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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.

# Country Pie Safe

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# COUNTRY PIE SAFE

This handsome pierced-tin pie safe is a reproduction of an original that was made about 1830. It was built by Country Accents, a company that specializes in pierced-tin designs. We've made a few changes to reflect modern construction methods and materials (such as the use of plywood for the case back and the drawer bottoms), but substantively this pie safe looks identical to the original from which it was copied.

If you're new to woodworking or are an old hand but just haven't made anything of large size, the pie safe is an ideal first project. You'll note from the illustrations that we've specified dowel construction. Modern doweling jigs are easy to use, and dowel joinery will provide adequate strength

You could use traditional mortise-and-tenon construction for the doors and face frame, but the use of dowels really simplifies a piece like this, since you need only cut parts to length and width. There's no need to make allowance for any tenons. If you own a biscuit joiner, you may want to use biscuits instead of the dowels.

To help simplify the construction of this piece, we've broken it down into the various subassemblies. As the Bill of Materials indicates, there are four separate elements, plus the hardware. With any case construction, you want to start with the box and then build out from there. This way, things like the doors and drawers are sized not to fit some idealized plan, but the actual case that you've built.

The piece shown is made of pine, but you can use poplar, or just about any other wood for the painted parts. Although many of the parts are wide, which requires that you edge-glue, another option is to purchase pre-glued wide stock, which is available at many building supply centers serving the do-

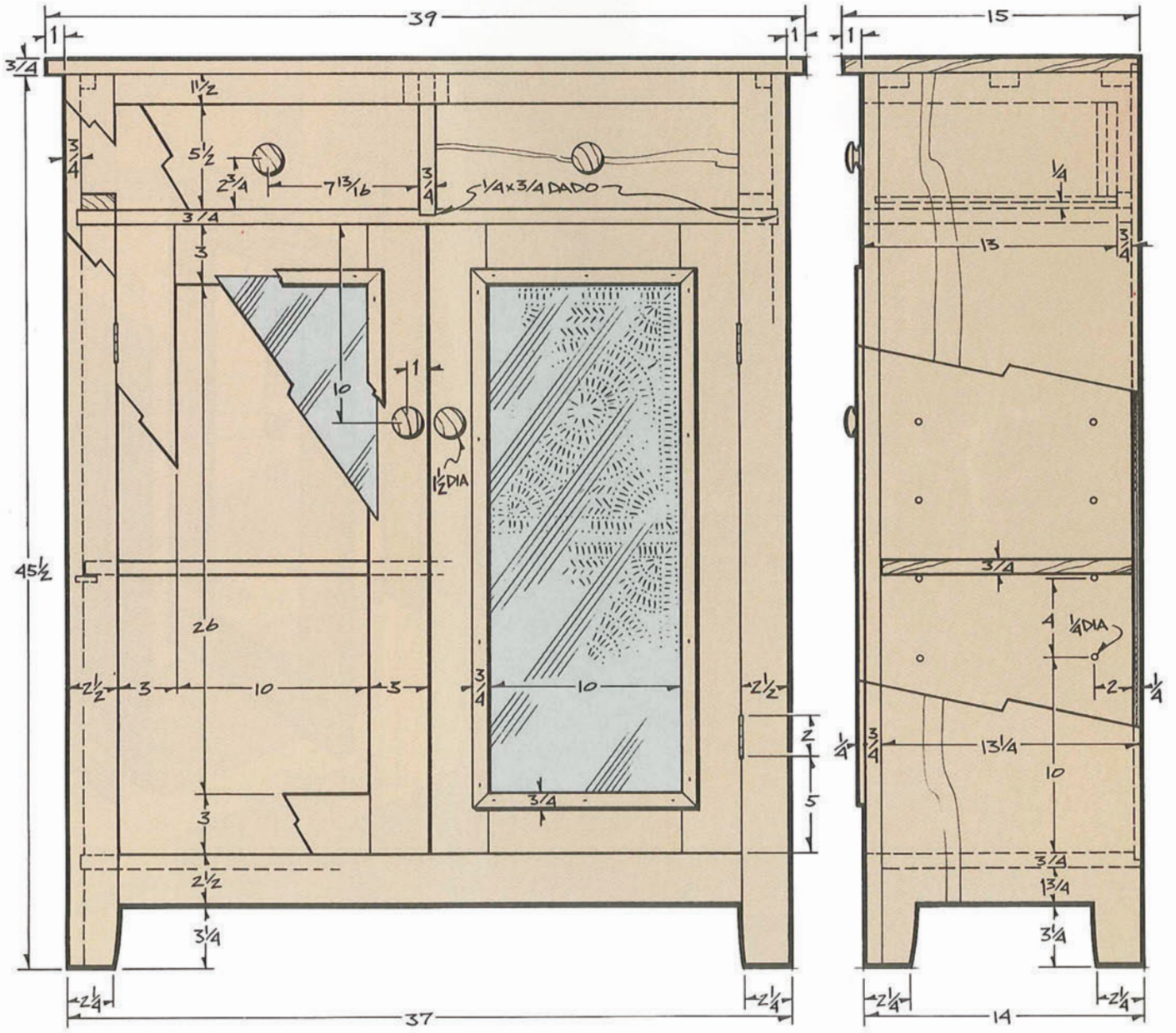
it-yourself market.

