

Dick Trouth, President
Joe Comeaux, Treasurer

Officers and Directors

Barry Humphus, Editor, George Kuffel
Gary Rock, Jeff Cormier, Chuck Middleton

Mentoring Program - If you have a project, a problem in any woodworking area, these members have volunteered to help. Give them a call. Jeff Cormier: 582-3278; George Kuffel: 478-2707; John Marcon: 478-0646; Chuck Middleton: 625-3134; Gary Rock: 433-1679; Eltee Thibodeaux: 436-1997; Dick Trouth: 583-2683. Each have years of experience and knowledge.

September Meeting Highlights

Joe and Sandra Comeaux were our hosts this month in their nice shop. Thanks to both of you for a nice meeting.

While there was no formal safety presentation this month we ended up talking about safety and specifically about a table saw stop system from Whirlwind Tool Comapny (www.whirlwindtool.com). The system is in prototype currently and the company is soliciting saw manufactures to add this system to their product line or as an after market accessory. The system works by the detection of skin and will stop a 10 inch saw blade in about 1/8 second. Dick Trouth recommended that folks go to the web site and watch the videos.

Jack Stegall ask if there were members interested in club wooden badges. Jack has a friend with a laser engraver and may be able to do them at a lower cost than the folks at Classic Doors.

For Show and Tell, Mr. Thibodeaux brought us a couple of plaks one of which was a 9/11 comemorative. Sandy Kramer is getting busy for the holidays with a scrollwork cross, scroll baskets, napkin holders, tree ornaments and a holiday box.

Ray Kebodeaux had an oak table saw insert with a hickory splitter. Bill Levy did a scollwork aligator that was most outstanding. He also made the frame in which it was mounted.

Gary Rock brought an unusually nice collection of turned items including a bowl of cherry the bottom of which was bead blasted and laced, a pine challace, a mug of mahogany with an aluminum handle with a walnut insert.

John Shipman brought a very nice walnut tray with hand cut dovetailing. It was his Brint It Back Item.

Don Elfert brought what has got to be the largest woodworking project that has come to a meeting - a nine foot seven inch skif that he built from three sheets of laminated luan maghogany. The beam at it's widest is 46 inches. While it can hold three adults, Don said he would limit it to two for the time being. It will be powered by a 40 pound thrust trolling motor though a small (such as 2.5HP) out-board would be more than enough given the weight. Don said the boat weighs 57 pounds. Don described the build in some detail including the fact that the hull is re-inforced and sealed with fiber glass and epoxy. Don built the boat from a plan that actually called for it to be a sailing skif. The total cost of the built was \$303 in materials -- plus another \$300 or so for the Harbour Freight folding trailer. As this trailer has a 1,195 pound load capacity, we don't think Don will have any problems toting around a 57 pound boat. It is a very well made and sturdy looking craft and one that shows off Don's considerable woodworking skills. On a final note, you may recall some of Don's work with re-purposing ceiling fan blades so it only was reasonable that he re-purposed another one for the boat's backup power -- a walnut paddle. Fine job, Don!

Sandy Kramer won the Show and Tell prize and she certainly deserved it with all of the fine work she has been doing lately. She siad that some of the items she brought will go to relatives as holiday gifts. When she runs out of relatives, there are always Club members, Sandy.

Sandra Comeaux won the Bring It Back item - John Shipman's lovely walnut serving tray.

Joe Comeaux had a 'one more thing' matter as he had several bird houses designed for the Walt Disney parks that were donated to him. These were raffled off and the raffle raised \$41 for our operations. Thanks Joe.

Coming Up . . . Saturday, October 8 at 9:00 A.M. at the shop of Sandy and Ronnie Kramer.



Whirlwind Tool Saw Stop - Some Math

There is a table saw injury in the U.S. about every 9 minutes – that's over 60,000 a year. Dick Troth brought up an interesting point while telling us about the Whirlwind Tools Saw Stop (www.whirlwindtools.com) and suggested folks might want to take a look at the videos the inventor David Butler has posted. They are very impressive and the prototypes of the device seem to work well. The inventor says that a standard 10 inch table saw blade will stop in 1/8 second of the sensing system being triggered by the proximity of skin. The system is designed to work with many existing table saws unlike the Saw Stop which is a dedicated system to one particular saw build. Saw Stop has four different levels of saws from a contractor style to an industrial cabinet saw. The replacement mechanism after it is activated costs \$69 plus shipping. Thus the Saw Stop is economical compared to the cost of an injury and comparable to high end table saws in total price.

