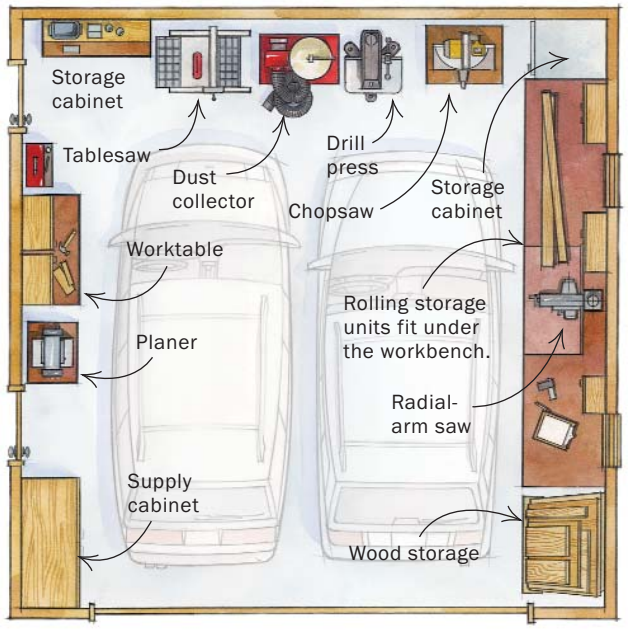
Roll-Away

With wheel-mounted tools and cabinets, a two-car garage easily transforms into a versatile workshop



TWO CARS AND A WORKBENCH

The 23-ft. square space is a workshop by day and a garage by night. A long workbench spanning one wall houses a series of multipurpose rolling cabinets used for storage and as tool stands, worksurfaces, and infeed and outfeed tables.

After many years living in central Florida, I received an invitation to relocate to Tucson, Ariz. Having been an active woodworker for 18 years, I placed adequate shop space high on my list when it came time to buy a home. While it would have been nice to find a house with a separate workshop, my wife and I settled on one with a spacious 23-ft. by 23-ft. two-car garage.

This presented me with a challenge: create an efficient and comfortable workshop that could accommodate big projects but still make room for the family cars. So I began laying out the basic requirements needed to share my tablesaw with my parking space.

The primary requirement was to keep at least one car in the garage at night, even if a half-finished project occupied floor space. The flexibility to park two vehicles in the garage on occasion also was essential. The challenge was balancing these requirements with the elements of a good shop: one that is attractive to work in, easy to clean, and has plenty of organized storage. My philosophy throughout was "a place for everything, and everything in its place."

Making due with limited space

To have plenty of workspace and be able to cut long boards with my radial-arm saw, I knew I would build a long workbench along one of the garage walls. I began sketching idea after idea, looking for inspiration in books, magazines, and on TV woodworking shows.

While paging through magazines, I came upon an article for a

Photos: Matt Berger

Workshop

BY BILL ENDRESS

roll-around tool-storage cabinet designed to be tucked under one wing of a tablesaw. It dawned on me that I could use a similar concept to save space in my garage. Beneath the workbench I could house roll-around cabinets to store tools.

The more I thought about it, the more advantages I could see of this system. With the rolling cabinets built to well-planned heights, they could serve as infeed and outfeed supports for the tablesaw, planer, and miter saw. Work areas also could be adapted to accommodate different projects just by rearranging the rolling cabinets.