## The Box

First up is building the box, the main parts of which are the sides (A), bottom (B), drawer shelf (C), divider (D) and top (F). You'll need to glue up narrower stock to obtain the widths needed for all these parts, and while you are at it you might as well also glue up stock for the shelf (E). Note the grain direction of the divider, which agrees with the top and drawer shelf.

Once these parts are cut to length and width, lay out and bore the shelf pin support holes in the sides, and lay out the dado grooves in the sides and drawer shelf. Take care to set the dado width to equal your stock thickness; if you opted for making these parts from pre-glued panels, keep in mind that these panels typically measure closer to 11/16 in. thick than the 3/4 in. dimension they are specified as being. Also, cut out the bottom of the sides, as shown in the side elevation

Cut the glue blocks (K), glue and screw them to the sides, assemble the divider to the drawer shelf, and join the two sides with the drawer shelf and bottom. Note that the bottom is flush with the sides at the front, but that the divider/drawer shelf subassembly stands proud of the sides by 3/4 in. Don't notch out the divider and drawer shelf for the face frame, or cut and mount the drawer runners (H) or drawer guides (I) just yet—that isn't done until after the face frame has been assembled and mounted. Clamp securely, and check that your case is square. Once the assembly is out of clamps, temporarily mount the top by screwing up through the glue blocks. You can now use the router and a rabbeting bit to cut the rabbet for the back (G). Note that you'll need to hand-cut the rabbet where the divider and drawer shelf interfere with the rabbeting bit, and that the corners must either be chiseled out square or the corners of the back must be rounded to

