Lake Charles Woodworkers Club, Inc. June 2001

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MAY MEETING HIGHLIGHTS

Steve LeGrue, of Houston's The Cutting Edge was our presenter this month, showing the art of hand planes and their use at John Marcon's studio. Steve announced that by the first of 2002, they will be in a new much larger facility.

Since ancient times, the plane has flattened and sculptured wood and Steve brought a number of fine examples from #7 jointing planes to tiny scrapers to complex combination planes with 18 irons. Members brought examples of old planes they had in their collection. George Kuffel showed off several molding planes with wooden bodies and a neat little "boat" plane while Ray Krull brought a couple of old wooden bodied jointing planes. Barry Humphus showed an original Stanley Works # 110 block plane as well as a modern version—the # 9-1/2. Eltee Thibodeaux, Rod Nunley and Chuck Middleton brought some of their fine scroll work and John Lenonard Fontenot showed off a lamp he turned from sinker cypress.

The typical wood plane is comprised of just a few parts. All wooden planes have a stock, or body, most often made of beech, which carries an iron that's held in place with a wedge that's normally made of the same species as the stock. Some planes, like the longer bench planes, also have a tote, or handle, behind the iron and sometimes a turned knob or strike ahead of the iron. A plane is nothing more than a wide chisel where the angle of cut is always the same. This consistency means that very fine cuts can be achieved and with proper use, can make boards dead flat.

You can find out some of the history of planes at a web site: http://www.supertool.com/etcetera/wplanes/woodintro.htm. For instance, Francis Nicholson is the first American credited with a plane factory (in the year 1728 at Wrentham, Ma.). The web site also defines in detail all of the terminology of planes and their parts. There are about 30 or so books you can buy on the indentification and pricing of antique wood planes.

Wooden bodies planes sometimes have a different wood on the sole, such as *lignum vitea* — a very hard wood that is self lubricating because of its high resin content. The mechanism that holds the iron is called a frog. The frog can be part of the body or be a separate, removable peice. Large planes used for jointing typically have a chip breaker attached to the iron. Modern planes with separate frogs usually have a mechanism to adjust the skew of the iron.

Tuning your plane is critical to acheiving the best results. The first thing to do is check the sole for flatness. Very few planes come from the factory with perfectly flat soles. Check yours with a straight edge. To flatten the sole, simply run an "S" mark down the sole with a marker. Then, using 220 to 400 grit wet/dry sandpaper mounted on float glass (common window glass), and run the plane along this surface until the marks are gone. (We've reproduced a short article from the July 2000 Newsletter on the next page on sole flattening.) You can also use a finer grit sand paper to polish out the surface of the sole. Any really flat surface will do — even a peice of scrap MDF. Note that you should flatten the sole with the frog and iron in place (with the iron backed off so you don't damage the cutting edge) as the steel flexes slightly when these are mounted. It is also important that the frog be perfectly flat so that when the iron is mounted, it does not bow.

Planes come in a large variety of types and styles. Steve showed us a Fore plane, also know as a # 7 which is used for the initial rough flattening. A #6 can also be used for this as can a Jack plane (# 5). The smaller the number, the shorter the plane. These planes have the same angle of cut and come with a chip breaker. The irons are mounted bevel up and the chip breaker should be mounted from 1/16 to 1/32 inch from the cutting edge of the iron.

The next general types are bench and smoothing planes — used to give the surface of the wood a glass-like finish. In fact, with a properly tuned and used plane, there will be little need for sandpaper. The smoothing plane examples Steve showed had wooden bodies, including one he built for himself.

There are hundreds of specialty planes, including molding, rabbet, combination and the odd Japanese planes that cut on the pull rather than push plus various scrapers and shaves.

Using a plane can be a good and relaxing workout, especially when smoothing a large tough peice of wood. The satisfaction of seeing the curls of wood fly, the smell of the chips and the perfect results that can be acheived are well worth the effort.

This month's issue is all about planes. Enjoy!

COMING UP.....

June 9, Saturday, 9:00 a.m. — Classic Doors in Iowa with Robert Inman

FLATTENING YOUR PLANE

Your block plane, or any hand plane, has the potential to be a precision tool. But it usually doesn't come out of the box that way. The primary problem is that the sole of the plane is not truly flat. And it needs to be for you to make precise, controlled cuts. Fortunately, it easy to flatten to sole of a plane. Just follow the steps below.

STEP ONE Using a permanent marker, draw a squiggly line across the sole of the plane.

