



Set up shop on a budget

HOW TO FIND BARGAINS AND WORK WITH FEWER TOOLS

BY MIKE BIELSKI

This article was inspired by editor Asa Christiana's piece in last year's *Tools & Shops* issue, titled "Set Up Shop for \$5,000." That headline struck me as discouraging. As an entry fee, \$5,000 seems high enough to exclude a number of potential woodworkers, myself included. Christiana softened the blow by saying that used tools could cut the cost roughly in half. That figure seemed much closer to my experience, which involved buying a mix of new and used tools. Having said that, buying the right used tools is much more difficult than buying from a catalog or dealer who stocks everything needed to build a great shop. It requires a bit of guile and a good plan, but the payoff is worth it. Through careful choices and good fortune, I was able to outfit my shop with a blend of new and used tools for around \$2,000.

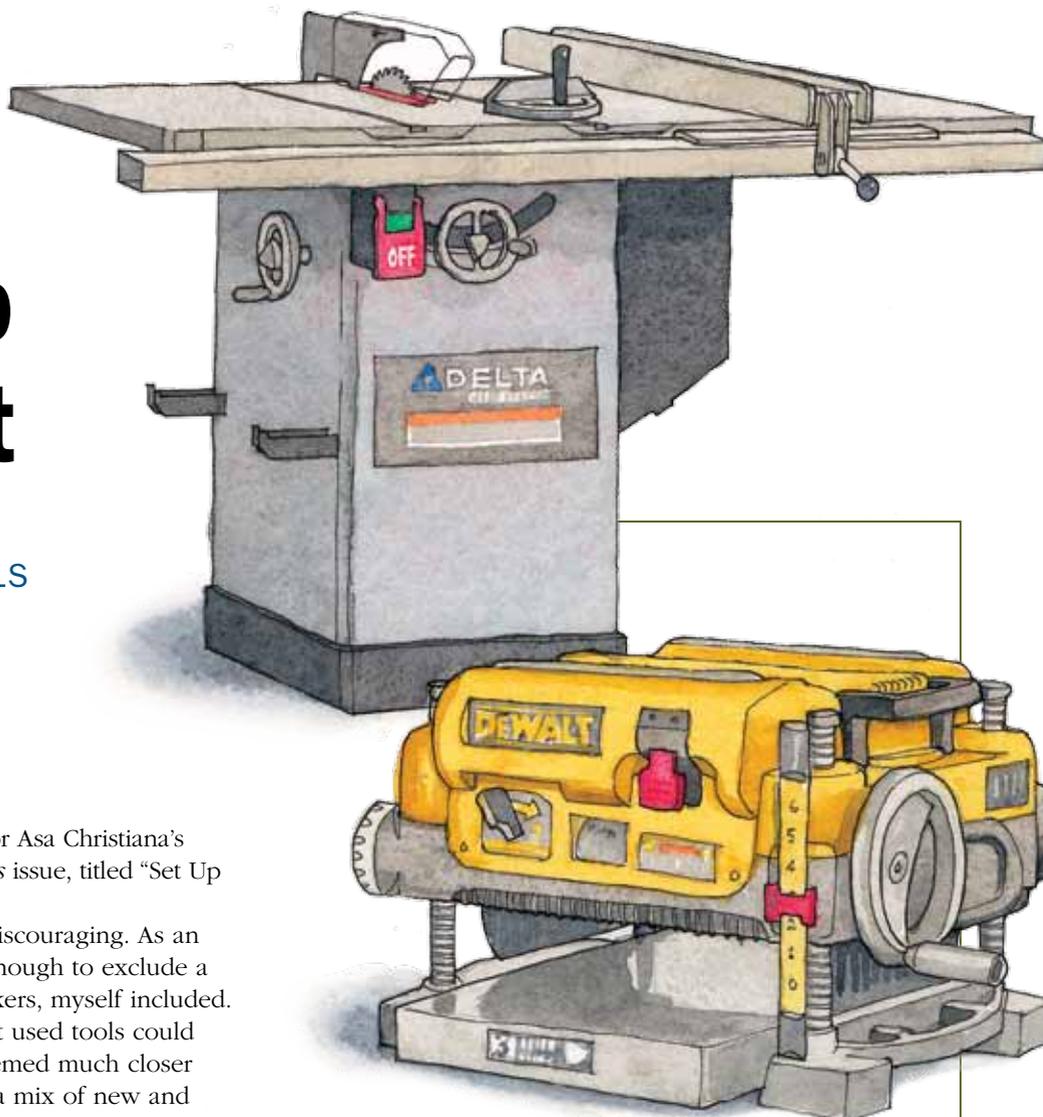
A shopping strategy: foundation before frills