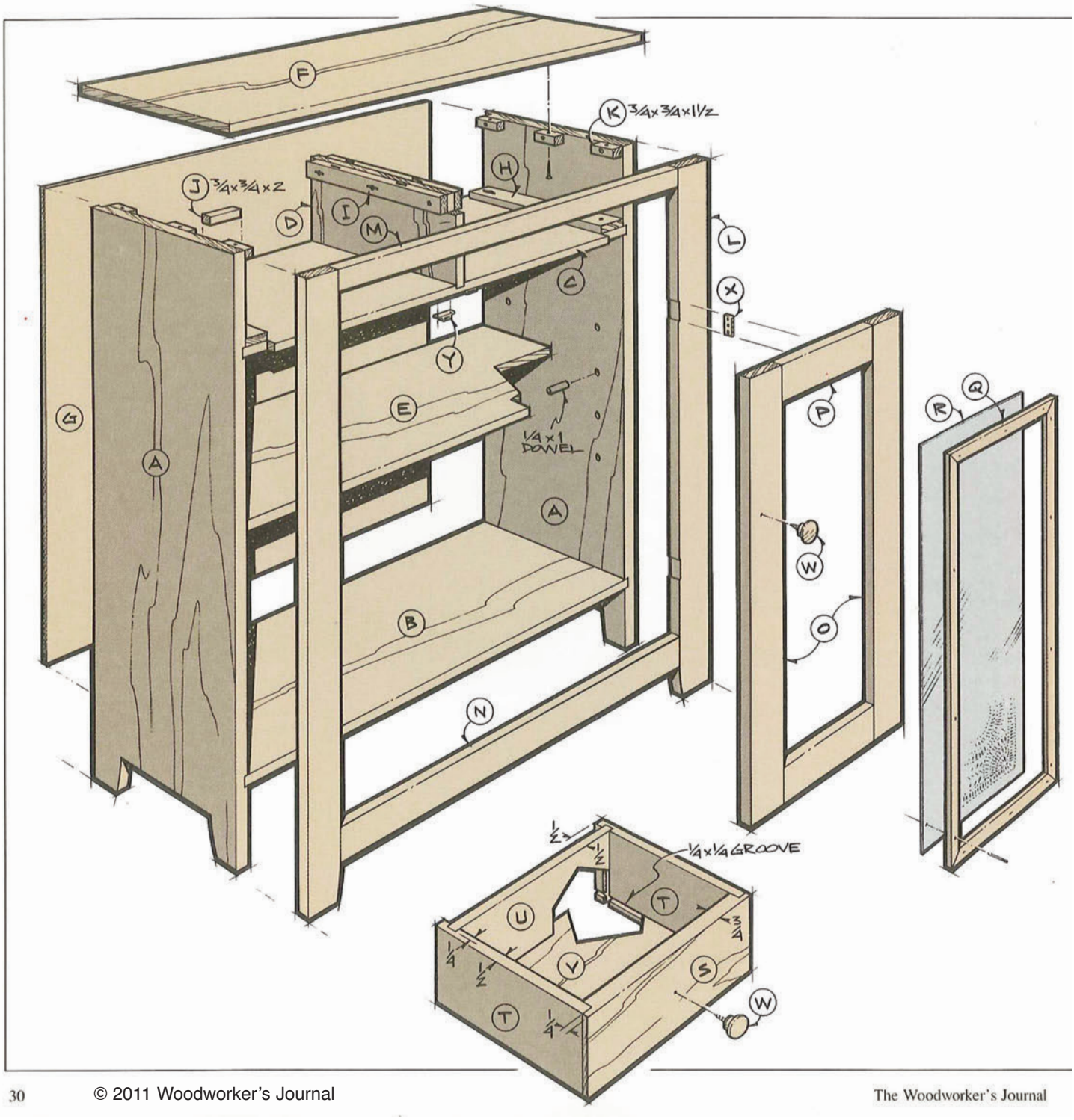


match the radius of your rabbeting bit. Cut and fit the back, but don't mount it just yet. Remove the top and set it aside for now.

### The Face Frame

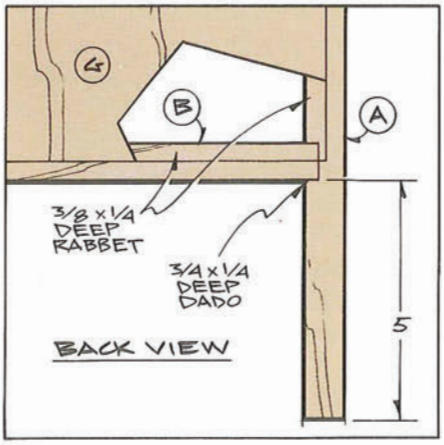
Taking measurements directly from your case, cut and assemble the face frame. Use dowels (or biscuits) to join the stiles (L) to the rails (M and N). Refer to the Joinery Details for the dowel layout. In sizing the face frame, it's best to make it so that the stiles will stand just a little proud of the sides; after the face frame is mounted this little extra is removed with a few strokes of a block plane. Once your face frame is assembled and squared, hold it in place on the case front, and use a sharp pencil (or a knife) to scribe the lines indicating the parts of the divider and drawer shelf that must be notched back to permit the mounting of the face frame. A Japanese dovetail saw is perfect for this type of cut. Stay on the waste side of the line with your cuts; this way you can always pare back a little more stock for a good snug fit.

