

Southwest Louisiana Woodworkers Club May 2020

Bill Fey, President
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Officers and Directors

Barry Humphus, Editor, Eltee Thibodeaux
Daren Hood, John Marcon, Robin Richard

Mentoring Program - If you have a project, a problem in any woodworking area, these members have volunteered to help. Give them a call. Frank Tartarmella 802-8989; John Marcon: 478-0646; Eltee Thibodeaux: 436-1997; Ray Kebodeaux: 583-2378. Each have years of experience and knowledge.

No April Meeting Highlights

As we have shut down our monthly meetings until it is safe to return, we will devote this page of the Newsletter to other matters for a while plus include photos of your work that simply would not fit into previous issues.

For years, our club has discussed the need for PPE while we are doing work in the shop. Now, we should be wearing at least a mask when we need to be out in public where and encounter others in the community. This is for respect of others and your safety. A mask in this case protects others. If you get sick from someone, that means you will potentially expose the EMT crew, hospital ER nurses and doctors, critical care personnel, your family and others - in short, a lot of folks. Respect others and wear that mask.

Former member Bubba Cherimie is down-sizing his shop and has for sale two nice power tools: A Delta 1200 series 36 inch lathe with several gouges and a Delta 10 inch table saw. Give him a call at 337-660-3274 or email at bubbacheramie@yahoo.com.

We keep seeing TV ads for an interesting work stand call the Centipede from Bora Centipede [boracentipede.com]. This light weight (19 lbs.) and easy to set up work stand has some good properties including strength (holds up to 3,500 lbs.) and portability. If you have acquired one, let us know the details of your use. The \$130 cost includes some support cups, carrying bage and clamps to old down the top (that you supply) and a straight edge device. While available online, you can call them at 866-588-0395 for more information.

Clean and Accurate Boring

While there are many tools in modern woodworking you can use to bore holes: powered drills (both corded and cordless), drill presses, hand-powered eggbeater drills, braces and more and many are a requirement.

The drill presses are the powered and preferred method of choice when accuracy is critical. Battery-operated drills are convenient and fast. Corded drills are fast, never need charging and are usually lighter in weight than their battery-powered brethren. Eggbeater drills are awesome when you need just a few holes. Braces are ideal for

drilling large-diameter holes with ease, and making holes at odd angles (as in chairmaking) without a lot of crazy jiggery.

The Auger bits is used in a brace and come in two common patterns: Irwin and Jennings. Both have self-feeding lead screws to help locate the cut and drill a lead hole; lead screws on both come in three iterations: fine (hardwoods), medium (hard and softwoods) and coarse (softwoods). Both patterns have two sharp spurs to score the circumference and two cutting lips to bore the hole. Unlike the Jennings, the Irwin has a solid central shaft; for every three spirals in the cut for the Jennings there are two spirals for the Irwin. The latter is less likely to clog when boring deep holes – but due to its wider spiral spacing, it's more likely the beginning borer will ream a hole while cutting. Like all bits, augers must be kept sharp and rust-free to work well. They are typically available in 1/4"-1" diameter.

Twist bits are designed to cut metal, but are commonly and successfully used on wood, too. It can be tricky to get a twist bit started in a precise location and it may follow the grain in the cut. In other words, they may wobble and particularly into hard wood. To combat that, use an awl or other pointy tool to start a hole exactly where desired. Twist bits can cause splintering, particularly on the backside of work. Twist drills are generally available from 1/32" to 5/8" in diameter but some are larger depending on the set you purchase.

The brad point bits are the best choice for most small-diameter holes in woodworking. The brad point allows you to locate the bit precisely, and keeps it from wandering. The spurs at the tip cut a cleaner hole and reduce splintering both on the entry and backside. (Also, bit sizes up to about 1/4" can be use with eggbeater drills). My first set was given to me by my father and I still have this small set.

The spade bits cut clean, accurate flat-bottomed holes in larger diameters. The lipped edges shear material to cleanly define a hole's edge and the center point makes it simple to locate the hole's center. Due to the force needed to make the cut, Forstner bits are best used in a drill press or brace and these bits come in sizes from 1/8" to 1 1/2".

A drill press excels at boring accurate holes at a pre-Continues on Page 2

determined angle – but so can you; it just takes a little practice. I assume the majority of beginning woodworkers use an electric drill – so let’s consider the proper grip.