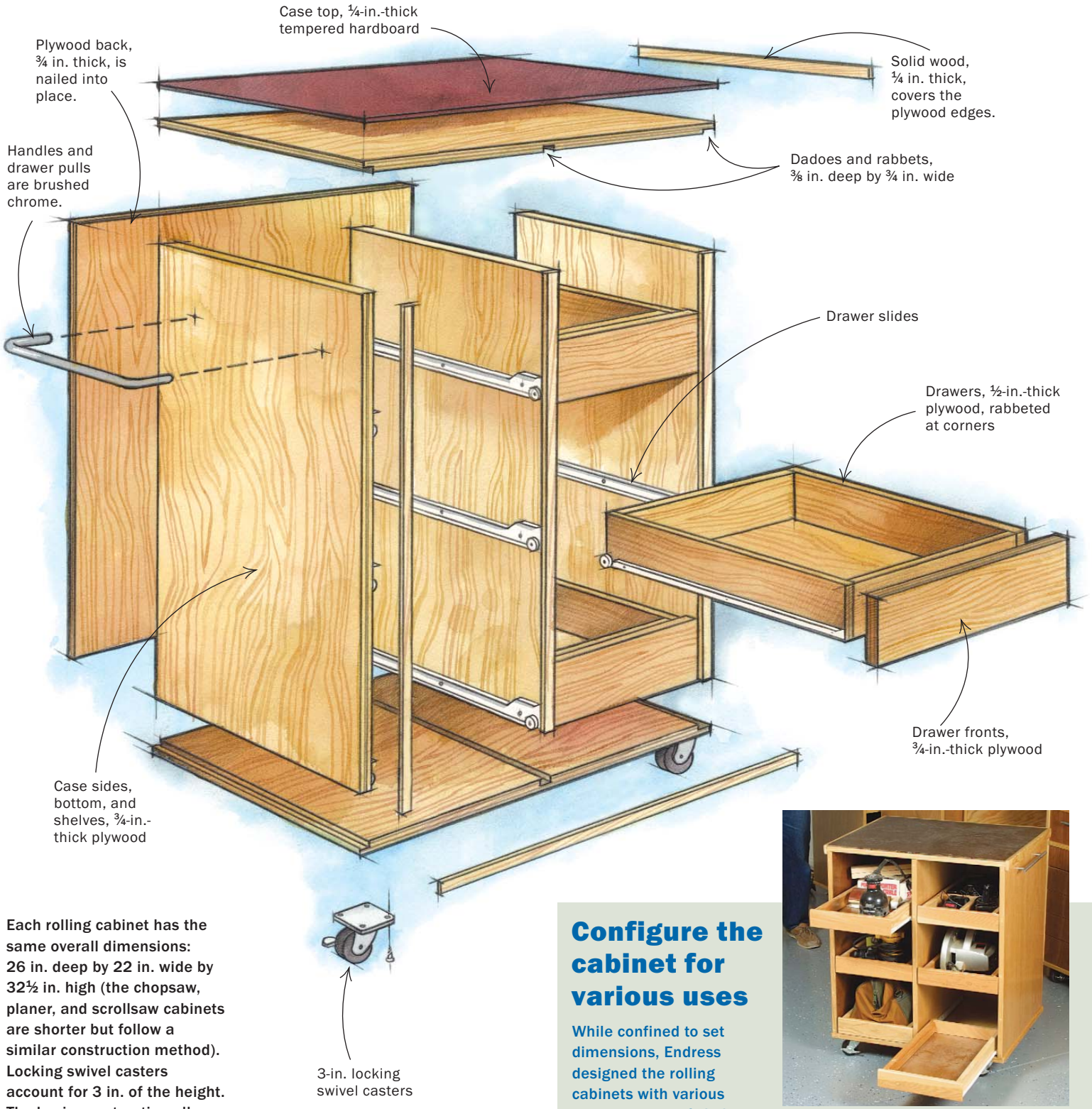
Workbench serves as a garage for rolling cabinets

Constructing the main workbench was the first task. Because of space limitations, I decided to build it in two sections and bolt them together. One section is 8 ft. long, and the other is 6 ft. long. After some measuring of tables and kitchen cabinets, I determined that a worksurface 30 in. deep and 37 in. high would be most comfortable. The workbench was fortified with a 2x4 frame to support the substantial weight of the radial-arm saw. I also installed two electrical-outlet strips on the bench, one on each side of the saw. They're mounted along the front edge to keep power-tool cords from extending across the top of the worksurface.

Cabinets are built for mixing and matching

It was both fun and challenging to design and build the cabinets. Once I knew the workbench measurements, it was easy to back out the dimensions for the rolling cabinets. To keep it simple, the

BASIC CONSTRUCTION OF ROLLING CABINETS



Each rolling cabinet has the same overall dimensions: 26 in. deep by 22 in. wide by 32½ in. high (the chopsaw, planer, and scrollsaw cabinets are shorter but follow a similar construction method). Locking swivel casters account for 3 in. of the height. The basic construction allows for variations in the placement of drawers and shelves. Each cabinet is constructed from ¾-in.-thick plywood and finished with two coats of water-based varnish.