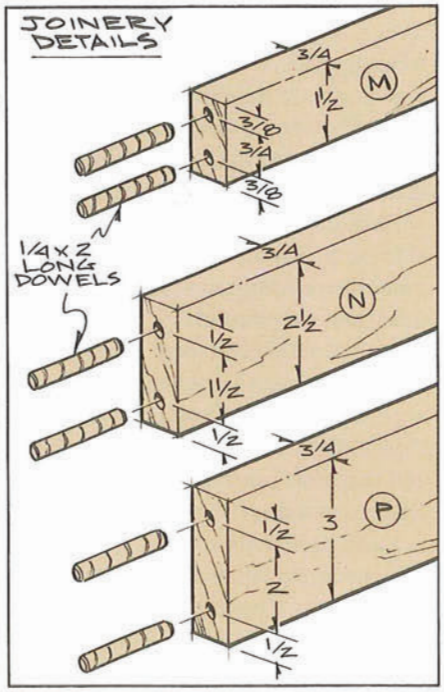
Although you could use dowels or biscuits to join the face frame to the case, in a situation like this, these things serve only to help with keeping parts in alignment. Since the face frame parts



form a good long grain-to-long grain glue surface with the sides and bottom, glue and a few finishing nails (set and filled) are all that's really needed.

Once the face frame is in place, you can cut and fit the drawer runners and guides. The primary purpose of the runners is to fill out the space between the sides and the edge of the face frame stile, which keeps the drawers on line as they slide in and out. The guides fill out the space between the top and the face frame top rail, serve to keep the drawers from tipping as they are pulled out, and also provide a way to anchor the top. The use of slotted screw holes in both the runners and guides allows for any wood movement that may occur in the parts to which they are screwed. Whenever solid wood parts are assembled in such a cross-grain orientation, some allowance for wood movement must be made, lest the wide part split. Note that we've sized the length of the runners and guides to allow about 1/2 in. between them and the case back. This 1/2 in. means that the sides would have to shrink more than 1/2 in. in width before the runners or guides would begin to push against the back.




## The Doors and Drawers

With the face frame in place, you can now take measurements for the doors and drawers. Part of the attraction of using dowel or biscuit joinery is that in figuring length dimensions of door parts, you needn't take into account things like tenon length on the rails. In the case of the pie safe doors, to get the length of the rails (P), simply measure the distance between the face frame stiles, divide by 2 (since there are two doors), and subtract 6 in. for the combined width of the two 3 in. wide door stiles (O). Hopefully, your rail length will be not much different from the 10 in. length we specify in the Bill of Materials. To get the length of the door stiles, simply measure the opening from the drawer shelf to the bottom rail of the face frame. Once the door stiles and rails have been cut, assemble both doors. There's no need to cut any rabbets or grooves for the pierced tin panels (R), since these are simply face-mounted with a simple molding (Q). But don't mount the tin just yet—that isn't done until after the doors have been painted.