My approach wasn't about buying cheap tools. Buying on price alone often costs more in the long run when a cheap tool doesn't perform or fails and must be replaced with one that works. The trick is finding quality tools at an affordable price, and knowing how to make the most of them.

My strategy was to buy the most basic and versatile tools before adding specialized ones, no matter how low the price. This led me to start with a tablesaw, a thickness planer, and a router.

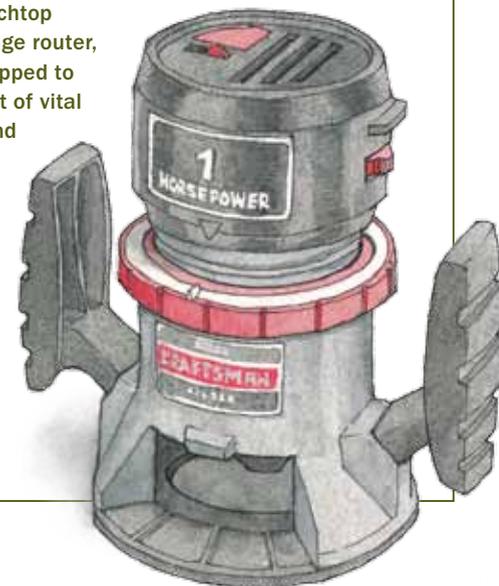
The tablesaw—This tool is the backbone of nearly every shop, and for good reason. It allows unmatched precision in ripping parallel edges and crosscutting at a variety of angles. Most woodworkers find it crucial for the basic milling of stock. It is also suited to many joinery tasks, easily producing tenons, box joints, and—with a reground blade—the tails for dovetail joints.

Through my cabinet-shop connections, I managed a snappy deal (\$200) on a used cabinet saw with a 54-in. commercial



A working shop has three hearts

Start woodworking with a tablesaw, a benchtop planer, and a plunge router, and you'll be equipped to perform a core set of vital milling, joinery, and shaping tasks. Plan on spending \$600 to \$1,200 for a used cabinet saw or new hybrid (see pp. 60-65), \$400 for a planer, and \$200 for a plunge router or router combo kit.



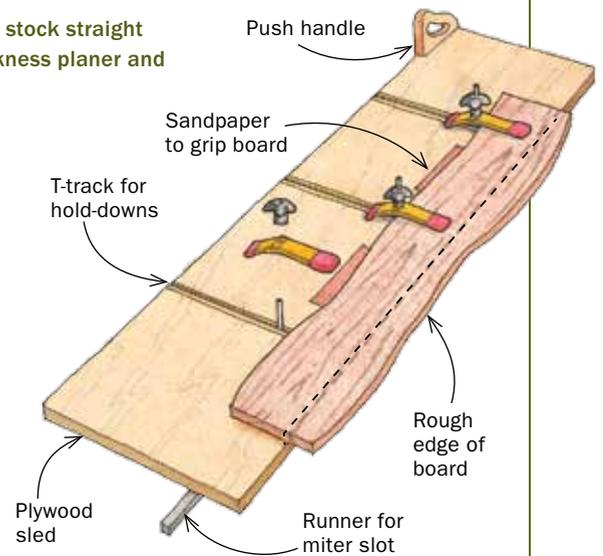
Jointing without a jointer



A pair of jigs lets you mill stock straight and flat using only a thickness planer and a tablesaw.

EDGE-JOINTING

Use the tablesaw to straighten a wavy edge. The jig's plywood sled rides on a long runner that sits in the miter slot. Make sure the blade is parallel to the slot. Secure the rough lumber with hold-downs so that the rough edge overhangs the sled slightly along its length.



