Organize Your Shop with

Dedicated tool cabinets make this shop versatile, organized, and efficient

BY ROBERT O'BRIEN

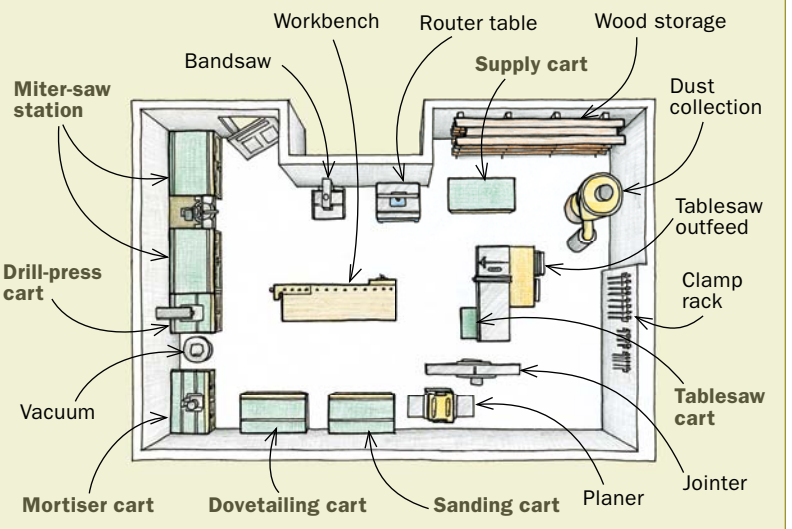
For a long time I was an armchair woodworker; I had always wanted a wood shop, but never had the space. So when I designed a new house for my wife and myself a few years ago, I included a shop. It started out modestly, with just a Sjöbergs bench in the middle of the space. Then I began fitting it out with tools and machinery. As I bought each machine, I built a dedicated station designed to hold all the accessories, tools, and hardware used with that machine. I could have built a big, central storage cabinet, but that would have meant a lot of walking back and forth; with dedicated stations, I'd have what I needed right where I was working. I decided to make the units

Photos: Jonathan Binzen; drawings: John Tetreault

Smart Carts

STARTING POSITIONS

Nearly all the storage units are on wheels, so they can travel to provide an additional work surface or infeed/outfeed support.



Tough and slick on top, mobile below

Strong and stable. *The tops of all carts are ¾-in. phenolic plywood, with a non-stick surface that looks and wears like plastic laminate. A layer of ¾-in. MDF below adds mass. The tops are lipped with long-wearing solid maple. Below are 5-in. double-locking casters with urethane wheels, which roll beautifully on a concrete shop floor. The positive double-locking system prevents the wheels from rolling and the casters from swiveling.*

mobile, allowing me the flexibility to change the configuration of the shop. That also made the carts more versatile, permitting me to use them as auxiliary work surfaces and as temporary infeed and outfeed tables.

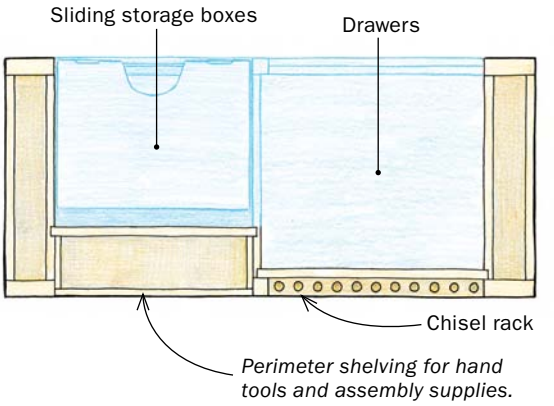
Although I was a novice woodworker when I started work on my shop, learning new joinery and techniques with each cart I built, I am an architect by trade, and I've had decades of experience organizing spaces. I brought all that training to bear as I worked out the design of the carts, and they've proven to be a pleasure to use, almost automatically keeping my shop organized and making the workflow efficient. Looking back, I'd say the

One for hand tools and hardware

With spacious drawers for hand tools, slots for hardware-organizer trays, and shallow shelves for glue-up supplies, this cart is designed to be used in tandem with the workbench.

Take-out storage. *O'Brien designed this cart to fit the plastic organizers he uses to store small hardware. The cases slide on waxed maple runners and can be pulled right out of the cart (left). On three sides, the cart has shallow shelves (above) for frequently used tools.*

DRAWERS WRAPPED IN SHELVING



thoughtful use of space in carts like these is more important than any specific construction approach.

