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George Kuffel, John Marcon, 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 Truth: 583-2683. Each has years of experience and knowledge.

October Meeting Highlights

There's nothing so nice as a good meal with friends and that was the case this month at our annual BBQ. For many years we have held it at the PPG Porter Hall in Westlake and the facility is not only a very good one, it costs us only making certain we clean up. And thank Jeff for the delightful wines.

This month's safety talk was about the sharpest tool in your shop—your brain. Thinking your cuts and movements through before acting can help save both fingers and scrapwood. Muscles used sparingly go soft as fast as you can

say couch-potato. But it isn't just muscles that go soft in a hurry; the same thing happens to a little-used brain. To stay sharp, a brain needs a regular dose of challenging work-outs—and television-watching doesn't count.

One of the best ways

to combat a soft brain is to do some woodworking. Psychological research, it seems, has discovered that the hobby we all love and enjoy is healthy for the brain. Of course, we knew that all along.

Turns out, researchers consider woodworking an intellectual activity; like reading, writing, painting, knitting, doing crossword puzzles, and playing a musical instrument, among others. Such activities challenge the brain, helping us to stay sharp. Use your brain in the shop. It will not only make you a better woodworker, it will make you safer one as well.

While munching on ribs, brisquet, chicken, beans, salad and drinking interesting wines, our Mr. Thibodeaux started off Show and Tell by showing off some of his fine work—a couple of wine presentation boxes. While they may not make the wine better, they certainly will make it look better. The boxes were beautifully crafted. A red toy tractor was also one of Eltee's tems.

Jeff Cormier showed off a linen press that he donated to the Bell City Catholic Church as a raffle item that fetched \$650.

Lynn Fontenot brought some turned goblets and a re-

ligious scroll work as well as a wonderful two-tone turkey call. Pie Sonnier showed us a wonderful tractor with bush hog model. Sadley, it is not large enough to do a good job on my lot. Also sadly, I didn't win it in the raffle, but Frank Kelly did and it brought it \$232 to the club - thanks Pie. By the way, it's brothers will be on display at the and Henning Cultural Center, 923 Ruth in Sulphur from October 22 through November 19 along with other items in a show titled "Works of Men."



Speaking of museum quality art, Tom Bergstedt said he spotted some of Gary Rock's pieces in a show in Texas recently. Good work, Gary.

Joe Comeaux had a cypress puzzle while J.W. Anderson showed off some of his furniture—a cypress table with a poly finish. Larry Eagle always has something interesting and this time it was a cool box made of crown molding with one of the Modern Options finishes. The finish is a 'rust' style that apparently will continue to oxidize over time.

Mitch Fraizer showed photos of his very first woodworking projects—one was a large armoire of oak, mahogany completely put together with wood jointery—no nails in this one! His portfolio also included tables in pine, a bed room suite that included a pencil post bed and much more.

One More Thing

There is a piece of material made of wood and cloth that you all know and love. That item is a \$20 bill. And that is all it takes to continue to be a member of the Lake Charles Woodworkers Club. We realize they are a little bit harder to come by these days, but we need one of yours to keep this thing going. Send one (or a check) to Joe Comeaux, 1675 Campfire Rd., Lake Charles, LA 70611 and be a real member.

Comming Up . . . Saturday, November 14 9:00 a.m at the shop of Dick Truth. While Dick won't cook you breakfast, you can bet he knows the recepie.



The Scraper

If there were a ten-dollar finishing tool that worked ten times faster than a sander, made almost no noise, worked on finishes between coats as well as on bare wood, and did the work of abrasives from 60 to 220 grit, you'd know about it, right? And if there were such a thing, surely you'd already be using this miracle tool for cleaning off glue squeeze-out, taking wood directly from thickness planer to 180-grit finish, erasing layout marks, smoothing laquers and varnishes, doing spot repairs and lifting dirty fingerprints, and doing a dozen other chores that a tearout-proof, ultra clean-cutting hand tool could do. There really is such a device: it's a scraper, of course.



