

Dick Trough, President
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Barry Humphus, Editor, Bubba Cheramie
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 Trough: 583-2683. Each have years of experience and knowledge.

April Meeting Highlights

Our host this month was Gary Rock at his fine shop. Pretty sure everyone had an opportunity to pet the big lathe - Gary says it won't bite as long as you treat it right. Many thanks to Joe Comeaux who took such great notes this month.

New member John Shipman introduced himself and also brought a guest, Pat Verrett whom later paid his dues and became a member in good standing.

Dick Trough led a short discussion on table saw safety reminding members to 1) be alert at all times when using a table saw or any other power tool; 2) Take your time don't rush your work piece through; 3) Think through the cut before you actually make it; 4) Stand to the side of the direction of the blade; and, 5) Always wear your personal safety equipment. In fact using you brain to think through the cut, imagining what will happen depending on how it fence or guide is set, is a critical part of any power tool use.

Some members discussed the use of mechanical and magnetic switches that could be turned off by kicking it with your knee or leg in cases of an emergency.

The SawStop system was mentioned. The system, if you have seen any of the many videos online, really works, though the saws are on the expensive side. For example, the contractor model ranges from \$1,600 to \$1,800, but the SawStop replacement cartridge is not too bad at about \$70 (and hope you never need one).

The company originally went to various table saw manufacturers to try to get them to incorporate the mechanism into their brands. Sadly, the negotiations did not pan out and SawStop decided to manufacture their on line. These include a contractor, a portable, professional cabinet saw and an industrial cabinet saw ranging in price from \$1,600 to \$3,500.

Despite all of the patents that Dr. Steve Glass (an avid woodworker) and his partners must have, it is a surprise that no other saw manufacturer has released anything similar. But there is a controversy. Most manufacturers believe that if they incorporate the SawStop technology, they become liable should for some reason, it fails to perform.

They fear that if they did adopt this technology and then someone still got hurt, they were asking for a big lawsuit

for promoting this technology as a safety feature. Of course, the cost of the license to use the technology is high and saw makers believe that it is too high to incorporate into their saws. But is this really the case? Powermatic's Model 64 contractor model sells for about \$1,300 - only a \$300 less than SawStop's comparable contractor model. So is \$300 worth the price of a couple of fingers or a thumb? We don't think so.

The future of the annual Bar-B-Que had been discussed at the last board meeting and Dick was asked to put the project out for discussion at that meeting. After a short discussion a motion was made by Pie Sonnier to discontinue the Annual Bar-B-Que. The motion was seconded by Jim Couvillion. The motion carried. Alternatives were discussed such as having the meeting at a local Bar B Que house or at some other local restaurant. The discussion ended without a decision regarding alternatives.

For Show and Tell, Mr. Thibodeaux showed us a turned pen of deer antler along with a scroll saw pen holding stand.

Irvin Monroe showed his butterfly "nest" box made of plywood with "scabs" of oak and small limbs inside for the butterfly to have a place that encouraged laying of eggs. Plans for the box were supplied by the LSU Ag Extension office.

Tom Bergsted discussed two cherry bowls that he had turned. One the bowls had a "burr" which he discussed and got some good advice and feedback from Gary Rock.

Bob Theaux had a beautiful intarsia project (bear) made from black walnut, mahogany and beach.

Jeff Cormier passed around pictures of a cabinet/buffet. The project was 8' wide and 82" tall. The project was 8' long and 82" tall. Jeff used oak and oak plywood finished with Zarr Modern walnut stain with an acrylic finish.

Pie Sonnier had another fine project for all to admire. His work for this month was a 1942 Ford ¾ ton stake body truck. Pie used walnut, oak, maple, tupelo and had seats made of smoke wood.

Coming Up . . . Saturday, May 8 at 9:00 A.M. at the big shop of George Kuffel. You don't know what season it may be as this shop is climate controlled.

Lessons From a Small Shop: Oil Finishes

The last couple of issues, we've talked about finishing with gel stains and dye stains and their qualities. This month we'll cover (no pun intended) what you can put on top of these.

