Bright Ideas in a Basement Shop

BY MICHAEL L. MAINE

There's nothing dark and dreary about the workshop Mark Koritz built in the basement of his surburban St. Louis, Missouri, home.

WORKING IN A LONG AND NARROW SHOP *(above), Mark Koritz took advantage of the obvious storage possibilities—including the floor joists overhead—to keep his shop neat and orderly. Mark's 30-year-old workbench (left) occupies a prime spot in the center of the shop.*

To say sunglasses are a requirement for spending time in Mark Koritz's workshop would be a stretch, but a bright space was a priority when Mark designed his 15×55' shop.

"Lighting is a key factor in a shop. I had all the walls and the ceiling painted white to reflect light and make the ceiling seem higher," Mark explains. The result is a long, narrow, glistening shop. Several white-faced cabinets and benches with white drawers provide plenty of storage and reinforce the clean, tidy look Mark wanted. For a touch of color and comfort, red, yellow, blue, and green rubber mats are placed at key workstations.

"I'm a sort of a neat freak when it comes to having a nice shop and home," says Mark. "That is not to say I don't mind lots of sawdust on the floor when I am doing some of my free-form woodworking."

Sawdust on the floor is a rarity, though, because of the four-bag, 3-hp remote-controlled dust-collection system. Six-inch PVC pipe attached to the floor joists runs the entire length of the shop. Branch lines between the joists lead to various workstations. Joints are sealed with rope caulk. The system culminates in a small room at one end of the shop. A 2"-thick foam board attached to the room's interior wall dampens sound. Two 15×25"

THE WORKSHOP *at a glance*

Size: 15×55' with a 10×14' bump-out for wood storage and a smaller 8×18' shop for other projects; 8' ceiling

Construction: Poured concrete basement

Heating and cooling: Forced-air gas heat and air-conditioning from house

Lighting: Fluorescent lights arranged in two sections, each illuminating a separate area of the shop. Plastic sleeves over the fluorescent lights in the table saw area protect the lights from any accidental bumps.

Electrical: Two 2-plug, 110-volt outlets; seven 4-plug, 110-volt outlets; five-220 volt outlets

Dust collection: 3-hp 220-volt four-bag Oneida

Air compressor: 20-gal. Craftsman

SIX-INCH PVC PIPE *(seen in the upper left in the photo above) runs the entire length of Mark's 55' foot shop, sending dust to the dust collector housed in a separate room. Additional ducts are hidden between floor joists. White walls and a gray floor reflect light from two long rows of fluorescent fixtures.*

reusable filters promote air exchange. "I hose them off about twice a year, whether they need it or not," says Mark.

Within a 10×14' bump-out near the center of the shop Mark stores his supply of sheet goods and rough stock. Years ago he purchased a 16'-tall cantilevered lumber rack at auction. What he didn't understand at the time was that the lumber was included in the purchase price. Mark cut the rack down to fit the 8' ceiling, and he built several additional racks, each designed to hold various wood sizes. "It cost me more to move my shop with all of the wood than it cost to move the furniture in the house," Mark says.

The bump-out provides a secondary benefit—the outfeed table for the table saw juts into the area (see the floor plan on page 49), providing support to sheet goods and long boards. Storage space is always at a premium, and Mark solved that problem in several ways. He acquired several white kitchen wall cabinets and drawers from a friend. He hung the wall cabinets and made

A SANDING TABLE BUILT *in a Woodcraft class 10 years ago still earns its keep. The fixture features a grated top to collect sawdust, a hacksaw blade for trimming sandpaper, and a shelf for storing extra sanders. To build this sanding-disc organizer, see the illustration on page 51.*

A 10×14' BUMP-OUT *provides handy but out-of-the-way storage for Mark's abundant wood supply. On the left in the photo is a rack holding large-sized sheet goods. Next to that is a cantilevered rack Mark purchased and cut down to fit his shop. Note how the 6" PVC pipe reduces to 4" for more efficiency.*

PHOTOS: GREEE GOLDMAN

A CART DESIGNED TO MOVE CAR ENGINES *serves multiple purposes in Mark's workshop. It makes moving a large piece of cherry to the table saw easier, and in the case of his radial drill press, if he needs a temporary surface larger than the press's table, he just rolls the cart into place and, with a few quick pumps, raises it to table height.*

"It's neat to go down to the shop on a Saturday morning with a cup of coffee and just sit in my old desk chair, listen to music, and think about how I am going to enjoy this time in the shop."