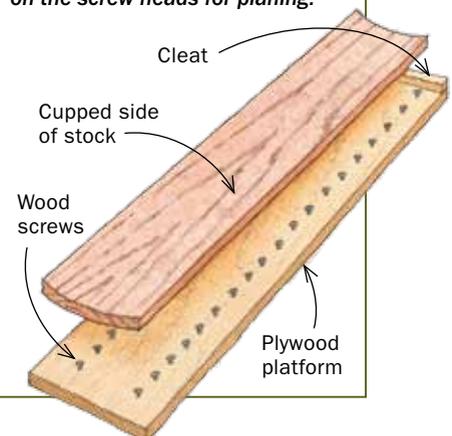
rip fence. That price would be hard to match, but it is possible to find a hybrid or used cabinet saw with a high-quality fence for \$600 to \$1,200. Some of them will run on 120v household current, meaning you won't have to rewire your shop for 240v service, but be sure to check for compatibility before you buy.

This style of saw will provide more power than a contractor-type saw and have the high-quality rip fence you need to do good work. However, because they are favored by professionals and serious amateurs, cabinet saws are harder to find on the used market. Scour the classifieds and online sales (be sure to check industrial auction sites as well), and do some networking. Check the bulletin board at your hardwood supplier and ask the proprietors if they know of anyone selling a saw. Also call local cabinet shops. They sometimes have a surplus tool sitting idle that they'd be willing to sell. Take your time in this step. A careful investment will pay dividends in the long run, but a well-intentioned compromise can cause long-term frustration.

The thickness planer—A thickness planer will significantly expand the creativity and craftsmanship of your work by allowing you to buy roughsawn stock and use wood of any thickness in your designs. Nowadays, a new planer often represents a

FACE-JOINTING

The thickness planer can joint a board's face. On this simple jig, the stock is supported by twin rows of wood screws driven into a platform and adjusted to meet the varying clearances on the underside of the board. The stock rides the sled side up. Slide the board slightly sideways to adjust the screws, then seat it firmly on the screw heads for planing.

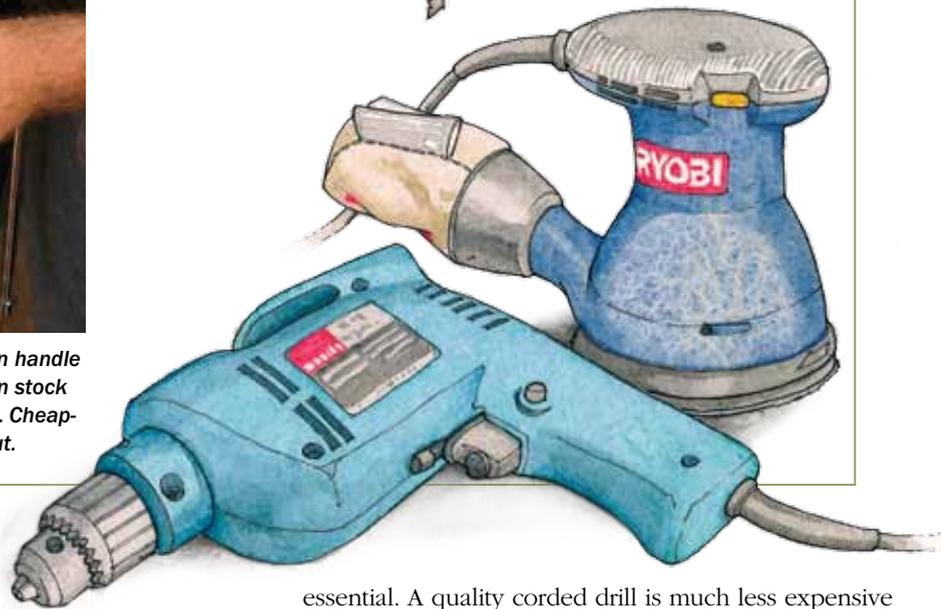
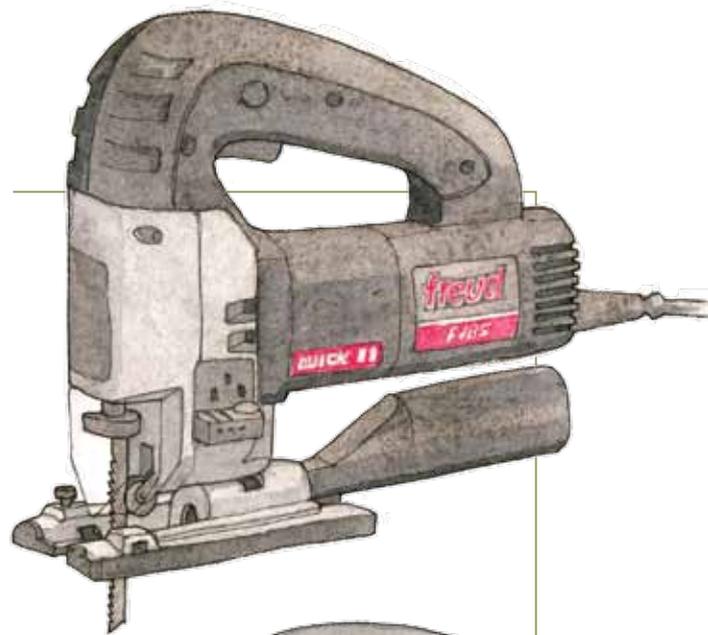