Scrapers are simpler than a pencil. They're simply thin, flat pieces of steel, with straight or curved edges that can be formed into many, high-angle cutting tools. Scrapers, like every other new hand tool, must be sharpened before they're ready to use. This means you must polish the faces of the scraper quite smooth along each of the four working edges, and then work the edges themselves as well. Once it's sharp, you'll take two more short steps to make the scraper into the finest finishing tool you own.

Sharpening is simple: you want each of the four working edges to be straight, as close to square as possible, and crisply sharp. A clean, sharp mill bastard file 6" to 10" long is



an ideal sharpening tool. To sharpen, you can simply clamp the scraper in your vise about a finger-thickness high, so a file lying level across the fingers of both hands just contacts the edge as you move it along. Skew the file so a good bit of its length lies along the scraper's edge; this will almost inevitably cut the edge straight—and edges do need to be straight for finishing flat surfaces. Slide the file along the edge like a plane, applying firm pressure until you're getting a positive, consistent bite all the way along. Now give several more strokes with less and less pressure until you've created clean, sharp edges with no detectable burrs hanging off the sides. If you feel any burrs, file a little more with very little pressure to avoid crushing and tearing the sharp, delicate edges. If the edges don't feel very sharp, they aren't; keep at it. Once you've sharpened one edge, turn the scraper over in your vise and file the other edge likewise. If you do a good job with the

file you can skip honing and never miss it.

The final two steps are done with a burnisher, which is a short rod of very hard steel polished to a very smooth surface. To "burnish" is to polish; make shiny or lustrous by rubbing. The burnisher will finish the job of sharpening the scraper's edges and then gently shape them into high-angle cutters. Lay the scraper on a firm, flat surface such as your bench, and wipe



a liberal smear of heavy oil along the edge. Use 20 or 30 weight motor oil or the like, not thin cutting oil; you want to lubricate the scraper to be sure the burnisher slides smoothly with no chance of biting into it and tearing the cutting edges. Bring the burnisher on flat, with your thumb bearing down hard directly above the scraper's edge, and stroke its full length fifteen or twenty times. This will make the surface smoother (hence sharper), and both harder and tougher as well, so the tiny burr you're soon to create will be able to stand up to the kind of hard work you're going to ask of it. Apply eight to ten pounds' pressure; enough to feel firm without hurting your thumb. Flip the scraper over and burnish the opposite side, then turn it around lengthwise and do the other two edges as well.

You should actually call this "forming the edge" to avoid confusion about what "burr" means. In this case, it does not mean the sort of torn, ragged cornice we're usually talking about when we use the word. On a scraper the "burr" is actually the clean, smooth and continuous cutting edge created by filing and burnishing. You're going to use the burnisher very gently to push that cutting edge up to form a tiny, sharp hook that runs the full length of the scraper. Daub a little more oil along the edge, and hang the scraper 1/2" or so off the edge of your bench. Present the burnisher vertically, then tilt the top inward slightly (about 5°) so it contacts only the scraper's upper edge. The edge you're about to work on is sharp, which means there's very little steel right out at the cutting edge—which means it takes very little pressure to push it up into a tiny burr. Applying no more than about 8 ounces of pressure, stroke the edge full length five to ten times. Now wipe off the oil and feel the results. The burr should hardly be big enough to detect; it should feel mostly just like a very sharp edge. A distinct, heavy burr won't work well at all, so if you've produced such a thing, use the burnisher to lay it out flat and try again. Turn a burr on all four edges, so you'll be able to do plenty of work before you need to start over.

Scrapers may be pushed or pulled as you please. Pulling is the soundest way to scrape large flat areas efficiently. Continues on Page 3

Scrapers - continues

With eight fingers distributing pressure evenly behind the blade, lean the top edge toward you as you pull it along the grain. At about 30° forward tilt the cutting edge will begin to bite, cutting ultra-thin shavings right across its full width. To avoid creating a washboard effect, skew the scraper slightly, first to



the left for a couple of strokes, then to the right, rather than facing it consistently perpendicular to the grain.