Mark Kenitz

new base cabinets for the drawers. Under the saw's outfeed table are several 5' lengths of 4"-diameter PVC pipe that provide storage for dowels and cutoffs. Plywood clamp racks mounted between I-beam support posts, and banks of wall-mounted trays holding fasteners and other small items contribute to a well organized workshop where everything has its place and can be found quickly.

"I'm just like everyone else," Mark says. "There is never enough room to store stuff."

Opposite the lumber storage area Mark built a 14'-long combination worktable and cutoff table. The top of the table overlaps the bottom to facilitate clamping. The MDF top is easily replaced if damaged. Above the table is an 8' length of perforated hardboard for hand tools. The hooks and fixtures are hot-glued in place. Small power tools are stored in the drawers beneath the tables and in an adjacent eight-drawer cabinet.

A 20-gallon air compressor provides air to the workbench, saw table, and assembly table, providing Mark with plenty of supply lines for his pneumatic tools. The compressor also doubles as a convenient way to clean equipment and surfaces.

CONTROLLING AIR FLOW *through the dust collector duct to the chop saw is simple with a length of metal conduit with one end hammered flat and bolted to the blast gate (above left). A plywood door on each side of the chop saw (above) increases the dust collector's efficiency. Mark uses slip-pin hinges to keep the doors in place. If a door blocks the desired saw angle, he removes the pins and the doors.*

