

Jeff Cormier, President
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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 Trouth: 583-2683. Each has years of experience and knowledge.

October Meeting Highlights

This month's meeting was at the great shop of Jeff Cormier. The weather was so nice, he didn't even need to newly installed AC.

Show and Tell brought us some fine work this month. Joe Comeaux showed a pen and pencil set he turned from zebra wood he got from Burl Vincent several years ago while Dick Trouth had a set he had done with corn cob - a very delicate task as the material is soft. Mr. Eltee Thibodeaux brought us a very nice pecan and purple heart box plus a gas pump style clock. The pump clock was so small that it could hold almost enough gas to amount to the \$0.39 a gallon tag on the window of the pump.

Gary Rock showed a cottonwood cup and bowl with lacing along with a black gum bowl of the same design. They were finished with Danish oil.

Tom Bergstead had a turned rolling pen made of cherry and Jimmy Everett showed us a carved pistol. Jimmy has done several of these for law enforcement self defense training.

Founder John Perry showed a US Map design that he did several years ago that he scroll saws. Pie Sonnier brought a marvelous 18-wheeler cab over tractor in maple, oak, black cherry and ebony. Pie made this one from a plan. The tractor rotates forward as a real one does and of course has his characteristic articulations and details including real U-joints for the drive train. We understand that the engine is a Cummings.

Joe Comeaux brought a few of his disposables and easily made from scrap MDF, push sticks

Guest Frank Kelly showed pictures and told about building a picnic table and benches out of treated wood. Some brought up a concern over using this type of wood for a table one eats from. Frank said he let the material dry prior to construction. Plus, treated wood no longer contains arsenic. Tom Bergstead cited several Federal studies regarding the leaching of the chemicals from treated wood and suggested, based on these, that modern treated wood presents very little, if any, toxicity to humans.

John Perry discussed using man-made marble as a possible substitute for the surfaces of outdoor tables.

Jeff Cormier showed a blanket chest made of cedar and discussed the dove tail jointery he used in its design. He said that you should always decide ahead of time, what is the best face of the wood you are using. That way, when cutting the dove tails, the best side will be outside.

Jeff's safety discussion centered around tripping hazards in the shop. From electrical leads and extension cords to stock temporarily layed on the shop floor to accumulated saw dust, tripping hazards abound in most shops. For example, many woods contain significant amounts of natural oils and a layer of saw dust, even on a concrete floor can be a slick slipping hazard.

Dick Trouth announced that the Dove Tail Workshop has been moved from November 4th to Saturday, November 15 at his shop in Sulphur. Dick added that "We will be able to accommodate anyone wanting to attend who are unable to bring tools. I will bring a sign up sheet to the November meeting so we can get a headcount or call me at 583-2683." Dick added that he will furnish coffee and doughnuts at the workshop. So if you haven't gotten your monthly donut and coffee fix for the month, Dick's shop will be the place to be. What's more, you can learn how to cut dove tail joints as well.

You should bring your own tools if you have them, including (note that if you don't have tools of this type, you are still invited as there will be enough for everyone to have an opportunity to try out the techniques):

Marking out gauge. Dovetail marking gauge or sliding T-bevel. Dovetail saw, tenoning saw, or coping saw. 1/4", 1/2", and 3/4" Dovetail chisels or bench chisels that are tapered on the long edges. Chisels need to be very sharp, as there will not be time to spend sharpening. Sharp pencil or knife. 6" ruler or measuring tape. Small square. Mallet or hammer for chiseling.

Bring what you have and work or just watch and learn.

Comming Up . . . Shop of new member Larry Cooper where we will no doubt get to sign up for the November 15th Dove Tail Workshop, plus show and tell and as usual, Iowa's finest donuts and coffee.

Choosing Adhesives

You'll find a woodworker in a sticky situation if his glue won't stick. How do you choose the all-around best adhesive for the job at hand? Here's some advice on what glues can and can't do.

Many woodworkers don't spend much time thinking about adhesives until they don't work. But learning a little about different types of adhesives makes good sense for any woodworker interested in making sure that things go right.

