

My Five Essential Power Tools

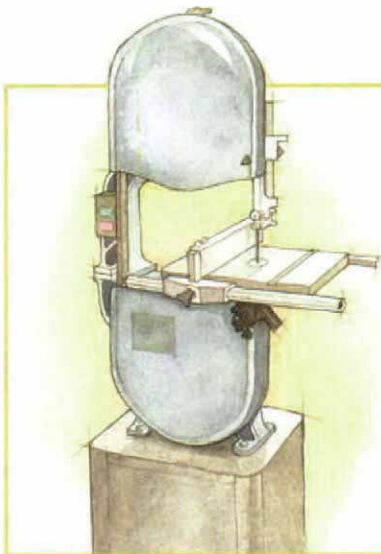
Why the tablesaw
would not be
at the top of my list

BY GARY ROGOWSKI

One of the few things woodworkers agree upon is that we all love tools. It is this love that got many of us hooked on woodworking in the first place. We also need *good* tools so that we can do *good* work. From this benign and congenial starting point, all hell breaks loose. It seems as if everyone has the correct opinion about which tools to have in the shop, their type, their capacity and, above all, in what or-

der to buy them.

Leaving aside the important and absolutely essential world of hand tools, let me venture into these dragon-filled waters with my own opinions about power tools and how best to outfit a shop step by step. I can't speak to every situation or shop environment, but I can offer my perspective on how I'd buy machines if I had to start all over again. This article will help you figure out the tasks that are most important



1. Bandsaw

A bandsaw can be fitted with a good fence for accurate ripping and resawing, and merely by changing blades, you can change jobs from sawing up small logs to cutting delicate inlay.



No jig is necessary. When using a bandsaw, the fence acts as a tenoning jig. Doing this on a tablesaw requires a special jig.

and which machines will help you accomplish these jobs.

Never go shopping without a list

Tools are not bought the same way as groceries. You don't load up your shopping cart with some tools you need, a few items on sale and a couple of impulse buys on your way out. You don't put one tool back because it's too expensive and get the cheaper version so you can afford another cheap tool in the next aisle. You don't let tools just fall into your basket as you head to the checkout counter. Or do you?

Many woodworkers don't consider how the tools might fit into the grand scheme of their woodshop and the kind of woodworking they'd like to do. Your projects will go a long way toward determining your choice of equipment and vice versa. When I started out, I had only a radial-arm saw. Consequently, all of my work consisted of very precise dadoses. I wanted to build secretaries and armoires, but all I could push out of my shop were bookshelves and plant stands. Experience will play a major role in your accumulation of machines and the projects you take on, but keep in mind where you'd like your woodwork to be going so that you can plan your tool purchases.

Also, if your intent is to build furniture and not just to collect machinery, buy your tools as if they're the last ones you'll ever buy. Looking around my shop, it is the economies that I now regret, not the extravagances. Buy your tools one at a time and take a while to learn each of their habits. Try to develop the patience that will also serve you well as a furniture maker and slowly develop your skills with each

machine. You may not be able to build that armoire right off the bat, but you will develop solid woodworking skills.

Your first machine should be a bandsaw

In most cabinet shops, where the work is mostly straight-lined and rectilinear, the maypole around which every other tool dances is the tablesaw. It's also the first big machine purchase for most woodworkers. If you want to build cabinets, your first purchase should be a tablesaw.

But the choice of a first machine must, in my mind, offer greater flexibility than this. There isn't one woodworker out of 10 or one machine manufacturer out of 100 that

will agree with me on this, but I think your first machine should be a bandsaw. It is the most important power tool in my shop. I can do more work of a greater variety with the bandsaw than with any other two machines combined.

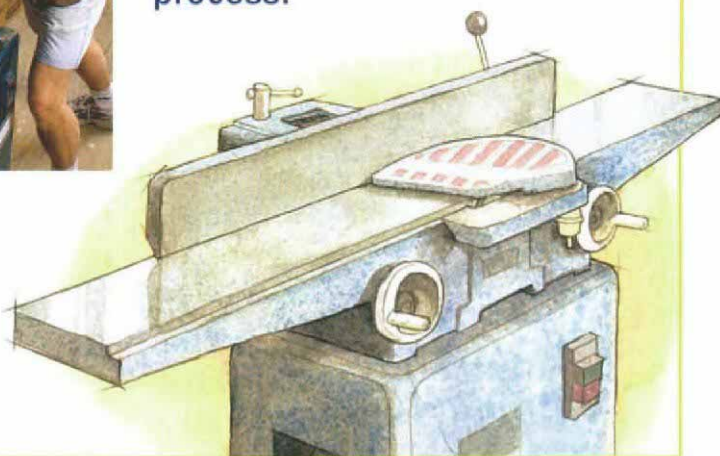
A bandsaw can start the rough milling: slabbing out boards from logs, roughing out bowl blanks, trimming out shapes for carved work, ripping boards to thickness and width, and resawing. The saw will then cover your joinery needs: cutting tenons, finger joints, slot mortise and tenons, slot



Jointing a board. Rogowski first establishes a clean face along one edge of the board. After ripping the board to width on the bandsaw, he face-joints the board.