The Floor Plan

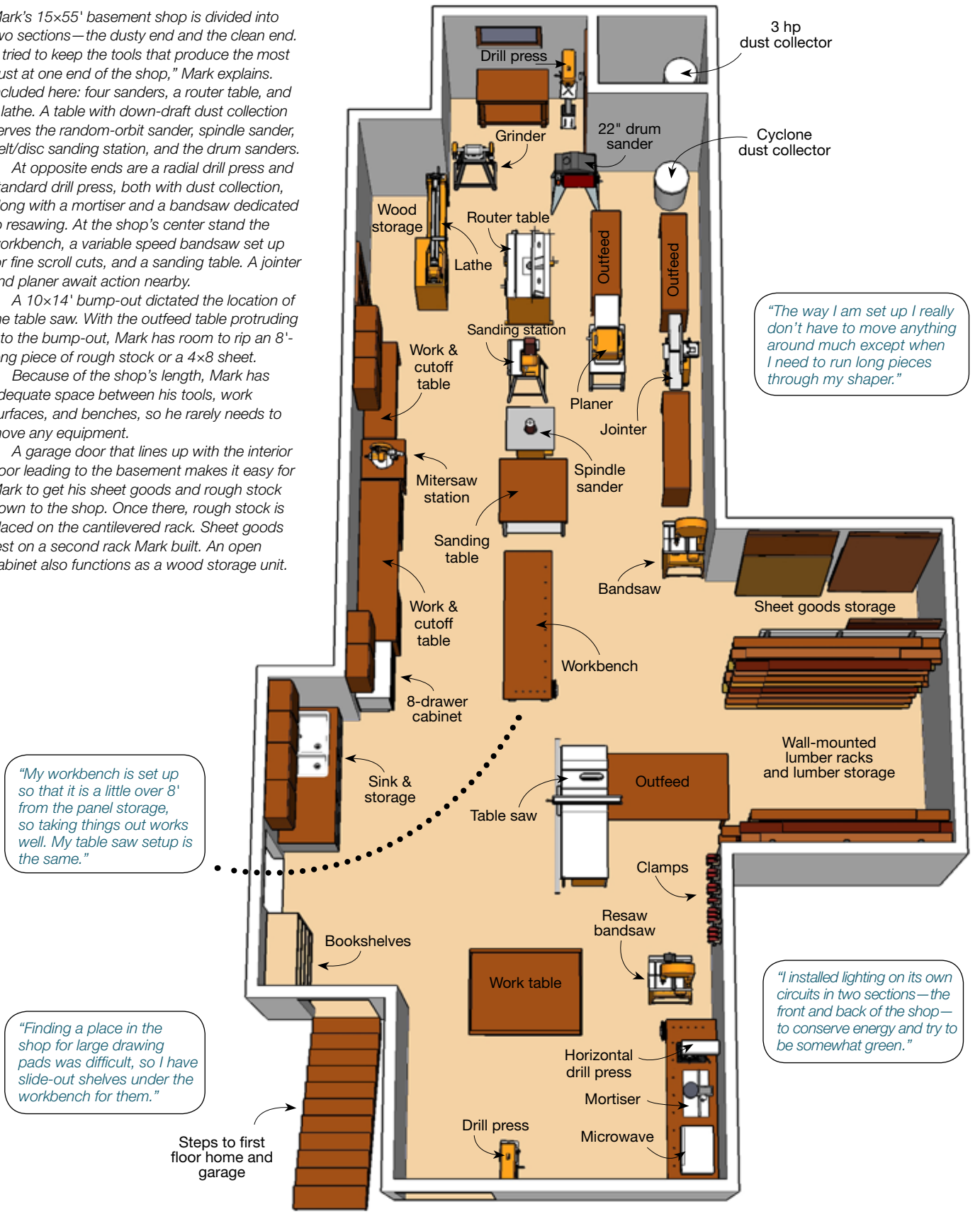
Mark's 15×55' basement shop is divided into two sections—the dusty end and the clean end. "I tried to keep the tools that produce the most dust at one end of the shop," Mark explains. Included here: four sanders, a router table, and a lathe. A table with down-draft dust collection serves the random-orbit sander, spindle sander, belt/disc sanding station, and the drum sanders.

At opposite ends are a radial drill press and standard drill press, both with dust collection, along with a mortiser and a bandsaw dedicated to resawing. At the shop's center stand the workbench, a variable speed bandsaw set up for fine scroll cuts, and a sanding table. A jointer and planer await action nearby.

A 10×14' bump-out dictated the location of the table saw. With the outfeed table protruding into the bump-out, Mark has room to rip an 8'-long piece of rough stock or a 4×8 sheet.

Because of the shop's length, Mark has adequate space between his tools, work surfaces, and benches, so he rarely needs to move any equipment.

A garage door that lines up with the interior door leading to the basement makes it easy for Mark to get his sheet goods and rough stock down to the shop. Once there, rough stock is placed on the cantilevered rack. Sheet goods rest on a second rack Mark built. An open cabinet also functions as a wood storage unit.



Smart Ideas for the Taking

1 Two-box clamp rack:

Mark took advantage of the dead space between the posts to store clamps. Here, C-clamps and light-duty bar clamps are neatly organized in the rack while spring clamps grip the I-beam resting above. On the opposite side, a rack mounted on top of the posts holds longer parallel-jaw bar clamps.

