

Improving Kitchen-Cabinet Storage

Whether for new work or retrofits, roll-out storage lets you boost capacity and utility

BY SVEN HANSON

The shelves in kitchen cabinets break a fundamental design rule (at least the lower cabinets, anyway): A storage space shouldn't be much deeper than the height of the space above it. Headroom in a base cabinet with one shelf is typically less than 11 in. but twice as deep. The result is pans hidden behind pots, a colander that hasn't been seen since 1999, and sore knees.

Over the 25 years that I've been a cabinet-maker, I've devised many ways to resolve the cabinet conundrum. You can improve base cabinets tremendously by adding roll-out shelves, but why stop there?

Base-cabinet drawers can be improved as well. Full-extension hardware maximizes utility, and dedicated inserts can send the convenience of drawers off the charts. A spice rack, a pot-lid drawer, a roll-out wastebasket, and even a pullout undercabinet pantry are all simple to build. Dovetail joinery isn't necessary. Polyurethane glue, screws, and nails make strong joints, and they'll look fine if



A DRAWER FOR POTS AND LIDS

This insert can slip into existing drawers. Uneven louver spacing gives more flexibility. To build one, I rip enough $\frac{3}{4}$ -in. stock for three 5-in.-wide boards to fit the drawer front to back. After sanding the prettiest three sides, I rip the ugly edge at 40° and screw two strips of $\frac{1}{4}$ -in. plywood to the beveled edges (no glue allows adjustment).

Louvers are 5 in. tall and long enough to slip into the drawer.

Screw thin plywood strips to louvers without glue for adjustability.

40° bevel

$\frac{1}{4}$ -in. or 5-mm plywood bottom

$\frac{3}{4}$ -in. plywood front, back, and sides

Polyurethane glue and screws are strong.

Apply iron-on edging after ripping to width, but before crosscutting to length.