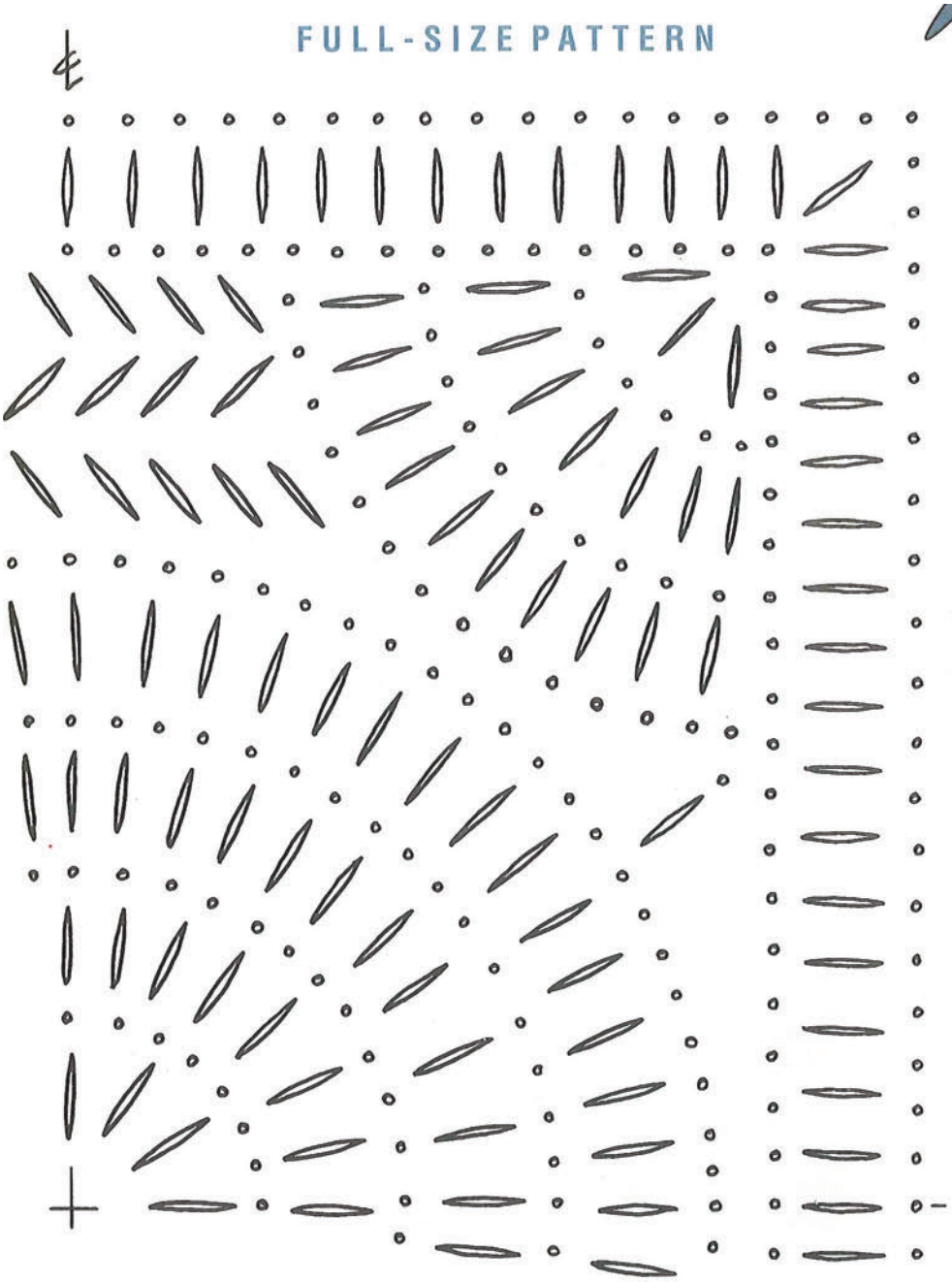
For the two drawers, use whatever drawer making technique you are most comfortable with. We show a 3/4 in. thick drawer front (S), rabbeted to accept the 1/2 in. thick sides (T), which in turn have a dado cut in them for the 1/2 in. thick back (U). A 1/4 in. by 1/4 in. groove in the front and sides accepts the 1/4 in. thick plywood bottom (V), which is slid into place from the back. The drawers are assembled with brads; a screw through the bottom and into the bottom edge of the back secures the drawer bottom. Note that we've sized the drawers so there's a space between them and the case back. Later, you'll cut a pair of