Put the right power in your hands



Cut curves without a bandsaw. A jigsaw can often handle the task, even on thick stock like this 8/4 maple. On stock this thick, premium blades are worth the extra cost. Cheaper versions can deflect, creating an out-of-square cut.

There's a universe of handheld power tools, but a handful pay the largest dividends. Start with a jigsaw, a corded drill, and a random-orbit sander. Reconditioned tools are often a bargain.



better value than a used model. In recent years, DeWalt and Ridgid have introduced portable planers with chip-ejection fans, which work as a built-in dust collector. Dust collection is important for all tools, but essential for thickness planers. This feature can help delay the expense of a dust collector and thus reduce the overall cost of a planer. Speaking of dust collection, I should mention that I don't use a dedicated dust collector in my shop. I use a shop vac with a small hose for my sanders and a larger-diameter hose for the tablesaw and router table, and I depend on the built-in chip-ejection fan for my thickness planer.

The router—The router is the master when it comes to flexibility. Its potential far exceeds trimming and decorative edge treatments. A router will cut mortises, rabbets, and dadoes, and adding a router table builds in even more versatility, including biscuit joinery and raised-panel doors. But where the router distinguishes itself from all other tools is in its ability to produce identical parts using a pattern.

Other important power tools—A good jigsaw will help get you through many tasks, particularly cutting curves, that would otherwise require a bandsaw. Look for one with blade guides that keep blade deflection to a minimum. A handheld drill is also

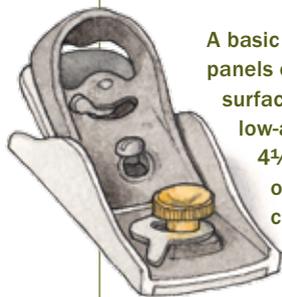
essential. A quality corded drill is much less expensive than a cordless one, and will never leave you without a charge. Also look for a quality random-orbit sander with a provision for dust collection.

One of the best deals on portable power tools, including routers and sometimes planers, comes in the form of factory-reconditioned tools. These are primarily tools that have been repaired at the factory after failing quality inspections or being returned by customers. While they cannot be sold as new, they are identical to new tools in quality and appearance and usually feature the same warranty (be sure to check). Typical savings are anywhere from 15% to 30%, though you sometimes can find even bigger bargains. These tools can be found at Amazon.com and other online tool sellers. It is also possible to buy them through retail stores and, in some cases, directly from the manufacturer's Web site.