Fundamental features

Although details changed from one cart to the next as I tailored them to the different machines, a number of features and materials remained constant. The main cabinet structure is a solid-wood frame with plywood panels and partitions. I used hard maple—solid and plywood—as my primary material, because it is hard, light in color, and easy to work. For extra weight and stability I gave each cart a double-thick top and bottom—a layer of ¾-in. plywood with a bottom layer of ¾-in. MDF. To make the tops extra tough, I used phenolic-surfaced plywood, which provides a smooth, glue-resistant surface that has proved to be quite durable. In most of the carts I set T-tracks flush into the top, giving me a way to clamp machines, fences, and workpieces firmly and quickly to the cart surface.

To make the carts mobile, I used 5-in. double-locking urethane casters, which roll smoothly and lock down securely. I finished the carts with two or three coats of satin polyurethane wiping varnish.

First cart was a general storage unit

My first cart was a place for hand tools, hardware, and small supplies. Since I anticipated using the cart while at my workbench, I made it the same height as the bench so a workpiece could span the two. I had room for two banks of drawers, but I liked organizing my hardware in Stanley storage boxes, so I incorporated them into the design in lieu of a second bank of drawers. It's great to have lidded containers for hardware that can go right where they're needed. One drawback, however: If you design around store-bought organizers, you're at the mercy of the manufacturer. In my case, Stanley discontinued some of the boxes.

Most of the cart's space was devoted to the drawers and storage boxes, but instead of having blank panels on the ends and back

Sanding and sharpening cart

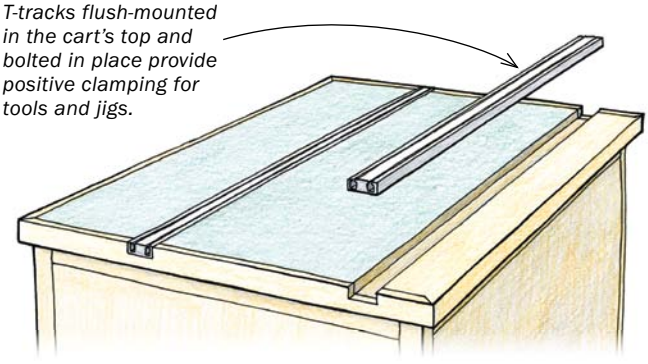
This cart brings together machines and supplies for sanding and sharpening, and also serves as a planer infeed surface.

Easy access. *Shallow drawers on heavy-duty slides make it easy to store and remove the sander and grinder (above). The top left drawer holds waterstones and sharpening supplies. A dedicated shop vac (left) handles sanding dust.*

Lock down. *Using the aluminum T-tracks, it's easy to secure the grinder anywhere along the cart's length.*

T-TRACKS ADD VERSATILITY

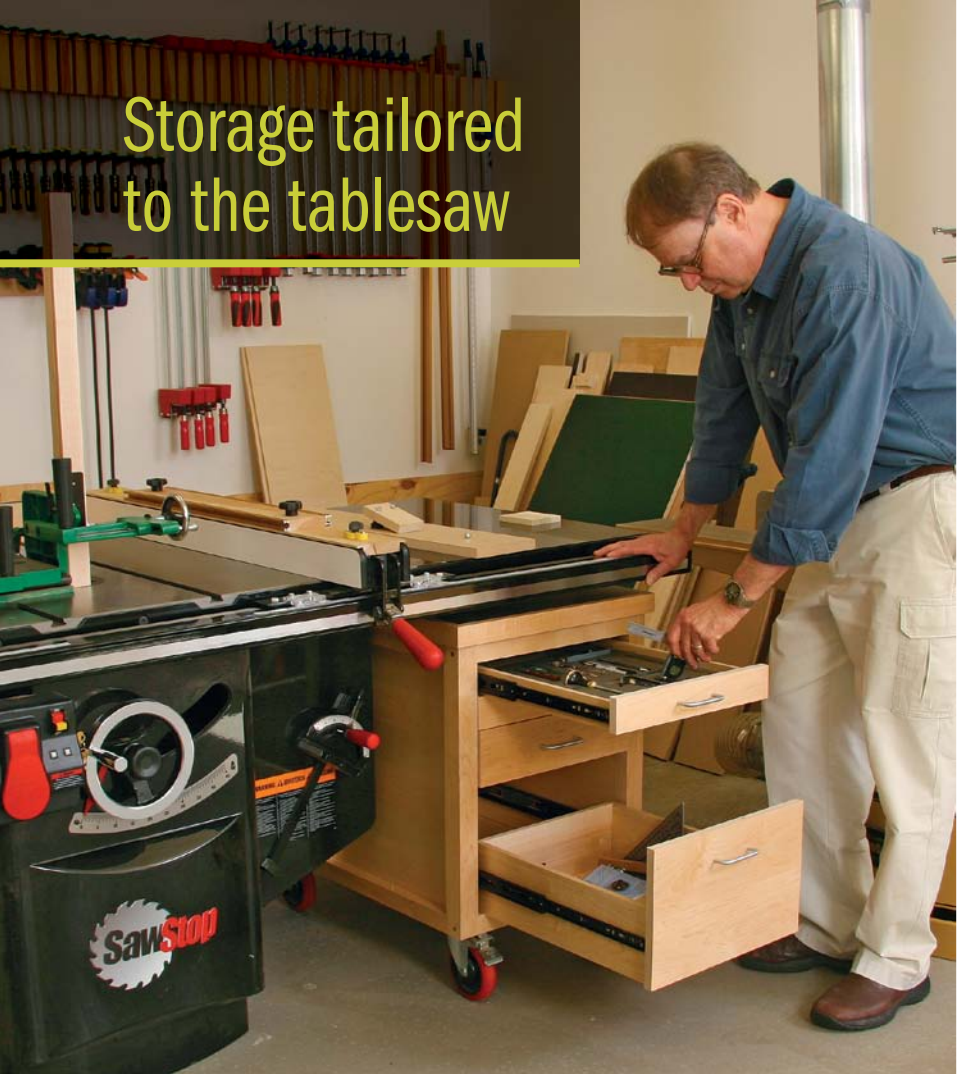
T-tracks flush-mounted in the cart's top and bolted in place provide positive clamping for tools and jigs.