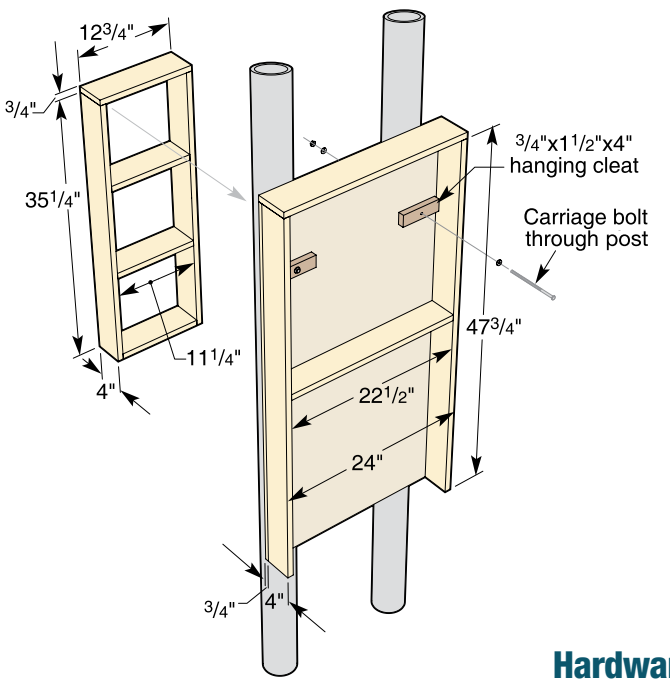


Fig. 1

2 Hardware storage rack:

Finding the right screw is simple with this screw storage rack. Mark can take a single box off the rack or, if the job requires different types of screws, he can take the whole rack. Boxes and mounting rails are available at most home centers.

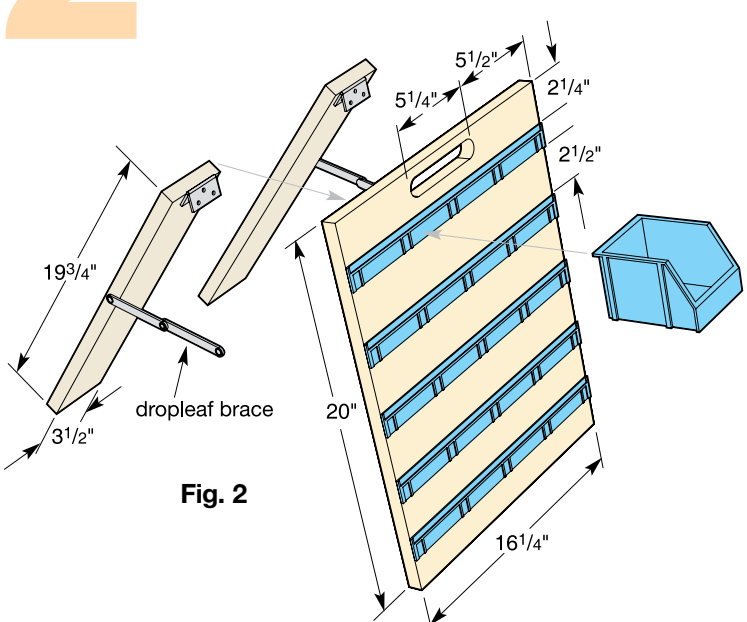
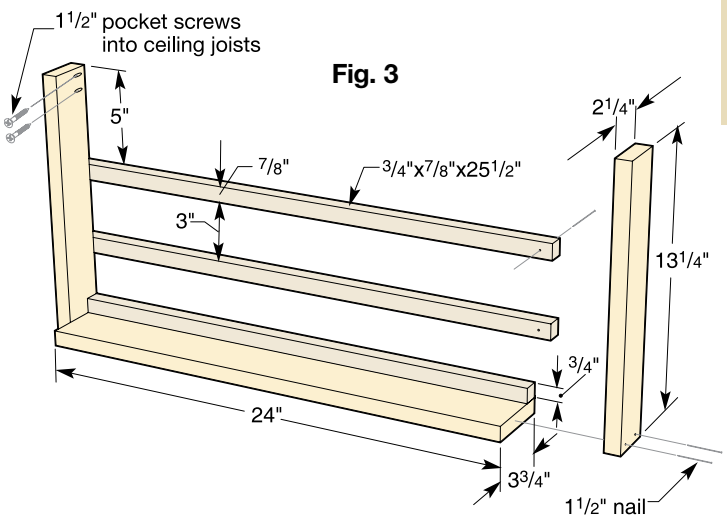


Fig. 2

3 Joist-mounted spray can organizer:

Here is a simple way to keep small items close but out of the way. Made of scrap 1×4, rails across the back keep items from falling off.