2. Jointer

The jointer can flatten a face or edge to begin the milling process.



dovetails, half-lap joints and through-dovetails. Finally, the bandsaw can also be used for shaping, tapering, cutting circles, curves and templates, edge work and trimming joints.

All of this work is done with greater safety and ease, less waste and a lot less dust than with a tablesaw. There is no danger of kickback from a blade because all of the force is down into the table, not coming at you. Even if a board closes up as it's being ripped, the blade is too narrow for the board to pinch it. This narrow kerf also means that a lot less wood gets lost to a cut than on a tablesaw. A bandsaw can be fitted with a good fence for accurate ripping and resawing, and merely by changing blades, you can change jobs from sawing up small logs to cutting delicate inlay.

Now this presumes that you're using a bandsaw with some real weight and well-balanced wheels, with a cast-iron table that

is well supported and has a good fence. If not, you'll be frustrated by the cheap piece of sheet metal that is masquerading as a bandsaw. This also presumes that you're building most of your pieces in solid wood. If you're going to be using strictly plywood, buy a tablesaw and a router.

The next four tools cover milling and joinery

The second machine is actually tougher to choose than the first. Do you want to be able to crosscut perfectly to length, or do you need a quicker way to mill lumber? The answer partly depends on whether you can sharpen and use a handplane or whether it is just a nice idea up there in the tool cabinet.

A handplane is no substitute for the jointer—If you can't use a handplane flu-

ently, the ability to put a straight edge or face on a board is your next big challenge. Getting wood flat is so crucial when building furniture that your next tool purchase should be a jointer. Even if you are an accomplished handplane user—and I use mine daily—I still wouldn't make someone flatten all of his or her lumber by hand.

The jointer can flatten a face or edge to begin the milling process. From there you can resaw or rip to thickness or width on the bandsaw. The tool does only this one job. It will not plane faces or edges perfectly parallel. But it is such a time- and sweat-saver that I think it is worth a spot on your shop floor sooner rather than later.

The router is the most versatile portable power tool in the shop

—Your next tool purchase should be a router: You can use one to cut pieces exactly to length, running it topside against a straightedge. Put a fence on one, and you can cut rabbets, tongues and dados for cabinetry. Use that same fence to cut mortises and tenons. With a flush-trimming bit you can shape pieces to match templates or use router jigs to cut dovetail and finger joints.

With jigs or fences, a router can cut tapers, circles, ovals, squares, rectangles and recesses for inlay. All of this is done with the router above the workpiece.

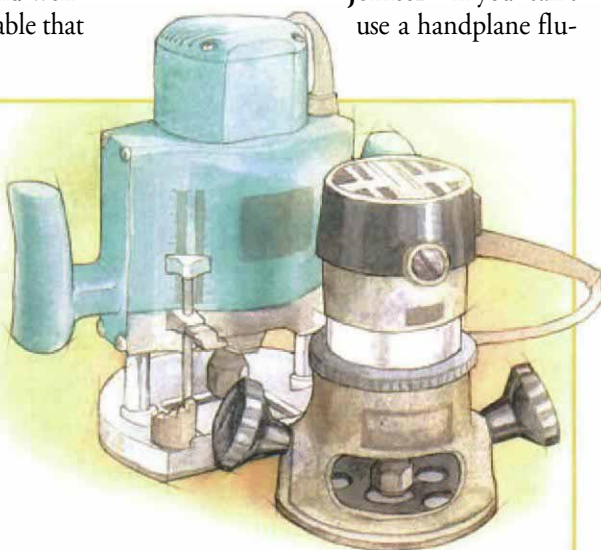
Buy an extra base for a fixed-base router and mount it under a flat table, and you have a router table. On this you can cut even more joints, stopped or through, on almost any size piece of wood. You can pass small pieces held in jigs safely past the bit. With a good fence and an efficient dust port, your accuracy and dust problems are solved. A simple setup will turn the router table into an edge jointer. You can template-route safely and accurately and put decorative edges on boards just by changing bits. There are few jobs a router cannot handle with the simple addition of a jig or a fixture to guide it properly.