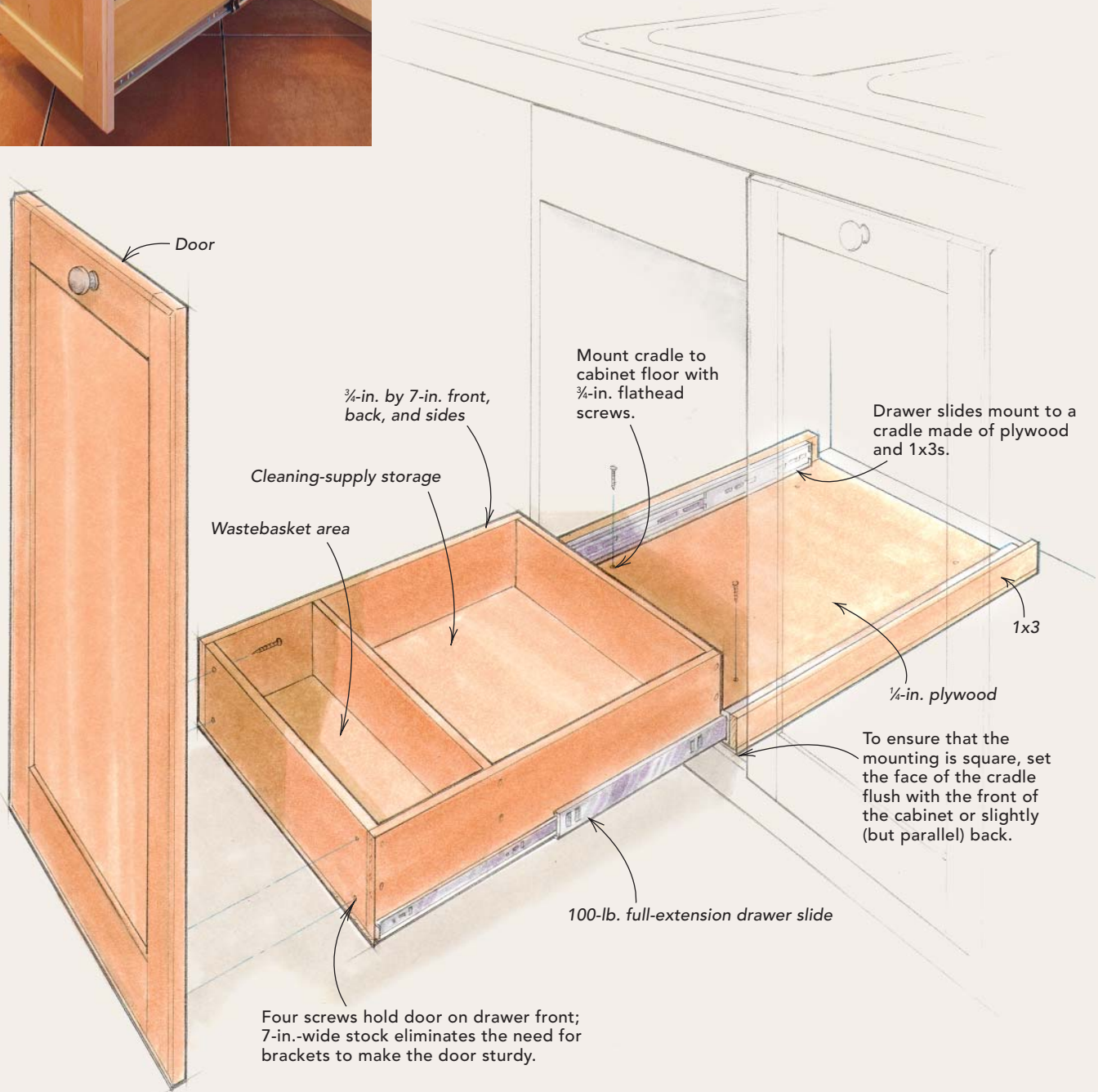
Efficient drawer boxes

Everyone has their own way of building a drawer box, but here's my take. Some people spend hours making furniture-grade dovetail joints. But where the point of the project is strength, durability, and affordability, I simplify the construction. Polyurethane glue and screws are remarkably strong, simple, and slow-drying—perfect for the insecure, slow carpenter.



EASY-ACCESS TRASH CAN

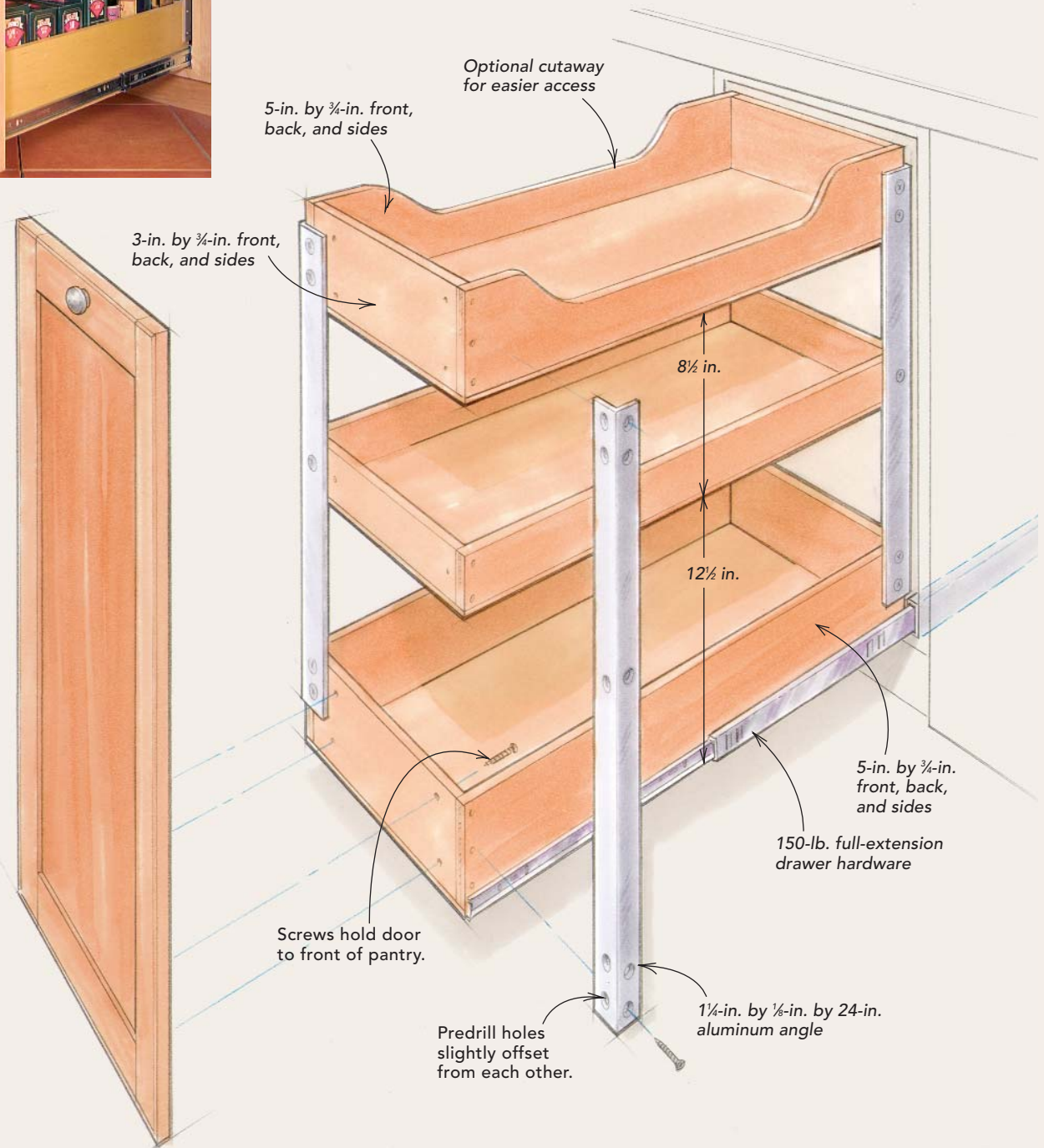
The undersink space is a classic coal pit wanting to be a gold mine. There's just enough room to squeeze a trash can in front of the drainpipes and to pack cleaning supplies under them. A roll-out drawer can improve this space dramatically. A divider steadies the trash can and creates the rear storage compartment. The tricky part is mounting the drawer hardware. By making a cradle, you can sidestep expensive bottom-mount hardware. Make the cradle with a couple of 1x3s and a piece of ¼-in. plywood. Test-fit the cradle to the cabinet, then build a drawer box to fit the cradle. Mount the drawer hardware to the 1x3s, and screw the assembly to the floor of the cabinet. Because the cook will be throwing garbage at the trash can, you should use heavily finished wood and shouldn't glue the cradle to the cabinet to ease disassembly and cleaning.