Pushing the scraper, with your thumbs bowing

the center forward, narrows the cutting area and allows you to work very precisely, removing material from a narrow line or a specific spot without disturbing the surroundings. The scraper's high cutting angle makes it generate a lot of heat; it doesn't take long for your thumbs to start sizzling. A scraper holder, lets you push or pull the tool as well as control the degree of bowing, without roasting yourself in the process.

Many wood finishes, such as lacquers and varnishes, can be scraped smooth between coats faster, flatter and with more control than with sandpaper. Start by scraping across both ends of a piece; it's hard to start at the end without cutting too deep. Then scrape full length, skewing the tool and overlapping strokes just as on bare wood. A quick lick with 220-grit sand paper or a medium Scotch-Brite pad completes the prep for the next coat of finish. Work at a moderate pace and be sure the scraper is sharp to avoid heating and scarring a fresh finish.

If you get inconsistent results, just keep on practicing. Troubleshooting is easy, because there aren't too many things that can go wrong. Most often you'll try to fool yourself into believing you've sharpened well even if the filed edge doesn't really feel sharp. Sometimes you'll apply more pressure than necessary when turning the burr, and wind up with too coarse an edge. Try again; the rewards are worth much more than the work.

Installing Router Bits

Picture a collet at work. As you tighten the collet nut, you drive the increasing taper of the collet cone into the matching decreasing taper milled into the end of the motor spindle. This squeezes the collet against the router bit shank, creating so much friction that the bit is locked in place and can't twist or pull out during operation.

If you try to make this happen while a bit is bottomed out in the spindle, however, you're asking for the impossible: the collet cone must slide along the stationary shank while

simultaneously locking onto it immovably. What actually happens is that the collet grabs the shank hard enough to quit sliding, so you might not be able to tighten it further even though it's not yet tight enough to control the bit under operational loads. So when you fire up the router and start stressing the bit, it comes creeping out of the collet. This makes for exciting times in the shop, you bet, but it's not very productive.

If instead you first bottom out the router bit and then pull it back a tad, you allow the collet cone to grab the shank and pull the bit along with it as both are driven deeper into the spindle, locking on tighter and tighter all the while. The story is so simple it's absolutely obvious—after you've heard it, of course.

Tightening the nut means just that: don't "kill" it, just tighten it. Apply firm pressure with your wrench and then go away before you decide that more is better. Overtightening eventually will stretch the mouth of the spindle so it can't hold any bit securely--and when you need a new spindle you get to buy a whole new router along with it.

Having firmly established the rules, we should mention that they don't apply to several top-of-the-line current routers. A relatively new design feature has the motor spindle drilled far deeper than the usual inch or so (see our DeWalt and Makita plunge routers, for instance), so deep that it's unlikely even the longest shanks will reach bottom. This completely solves problems that would result from bottoming out, but it creates a different problem: you can't always figure out how much shank you've inserted into the collet. As a general rule, you should insert any bit shank to the full depth of the collet's grip (usually at least 3/4") to ensure positive control. Any less risks creeping bits, bent or broken shanks, and more unproductive excitement. An effective low-tech solution is marking a heavy black line on your bit shanks to eliminate guesswork errors when using deep-bored spindles.

Here's a related thought: if it's friction that holds a bit in the collet, then anything that reduces friction is bad news. Friction results from contact between surfaces; the smoother the two surfaces are the more contact they can share. Corrosion, dirt or damage can reduce friction dramatically. Never grab a bit with pliers to change bearings, clean it or sharpen it (the router collet is the right tool for holding a shank harmlessly, after all). If you have a bit with a scarred shank, discard it, no matter how painful the loss--it's not as painful as routing through the side of a roll top desk or catching a broken bit right in the kazoo. Do not treat shanks with oil or other coatings designed to prevent corrosion. Regularly inspect the collet, the motor spindle and your bit shanks to make sure they're clean and polished. If they need help, use nothing coarser than 4/0 steel wool, a white Scotch-Brite pad, a bronze gun bore brush or a fine Rust Eraser to clean them up. *From Highland Woodworking, edited by Barry Humphus*