Skin conducts electricity and when it comes into contact with a capacitance sensing circuit, the circuit can be configured to do something – for example, turn on or off a light – I have one of these on my desk in my office.

In the case of the Whirlwind Saw Stop, the circuit is designed to switch the direction of electricity of both the armature and stator of a 1 phase AC electric motor in a small amount of time. This actually reverses the motor but before it starts in the opposite direction, the power is killed by the circuit.

This entire operation from detection to reversal of the AC motor takes about 1/8 second. Note that the Saw Stop brand product (www.sawstop.com) actually does this much faster at about 3 to 5 milliseconds versus 12 milliseconds for the Whirlwind unit. But with the Saw Stop, you must replace the firing unit should it trigger. The difference in the stop between the two systems is that the Saw Stop, a fast-acting brake stops the blade when contact is detected. The brake includes a heavy-duty spring to push a block of aluminum, called a brake pawl, into the teeth of the blade to stop the blade from spinning. The spring is held in compression by a fuse wire until contact is detected. The spring pushes the brake pawl into the teeth of the spinning blade, and the teeth cut into the aluminum and bind, thereby stopping the

blade This also results in you having to replace the blade.

The Whirlwind system is designed such that the blade guard's bottom edges are conductive and the guard is positioned over the work so that it is very difficult for the user to get their fingers even close to the blade.

I would really like to see a very high speed camera shot of the blade after the trigger – then we could see what is really going on with this system. Note that if you have a 3 phase AC motor (such as a 240 volt saw), the circuit would have to be configured for that specifically as rotation reversal requires a different technique. Talk to the guys in Electrical at Sowela for a lesson about this.

As the blade comes to a stop in 1/8 second, there is still some risk but the risk is substantially reduced. But what is happening to that 10 inch saw blade in that 1/8 second? That was the interesting question Dick Trout offered.

The formula for shaft speed in feet per minute is simple: (shaft diameter (in inches) / 3.82) X r.p.m). So if your 10 inch blade is spinning at 4,200 r.p.m. then the tip of the blade is moving at 10,995 feet per minute or about 916.25 inches per second. In 1/8 second, it will travel 114.5 inches. The circumference of a 10 inch blade is 31.42 inches (circumference = 3.14159 X diameter). Therefore, the blade will travel about 3.6 revolutions before full stop. That could cut you. Consider that the rotation is slowing down over this time period. In other words, at the point of detection, the system is going to substantially slow down the blade over 1/8 of a second. Actually, just ask one of the several engineers on board the Club. Check my math at www.engineering.com. Despite this small risk, the Whirlwind seems to be carefully designed to work as presented.

The good thing about the Whirlwind Saw Stop is the design of the blade guard and location of the sensor strip at its bottom edge. This system could be applied to many power tools including chop saws, band saws or routers and shapers. Really anything with a 1 phase AC motor would have an application for this system. The other benefit is the saw dust extraction system for this unit – this in itself could justify its existence as well as the really well designed anti-kickback feature that is the best I have ever seen. It seems to be a well thought out product and let's hope that one or more saw manufacturers adopt something like this. *Barry Humphus*

Replacing Norm

As Norm Abram's reign as the embodiment of hobbyist woodworking comes to an end, many woodworkers have huddled around the router table to speculate who might step in to become the next icon of our craft. Well, WGBH has unveiled a rising star in one Tommy MacDonald. The widely acclaimed, award-winning furniture designer from Boston will debut his new woodworking show: *Rough Cut – Woodworking with Tommy Mac*. The show is scheduled to air on public television stations around the country (check LPB's schedule) beginning in October of this year.

Boston native Tommy MacDonald is a professional woodworker and a product of the famous North Bennet Street School. His passion for the craft pours from him like sawdust off a spinning dado blade. He actually transitioned into woodworking only after experiencing an injury that ended his career as a union carpenter in his early thirties. Tommy said "I just kind of fell into woodworking. I was recovering from a shoulder injury, and a friend encouraged me to look into North Bennet Street School. When I checked it out, I was immediately inspired by all the incredible work there. The passion and precision just spoke to me right away. That was a decade ago, and I have remained passionate about woodworking ever since."