### Bill of Materials
(all dimensions actual)

| Part | Description | Size | No. Req'd. |
|---|---|---|---|
| | **Case** | | |
| A | Side | 3/4 x 13 1/4 x 45 1/2 | 2 |
| B | Bottom | 3/4 x 13 1/4 x 36 | 1 |
| C | Drawer Shelf | 3/4 x 13 3/4 x 36 | 1 |
| D | Divider | 3/4 x 13 3/4 x 7 1/4 | 1 |
| E | Shelf | 3/4 x 12 7/8 x 35 3/8* | 1 |
| F | Top | 3/4 x 15 x 39 | 1 |
| G | Back | 1/4 x 36 1/4 x 40 1/2 | 1 |
| H | Drawer Runner | 3/4 x 1 3/4 x 12 1/2 | 2 |
| I | Drawer Guide | 3/4 x 1 1/2 x 12 1/2 | 2 |
| J | Drawer Stop | 3/4 x 3/4 x 2 | 2 |
| K | Glue Block | 3/4 x 3/4 x 1 1/2 | 6 |
| | **Face Frame** | | |
| L | Stile | 3/4 x 2 1/2 x 45 1/2 | 2 |
| M | Top Rail | 3/4 x 1 1/2 x 32 | 1 |
| N | Bottom Rail | 3/4 x 2 1/2 x 32 | 1 |
| | **Door** | | |
| O | Stile | 3/4 x 3 x 32 | 4 |
| P | Rail | 3/4 x 3 x 10 | 4 |
| Q | Molding | 1/4 x 3/4 | 14 ft. |
| R | Tin | 10 3/4 x 26 3/4** | 2 |
| | **Drawer** | | |
| S | Front | 3/4 x 5 1/2 x 15 5/8 | 2 |
| T | Side | 1/2 x 5 1/2 x 12 3/4 | 4 |
| U | Back | 1/2 x 5 x 15 1/8 | 2 |
| V | Bottom | 1/4 x 12 1/2 x 15 1/8 | 2 |
| | **Hardware** | | |
| W | Knob | 1 1/2 dia. | 4 |
| X | Hinge | 1 1/2 x 2 | 4 |
| Y | Magnetic Catch | As Shown | 2 |

* Shelf size is slightly smaller than available space.
** See Source of Supply.

## FULL-SIZE PATTERN



drawer stops (J).

### Pierced Tin and Paint

With projects such as the pie safe, where some parts are painted and others are finished with a clear varnish, it's easiest to do the finish work before the final assembly. Rip sufficient stock to yield the molding (just 1/4 in. by 3/4 in. clear pine, with the front edges gently rounded), then stain and varnish the top, the molding and the knobs (W). (The knobs shown are just a plain wooden turned knob, like those sold at most hardware and building supply stores.) A honey pine stain followed by a water-based clear varnish will be fine.

The blue paint is just a flat latex. Select a color that suits your decor, then get to work. Test-fit the doors and drawers before you paint them, and make certain that the fit isn't too tight. The doors and drawer fronts are painted, but the interior of the cabinet, the shelf, and the rest of the drawer can be finished with the same clear varnish that you used for the top and molding.

While you are waiting for the paint and varnish to dry, go to work piercing the tin.

piercing it shouldn't be difficult; a 16-penny nail will serve for making the round holes, and an old chisel filed down to about a 7/16 in. blade width will work for making the elongated holes.

The easiest way to do the tin punching is to photocopy the pattern, tape it directly over the tin, and punch through both the pattern and the tin at the same time. We've provided a full-size 1/4-pattern, but if you use our pattern keep in mind that because of the herringbone effect on parts of the pattern, you can't just make four copies of the 1/4-pattern, tape them together and start piercing. You'll first need to use a pencil and redo the herringbone sections so they agree with the photo.

### Final Assembly

Once your finish has dried, mount the top and tack the back in place. Although screws through the glue blocks and through slotted holes in the drawer guides should hold the top just fine, you could also use dowels or biscuits. Dowel pins support the shelf at whatever height is most convenient for your needs.

Position the pierced tin panels (rough side facing in) on the doors, then cut and miter the molding, and tack it in place to hold the tin securely. The doors are mounted with plain butt hinges (X); a pair of magnetic catches (Y) serve both as door stops and to hold the doors closed. Like the knobs, both the hinges and magnetic catches are common hardware store items.

Lastly, slide the drawers into place, then measure cut and mount a pair of drawer stops. The stops, which are glued to the drawer shelf, serve to stop the drawers so their fronts are flush with the front of the face frame.

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Internet Production Coordinator