Lake Charles Woodworkers Club, Inc. June 2004

Bubba Cheramie, President Officers and Directors Dick Hopes, Sec. / Treasurer

Barry Humphus, Editor, Brent Evans George Kuffel, John Marcon, Chuck Middleton

MAY MEETING HIGHLIGHTS

Dick Trouth was our host this month at his expanded shop. The expansion has allowed him much more room and allowed re-arranging the tool layout for better work flow. He also relocated his central dust collection unit behind an insulated wall, making the shop much quieter when the unit is running. Once again Dick didn't make us breakfast and worse, Bubba could not make it so we were donut deprived

Sharp tools and sharp minds was the topic this month as several members demonstrated various tool sharpening techniques. Our call last month was to bring something dull to sharpen. Barry Humphus brought two old 1/2 inch chisels that had seen better days. He had aquired them at a garage sale and never had the time to sharpen them. Bill Krull brought an unknown brand smoothing plane (clearly a design after the Stanley #7) that he picked up at a yard sale while Gary Rock did his main demo on a block plane iron, one of Dick's skew gouges and one of his own bowl gouges.

Barry started out demonstrating the Veritas Sharpening System (about \$35 from many dealers). There are three components to this device. There is a bevel gage that allows you to set the angle you want on your tool. Once the tool is mounted in the honing guide, you simply move the tool against the bevel guide to set the bevel angle desired.

After mounting the tool and setting the bevel angle, you should hone the back of the tool, such as a chisel or plane iron. This process is done by stroking the back of the tool blade across either a 1,200 grit wet/dry sand paper or your Japaneese water stone.

The guide has several standard settings from 20 to 40 degrees. After setting, just bring the honging guide to the sharpening surface of choice and grind away. Barry had a peice of glass on which he mounted various grits of wet/dry paper. Once through the grits, he changed to a two faced Japanese water stone with a 1200 and 6000 grit surface. The Japaneses water stones very quickly take down the metal. First on the "rough" side and then to a mirrow polish on the "smooth" side.

The key to the Veritas Sharpening System is the micro-bevel adjustment that is built into the device. By turning the bevel adjustor on the side of the Veritas, you can then sharpen a bit more to get a 1 or 2 degree micro-bevel. The micro-bevel substantially improves the longevity of the edge and the cutting power of the tool. By the way, Veritas makes a vise-type honing gage (\$13 from many dealers) specifically for plane irons.

The Veritas is designed only for flat tools such as chisels or plane irons. It won't work with rounded surfaces such as a turning or carving tool.

For the later, Barry turns to a standard belt sander. With practice, a turning gouge can be hand sharpened quickly using a 120 grit of higher paper. While this is quick, it also takes off some metal and over the long term, the tools will get shorter until they need to be replaced. However, with modern high speed steel, there is little worry that you'll lose the temper of these tools.

Gary Rock brought his Tormek Sharpening machine (starting at \$400, again, from many suppliers). The Swedish system is slow running and water cooled. While there is only one stone wheel and the grit is varied by scouring it with special stones supplied with the unit. The unit also includes a hard leather wheel for bunishing with a compound. It is easy to set up and begin sharpening. Just mount the tool in one of the holders and pass the tool across the wheel. The unit also has a rotating holder for round turning or carving gouges. Barry had a pocket knife for Gary for demonstration. It turned out sharp and clean. The product with all of the possible accessories is expensive, however, costing as much as \$800 with just about everything.

Coming Up ... Fund Raiser for Lee Frazier. Friday, June 11 at 5:00 P.M., Habibi Temple, 2928 Pack Rd., Lake Charles. Bring some of your work to the silent or open auction and give Lee a hand. Great food (\$7.50 per plate with a drink), cash bar, 3 live bands. Contact Tom Spindler (475-8038 work, 478-8301 home), or Loretta Boutte (478-6825).