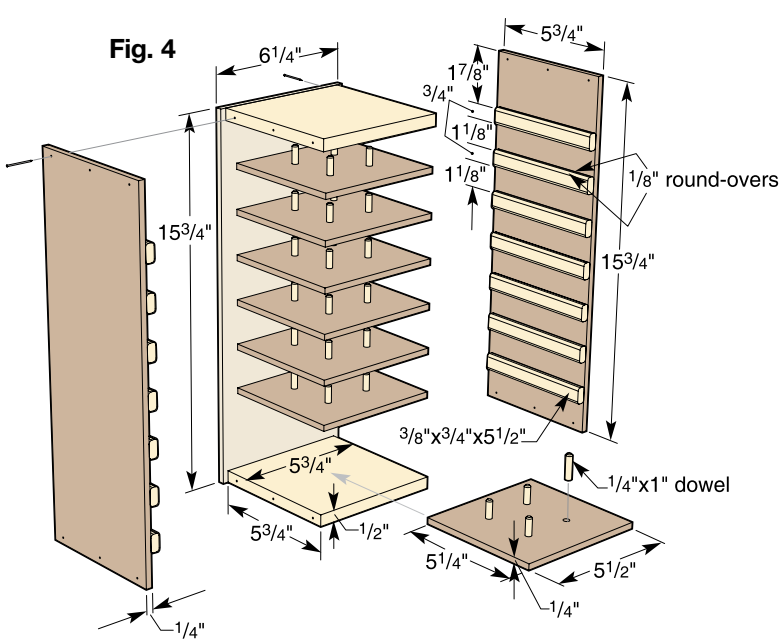
Fig. 3



4 Sanding-disc organizer:

This rack is a simple way to solve the woodworker's perpetual problem—convenient storage. The top and base are made of ½" plywood; the sides and shelves are ¼" plywood. Shelf supports are simple plywood strips glued into place. "I made it lightweight so I could pick it up and move it," says Mark. "But I should put a handle on top."

Fig. 4



Mark Koritz

Mark splits his spare time among his shop, work, and other activities and has no plans to retire. Currently Mark manages national programs for the world's largest floor-covering company. An accomplished carpenter long before he was a woodworker, Mark spent the first years in his new shop replacing doors and floors and cutting crown moldings and rosettes. "The house was the project," Mark says.

And while he occasionally helps his kids with home improvement projects, Mark's main interests have evolved into the more artistic elements of woodworking, including entertainment units and a hutch for the house. Clocks, trivets, candle and flower holders made of unique pieces of wood have expanded his list of finished projects.

A self-described "free thinker," Mark's idea of a nice piece of wood is one that is gnarly, knotty, or somewhat decayed. His lumber stash includes pieces that his woodworking friends have rejected as ugly or unworkable.

"Sometimes I'll look at a piece for a year or two before I can figure out what to do with it," Mark explains. "Sometimes it comes out great, and other times it may be firewood, but most always it comes out pretty nice, so I am told." Mark uses shellac as a seal coat before applying a Clear General Finish to his projects. He does not stain or dye wood, preferring to work with a wood's natural color. His preferred species include walnut, maple, cocobolo, wenge, purpleheart and yellowheart.

A SAMPLE OF SOME OF MARK'S *more delicate work: a 4×6×8" walnut and maple box; a clock mounted on a walnut box suspended on brass rods between two posts; various-size flower boxes made of spalted white oak.*

THIS MAPLE HUTCH *is one of Mark's favorite creations. The square part of the base is made of veneered maple; the curved part is solid maple. The top and handles are cocobolo with a natural edge.*

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