Like a handsaw or handplane, a drill is best used with a three-fingered grip. Use your middle finger to depress the trigger; your index finger should point along the side of the tool, in the direction that you are drilling. Your pointing finger helps to cue your body to head in the same direction. I realize it sounds a little bit nutty – but you should try it out; you’ll discover it works for just about any tool that you grip with one hand.

It’s also important to realize that for many holes, there is a critical and non-critical axis, and to align your tool and body on the critical axis.

As an example: Looking from the end of the workpiece, what’s important is that you don’t let the bit list side to side; front to back is OK (except at the ends). Thus, side to side is the “critical axis.”

Sight your bit against a try square centered at the far end of the mortise (or draw a centerline beyond the end of the mortise to guide you), and align your body in front that guide. A try square or line, along with your body position, will help you keep the tool in the critical axis.

If you need a hole in a show surface and are worried about splintering, back up the cut with a piece of scrap (you can also apply a piece of painter’s tape atop the hole location before deploying the drill, which is moderately effective but not ideal). Better yet, scribe the cut first by slowly moving the bit in reverse by hand – or, if at the drill press, by lowering the bit onto the wood then rotating the workpiece.

You have seen the instruction to “drill a pilot hole.” That’s simply a small hole centered in the cut to help lead the way for what comes next – a larger-diameter hole, a nail or a screw. A pilot hole is tight enough that the next bit (or hardware) cuts into the hole’s walls.

A clearance hole, however is best and clears a wide path for what follows, such as a bolt, or a screw through the top of two boards being joined together.

Despite the title to this article, this is obviously not the whole story on bits and boring – but I hope it may be enough to get you started on the path to drilling success. Barry Humphus

Some Basic Woodworking Tools to Consider
Basic woodworking tools are different from beginner woodworking tools. For one thing, you don’t like to use the word “beginner” unless you are using it accurately. It’s not a very useful label, in my opinion, because it implies that there are

clear-cut and hierarchical steps in your growth as a woodworker. Who wants to return to grade school during his or her valuable shop time? So you only use the word “beginner” when you are talking about someone who is touching woodworking tools for the first time.

“Basic,” on the other hand, is a word that allows for growth – and that’s exactly what you want in your woodworking tool kit. You want to be able to take the same kit with you through many years in the craft. With a basic woodworking tools list, you want to provide a core set of tools that will serve well from project to project.

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With a basic woodworking tools list, you want to provide a core set of tools that will serve you well from project to project. A way to efficiently flatten the faces of rough or reclaimed lumber without a power jointer is a part of the first few steps for any furniture project. The thickness planer is a huge time-saver, compared to hand-held tools.

The circular saw, for rough dimensioning (especially long rip cuts). If you have a good table saw, that’s even better, because you can of course use a table saw for all sorts of joinery work – not just dimensioning.

Hand saws, a router and two router bits. These are the tools you use for cross-cutting, straightening edges and cutting boards down to final width. The two router bits are a straight cut bit and a flush trimming bit.

A jigsaw for cutting curves, a combination square and accurate tape measure (with pencil, crayons and a knife plus a power drill with appropriate bits).

Rasps, files, a random-orbit sander, a smoothing plane and a block plane. These are the minimum for smoothing all surfaces of the final work, and doing it efficiently. Don’t forget that you’ll need sharpening supplies for the plane blades.

Joinery gadgets? I’m not yet sold on buying a biscuit joiner or a pocket-hole set. Again, if you already have them, they are great. But look for projects you can complete with a combination of hand-cut joints, router joints and straight-in screwing. See how it goes. Barry Humphus

About Screws

Many of the tools and fasteners we use in woodworking have been around for thousands of years. The concept of the screw goes back to the ancient Greeks. Archimedes took a wedge, a simple but powerful device, and wrapped it around a cylinder. The helical threads allowed the leverage derived
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from the wedge to be delivered via a circular motion.

Until the industrial age, screws were expensive, hand-made items. Certain applications justified their use, but in most cases other methods made more sense. In the 18th and 19th centuries, machinery was developed that made the price of screws reasonable; in the 20th century, better methods of driving screws were developed.

Most woodworkers have a love/hate relationship with screws and screwdrivers. They work well, but it seems like cheating. Screws exert a lot of force, but that force is concentrated in two rather delicate areas – the tiny bit of metal where the thread extends from the shank, and the interface between the driver and the head.