I really love to use so-called "oil" finishes on furniture or wooden objects that take some use. They are very easy and forgiving to apply, you never have to worry about dust-free finishing rooms, it is quick and very easy to maintain. If for example, something goes wrong on the finish at a later date, all you need is to wipe on some more of the finish you prepared.

So why not use it on everything you do? Well sometimes, you want that piece to be very shiny, to reflect back that ugly face of yours after three or six coats of poly or an afternoon of doing a French polish. But personally, I like the subtle sheen, the subdued and elegant look of a fine oil finish, particularly on furniture. An oil finish imparts a classic and classy look to many pieces including small ones such as turned bowls. In fact I use it on the bowls I turn (trying desperately to make them look as good as Gary Rock's) and on some of my pens and on most every other item I try.

Here's the lie: most of the oil finishes are not true oil finishes, they are technically varnishes. What makes a varnish is cooking one or more oils with natural or synthetic resins and adding dryers. We'll talk about these in the next issue.

Oil finishes are mostly penetrating – going into the wood through capillary action much the same way water will soak into wood. It does not matter if the liquid is on top, on the side or the bottom as if it is in contact with the wood, it will work its way inside. And penetration does little to protect the wood as of course objects will still scratch, stains will still stain and water will smudge the wood almost as easily as if there were no finish at all. The advantage gained by filling the wood with finish is to stabilize it – keeping it from expanding and shrinking as the seasons change. Basically, you are plasticizing the material by filling the cavities with a cured material.

Straight oil finishes mostly include linseed oil or tung oil, particularly so-called boiled linseed oil. The boiling, by the way, permits the oil to harden or dry, otherwise raw linseed oil is not particularly useful as a furniture finish as it never really cures and remains tacky. Polymerized oil on the other hand consists of polymerized tung or linseed oil. These are more like varnish and expensive (e.g., Tru-Oil for gun stocks).

Finish oils have certain characteristics in common. They cure slowly compared to every other finish and cure to a satin (not glossy) finish after applying several coats. They

also cure soft, making them impractical as a finish unless you wipe off the excess after each application. Straight oil finishes are true penetrating products. In other words, you don't build up a thick and hard protective film on the surface of wood the way you do with film finishes.

One way to tell the difference between a true oil versus a varnish is to look at the residue on the top of the can. If it is still soft after several days, it is oil; if hard, it is a varnish.

The two major types of oil used for finishes are linseed (extracted from flax seed) and tung (extracted from tung nuts). To make either effective as a finish, they are heated and metallic driers are added such as cobalt salt, manganese or zinc. These act as catalysts to speed curing. While these are bad enough chemicals, lead was once used before people were aware of lead as a health hazard.

Of all finishes except wax, linseed oil provides the least protective finish. It is both soft and thin so does not protect against scratches or much wear. It is mostly transparent to moisture, both liquid and vapor (humidity).

This characteristic is actually good in paint as it permits moisture to pass through the paint and not blister because it breathes. Today, we use water-based latex paints on the outside of homes for the same reason. Latex and water are cheaper than linseed oil, which is why you don't find much exterior linseed oil-based paints.

The other oil finish is tung. It originally came from China but is now cultivated in South America. Tung oil is more expensive than linseed but it is also much more resistant to water and has established a firm position in the paint and coatings industry. Many, if not most, high quality varnishes are made with tung oil. Yet, it is rarely used as a finish by itself.

The problem is that you really need five or more coats to make it water-resistant and like linseed, is soft and subject to scratches. By itself, it is also not particularly water resistant. It is also difficult to make the wood it's on look good as the first few coats can leave the wood flat and splotchy and rough to the touch. Only after five or six coats with a very light sanding between each, can you have a nice sheen but it will not feel as smooth as using linseed.

Tung oil cures very slowly and can turn white if left on too thick, particularly in deep pores. So use very thin coats, sand after each and wait several days between coats. About the only advantage over boiled linseed oil besides some better water resistance is that it yellows less over time which can be important on blonde woods that you don't want to darken very much. *Barry Humphus with help from Bob Flexner.*

Lessons from a Small Shop: Wax Finishes

In many ways, wax finishes are like oil finishes which is why I wanted to include them in this issue along with oil types. Like oil, wax produces a satin sheen, cures soft and is easy to apply. A wax finish though, is even less protective than linseed oil and is the least protective of all finishes. It is about the closest thing to no finish.

