

TO ORGANIZE YOUR KITCHEN, DIVIDE AND CONQUER

The typical kitchen has drawers in a variety of sizes, and it's a good bet that most are cluttered. This modular organizer lets you make several components at once, and size them to perfectly fit any drawer you have.

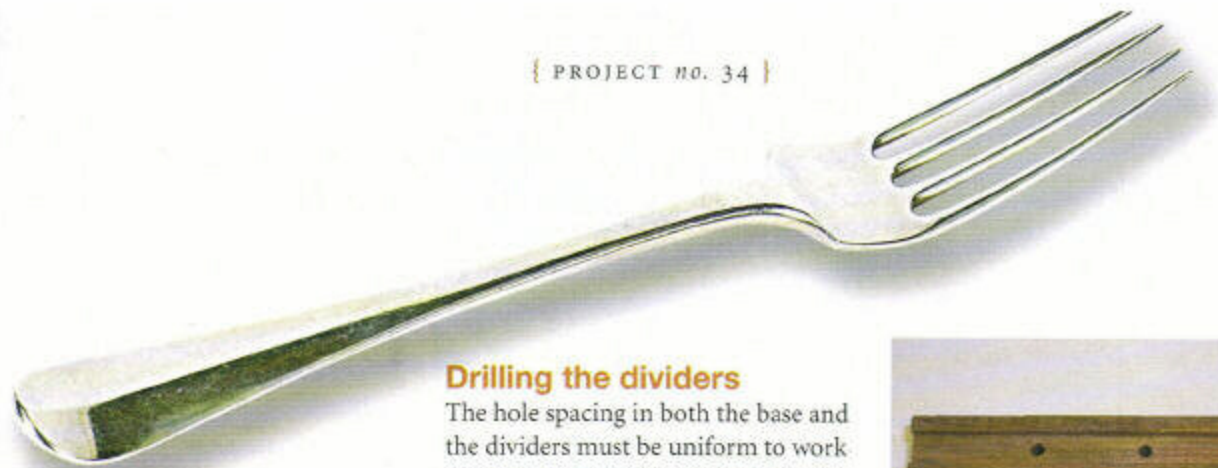
BY RALPH BAGNALL



The basic problem with commercially available drawer organizers is that what needs to be organized is different for every drawer, and the drawers that the organizer must fit can be just about any size. The only real solution to the problem is custom-making each organizer for the drawer

at hand, and to divide it as needed. Not only is that time consuming, but a drawer's use rarely remains the same over time – new flatware or gadgets are acquired; kids grow up and learn to cook; food tastes change. Before long, that custom organizer you made is obsolete.

I've built dozens of drawer organizers over the years for clients, and these challenges were in mind when my wife and I remodeled our kitchen. I finally hit on a system that's pretty easy to make, yet remains flexible enough to rearrange as needed. The organizer shown here was built for a



flatware drawer, but could be used in any drawer to keep everything neat and at hand. You might even consider making one for your toolbox.

Getting started

The system is quite simple: A grid of holes is drilled into a plywood base, with the spacing of the holes matched to holes in the bottom of the divider stock. The dividers are simply cut to length and screwed onto the plywood base where desired.

After a lot of testing and adjusting, I found that 1¼" spacing between the holes works best. Smaller spacing is all right, but means drilling a lot more holes, most of which will never be used. Larger spacing reduces the options for finding the right size compartment.

The first step is to measure the drawer, being sure to note the depth of the drawer box. Your assembled organizer should be flush with the top of the drawer sides, or just a little below. My drawer is 3" deep, so the divider stock is milled to 2½" high. With a ¼" base, this leaves a little space above the organizer. Mill the divider stock flat, true and to ⅜" thickness. There is no specific length needed; whatever scraps you have will work, but two or three of them should be at least the full width of the drawer to provide the main dividers. Smaller pieces can be used for the secondary dividers. The dividers are reusable if you change the setup of the organizer, but it's a good idea to make extra divider stock. It can be stored in the back of the drawer, and used in the future if you need to make radical changes to the organizer.

Drilling the dividers

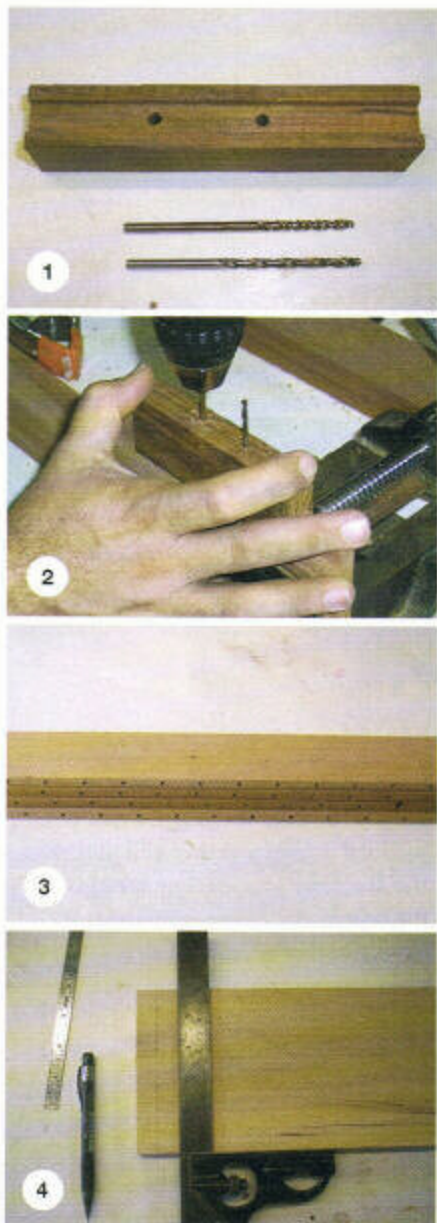
The hole spacing in both the base and the dividers must be uniform to work correctly, so everything is based on an indexing block like the one in **Fig. 1**. This block is used both as a drill guide for the dividers, and to set up the grid pattern in the base.

