

# Lending a Hand to Power Tools



*The four most useful handplanes for the modern power-tool woodshop.*

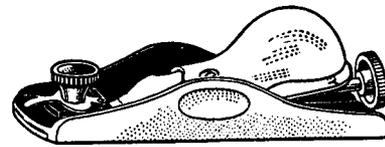
It's easy to get labeled by your fellow woodworkers as a power-tool junkie (a Normite) or a hand-tool Luddite (a Neanderthal). The truth is that most woodworkers fall somewhere between those two extremes. And with good reason.

Using a combination of hand and power tools can be an effective one-two punch of quickness and accuracy. Power tools excel at converting rough stock to usable lumber, which is exhausting and tedious if done by hand. And hand tools provide the fine detailing and perfectly fit joints that can be a challenge to achieve with power tools.

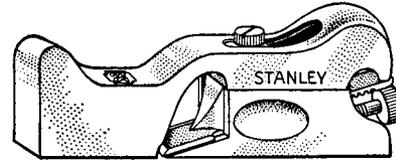
So where do you start? Most of us begin woodworking with power tools, which allow us to accomplish great feats of furniture-building when our woodworking skills are in their infancy. As our skills develop it's natural to become interested in hand tools. But many early attempts with planes and chisels are usually stymied by one missing skill: sharpening.

A keen edge is the secret to success with hand tools. Sharpening takes a little study and practice, but everyone can learn it. Our best advice? Take a sharpening class. If that's not an option, get one of these books: Leonard Lee's "The Complete Guide to Sharpening" or Thomas Lie-Nielsen's "Complete Illustrated Guide to Sharpening" (both from The Taunton Press).

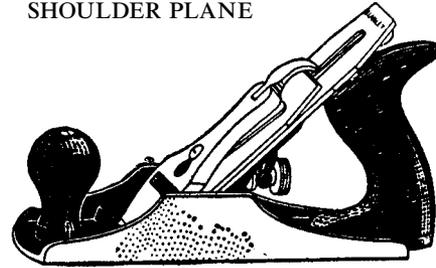
Once you commit to sharpening, you will want to purchase some planes. But which ones? Stanley alone made hundreds of styles. And while many of these tools look useful, you don't need many to get



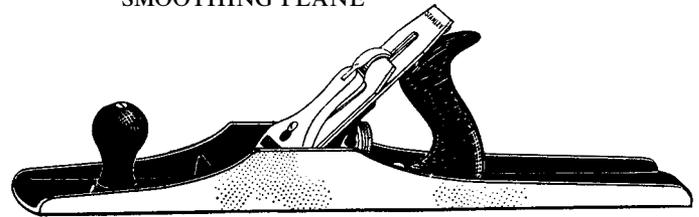
LOW-ANGLE BLOCK PLANE



SHOULDER PLANE



SMOOTHING PLANE



JOINTER PLANE

started. In fact, after much historical research and work at the bench, I've found that most woodworkers need only four handplanes to complement their power tools.

## LOW-ANGLE BLOCK PLANE

The first plane you should buy is a low-angle block plane with an adjustable mouth. They are the simplest plane to sharpen and set up. They will open your eyes to what other planes can do. And they begin tuning your fine motor skills (such as where to apply pressure and sensing when you are cutting square) to handle other planes.

So what is it good for? You should first assign it to one of the most dreary jobs: dressing the edges of your work. Without a doubt, one of the worst tasks in woodworking is hand-sanding the edges of your boards to remove machine marks. With one or two light swipes, a block plane slices away the saw and jointer marks and leaves a bright and shimmering surface behind that's ready for finishing. It is a fast and effective way to prepare your edges; and this act is the first reward for those who learn to sharpen.



A BLOCK PLANE CAN SKIM *the machining marks* from the edges of your boards, leaving a ready-to-finish surface behind.



THE SMOOTHING PLANE IS THE *thoroughbred of the shop* and is kept highly tuned. Make sure the shavings come out of the center of the mouth.

Other tasks for the block plane: Whenever you have two parts of a joint that aren't flush, a lightly set block plane can trim the proud part of the joint flush with a few well-placed swipes. This is not a task to assign to a belt sander (too aggressive) or a sanding block (too tedious). Block planes also trim small doors and drawers to fit their openings (larger doors require longer tools). The low angle of the tool allows you to trim end grain. In general, I avoid planing end grain. But it's occasionally unavoidable, and the low-angle block plane is ideal for this job, especially after you wet the surface with denatured alcohol. I also use the block plane to round over sharp edges of workpieces and even plane chamfers. These take a little practice to master, but your skills will advance quickly with a block plane because it will never be far from your hand.

Sharpening tip: Sharpen it so the edge is square to the sides. It can be straight or slightly cambered.

### SMOOTHING PLANE

The next plane to buy is a smoothing plane. This is the name for just about any plane that is about 9" long. Using Stanley's numbering system, these are typically a No. 3 or a No. 4 plane. These tools are designed to be the last tool that touches the surface of the wood before finishing. They are supposed to take a very fine cut and remove the top layer of wood cells that has been marred and compressed by our machines (or other handplanes) during construction.