THE ROLL-OUT PANTRY

Three simple drawer boxes, an 8-ft. piece of aluminum angle, and some heavy-duty full-extension drawer slides are all you need to convert a barely useful 12-in. base cabinet into one of pure utility. Cut the aluminum into four equal pieces, and predrill holes for flathead wood screws. Fasten the aluminum angle to each corner of the bottom drawer starting 2 in. above the bottom of the box to steer clear of the hardware. The middle shelf drops in from above and is easily set with a couple of 7½-in. spacer blocks. The top box should have tall sides to resist racking and to provide added protection for glass items on top.



Inserts organize spices and spoons



SILVERWARE ORGANIZER



SPICE RACK

I've built drawer inserts many ways, and I like this method best because it scales up or down, is convenient for a broad array of drawer sizes, can be removed to clean, looks good, and works well.

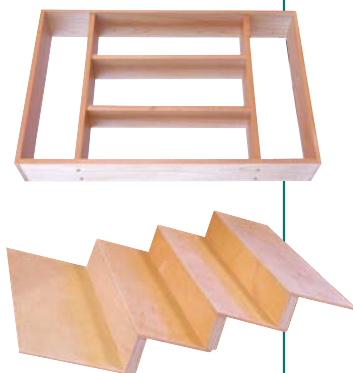
The key concept is that it should be too small for the drawer. A small insert slips in easily and creates an additional silverware slot. Attach the insert to the front and one side of the drawer.

Build it with $\frac{3}{8}$ -in. stock, 2 in. wide. Three-in.-wide partitions make it easy to reach, even for people with big hands. Assemble in any pattern using two #4 screws at each joint.

A SPORTY SPICE RACK

Spices should be stored in a cool, dark place, not on top of the back of the stove, where my editor stores his. But they also need to be close at hand for cooking. A small drawer located next to the stove is the perfect place, and angled shelves make an excellent storage system.

With scraps left over from other projects, you can build a rack that lets the spices gently recline until called to service. Use $\frac{3}{8}$ -in. screws for hidden fasteners and finish nails for exposed spots. I build it to go all the way across the drawer, but you can cut it short and add a $\frac{3}{8}$ -in. side along the cut edge, opening the rest of the drawer for other uses.



you're the slightest bit conscientious about hiding fasteners.

You can single-handedly grab the pot lid you need

In use, my pot-lid holder looks like giant louvers with metal and glass Frisbees stuck in them (photo and drawings, p. 64). The louvers are set perpendicular to the drawer front and can slide into an existing drawer or into a newly assembled one. The drawer side becomes the final louver once you drop the assembly into place. This adjustable design (which uses no glue, only screws) allows three rows of lids and space alongside for pots and pans. The louver assembly can be removed for easy cleaning.

Roll-out wastebasket drawer

Undersink space is fertile territory for improvement. The disposal, drainpipes, and trap conspire to destroy almost all hope of organized storage. But you can help these lost cubic feet achieve their full potential with a

bottom-mounted roll-out wastebasket drawer. A wastebasket drawer makes use of the tall space in front of the plumbing and the low space under the sink trap to the rear of the cabinet box (photo p. 65).

The challenge with this retrofit is mounting the hardware. Sink bases are typically wide, frequently with a center divider. One solution is expensive drawer hardware that mounts to the floor of the cabinet. My solution is a self-contained unit made of plywood and 1x3s, which holds the standard drawer hardware and drops into the base cabinet after assembly (drawing p. 65).

To keep it simple, I screw the cabinet door to the face of the wastebasket drawer. Let the door hang $\frac{1}{8}$ in. below the top of the toe kick. You can now pull it out with your foot when you're elbow-deep in juicy tomatoes.

Roll-out pantry: a home for the Cheerios

Skinny base cabinets are perhaps the most wasteful use of space. Not only are they dark

and deep, but they're also too skinny to see into. Yes, you can use them for cookie sheets and cutting boards, but I think there's a better use: a roll-out pantry. With access from both sides, a narrow unit prevents stored goods from being buried: They're all easy to reach (photo facing page).

After determining the width and the depth available, build three drawers, two at 5 in. tall and one at 3 in. tall. The drawers are fastened vertically to each other with aluminum angle at each corner to form a single box that has three trays.

Drilled with the hole pattern as shown in the drawing on the facing page, the aluminum angle becomes the shelf standards, and it attaches to both the front and the sides of the drawers. □

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