Side storage. *A bank of drawers tucked behind the grinder cabinet holds stacks of abrasive disks and other sanding supplies.*

And one more thing. *With the machines tucked neatly inside and a row of ball-bearing work rollers locked to the T-tracks, the cart provides infeed support for O'Brien's planer.*

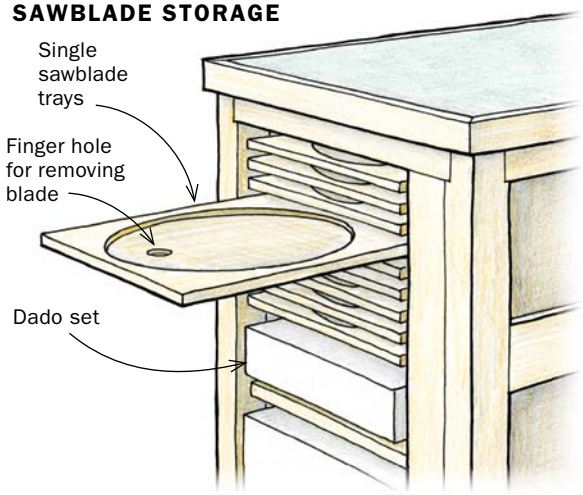
Storage tailored to the tablesaw



Saw supplies within reach. *O'Brien's tablesaw cart, holding measuring tools, jigs, and saw accessories, slips beneath the side extension table.*

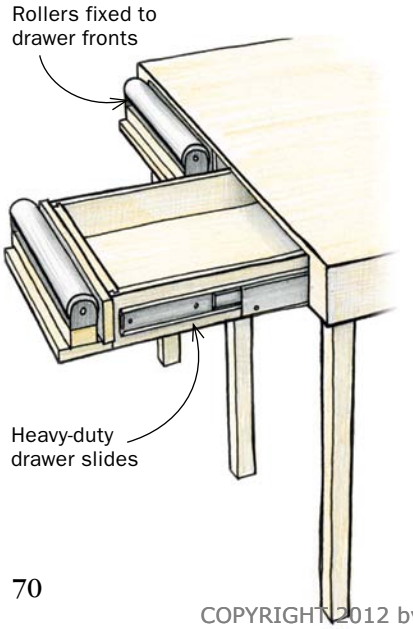
The blades are in the back. *Trays for a half-dozen sawblades slide in grooves in the back of the cart. A dado set is stored below, and cans of cleaning and lubricating products fit in the shallow side shelves.*

SAWBLADE STORAGE



Hybrid drawers do double duty. *The drawers in O'Brien's short outfeed table not only hold throat plates and other saw accessories, but also extend the range of support. He attached rollers to the drawer fronts and used extra-heavy file-cabinet drawer slides to prevent sagging.*

EXTRA OUTFEED SUPPORT



Custom cart for a dovetail jig

Dovetailer's dream cart. *O'Brien sized the lower drawer in this cart to fit his Leigh dovetail jig, which clamps into the T-tracks on top (below). The other drawers contain routers, clamps, bits, and wrenches.*

of the cart, I added shallow shelves that provide quick access to glue-up supplies and frequently used bench tools.

Next cart had specific tools in mind

I housed all my sharpening and sanding equipment and supplies in one cart. The cabinet has two main compartments with slide-out trays. On the right, I needed the full depth and height of the cart to accommodate my spindle sander. But on the left, where I store a slow-speed grinder below my waterstones and other sharpening supplies, the trays only required half the depth of the cart. I utilized the extra space behind them for a bank of drawers that pull out on the left side of the cart.