Once widely used by woodworkers animal glue are a traditional adhesives have been replaced mostly by newer products. Hide glues must be heated in a glue pot before application. Reheating a project held together with hide glue allows you to readjust or remove parts. Thus, if a part is damaged at some future time (e.g., a stretcher on a chair), it can be removed and replaced easily. But this also means that hide glues don't resist heat plus they have poor moisture resistance. Hide glues dry and cure slowly, meaning that they require a long clamping time. A different type of animal glue, Casein, is made from milk protein and comes in powder form that must be mixed with water. They exhibit good strength, moderate water resistance, and no toxicity. Work with casein glue at any temperature above freezing. Like hide glue, Casein is reversible and is often used for picture frames in the art restoration business.

Resin glues are widely used woodworking glues made with polyvinyl or aliphatic resins that come in white, yellow, and brown varieties. Because they're premixed, you apply them directly to the wood from their squeeze-type containers. Strong and somewhat fast-drying (about 3 hours clamp time), newer formulas (e.g. Titebond II from Franklin) also offer extended water resistance. The white variety dries more slowly and can be reversed with warm water; the yellow and brown resist heat and moisture better. You can use resin glues in a wide range of temperatures but do not allow it to freeze. According to Franklin, it has a shelf life of about two years (longer if refrigerated).

Urea-formaldehyde, resorcinol-formaldehyde, and epoxy provide strong, permanent, highly water-resistant joints. They are, however, expensive and require mixing. And once mixed, a hardening chemical reaction begins, meaning that you have to work quickly before the mixture sets up, especially in warm temperatures. Some mixtures are waterproof and can be used under water. Although effective for outdoor projects, adhesives in this category can irritate your skin and eyes.

Specialty Glues. Woodworkers use contact cement to bond plastic laminate or veneer to wood surfaces. It's applied to both surfaces and bonds immediately after it sets (becomes tacky). Adjustments cannot then be easily made,

and the work area must be well ventilated. Ethyl-2-Cyanoacrylate glues are marketed under names such as "Superglue" and "Krazy Glue." They display exceptional strength and quick bonding with nonporous materials. Newer polyurethane glues (e.g., Gorilla Glue) perform like epoxies, but with no mixing or fumes. They expand as they cure, filling any gaps in joints. So if your joints are particularly snug fitting, you may want to use a more conventional glue such as the polyvinyl or aliphatic glues (which contract slightly when cured). They are also waterproof and are not reversible.

When you purchase polyvinyl, resorcinol, or epoxy glues, you also need to pay attention to the product date code. Cracking the glue code is important if you want to see how long it will last and get an idea of how long it has been sitting on the retailer's shelf.

This code on a bottle of Titebond glue shows that it was manufactured in July 2002. In the typical code shown (shown in the photo), the first number represents the final digit of the year in which the glue was produced; it's followed by a letter designating the month, with "A" standing for January, "B" for February, and so forth (they skip "I" because it looks like the number 1). You can ignore the rest of the code, which relates to the particular batch of glue.

Elmer's glue carries a similar code. In this case, however, the series starts with a letter corresponding to the year of manufacture, with "J" standing for 2007 and "K" signifying 2008. The two numbers following tell you the day of manufacture, and the next letter reveals the month, with "A" designating January, etc.

Now, what should you do with this information? According to Dale Zimmerman of Franklin, white and yellow glue have a shelf life of two years; polyurethane and liquid hide glue have a one-year shelf life. Note: Franklin's hide glue carries an uncoded expiration date to make sure everybody can read it. That's because degradation is a greater problem with this type of glue.

If your retailer removes the code, look elsewhere for that bottle of glue. When you take the glue home, write the date of purchase on a piece of masking tape and place it on the container as a clear reference to the glue's age. Then store it out of direct sunlight. *Edited by Barry Humphus.*



Sandpaper Grading

Coated abrasives (the technical name for sandpaper) follow one of two common grading systems used in North America: CAMI (Coated Abrasives Manufacturers Institute) and FEPA (Federation of European Producers of Abrasives).