Configure the cabinet for various uses

While confined to set dimensions, Endress designed the rolling cabinets with various arrangements of shelves and drawers so that each one serves a different purpose.

Sliding shelves store power tools visibly and in reach. *Endress built two of these cabinets—one with a left-facing handle, the other with a right-facing handle—to form a large surface when side by side.*

Drawings: Brian Jensen

cabinets follow the same basic design but are configured differently, according to their functions.

Some cabinets have drawers, some have shelves, and some are built to hold large power tools. All of the cabinets roll on swivel casters. Handles are attached to the cabinet faces so that they can be maneuvered around the garage. The handles, drawer pulls, and cabinet-door handles are all matching brushed chrome, giving the final profile of the workbench a handsome look.

Storage cabinets double as worksurfaces—The cabinet used for storing power tools has six sliding shelves that pull out to the left for storing sanders, a jigsaw, and other tools. A second cabinet is built in a mirror image with shelves that pull out to the right. By butting these two cabinets together, a continuous worksurface is created while leaving the shelves accessible.

A third rolling cabinet has five drawers to hold hand tools. A shelf underneath the top of the cabinet is open on three sides, providing a place to set tools and keep them out of the way. The opening also is useful for clamping workpieces to the tabletop, as clamp heads can be tightened against the top's overhang.

The fourth rolling cabinet simply has two shelves that are accessible from three sides. One shelf holds two toolboxes, and the other holds my bench grinder and a small belt sander.

The height of the cabinets is consistent and makes them ideal to serve as infeed and outfeed tables for my miter saw, planer, and tablesaw (see the photo on p. 71).

Stationary tools get wheels, too—The first four cabinets provide adequate storage for my hand tools. But I also needed storage for my assortment of power tools.

The scrollsaw fits below the workbench, sitting on a low, rolling cabinet. While it seems quite short at first glance, the cabinet is just the right height to use the saw while sitting comfortably in a chair.

The router-table cabinet also is on wheels. The table is equipped with a router lift. The lift is offset from the center of the worksurface, leaving room for drawers on one side of the cabinet to hold router bits, collet wrenches, and a laminate trimmer. Two more drawers below the router are large enough to hold another router, associated tools, and auxiliary baseplates.

Following the same design, I built rolling cabinets to hold my planer, miter saw, and tablesaw. Rather than getting stored out of sight, these cabinets fit along the walls of my shop and can be moved easily. The cabinets for these tools also have plenty of storage for any accessories.

Dust collection is easy to incorporate—The only tool in the shop that doesn't have dust collection built into its cabinet is the miter saw. Try as I might, I haven't come up with a good dust-collection system that allows me to store the cabinet against the wall. When using this tool, I usually set it up by the garage door so that the dust generated is thrown outside the shop.

To keep the shop clean, I settled on a 1-hp mobile dust collector that can be attached to one tool at a time, and it has been adequate so far.

Wheels roll in any direction and lock securely—I used four 3-in. locking swivel casters (available at hardware stores) on each rolling cabinet, which enables them to move in any direction.

When all four wheels are locked, the cabinet becomes a stable platform. Unfortunately, due primarily to its weight, moving and locking my tablesaw into place on its low cabinet was a struggle. It always seemed to go in the opposite direction I wanted it to go. On a whim, I decided to try higher-quality, heavy-duty casters from Woodcraft Supply Corp. (www.woodcraft.com). What a difference quality makes! Not only can I move my saw with little effort, but the locking mechanism also is much easier to operate.