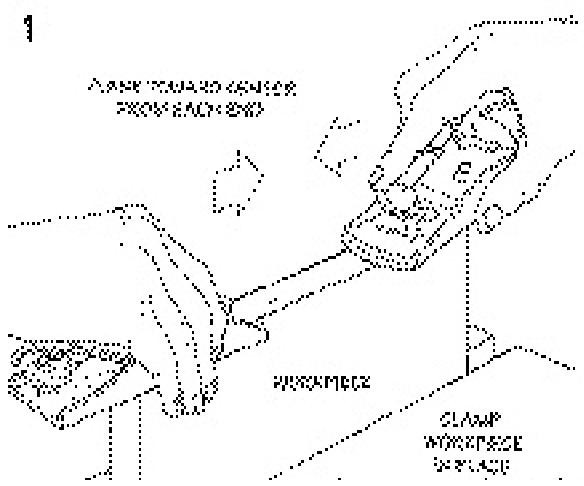
STEP TWO Then sand the sole on a sheet of 220- grit silicon carbide sandpaper that's taped to a piece of glass.

STEP THREE Any dark lines that remain indicate low areas. So continue sanding until the marks disappear.

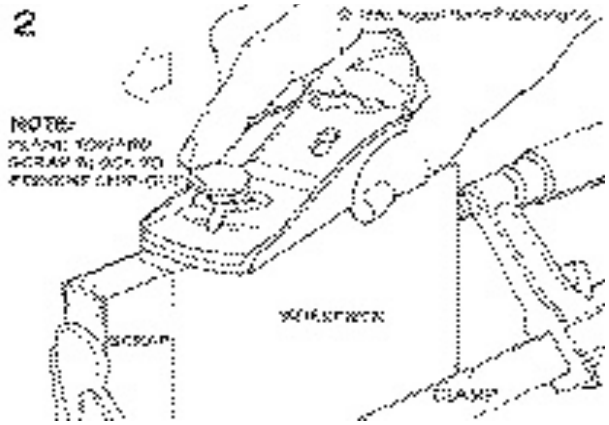
This trick works for new planes as well as the older ones in your shop. You can reverse this technique to flatten any tool that requires a very flat work surface such as a joiner, table saw or other stationary tool by mounting the sandpaper on a peice of glass with spray-on adhensive, then turning the whole thing upside down to sand. From *ShopNotes.*

PLANING END GRAIN

Planing end grain presents a special problem. When a plane blade passes over the end of a workpiece, it can dig in and cause the end to break or chip off. There are, however, a couple of ways to prevent this.



PLANE TOWARD CENTER. One simple method is to plane from either end toward the center, see Fig. 1. This avoids the problem by not allowing the blade to catch on the unsupported ends of the workpiece. The only problem with doing this is it can be difficult to plane a straight edge that's both smooth and flat.

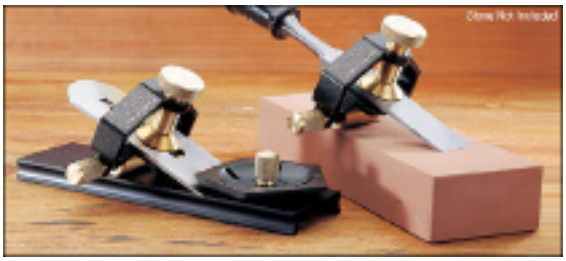


ADD SUPPORT. Here's a better solution. Clamp a scrap piece of wood to the end of the workpiece, see Fig. 2. This way, as you plane toward the scrap piece, the scrap piece supports the end fibers of the workpiece so they don't break or chip off. From *ShopNotes.*

VERITAS HONING GUIDE

This unique honing guide and angle jig set offers a fast and easy way to produce a very sharp edge on blades.

First, use the guide in its normal position to grind the basic bevel angle for the tool. Then, on a fine stone, hone a micro bevel at a slightly different angle, set by a turn of the guide-setting knob. Since the secondary bevel is small, you remove less steel and arrive at a sharp edge quickly and with little effort. This is all done without unclamping or resetting the tool in the guide.



The guide will hold blades up to 2 3/8" wide and 5/8" thick, will accept spokeshave blades and, in combination with the Veritas Angle Jig, can handle the difficult job of sharpening skew blades and irons.

The Veritas angle jig has the five most common bevel angles (15°, 20°, 25°, 30°, and 35°) built into a pentagon wheel. You loosen the knurled brass bolt, turn the wheel to the selected angle facet, and use it to set your blade angle. With a blade loosely held in the honing guide, roll the guide up to the wheel and clamp the blade. You are ready to hone.