STRAIGHTEDGE JIG FOR LONG BOARDS

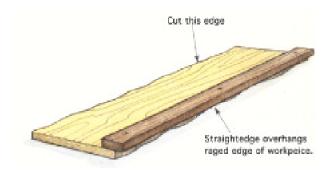
About a year ago, George Kuffel and I built a fine tressel dinning room table out of red oak. The oak we selected was from the pile behind his work shop and was cut by a portable mill from a 90 year old tree George had felled.

The tree was quite large and generated some 1,700 board feet of usable lumber. The lumber varies from 7 to 10 inches wide, 7 to 9 feet long and 3/4 to 2 inches thick. Over the past few years George and I have built many wonderful things from this old oak (mostly tables —including a pool table). In fact, if you take a look at the Member's Gallery under Furniture on our web site, all of the items there by George or Barry (or both) were made from this one tree.

But becuase the lumber did not come from a professional mill nor was it more than air dried, we expected and got lots of unfinished and rough edges. Several hundred feet of it have been pushed through George's surface planer and his jointer or across his table saw.

When it comes to making tables, what you want are long straight machined edges that can be glued up using a plate jointer and birch biskets. But to get a long straight edge from this rough stuff, you need a jig. You need a long straight one.

What we used was a long piece of plywood (though MDF would have worked about as well) that is about 4 to 5 inches wide and specifically, use the factory edge of the plywood as the guide for ripping off the rough edges of this lumber. See the drawing below.



The technique is simple: just screw the jig to the lumber on one side such that the edge of the plywood just over hangs the work piece along its length. What you want to do (in most cases) is to maximize the width you will get when you rip the wprk peice down. This protruding edge of the plywood then becomes the face that is pushed against your rip fence for a rip pass through the table saw. The opposite edge is the one that gets removed.

Once you have a true face, remove the jig, turn the work peice around 180 degrees and use the newly cut face as your guide against the rip fence to rip off the other edge.

Note that with long boards, you need an assistant or lots of supports on the feed side as well as the output side of the saw as there is always a risk of kickback due to binding between the blade and the rip fence. Always stand to the side of the work peice as it is pushed through the blade and never behind it. A board (or part of it) that binds and kicks back will be traveling at nearly 200 mph and there is no way you can move out of its path.

Squaring up an edge with this type of jig is easy, fast and the jig is cheap. In a couple of hours, George and I processed at least a dozen boards this way when building our tressel table. *Barry Humphus*

EXTENSION CORD SAFETY

Overloaded electrical conductors may heat up and melt their insulation or cause fires. When you use an extension cord, you are, in effect, extending the wiring system of your house and, in so doing, technically, you must abide by the building codes. When choosing an extension cord, it is imperative to follow the selection guidelines carefully.

If you plug a power tool directly into a receptacle socket, the equipment are in compliance with local code; however, when you add an extension cord (or more than one extension cord in series), the situation is more complex.

Electric motors are designed for a more or less a specific electric current range. More important, motors are designed for a specific voltage, which is the force behind electric current.

If you select an extension cord that is smaller than recommended, the wire will heat up. This will also cause the voltage to drop progressively along the cord. The result will mean that the voltage at the motor in your power tool may be less than design requirements. Because the circuit breaker back in your breaker box may not get the message to shut off, an electric motor will overload much sooner, slow down or even overheat as the result of using the wrong size of extension cord. Be safe and don't burn up your tools. *Barry Humphus*

Page 2 Lake Charles Woodworkers Club, Inc.

TOOL REVIEW

Delta Model 23-700 Universal Wet/ Dry Grinder The Delta Model 23-700 Universal Wet/ Dry Grinder is a useful shop tool. If you work with chisels, planes, a lathe, or use a number of carving tools, you will appreciate the features this grinder has to offer. An inexperienced sharpener can quickly learn to sharpen tools like a professional.