In a traditional woodshop, the smoothing plane shares equal importance with the longer planes that make stock flat and true. But in the modern workshop, machines do most of the flattening and straightening tasks. In practice, I have found the smoothing plane to be an effective replacement for a random-orbit sander. I go from machine-flattened wood to the smoothing plane, then (if necessary) a card scraper and some quick hand sanding with #220-grit paper.

Why use these planes instead of sandpaper? Once you get some practice, a smoothing plane can be as fast as sanding. And it's definitely more enjoyable than power sanding. It takes some skill to sharpen and use a smoothing plane properly, but the rewards are substantial.

For many woodworkers, smoothing planes become as indispensable as block planes. In fact, as you become skilled with them you'll start to use them for almost any trimming task: truing edges, trimming joints flush and the like. I like to use the smoothing plane to fit a workpiece into a dado or rabbet with amazing accuracy. Here's an example: Say you have a  $\frac{3}{4}$ "-wide dado for a shelf but the shelf is just a shade too thick. Running it through the planer is risky and sanding it is tiresome. Get your dial caliper and measure the width of the dado and the thickness of the shelf. Let's say the shelf is .006" too thick. Set the smoothing plane for a fine cut (it's easy to dial the tool in to take a .001"-thick shaving). Make three passes with the plane across each face of the shelf. Chances are, the shelf will fit perfectly now. And you have the added benefit of the shelf being ready to finish.

Sharpening tip: The cutting edge of a smoothing plane needs to be slightly cambered across its edge, usually by just a few thousandths of an inch. Achieving this camber isn't tough; we show you how to do it in the section on sharpening. The camber prevents the corners of your cutting edge from digging into the work and cutting little tracks that you can see and feel.

Setup tip: The iron needs to be perfectly centered in the mouth of the plane. I set this close with the plane's lateral adjustment lever and then fine-tune its position with small hammer taps.

### SHOULDER PLANE

The shoulder plane is the ultimate fitting tool. Because the tool's iron extends to the far left and right edge of the tool's sole, you can completely



THE SHOULDER PLANE IS A *joint-trimming maestro*. This tool will fit tenons, rabbets, raised panels and shiplaps with ease.

trim one surface while pressing the tool against another adjacent surface. Most people use these tools to trim the cheeks and shoulders of tenons. I also use this tool to increase the depth and width of rabbets. And I use it to fit shiplap, tongue-and-groove and half-lap joints.

Some power-tool people deride the tool as a fix for poor machinery setups. I disagree. No matter how well you set up your router table or table saw, there will be variation in your joints. And a few thousandths of an inch can ruin a good fit. These inaccuracies can be due to the fact that the wood is slightly bowed. Or that you have released internal tension in the board as you have machined it. Or that you didn't hold the workpiece with the exact same downward pressure that you did with your test piece. No matter what the cause of these inaccuracies, the shoulder plane will make things fit.

Sharpening tip: The cutting edge must be sharpened square to the sides of the iron.

### JOINTER PLANE

This long-bodied plane is one of my favorites. It's like having a steel straightedge that can fix any problems it finds with bowed stock. And when the jointer plane is working right, your other planes work faster and better. Here's why:

Sometimes the wood that comes from a powered jointer and planer can still have some problems, such as snipe on the ends. While boards with a little snipe might be acceptable in some cases, sometimes you need really flat stock. A few swipes with a jointer plane can fix the problem.

Perfectly flat stock is always a boon for accurate joinery, no matter if you are headed to the dovetail jig, the router table or the table saw. The jointer plane also has the added benefit of bringing all your surfaces to the point where they can be touched up quickly with a smoothing plane. With the snipe eliminated, the smoothing plane has a lot less work to do.



THE JOINTER PLANE EXCELS AT *truing stock*, both the long edges and faces of boards. The pencil marks on the wood in the photo are low spots found by the plane after two passes over the board – which was fresh from the planer.

As you become adept at using your jointer plane, you'll also find it more accurate than your powered jointer at truing edges for panel glue-ups. I know that sounds like a stretch, but it's true.

Sharpening tip: Like a smoothing plane, the cutting edge of a jointer plane needs to be slightly cambered across its edge by just a few thousandths of an inch.

### HOW TO BUY THESE TOOLS

I'm frequently asked which brand of plane is best. Even lousy hand tools are expensive. Here is my philosophy: If you enjoy fixing antique tools, breathing life back into a piece of history, vintage tools are for you. Rest assured that this route (though it seems cheaper) requires hours of research, hunting down the tools and fixing them up before you'll ever put them to wood.

As far as new planes go, I don't recommend the current Stanley, Anant, Kunz or low-end handplanes from the Far East. These tools can be tuned for rough work, but not for fine woodworking.

This brings me to my point: To buy a good tool that will go to work immediately, you need to spend a little money. But rest assured that this is an investment for several lifetimes.

While almost everything with a power cord on it ends up in the landfill, good hand tools last several lifetimes. Lie-Nielsen Toolworks, Veritas and Clifton (to name a few of my favorites) make tools that will exceed your expectations.

And when your tools work at a higher level than you do, you'll strive to keep up. And that's when you can dispose of the labels of Normite or Neanderthal for a new one: Craftsman.