Tommy is well versed in historical furniture from a variety of regions and periods, and has built pieces of many traditional styles including Chippendale, Queen Anne, and Federal. He also enjoys developing his own style, using designs from masters of yesteryear as a starting point, and adding his own contemporary accents. Tommy indicated that his favorite project is "my next project!", but also has some pieces that stand out for him within his current portfolio, including a Federal side board, and a Bombe secretary.

When asked if he was comfortable with people comparing him to Norm Abram, or measuring him by Norm's success, Tommy was endearing in his response: "Look, Norm is an icon. I have always looked up to Norm, and will continue to look up to him. I am not trying to be Norm, or even the 'next Norm'. I have my own style, and I want to help people develop their own style while we explore this amazing world of woodworking together."

If you are wondering whether Tommy favors hand tools or power tools, the answer is a little of each. "I believe in using the right tool for each job. I enjoy working with hand tools where precision is required, and I favor power tools for tasks that require more efficiency. If I worked with only hand tools, as a professional woodworker I would starve. If I worked with only power tools, the quality of my

work and ability to deliver detail would suffer." If he had to choose a single favorite tool across his entire collection of hand tools and power tools, it is "without any hesitation my No. 4½ high angle plane. That's my plane." *Barry Humphus, edited from Woodworkers Guild.*

Make Your Mark

As you cut the pieces for a project, you often lay them down around the workshop and sometimes don't return to them for a day or two. The result? You forget which pieces have been planed, which board you intended to become Part A, and so on. To avoid this problem, develop a sure-fire system for marking your pieces as you work. That way, you eliminate any confusion whatsoever.

Here's a selection of useful marking methods. You can use a pencil on surfaces still to be sawn, planed, or jointed. Because chalk can be removed more easily, it ranks as a better choice for fully machined parts prior to final sanding.

For projects with alphabetized pieces, use letters to match the materials list and drawings in the article. Even when you build from your own design, it helps to letter your drawings and project parts. Without such a system, it's easy to cut a part to the wrong size.

Sometimes, the grain pattern dictates the best orientation for planning or jointing a board. After you determine which face or edge you wish to machine, make a pencil mark on the end grain near the face slated for removal by the planer or jointer.

When squaring up a workpiece, keep track of your progress with a few quick marks. Make a distinctive mark on the first jointed face, such as the pigtail shown here. With that face against the fence, joint an edge and draw two lines to indicate the 90° intersection. Now, you're set to rip and plane the remaining surfaces.

Each of these chalked arrows points to the face side of a part. Work with the face up during all machining operations, and everything (such as these mortises) will align during assembly.

After jointing and planing your boards, arrange them to get the best grain match when you prepare to glue up a panel. Then, mark them as shown to avoid an assembly mix-up. If you're sorting stock for more than one panel, mark the second grouping with a double line, as shown below, a triple line for a third panel, and so on. *Barry Humphus from Wood Magazine.*



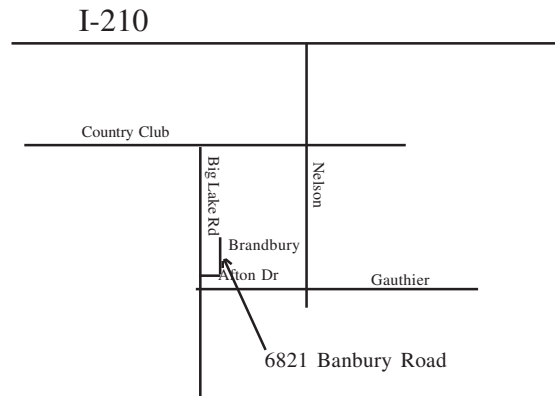
October Meeting Directions

Mr. Ronnie and Mrs Sandy Kramer have provided the following directions to their shop.

Go south on Nelson Rd. to Gauthier Road, turn right and go to Big Lake Rd, you will see the subdivision on the right.

Turn right on Big Lake Road and then go about 100 yards and turn right on Afton, turn left at the first street which is Banbury Rd, 2nd house on right. 6821 Banbury Road, you will see a big white shop at the end of the driveway.

Sandy and Ronnie Kramer's phone number is 337-477-4651 should you have any questions about the directions.



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