Drawers for the drill press

Every bit in its place. *Shallow upper drawers provide ample storage for many sets of bits, most displayed flat for easy access and organization. Deeper drawers below contain plug-cutters, hole saws, and other large accessories for the drill press. The cabinet height is low enough to keep the drill press's base from interfering with long boards being cut on the adjacent chopsaw table.*

Chopsaw station

Support plus storage. *A pair of cabinets with a lowered shelf between them provides a home for the chopsaw. The fence system, which fastens in the T-track, can be quickly removed. O'Brien has French-fitted the drawers to hold some of his hand tools (see below).*

Custom tool-fitting system is fast and easy

FastCap's Kaizen foam inserts (fastcap.com) offer a very simple and quick way to custom-fit your tools. The foam, which comes in various thicknesses, is made up of multiple layers. To make a cavity for a tool, first trace around the tool with a permanent marker. Then use a utility knife to cut on the lines. For the blade of a tool, taking out one layer of foam might suffice (1). To make a deeper cavity for the handle, cut again and remove another layer or two. To make removing the tool easier, create finger holes by heating a copper pipe and pressing it to either side (2) of the handle cutout.

Two for the tablesaw

I built two units to make my tablesaw more functional. The first was a small cart with drawers to hold accessories like setup tools, featherboards, push sticks, and, in the deep bottom drawer, a tenoning jig. I designed this cart to tuck neatly under the saw's side extension table. I made slide-out trays in the rear of the unit to hold sawblades, a dado set, and manuals. Small side shelves hold cleaning supplies and lubricants. Pulled out from underneath and with rollers clamped to the top, the cart can serve as an infeed or left-side support for the tablesaw.

The second unit was an outfeed table that is fixed to the saw and doesn't roll. It is a shallow box attached to the rear of the saw table and on the other by 1½-in.-square legs. I built two drawers into the back to store throat plates, blade brakes, and other accessories. I fitted the drawer fronts with rollers so that when you pull the drawers open, you extend the outfeed range of the table.

The rest are dedicated

While some of my storage units serve several purposes, these last four are dedicated to single machines.

Router-table retrofit

Dovetail jig needs a cart—The dovetailing cart is identical in size and detailing to the sanding/sharpening cart, but it is divided into full-width front and rear compartments. The front contains a slide-out tray across the bottom that holds a Leigh D4R Pro dovetail jig, and drawers above for routers, router bits, guide bushings, and jig accessories. When the dovetail jig is deployed, its base is flush with the front of the tabletop. I secure it with Woodpecker Universal clamps in the T-track. When not used for dovetailing, the cart provides another good surface for assembly and clamping.

Drawers for the drill press—A drill press accumulates scores of bits and accessories, and I wanted them well organized and easily accessible. The cart I built for my drill press has a shallow top drawer for drill-speed and drill-size data sheets, two drawers fitted with racks for bits and accessories, and deeper lower drawers for hole saws and hole-cutters, plug-cutters, drill sets, and jigs. I bolted the drill press to a flush-mounted aluminum T-track.

Both the drill press and the chopsaw are connected to shop vacs. Because I use these machines intermittently, I thought having local, small-volume systems would be more practical than energizing the main dust collector.

Chopsaw gets an immobile home—The miter-saw station is the only fixed-base cabinet in my shop; the saw's need for long, accurate fences made mobility impractical. The unit is composed of two wide cabinets with a lower surface suspended between them. I supported the lower surface on 1½-in. aluminum angles with hex-cap leveling bolts, which make it simple to ensure that the miter saw's table is perfectly flush with the tops of the side cabinets. A dedicated shop vac sits below the saw, connected to it with an automatic vacuum switch. The Kreg system extended fences are easy to remove when the counters are needed for another purpose.

Retrofit a router stand—I bought my router table and fence as a package that included a Kreg metal stand. To achieve effective dust collection, I enclosed the stand, building a cabinet secured with screws through the predrilled holes in the steel frame.

I built the top and bottom drawers to hold small parts like router chucks, throat plates, and the height-adjustment crank. The middle two are trays that hold router bits. To top off my organizational effort, I identified all the bits with labels I created on the computer and printed on pressure-sensitive clear film (Avery 15660 "Easy Peel" clear address labels; $12 for 300, avery.com). □

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Build a cabinet into a stand. *To improve dust collection and provide a place for all his bits, O'Brien built a cabinet to fit inside the stand of his router table. The center section of the cabinet, which encloses the router, has a dust port at the back. Bits in pull-out trays are stored vertically and labeled.*

PULL-OUT TRAYS