The no-finish look may be the best reason to use wax because it keeps the color of the wood as close as possible to natural while imparting some sheen. That is, wax does not darken wood as much as many finishes do. Thus, a wax finish is very good for decorative, carved or turned items that will not receive much handling.

So if you are creating what amounts to an object of art, you might choose wax for aesthetic reasons. Using a wax finish is better than no finish but because dusting is easier (with a feather or artificial feather duster – not furniture polish). There are some woods, such as *zircote*, that are used in carving and turning, requiring no finish because of their high resin content. All you do is give the wood a good polish with a cloth to bring out its natural sheen and polished look.

Some wax finishing product instructions suggest applying a few coats of blonde shellac and then the wax. This is good practice as the shellac protects the piece, but it is not a wax finish. The wax is only being used as a polish.

Applying a wax finish is easy provided it makes the look you want. You can power-buff it on or apply by hand. For hand application, begin with any commercial or home-made paste wax. Put a junk in the center of a 6 x 6 inch piece of cotton (old T-shirt or crew sock), gather the corners of the cloth around the wax. Holding the lump of wax between your fingers, rub it onto the surface of the wood. If the wax is too hard (like bees wax), knead it for a bit to soften.

You will want several applications over several hours to get the best sheen. After each coat, let the surface go flat then rub off the excess with a clean cloth. You can also raise the sheen using a power buffer (lamb's wool is best).

If you have a carved surface or turned object with cavities (sounds like Gary's bowls) that are difficult to reach, you can use a soft shoe brush or even an artist's brush to get into the holes and deep areas. You can apply the wax with a brush as well.

Soft woods are difficult more than hard to finish with wax as the soft wood absorbs the wax more and is difficult to get a good sheen. Keep applying wax until the pores are filled and you can accelerate this using a hair dryer to heat the wax (use the old one, not your spouses latest one!) into the pores of the wood.

You can combine wax with many other finishes but this makes them softer and you can't apply other finishes over wax as they will often dissolve it and you have to start over. But recall that shellac naturally contains wax, so it can be combined as you desire for the finish you want.

You can also make your own custom wax polishes. Shred beeswax into a container and add mineral spirits at a ratio of ½ pint to 1 pound of wax. Put this into a Double boiler – not a single pot on the stove. That is, put the pot containing the wax and solvent into a pot that contains water and heat the water, not the wax and solvent directly. Otherwise, your spouse will find and slap me around when the whole thing makes a big mess on the family stove. You can add colorants (pigments or dye), shellac, rottenstone, etc. to get what you want. To thicken, add more wax, to thin, add more solvent.

A final note on wax finishes is that they do give you a nice sheen on your project, but wax is a very soft finish, does not protect the piece well if it is to be handled and is not resistant to scratches or wear. Personally, I would use a wax finish on those items that will sit on a shelf to be admired. A carved piece on a wall, a bowl on a stand or some other artistic item that will not be handled much is the best use.

Also, like oil finishes, never leave oily or waxy rags bunched together in piles. What these finishes do is absorb oxygen at a prodigious rate and heat is the by-product of oxidation. When rags containing these products are piled up, enough heat can be generated to start a fire. Always dispose of your used rags by placing them in an approved oily-waste container. Or, hang them over a branch, fence or over the edge of a work table so they are totally exposed to air and can dissipate the heat. Once the finish is cured, they will become stiff and can be safely tossed into the trash.

One more thing is that both oil and wax finishes, if used on items that will contain food, must be checked out.

The FDA lists on their website all of the common oils and waxes, resins, and driers that are used in the finishes we've mentioned as either safe or not when in contact with food. Some manufacturers market their finishes as food-safe. No finish product on the market has FDA approval. However, once the solvents in these products have evaporated and the finish is completely cured (absolutely no smell of solvent), they are likely safe. If you have any concern, always use brands that claim they are food-safe. That way, the manufacturer legally stands behind the product's safety. Alternatively, you can use mineral oil or walnut oil (not vegetable oil) on salad bowls.

Barry Humphus with help from Bob Flexner.