Cut a shallow dado in the bottom of a hardwood block to fit closely over the edge of the dividers. Set up the drill press to carefully center two holes in the dado 1¼" apart and drill through the block using the same ⅛" drill bit you'll use to drill the parts. The second hole is for an indexing pin to locate the block when drilling each subsequent hole. Anything that fits the hole snugly – such as a nail or transfer punch – can be used as an index pin, but I just used a second ⅛" drill bit since it fits the hole perfectly.

To drill the dividers, hold the stock bottom-up in a drill press vise or clamp it in a vertical drilling jig, set the indexing block onto the divider near one edge, and drill the first two holes through the block to a depth of ¾". Now move the block over and set your index pin through the block and into the last hole in the divider (**Fig. 2**). Use the other hole in the block to guide the drill bit. Keep indexing the block and drilling ¾"-deep holes into the divider until the entire edge is done. Make as many dividers as you think you'll need (**Fig. 3**).

A steady base

With a good supply of dividers completed, cut the plywood base. Although I needed a base for a 14¹⁵/₁₆" wide drawer, my drill press can only drill about 5" into a panel, so I ripped the base into sections 5" wide. If needed, the outer edges can be



cut to fit after all the drilling is done. This drawer measures 19" from front to back, so I crosscut the parts to 18¾" so there is a little room if the drawer isn't truly square. To save time and keep the hole pattern consistent, tape the sections together with the good faces inside the stack to minimize damaging tearout on the visible side. Mark the



5



6



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8



9



10

first hole location (Fig. 4). Set the first hole $\frac{5}{8}$ " in from the edge so that two sections butted together will maintain the $1\frac{1}{4}$ " hole spacing. For simplicity, the hole is also $\frac{5}{8}$ " in from the front edge, but that's not critical. It's not necessary to keep the hole pattern centered perfectly front to back.

As with the dividers, before doing any actual drilling you need to index the hole spacing. I used a scrap piece of plywood to cover the drill press table, then marked and drilled one hole in the center of the scrap, $\frac{5}{8}$ " in from the edge. A second $\frac{1}{8}$ " drill bit acts as a pin to locate the index block over that hole. Square the index block up so the holes are parallel to the edge of the scrap, and drill a second hole. This second hole will act as the index hole for drilling the base pieces (Fig. 5).

Using double-faced tape, attach this indexing plate to the drill press table with the first hole aligned with the bit

in the drill press (Fig. 6). Carefully align the stack of base pieces and drill the first hole all the way through the stack (Fig. 7). Now slide the stack along the fence and insert the indexing pin through the hole in the stack and into the second hole in the table. The bit in the drill press should now be lined up to drill the stack $1\frac{1}{4}$ " away from the first hole (Fig. 8).

After each hole is drilled in the stack, move the index pin to the new hole and repeat the process until the entire line has been drilled. Since there are four rows per part, I drilled the first set of holes across the front edge of the part, setting the proper spacing for the four rows, then turned the stack 90 degrees to drill the first row of holes (Fig. 9).

Since the first hole of the second row is already drilled, resetting the drill press is a snap. Place the index pin through the first hole of the first

row, but this time set the pin into the hole in the sacrificial base piece where the bit was. Now adjust the fence so that the drill press is aligned with the second row hole. Move the stack over and set the pin into the index hole, and drill the row in the same manner as the first (Fig. 10).

Follow these steps until all four rows of holes are drilled in the base parts. Separate the stack and lay them out together with one long divider to verify the spacing (Fig. 11). If everything is correct, you should have exactly $\frac{5}{8}$ " from the edge to the grid, which will continue the $1\frac{1}{4}$ " spacing across the joint between base pieces.

Divide and conquer

Check the base for size, and if needed you can trim the outer edges on the table saw to fit the drawer. It's important to trim only the outer edges, or the hole spacing will be lost. I found that laying out the base parts onto the counter allows you to arrange your flatware until you find out what fits your needs. A few pieces of masking tape can mark out where the dividers go until attached. Once you're satisfied with your arrangement, cut the dividers to length.

Attaching the dividers to the base is simplicity itself. Line up the holes in the divider with the holes in the base, and run some #6 screws through the base into the divider (Fig. 12). Start with any full-length divider that will span the joints between the base pieces. This ties the unit together so adding the rest will be easier. Typically, it's not necessary to have dividers on the outer edges of the base, as the drawer box itself provides the outer shell.



Ralph Bagnall

Ralph Bagnall has been woodworking professionally for 20 years. Bagnall builds reproduction furniture in his home shop, and has been teaching and writing for the past several years. He has recently relocated from New Hampshire to the island of St. Croix, Virgin Islands, to pursue his woodworking in tropical sunshine.



Because the organizer uses a minimum of material, it can be easily made to suit the style and usage of the drawer. Here on St. Croix, I used a rich mahogany for its resistance to humidity and insect damage. The one pictured here uses pre-finished plywood for the base, and a lighter colored mahogany for a more contemporary look. Once you complete one of these organizers, you'll find yourself making them for all sorts of drawers around your house and shop. 🌴

TOOLS USED IN THIS PROJECT

Table saw, planer, jointer, square, drill press, drill press vise or vertical drilling jig, two 1/8" drill bits, drill/driver.

MATERIALS

Dividers – 3/8" stock sized to fit
 Drawer box
 Base – 1/4" plywood
 Double-faced tape
 1" x #6 screws

