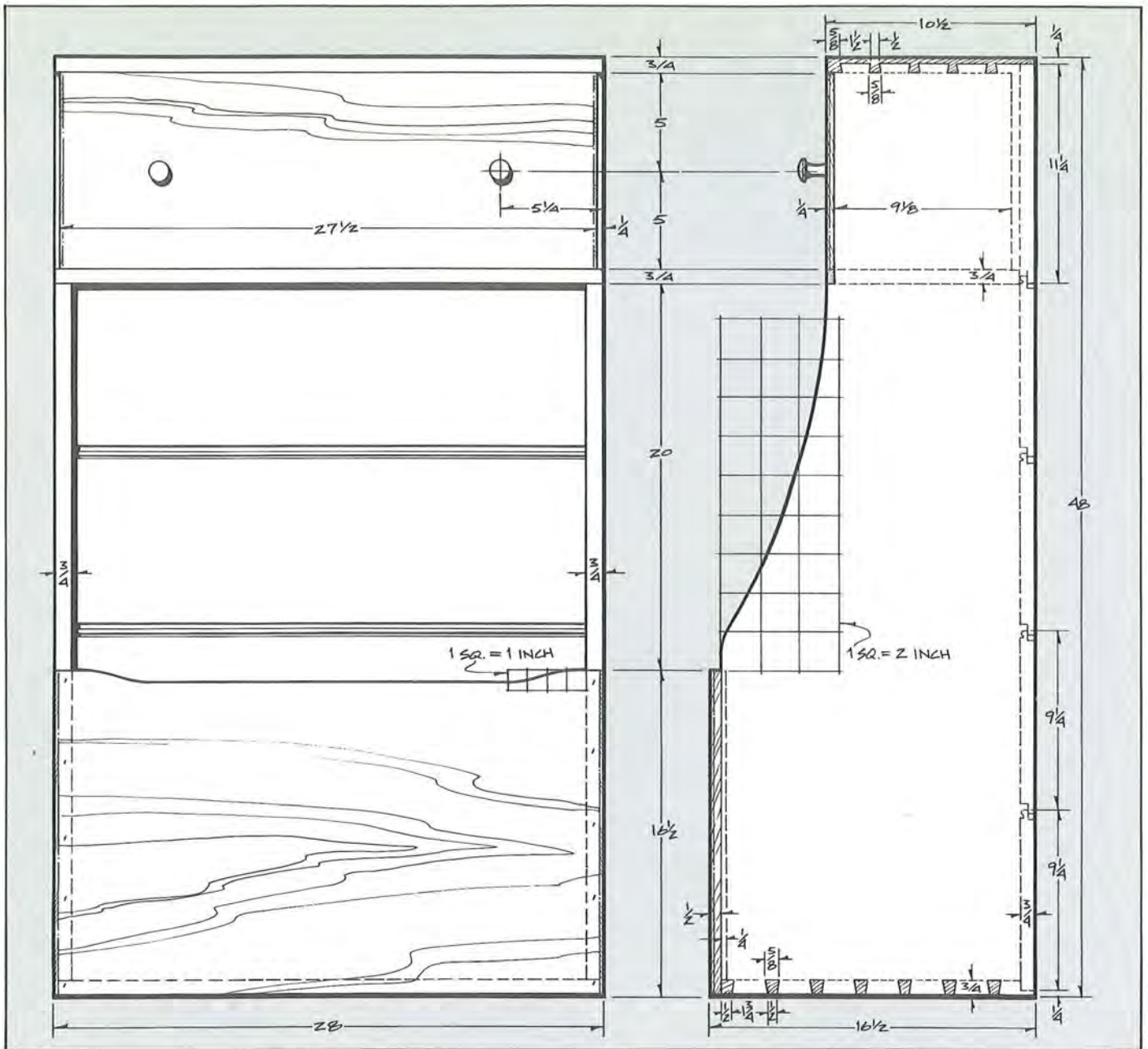
Cut the tails on the sides exactly the same as the through-dovetails, except to

the shallower depth. You then scribe the completed tails onto the end grain of the top, and use a square to carry the lines across the bottom surface to your depth lines.

The only difference from through-dovetails, aside from the variance in depth lines, is that when cutting the half-blind pins you can't cut through with the dovetail saw. You'll only be

Bill of Materials (all dimensions actual)			
Part	Description	Size	No. Req'd.
A	Side	$\frac{3}{4}$ x 16 x $47\frac{3}{4}$	2
B	Top	$\frac{3}{4}$ x $10\frac{1}{2}$ x 28	1
C	Bottom	$\frac{3}{4}$ x 16 x 28	1
D	Shelf	$\frac{3}{4}$ x $9\frac{3}{4}$ x 28	1
E	Front	$\frac{3}{4}$ x $16\frac{1}{2}$ x 28	1
F	Back/Upper	$\frac{3}{4}$ x $11\frac{1}{4}$ x $27\frac{1}{4}$	1
G	Back	$\frac{3}{4}$ x $9\frac{1}{4}$ x $27\frac{1}{4}$	4
H	Drawer Front	$\frac{3}{4}$ x 10 x $27\frac{1}{2}$	1
I	Drawer Side	$\frac{1}{2}$ x 10 x $9\frac{1}{8}$	2
J	Drawer Back	$\frac{1}{2}$ x $9\frac{3}{8}$ x $26\frac{1}{2}$	1
K	Drawer Bottom	$\frac{1}{2}$ x $8\frac{7}{8}$ x 26	1
L	Knob	$1\frac{1}{8}$ dia. x $1\frac{7}{8}$ long	2





able to make small angled cuts across the end grain down to the depth lines. The rest of the work is done with a chisel. But it goes fairly easily since those angled cuts with the dovetail saw serve to guide the chisel and reference the depths.

Next, dry assemble the case and shelf and trim the dovetails as necessary for a good fit. Also cut and half-lap the back boards. Note that we used a Sears molding head cutter 9-2352 to detail the edge of the half laps on the back boards.

When everything fits, glue the case together and nail on the front and the back boards. Put two nails toward the center of each back board to help equalize wood movement.

With the case complete, measure the drawer opening and make the drawer to fit. Allow about $\frac{1}{16}$ in. on the sides and top for clearance. The dovetails for the drawer are cut nearly the same way as the case dovetails. Here, though, the drawer front (H) is first rabbeted with a $\frac{1}{2}$ in. wide by $\frac{1}{2}$ in. deep dado cut along both sides. The tails in the drawer sides (I) are cut in the same manner as the through-dovetails. They are then scribed onto the end grain surface of the rabbet. The $\frac{1}{2}$ in. depth line is then measured from that surface. The actual cutting of the dovetails is much the same as the half-blind dovetails on the case.

The drawer bottom (K) is beveled from $\frac{1}{2}$ in. stock to fit into the $\frac{1}{4}$ in.

wide groove in the sides and front of the drawer. It must be free to expand and contract with seasonal changes in humidity, so don't glue it in place. Instead, drive five 1 in. by no. 8 flathead wood screws through the drawer bottom and into the bottom edge of the drawer back. The back (J) is dovetailed into the sides.

Cosloy turned the knobs (L) to the profile shown, but you can purchase similar Shaker knobs.

For a finish, you can leave the interior natural and paint the exterior red like the one shown, or you can vary the finish to suit your taste. You could stain the piece and apply shellac, or even leave it unfinished.

