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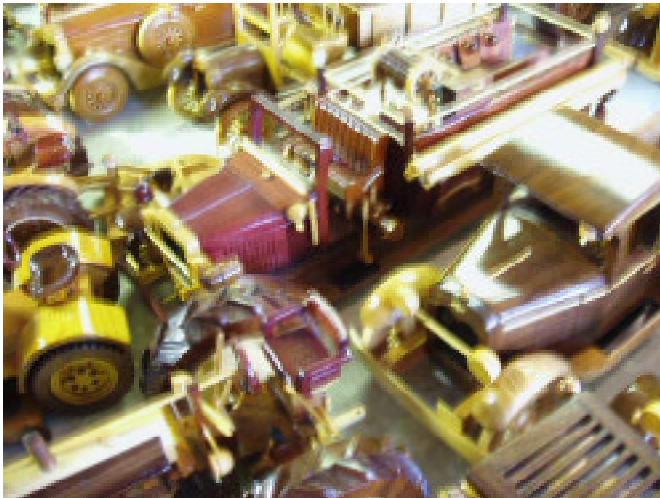
Officers and Directors

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

### MARCH MEETING HIGHLIGHTS

A much anticipated meeting at Pie Sonnier's shop was held there this month. As most of you know, Pie is a master at building fine cars and trucks and his shop, garage and even the adjoining powder room is filled with them. What's more, we got to see many that have never been revealed to the LCWWs.

Pie had set up a couple of large tables on which he displayed 40-50 of his creations and all were a delight to see. There was a traffic jam!



When asked what was one of the most difficult vehicles, Pie said that the motorcycles were the toughest to produce (and we saw another one in progress in his shop). He uses a medium alpha cyanoacrylate glue ("Superglue" to the rest of us) for assembly. He buys it in large bottles (Jet brand) from Rockler. Mentioning shelf-life problems, Dick Truth said that superglue keeps a long time in the freezer.

Pie often uses professional plans for his projects. The best ones, he said, are from Toys and Joys (call them at 602-278-3906 for a catalog) or Gatto Brothers (available from Woodcraft).

Jim Anderson brought us some boxes of Elm and Cherry while Gary Rock showed off a small purple heart bowl, a spalted pecan bowl with ebonized gum top and a wonderfully light ponderosa pine bowl.

John Perry brought a carved sign of sinker

cypress that he made to replace one lost from the Dutch Cove Cemetary in Moss Lake. John said that



he finished the sign with hot linseed oil for durability outdoors. Jimmy Evertt keeps the canes coming with one carved with a crawfish, an antler carving plus a very nice dragon letter opener. The canes are mostly made from corkscrew willow.

There was a discussion about finishes, especially for outdoor projects. John Perry mentioned that the hot linseed oil finish does well, but like any finish for the outdoors, it needs to be renewed periodically. Jeff Cormier likes a long oil (marine) poly but for indoor projects, prefers a water-based poly as it dries very fast (about two hours) and does not turn amber over time. Jeff also confirmed that hot linseed oil is very resistant to water damage when used on outdoor items.

George Kuffel mentioned that his 10 inch Dewalt radial arm saw is for sale. The saw includes a machine stand and Dewalt blade and is available for \$250.00. Barry Humphus found several used ones on eBay for more than \$450, so this is a bargain especially as no one will ship them — they are pick-up only (just like George's). George said that he had used it about twice since he got it.

Coming Up . . . Wednesday, April 26, 5:00- 7:00 p.m. Lake Charles Woodworkers Annual BBQ. Call Bubba, Dick Hopes or Barry for info or tickets.

## ANNUAL BBQ THIS MONTH

The LCWW Annual BBQ will take place on Wednesday, April 26 at the PPG Family Center in Westlake (thanks to Robin Richard). Once again, the food will be catered (thanks to John Leonard Fontenot's connections). The program starts at 5:00 p.m.

The tickets are just \$10 per person for all you can eat. There will be beef, chicken and sausage plus side dishes. Soft drinks and beer are included.

If you've got some Show and Tell, please bring your items. We'll also have some magazine swapping, door prizes, awards and lots of fun.

If you purchased your tickets last Fall, they are still good. If you can't find your tickets (Rita ate them), please call Dick Hopes as he has the records of who purchased them before the storm. Some tickets will be available at the door.

## SETTING & AJUSTING A MORTISER

The first practical Mortising Machines were made in 1807 in England and used at the Portsmouth dockyard.

In 1826, A. Branch, of New York, invented a mortising auger for making square holes, which was described in the Franklin Journal of Philadelphia. The description of the patent clearly explains the hollow chisel mortise cutters we use today. In 1853 H. B. Smith patented a reversible reciprocating mortiser, and for many workshops, this type of machine is today in much demand by amateur and professional woodworkers alike.

While hollow chisel mortisers and mortising drill press attachments have become very popular in woodworking shops and are pretty simple to use, there are some critical setup and maintenance procedures that preserve their accuracy and maintain a trouble-free operation.

Purchasing a dedicated mortiser or using a drill press mounted one depends on your expected use. If you do a lot of mortising in your projects, obviously, a dedicated machine is worth the price (Delta, Jet, Grizzly, etc. for about \$250.00). But if you only occasionally need mortises or have limited shop space, a drill press mortiser works pretty well (Delta for about \$70.00). The downside of the drill press type is repeatability and accuracy. Double check all of the alignments and then do it again. I've had success with mine but many report problems, especially when it comes to repeatability.

As always, you should follow the manufacturer recommendations and instructions supplied with your mortiser. Pay particular attention to instructions related to the safe operation of your machine.

Contamination of moving parts by sawdust and other debris must be controlled for the machine to oper-

ate properly. For maximum benefit, clean and lubricate the mortiser before making any adjustments. In general, drill press mounted mortisers are much easier to maintain as the 'keyway' that drops the drill head is sealed and rarely needs cleaning.