The wide roller on the guide and the positive positioning action of the jig automatically squares the blade in the guide as you set the angle. The bed of the guide has a series of parallel lines to let you visually align narrow chisels or square up blades that have accidentally become skewed. Because the roller on the guide is mounted on a spring-loaded adjustable cam shaft, you can set the roller at any one of three different heights where it automatically locks in position. Most importantly, you can return to exactly the same angle each time you want to hone a blade. This improves the accuracy of the process and substantially reduces sharpening time. The honing guide is about $30.00 from retailers (such as *The Cutting Edge*) or directly from Lee Valley. From *Lee Valley Tools.*

BLOCK PLANES - Mario Rodriguez

I have dozens of specialty planes at my bench, but more often than not, I reach for a block plane. It's small enough for one-handed fitting and finishing tasks like trimming veneer or chamfering an edge. A block plane is compact enough to fit into a drawer opening to trim runners and light and handy enough for repetitive jobs like shaping pegs and small spindles. I choose the block plane whenever I need a delicate and responsive tool that will deliver a clean, tearout-free cut every time.

Stanley No. 9 1/2

Until about 12 years ago, a woodworker buying a new block plane didn't have many choices. Today, there is an expanding selection: the standard No. 9-1/2 plane, high-tech planes with disposable blades, and fancy retro designs made of bronze and ebony. Prices range from $35 to $235. With such an array of choices, it's natural to wonder how they compare.

To find out, I gathered a selection of block planes and kept them around the shop for a few months. I used them daily and encouraged my students to do likewise. Besides using them for the usual day-to-day tasks, we put them to work trimming veneered panels, planing down solid edging on plywood shelves, shooting seams on book-matched veneer, tapering slender spindles, chamfering edges and planing the outside curve of a bricklaid pine arch.

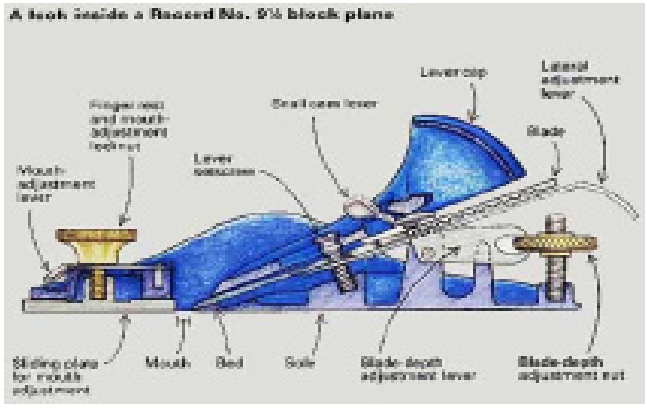
A block plane is small enough to hold in one hand. The blade is set into the body of the plane with the bevel side up; it has no chipbreaker. The blade is bedded at 20° or less, and the blade and lever cap are incorporated into a comfortable grip. With the bevel up, the cutting angle is 45° (the bedding angle plus the 25° bevel), which is the same as a standard bench plane.

Block planes handle difficult grain. This bricklaid arch presents end grain and long grain and everything in between. For more control, use a two-handed grip, and skew the blade as it cuts.

A standard block plane has no cutting-angle advantage over a bench plane in difficult grain situations like end grain or burl. I know plenty of experienced woodworkers who prefer to use a No. 4 or a No. 5 smoothing plane when working end grain. They say that a two-handed grip is essential to control and that the greater weight and momentum of the big plane is important to a clean cut.

When you think of a block plane, the No. 9 1/2 is probably what comes to mind. It's the model you fumbled with in high school shop class. Originally manufactured by Stanley (as a # 110), this pattern is now made by several companies and can be purchased from almost any tool dealer. Once you follow the simple tuning steps (*see page 2*), these block planes can take on just about any job.

Stanley No. 9 1/2—This version is made by Stanley in England. It's a solid plane with heavy castings and a good finish. The retail price is about $45. The blade-depth adjustment is direct action by means of a knurled knob. A cast-metal wedge supports the blade, giving the plane some weight. A locknut and lever allow adjustments to the mouth. I had a little trouble making quick blade adjustments and keeping the blade's



edge perfectly parallel to the sole.

The Stanley method of lateral blade adjustment- The blade angle is adjusted by pushing a swiveling carriage from side to side. The brass knob at the rear of the plane is the blade-depth adjuster.

The No. 9 1/2 is an almost identical copy of the Record No. 9 1/2, and the No. 220B is similar. The biggest difference is in the finish. The Footprint planes we used were rough. I got both planes to work well but not before spending a lot of time cleaning, filing and tuning them.

The mouth of the No. 220B is fixed, which limits its versatility, but it does reduce the price. The sole of the 220B is about 3/4 in. longer than the others. It has a wooden knob like the ones found on bench planes. The No. 9 1/2 lists for $54.50 and the No. 220B for $41.50. From *Fine Woodworking.*

Don’t forget the Toy Program!