Wall cabinets reduce clutter

After taking up as much space as I could afford on the ground, I looked to the walls for more storage. I designed the wall cabinets to accommodate my work habits. I did not want deep cabinets, as things tend to get shoved to the back and become lost. I wanted

Shallow drawers hold hand tools. *An open area below the top of the cabinet keeps tools within reach but out of the way. The cabinet's top has enough overhang for attaching clamps.*

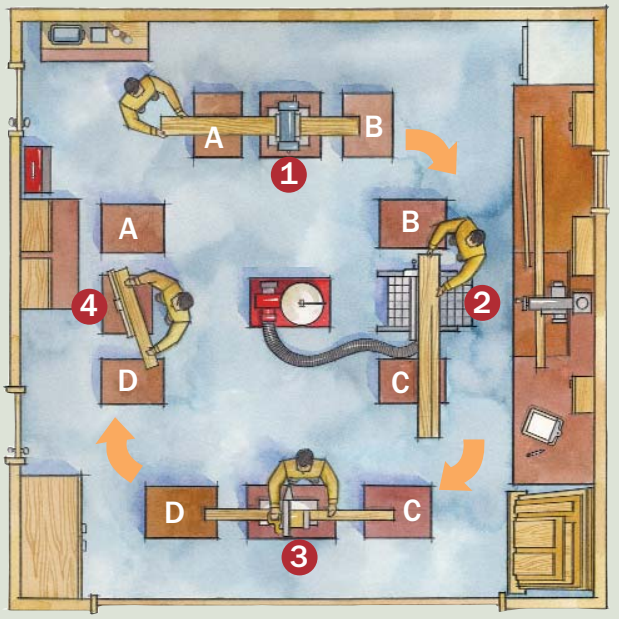
There's no such thing as too much storage. *Two tall, open shelves are used for storing large objects such as a toolbox, benchtop grinder, and belt sander.*

Scrollsaw sits at a comfortable height. *The scrollsaw is mounted to this low rolling cabinet so that it can fit below the workbench when not in use. However, it's just the right height to use while sitting comfortably in a chair.*

Router table holds parts and accessories. *This rolling router table is equipped with a router lift. The lift is offset to accommodate drawers, bits, and accessories. Dust-collection ports are built into the fence and cabinet back.*

Mobile tools and cabinets improve workflow

With the cabinets and tool stands built to corresponding heights, they can be arranged for use in a variety of combinations. The four-station arrangement shown here will accommodate a workflow that includes benchtop planing (1), ripping on the tablesaw (2), crosscutting on the miter saw (3), and routing at the router table (4). After an operation has been completed at one station, the outfeed table is rolled to the next station, where it becomes the infeed table.



Watch it on the Web

To see the roll-away workshop in use, go to www.finewoodworking.com/toolsandshops.

my cabinets just deep enough to hold racks of storage bins. I also did not want them so high that a ladder would be necessary to access the top shelves. This led to a final dimension of 8 in. by 30 in. by 30 in. for a double wide cabinet, and 8 in. by 15 in. by 30 in. for a single wide cabinet.

Cars and projects live in harmony

When I first came up with the idea of a small garage shop based on a mobile storage concept, I wondered how it would work out. After using the shop for more than a year, I continue to be amazed at how easy and how much fun it is to work here. All of my requirements were met, including the ability to park two vehicles in the garage when the shop is not in use.

As with any shop, there are lessons learned for building the next one. In hindsight, it would have been a good idea to plumb the workbench for dust collection and compressed air. But overall I am quite pleased with the current mix of rolling cabinets. If I do add new tools to my shop, I'll build rolling cabinets designed specifically for them. □

Bill Endress is an aerospace engineer in Tucson, Ariz. In his spare time, he works wood in his two-car garage.

1 *Room for rough cutting.* *Endress starts his workflow by milling boards at the thickness planer. Rolling cabinets support the stock on its way in and out of the planer and can be moved to support boards of various lengths.*

2 *Support for long or wide stock.* *The planer outfeed table becomes the infeed support at the tablesaw. A second cabinet catches the board on its way out.*

3 *Instant miter-saw station.* *Like the other power tools in this shop, the miter saw is built on a rolling cabinet designed so that the saw-cutting worksurface is level with the tops of the other cabinets.*

4 *Comfortable routing station.* *After transporting a stack of freshly crosscut material from the miter saw, Endress goes to work at the router table.*