The power head of a dedicated mortising machine travels up and down on some form of exposed slide, keyway or a post, all designed to keep the bit traveling straight up and down accurately. Contamination of those sliding surfaces affects ease of use, accuracy and eventually, the life of the machine.

Your mortiser is likely to have some kind of geared drive system that moves the power head up and down in response to the motion of the handle. Cleaning sawdust and debris from the teeth will help keep the machine operating smoothly. You can use a cheap nylon cleaning brush (a large toothbrush will work well) to dislodge the dust. Then a few squirts of air from your compressor will finish the bulk of the work.

In most cases, moving parts can be cleaned with a rag or an old paintbrush. Stubborn contamination may require some kind of solvent, but make sure the material used is paint and plastic safe. In no case should caustic materials be used. After cleaning, dry the area completely.

Nearly any type of grease or clinging oil will lubricate these moving parts. For example, a good acid-free light oil (such as automatic transmission fluid) will also do the trick. But consider dry graphite or Teflon-based products that dry after application. Dry lubricants do not attract or hold dust and may extend the periods between necessary cleanings.

The owner's manual should provide instructions on what parts need lubrication, what parts do not and may even suggest appropriate lubricants.

The sliding mechanism on which the power head moves is usually adjustable so the you can compensate for normal wear. Though set up at the factory, you should always go over these adjustments on new machines to insure they are set as best as can be.

Following the recommendations of the manufacturer on adjustment procedures and the allowable tolerance is very highly recommended. The engineers who designed the machine typically consider the properties of the materials used to make these parts when calculating adjustment tolerances. This is not a good time to try to out-think those engineers. Stay within the guidelines to insure the best performance and longest life of the tool.

Checking the slider adjustment occasionally should be part of the machine's maintenance, the frequency dependent on how much use the machine sees.

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## Mortiser Setup & Adjustment continues

Of course, this also holds true for drill press mounted mortisers. You also need to check the accuracy of the drill press stem to be sure that it is square with the table.

On mortisers with an attached table surface, checking its alignment to the chisel is also important. If the table is not square to the chisel, the mortises cut will be at an angle, transmitting that misalignment to the project. A beautiful table that leans slightly is not a pretty sight!

Install one of your larger chisels in the motor head, aligning its flat sides with the front-to-back and side-to-side axis and then lower the chisel so it is close to the table surface. Place a machinist's 90-degree square on the table surface; one leg flat on the table and the other leg against the flat chisel side. Look for gaps between the square and the chisel. Check this alignment on the left and right sides as well as the front. If there is a gap between the chisel and square, shim the table accordingly to bring the table into alignment with the chisel.



As drill press mortisers depend on the squareness of the drill press table and the drill stem, the adjustment is easy. Just loosen the table clamp and adjust its angle such that the alignment is square to the chisel, left and right. If it is not square on the front, you may have a drill press stem alignment issue and you need to resolve that before proceeding.

For this operation, you can use the face of the fence itself, or place a piece of wood with parallel faces between the fence and chisel. Lower the chisel so the flat portions of its sides are at the fence level. Slide the fence forward until its face, or the wood in front of it, contacts the chisel. Loosen the chisel set screw and turn the chisel until the rear flat is flush against the fence or wood. Make sure the chip ejection port is facing to the right or left and that the chisel housing is butted against the bushing before tightening the setscrew.

When setting the depth of a mortise, remember that the drill bit precedes the chisel housing that actually cuts the square shape. The protrusion of the bit cuts indentations in the bottom of the mortise that serve a useful purpose. When a mortise and tenon are coated with glue and assembled, some of the glue is scraped from the sides and becomes trapped at the bottom of the mortise. The irregular bottom surface gives that glue somewhere to go.

When setting the depth of cut for a mortise you have to consider the drill bit protrusion. I have found it

easiest to draw a line representing the bottom of the tenon on the side of the material in which the mortise is being cut, place that piece on the mortiser bed and lower the chisel (not the drill bit) until it is slightly below the layout line and lock the depth stop.

This setting allows the tenon to seat fully into the mortise while providing a small amount of room for excess glue. I have found that a US Quarter or a couple of Nickels are a good spacer for this measurement.

There are two schools of thought regarding the expected life span of mortising chisels and bits. Some consider these pieces to be consumables, meant to be replaced when they become too dull for effective use. Others sharpen the chisels with specially designed stones (available from Rockler, Woodcraft & Lee Valley) that touch up the inner bevels, restoring their cutting edge. I have found that these work very well. You can also get replacement chisels and drill bits from these sources.

The drill bits do not seem to lose their boring ability to any appreciable degree. The feed rate for cutting mortises is relatively slow which limits the wear and tear on the bits. But you can sharpen the drills as well.

Whatever your choice, keeping the chisels in good condition is important to the performance of the mortising machine. Oddly, softer woods like pine will reveal dull chisels before most hardwoods. The softer wood tends to crush and bend when a dull chisel is pressed into it.

Using a relatively small, square chisel usually leaves small ridges on the sides of the mortise. If the chisel is parallel to the fence, these ridges are usually very small. In addition, most woodworkers make a second pass through the mortise to "clean up" the bottom and make sure all of the material has been removed. This process cleans up the ridges as well.

Leaving these small ridges in the mortise has little or no affect on the strength of an otherwise properly fit mortise and tenon joint. Some even believe the ridges prevent scraping too much glue from the sides of the tenons and actually increases the strength of that bond.

Good woodworking equipment costs money. Taking the time to set up and care for machines properly does not take a lot of time but can save piles of money in the long run. *Edited by Barry Humphus from Newwoodworkers.com's Tom Hicks.*