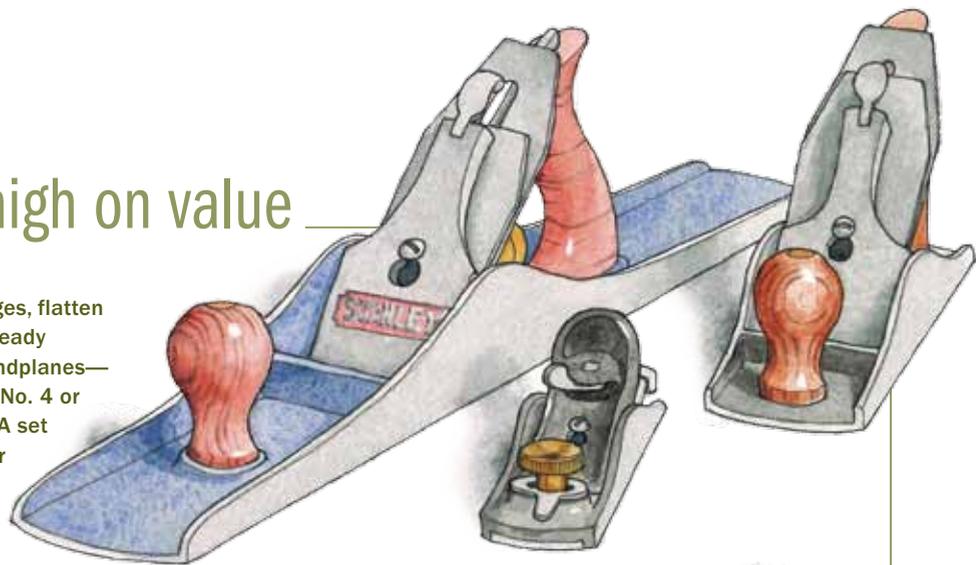
Used hand tools are plentiful

Hand tools offer your best chance of finding a real bargain. Until the early 20th century, nearly all woodworking was done with hand tools, and their designs and uses have changed little. Most of the high-end planes on today's market, for example, are just

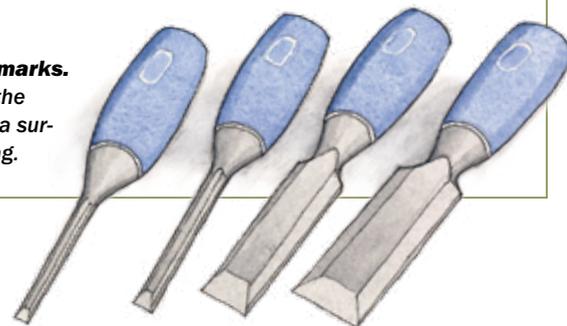
Low-tech tools are high on value



A basic set of handplanes lets you true edges, flatten panels or wide boards, and achieve finish-ready surfaces. Start with a small cluster of handplanes—low-angle and standard block planes, a No. 4 or 4½ bench plane, and a jointer plane. A set of inexpensive chisels is essential for chopping, paring, and trimming.



Clean up the sawmarks.
A few passes with the jointer plane leave a surface ready for gluing.



reproductions of the original designs. And because the originals were mass-produced, they are fairly easy to find at rummage sales and antiques stores. (For more information, refer to Matthew Teague's article, "Buying Old Tools," in *FWW* #180).

Plan to invest in a set of bench chisels, both standard and low-angle block planes, a No. 4 or 4½ smoothing plane, and a No. 6 jack or No. 7 jointer. Between them, these planes will true edges, flatten glue-ups that are wider than your thickness planer, and tame tricky grain that would tear out with a mechanized planer. They also do fine trimming better than any other tools. □

A FEW WORDS ABOUT AUCTIONS

For any auction, live or online, make sure you know the current retail price of tools like the one you are bidding on. Then set your price and stick to it.

Before you bid in an online auction, check the site's rules of operation. At some sites, a winning bid is a binding contract, which can be a problem if you can't inspect the tool before you purchase it. Don't forget shipping costs. In some cases they can exceed the cost of the tool. Also, make sure the tool you're buying will run on the power you have in your shop. Many former industrial tools run on 240v single-phase power. If your shop doesn't have 240v service, you'll need to factor in the cost of upgrading before deciding to buy. You don't want to saddle yourself with a tool you can't use, no matter how good the price.