5" Wheel. The 5" Aluminum Oxide 120 grit dry wheel rotates at a speed of 3450 rpm. It is used to remove material fast. This wheel ideal for reshaping a chisel or gouge that has been nicked. It comes with an adjustable spark deflector and a Lexan guard that does a good job of spark control. Unfortunately, the wheel has a puny tool rest that is inadequate for accurate grinding.

8" Wheel. The 8" x 2" wet, 1000 grit Aluminum Oxide wheel, rests half submerged in a water trough. The wheel rotates at 70 rpm. One of the first things you will notice when using the 10" wheel is how easily it abrades when grinding. This is by design. The water, slow speed, and softness of the stone greatly reduce the chances that you will overheat your tools. Overheating a tool ruins its temper at the tip and reduces its cutting ability. The tool rest for the 10" wheel is larger and more adjustable than the one for the 5". It includes a miter gauge for more precise grinding. The large wheel will need to be leveled and dressed before it can be used.

Advanced Sharpening. If you plan to do more advanced sharpening such as gouges, skew chisels, and other specialty tools you might consider purchasing a commercially available jig. Another option is to make your own. As mentioned on Page 1, Veritas has several jigs that will work well with this or any other grinder. You can see the entire collection at www.leevalley.com. But, the Delta sliding angle jig that comes with the unit, facilitates sharpening of double angle cutting tools such as knives.

Motor. When the 1/5 HP, 2amp, motor gets up to speed it's unstoppable. If you tried to stall the wheel when sharpening an ax you cannot. The 23-700 produces very little vibration. You can use it on a tabletop without needing to bolt it down.

Water Trough. The water trough helps remove grinding wheel grit and metal shavings. It also helps keep the tools cool when grinding. The trough has a small drain at the bottom that is intended to remove sediment and water. Unfortunately it's small and not quite near the bottom so some water is left in the trough. It is much easier and more effective to just turn it upside down and dump the water out, unless it's bolted to your workbench.

All things considered, the Delta 23-700 grinder

is a great tool. It is easy to use, powerful, and well designed. The grinder is quiet, produces little vibration, and has a good motor. It is an alternative to the Tormek, but not as pricey (starting at \$180) or as versitle. In fact, once you add every accessory, you approach the cost of a Tormek.

All of our Veritas® planes come with A2 tool steel blades; they always have, and we were the first plane manufacturer to do so. In fact, we did a lot of testing and evaluation of numerous materials before choosing A2 tool steel. The results indicated this was an excellent blade material, providing the optimum balance between toughness (edge retention) and sharpenability. There are materials that will hold an edge longer, but diamond abrasives are needed to sharpen them, which are not found in the average woodworker's kit and are expensive.

CRYOGENICALLY TREATED BLADES

Since the introduction of A2 tool steel plane blades (including replacement blades), some suppliers have started offering cryogenically treated A2 tool steel blades. This additional treatment involves taking the material down to -320°F, which supposedly increases the toughness of the steel by modifying the grain structure.

The technique of super-cooling steel for several days to make it a better tool steel has been around for several years. However, many suppliers as yet remain unconvinced of its merit. For example, Lee Valley Tools' in-house testing found no discernable difference between their A2 tool steel blades and those that have been cryogenically treated.

If fact my search for quantitative data on this topic quickly found me deep in propaganda from the cryogenic industry. I could not find any definitive independent study that clearly shows there are any benefits to cryogenically treated blades versus A2 tool steel blades.

That said, we will continue to research this process and remain open to the possibility that it may provide benefits. From what I've seen, the information is a marketing strategy. Maybe our member Jeff Cormier (a chemist) can shed some light on this issue.

GOT AN IDEA?

We are always struggling for meeting ideas. We have often also struggled for meeting places. If you want to present something or have an idea of what you want presented at a LCWW meeting, please (even pretty please, desperately please) send us your idea. Twenty percent of the members contribute 80 percent of the ideas. Get involved, tell us what you want. *Thanks, Barry Humphus*.