Think of screws as clamps. As threads bite into one piece of wood, the head pulls the other piece tightly to it. Threads are gripping in only the lower piece. In that piece, the hole is the size of the unthreaded portion of the screw, which allows the threads to tightly grip the surrounding wood. The hole in an upper piece is slightly larger than the shank of the screw, and the head sits in a countersink.

There are a couple of other bad things that can happen as a result of not drilling a pilot hole, or drilling a pilot hole that's too small. If the threads engage in the upper piece of wood, it can prevent the two pieces from pulling together, sometimes called "bridging." When attempting to force the pieces together by applying more pressure on the driver, the threads can be stripped, or in harder woods the screw head can be damaged or the screw can snap.

A pilot hole, the clearance hole and the countersink can be drilled in one step with a special bit. The Fuller countersink has been the standard for years. The big advantage is the tapered bit, which ensures that the clearance hole is big enough and that the threads grip all the way to the end of the screw.

The biggest problem with the Fuller countersink is the attachment of the countersink cutter to the shaft of the bit. The small Allen head setscrews don't hold well on the round bit. The countersink can slip on the bit when it meets resistance on the surface of the wood.

A newer style from Amana has larger set screws, and the shaft that fits in the chuck of the drill is an integral part of the countersink. In addition to being less likely to slip, the Amana countersink has a carbide tip that lasts longer, especially when drilling plywood or particle board.

Choose the right diameter drill bit by holding the bit behind the screw. You should be able to observe that the screw threads are wider than the bit, and the bit is about the size of the shank.

You should set the depth of the countersink by holding the bit beside the screw, and setting the end of the tapered bit just short of the point of the screw. If you're using a straight bit, set the end of the bit to where the taper begins on the screw. Unfortunately, this may cause splitting in hardwoods. You should prefer the tapered bit for solid wood, and the carbide countersink for man-made materials.

Screw diameters are specified in gauge sizes, with the higher gauge number indicating a larger diameter. For most woodworking applications, #6 is the smallest useful gauge and #12 is the largest. The best general-purpose size is probably #8 gauge. For attaching hardware to wood, smaller #4 or #5 screws are often used.

The right screw length depends on the thickness of the pieces being joined, and the orientation of the parts of the joint. Ideally, the screw should be 2 to 3 times the thickness of the piece being attached. For example, a 1/4"-thick drawer bottom or cabinet back should be held in place with a 3/4"-long screw. For thicker pieces, like 3/4"-cabinet parts, a 1 3/4" long screw is sufficient. Longer screws introduce problems of drilling the pilot hole deep enough, and of keeping the hole straight so the screw doesn't come out the far side of the wood.

If you're working with softer woods, it doesn't make much difference what type of screw you use. In harder woods, you're better off spending a little more for screws that are designed and manufactured as wood screws. Drywall screws are rather brittle, and their small diameter gives them only marginal strength.

In harder woods, you may need to use a lubricant to make driving easier and to prevent the screw from snapping. You may want to use beeswax from a toilet bowl ring, an inexpensive way to obtain it. I keep it in 35mm film containers, and one ring will supply my needs for several years. Paraffin also works, but it isn't as easy to use. Some people use soap, but soap can attract moisture, causing damage to the screw.

If the tip of the screwdriver isn't centered perfectly over the head of a slotted screw, the driver will tend to slip sideways from the slot as it turns. If you're driving screws by hand this isn't that big of a problem; you simply center the driver by eye or by feel as you start to turn it. With a power-driven screwdriver, however, the slightest misalignment or resistance will send the driver sideways out of the slot.

In 1908, Canadian P. L. Robertson invented a tapered square recess driver and head combination. The big advantage to this is that the driver centers itself in the head, and doesn't slip under pressure. Next month, we'll finish this. Barry Humphus.

No Meeting This Month

Due to the concerns of the COVID-19 virus, we will not have a meeting in May.

Please be safe and protect yourself. Wear a mask of some type when you may be encountering others. Wearing a mask (despite the silly look), may protect you but also respects others. It is the simplest thing you can do to respect your encounters, friends and others.

If you make someone else sick, you impact the EMT crew, the ER nurses and doctors, the care givers and possibly many more. Just do it.

Stay Safe



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