A good compound-miter saw comes next

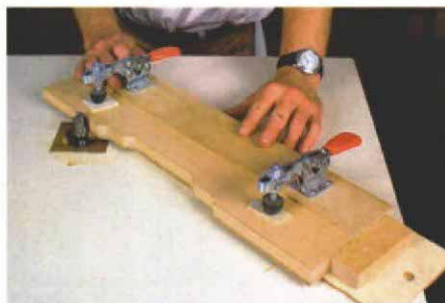
—The ability to crosscut exactly to length is a time-saver. So the next tool you need to buy is a good compound-miter saw. Notice that I said good. Don't waste your money on a lightweight, throw-in-the-back-of-your-pickup chopsaw. Get one that can cut accurately and repeatedly to length. Put it close to your bench, and you can nip off the ends of a thousand dif-

3. Router

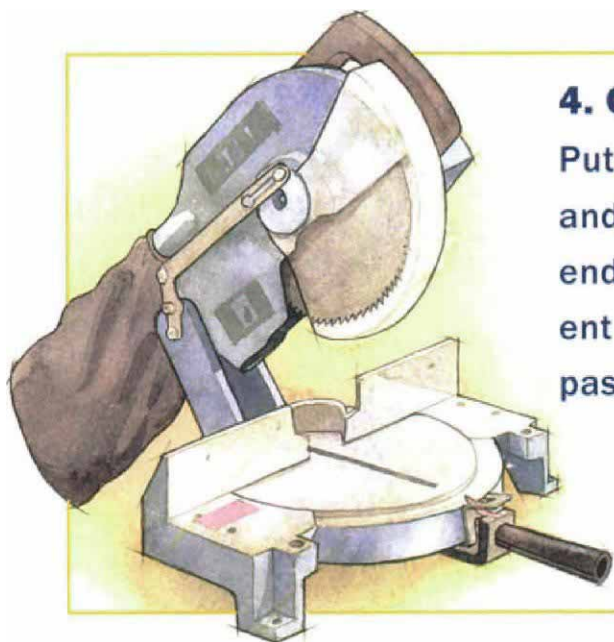
With jigs or fences, a router can cut tapers, circles, ovals, squares, rectangles and recesses for inlay.



No need for a dado blade. A router guided by a straightedge clamped to the workpiece (left) cuts a neater dado than a dado blade and with less danger.



Using a template. A straight bit with a bearing guide can transfer the pattern to a workpiece (above). Mounting the router under a table provides greater stability.



4. Compound-Miter Saw

Put it close to your bench, and you can nip off the ends of a thousand different boards for projects that pass across the bench.

Miters are easy. With a stop block clamped to the fence, a miter can be cut at the correct angle and location.



ferent boards for projects that pass across the bench. I didn't have one for the first 25 years in the shop, an absence I regret each time I now use mine.

The drill press in the corner is often underused—Because joinery is so important in furniture making, the next tool is another joinery tool: the drill press. It is such a basic machine that it is often overlooked, but the ability to drill accurate holes is essential for making jigs or joints. You can cut mortises on the drill press, drill a series of holes parallel to an edge for shelving support pins, drill for dowel joints, countersink for plugs or drill for screws. You can also make templates or any of a hundred other little jobs that are just too hard to do accurately with a handheld power drill.

The remaining tools can wait

I would have to include the tablesaw in this list eventually. I like mine, and if all I did was build cabinets, it would absolutely be my first purchase. Once you have one, you'll realize how great a tool it is for cutting boards exactly to width and length. It can also cut many joints, from miters to dovetails to tenons. You can shape with it and use it to cut tapers and coves. I use it more than some of my other tools, but I don't think that it's a must-have machine for furniture making. Don't rush out just to have one: You can live surprisingly well without one. When the time comes, have your money saved up and buy a good tablesaw that will last.

Finally, get a planer to finish the chore of

milling your lumber flat and with parallel faces. After first using your jointer to flatten a face, you can then run the wood through the planer to finish your milling quickly.

As for the other tools you could acquire, every shop has different needs. Some people need their thickness sander; others would be lost without a biscuit joiner; I personally love my spindle sander. But I

think you could do a lot of work with the first five tools I've outlined here, and with time you could fill in the rest. Consider the work you'd like to do most, then buy well and wisely. If you buy top shelf, you won't be disappointed. □

Gary Rogowski teaches furniture making at The Northwest Woodworking Studio in Portland, Ore.

5. Drill Press

It is such a basic machine that it is often overlooked, but the ability to drill accurate holes is essential for making jigs or joints.



Precise mortising. With the table and fence square to the drill bit and the depth of cut set, mortises can be drilled accurately.