FEPA products are sometimes called "P grade" because that letter prefixes the

grit number on the back of the sandpaper, as shown at right. If there's no prefix, you can assume that it's a CAMI-graded product. As you can see in the chart at right, particle sizes in the two systems closely parallel each other up to about 220 grit; then FEPA numbers increase rapidly. If there is a letter after the number, it refers to the weight of the paper or fabric.

Manufacturers may use one or both systems for various lines of abrasives. For example, Klingspor uses the

FEPA scale exclusively, while 3M uses both scales.

A second key difference is that the CAMI standards permit greater variation in particle sizes used within each grade. That may be the texture difference you noticed.

Mirror Finishes in Seven Steps

For most of us, finishing means applying varnish, polyurethane, or paint with a brush. The dream of a glass-smooth tabletop is always spoiled by brush marks and bits of dust and other debris. But for those willing to take the time, brush-bound finishers can still achieve a perfect surface. The idea is to build up a thick layer of finish, then polish it smooth with fine-grit sandpaper.

1. Sand the surface to 320-grit. Thoroughly remove sanding dust from the pores of the wood using compressed air or a shop vacuum and tack cloth.

Paste wood filler makes a smooth foundation for the finish. Wet-sand with a simple solution of liquid detergent and water, using a rubber sanding block. Polish with an automotive wax.

2. When using open-grained woods, such as oak,

ash, mahogany or walnut, fill the pores by applying a paste wood filler like J.E. Moser's Grain-Fil. Use a plastic scraper, working across the grain, to pack the filler into the pores. Remove excess with a squeegee, once again working across the grain to avoid pulling the filler. Dry overnight, then sand lightly with 220-grit sandpaper. Apply a second coat of filler, removing the excess with the squeegee as before. When the filler is dry, sand again with 220-grit sandpaper.

3. Apply a finish of your choice and let it dry overnight. You can safely use this technique with oil-based spar varnish, oil-based polyurethane, waterbased polyurethane, and oil-based enamel paint. Any sheen -- gloss, satin, or semigloss -- will work. You can bring gloss finishes to the brightest sheen. The flattening agents in satin and semigloss finishes prevent them from being worked to attain a high gloss.

4. Now it's time to "knock down" brush marks, drips, or dust flecks in the finish. Put about 1/2" of water in a shallow plastic tray and add a couple of drops of liquid detergent. The detergent, by reducing the surface tension of the water, allows it to more effectively wet the sandpaper and the tabletop and be a better lubricant. Dip 500-grit wet/dry paper backed with a rubber sanding block (available at hardware stores and home centers) into the detergent solution and work the surface in a circular motion. Be careful not to oversand the edges. Keep the sandpaper wet with clean detergent solution. Periodically wipe the surface dry to inspect it. When the surface has a uniform dull sheen, wipe it clean with a damp sponge and let it dry.

5. Apply a second coat of finish and let it dry overnight. Wet-sand again as in Step 4 and wipe dry. Now apply a third coat of finish, but this time, let it dry two days to make sure the entire film of finish is dry.

6. Just as in Step 4, wet-sand the surface, this time starting with 1000-grit wet/dry sandpaper, progressing to 1500-grit and finally 2000-grit. Buff with a clean, soft cloth.

7. Get out the car wax and apply and polish it according to the directions. (any automotive cleaner/wax will do.). Resin-impregnated sandpaper, in grits ranging from 320 to 2000, is available from auto-body paint and supply stores. The abrasive particles on these sandpapers are of a more uniform size than those of common woodworking sandpapers and are more securely bonded to the backing paper.

This wet/dry sandpaper can be used either dry, like common woodworking sandpaper, or wet, using a rubber sanding block and solution of liquid detergent and water. Wet-sanding lubricates the surface being abraded, reducing scratches. The water also carries away loose pieces of abrasive as well as finish particles and prevents the sandpaper from loading up. *Barry Humphus*

CAMI	FEPA
800	P2000
600	P1200
500	P1000
400	P800
360	P600
320	P500
280	P400
240	P360
220	P320
180	P280
150	P240
120	P220
100	P180
80	P150
	P120
	P100
	P80