

Brent Evans, President
Dick Hopes, Sec/Treasurer

Officers and Directors

John Marcon, Barry Humphus
Camile Vincent, George Kuffel

AUGUST MEETING HIGHLIGHTS

Show and Tell was the theme for August with lots of interesting projects, jigs and designs from member workshops.

New Member **R. E. Huffaker** described his home-built wooden bandsaw which he built. All of the members present expressed their interest in seeing this machine in action at a later date.

Dick Hopes showed some recent toys he has made for children — a multiple car train and a truck design he built using his Delta lathe. **Rod Nunley** showed a bandsaw cut wall planter made from a series of glued-up peices. Rod said that these take nearly 8 feet of lumber to make.

Bill Tolin, one of our esteemed turners, showed off a wooden watch, which his spouse had recently purchased for him. **George Kuffel** demonstrated a simple dove-tail jig he used to build drawers for his fly-tying desk.

Gene Young, also a master machinist, showed a pocket hole drilling jig he built derived from the Highland Hareware design. Gene showed a simple inside parallel measuring tool that's great for insuring that your wooden drawers are parallel. A wooden shaper jig for compound curves, model steam engine and first-class stake puller rounded out Gene's presentation.

Chuck Middleton, our speaker and presenter this month, showed an antique car design he got from the *Toys & Joys* catalog (360-354-3448) made of walnut and poplar. This catalog is a good source for toy making plans and supplies. Chuck also showed a Dremel Tool-based router jig he designed that will appear in an up-coming issue of *Wood Magazine*.

Barry Humphus showed the prototype of his Stebbins Table, a small and easy to build folding drink and food table for bringing out when you have guests. Barry also provided members with the detailed plans for the table so we can build our own versions of this simple but useful item. Barry had several copies of the plans for his professional pool table that he built last Summer.

After the Show & Tell, the members discussed future presentations and what they would like to see. Some of the ideas suggested were: router setup, bits, jigs and use, lathe work and turning, metal jig making, high precision wood cutting, marketry and venering, wood lamination techniques, creative clamping, door making and glasswork, mirrow and picture frame design and tecniques.

Another suggestion was to compile a list of wood suppliers and what they sell locally and regionally. Barry Humphus will begin the research on this and will publish the list in an up-coming issue of the Newsletter. Please contact Barry if you know of suppliers, especially local, who provide wood products beyond the typical oak, poplar and pine varieties.

ABOUT OUR SPEAKER

Chuck Middleton, a CITGO employee, will demonstrate Entarsa techniques at his shop in Sulphur. See the map on the back of this newsletter on how to get there.

MAILING LIST

A member mailing list with member names, addresses and phone numbers will be mailed to each member shortly.

FEEDBACK

Have something for sale — a tool, project or design? Want your ideas in the Newsletter? If you have an idea or two you or detailed plans or an item or two for sale, just contact Barry Humphus at 439-6383 (work) or 477-8474 (home). or send an email to bhumphus@laol.net. and we will include it in the next Newsletter.

GEL STAINS

When I got into woodworking in the mid-70's, choosing a stain was pretty much a matter of selecting a color — I don't recall a choice of types of stains. But now, in addition to liquid stains, there are also gel stains.

What are the differences between liquid stains and gel stains?

As the name implies, gel stains have a much thicker consistency than liquid stains. Because of this, a gel stain doesn't run all over the workpiece and the floor, even when you apply it to a vertical surface like a chair leg. The thickness of a gel stain depends on the brand you use. Some have the consistency of a milk shake and are squeezed out of a bottle, while others are more like a thick malt.

One other nice thing about gel stains is you don't have to keep stirring them as you work. Because they're thicker, the color pigment stays suspended instead of settling out in the bottom of the can. This means you get a consistent color from the top to the bottom of the can. But the real test of a stain is whether it creates a nice, even color when it's applied to the workpiece.

September 11th, Saturday 9:00 AM ✓

Entarsia Demonstration, Shop of
Chuck Middleton, 727 Roberta, Sulphur
See Map on Back of Newsletter

October 9th, Saturday, 9:00 AM ✓

~~Commercial Finishes~~

NOV #

DEC #

Barry Humphus

OIL STAINS

There are lots of wood stains on the market these days — gels, water-based — but the bread and butter in my shop is oil-based stain. Nothing fancy. Just your basic off-the-shelf stain that's available at almost every hardware store. One reason is oil-based stains are easy to use. And they come in a wide range of colors that are resistant to fading.

Most oil-based stains color wood the same way paint does — with finely ground particles called pigments. When you open a can of paint that's been sitting for a while, you'll notice that the pigments have settled into a thick sludge at the bottom of the can. Stirring suspends the pigments in the liquid in the can — linseed oil and mineral spirits.

When you apply the stain, the pigments lodge in the pores of the wood. Since the larger pores of the end grain accept more pigment than the smaller pores of the surface grain, these areas stain darker. To help even out the color, sand the exposed areas of end grain one grit finer sandpaper than the surface grain. But end grain isn't always at the "end" of a board. Sometimes it swirls to the surface and produces a series of light and dark blotches. This is especially true of woods like maple and pine. To reduce blotching, try a wood conditioner before applying the stain. The conditioner partially stops up the large pores so they don't hold as much pigment. The result is a more even stain.

Even something as simple as sanding affects the color. Areas with large scratches left behind by coarse grit sandpaper trap more pigment and so stain darker. If you want to end up with a lighter color, use a finer grit sandpaper. To check color, it's a good idea to apply the stain on a test piece. And since different types of wood accept stain differently, use a cutoff from the project you're working on that's sanded to the same grit.

When applying the stain, the idea is to cover the entire surface before it starts to dry. One way to do this is (on a large table top, for example) is to keep a "wet" edge by overlapping one stroke with the next. When the entire surface is covered, use a rag to wipe it down in the direction of the grain. The amount of stain you leave on will determine the final look of the project.

SHELVING SPANS

Shopnotes Magazine recently did an article on bookcase building. They also reported a study they did on bookcase design regarding shelving spans. The following is a summary of their findings.

If you're designing a cabinet or a bookcase, what's the greatest length (span) a shelf can be without an objectionable sag? There are four factors to consider: 1) how the load is distributed, 2) the expected load, 3) the shelf material, 4) the method of reinforcement.

LOAD DISTRIBUTION. For the tests we conducted to create our recommendations (see below), we wanted to determine the worst possible situation for the distribution of load. So we use six bricks (42 pounds) and placed them right in the center of the shelf. However, in a normal situation, the weight would probably be distributed over the entire shelf.

EXPECTED LOAD. Another factor used to determine maximum span is the total expected load — the longer the shelf, the more books (and weight) it has to hold. A running foot of average sized books weighs about 20 pounds. So a three-foot shelf filled with average sized books would have to support 60 pounds. Records albums (does anyone use these anymore) and encyclopedias would weigh more, paperback books less.

SHELF MATERIAL. The third factor used to determine maximum span is the type of material used — particle board, plywood, solid wood. Each has a different stiffness.

REINFORCEMENT. Finally, if you want to increase spans, you can add reinforcement to reduce the amount of sag.

GUIDELINES. Taking the four factors into consideration, the chart shows some general guidelines for the maximum span for shelves to avoid objectionable sag. Note: The most practical approach is to use 4/4 stock or plywood with reinforcement. This will produce shelves with minimum sag and the best visual appearance.

MAXIMUM SPAN FOR 10" WIDE SHELF FULL OF BOOKS

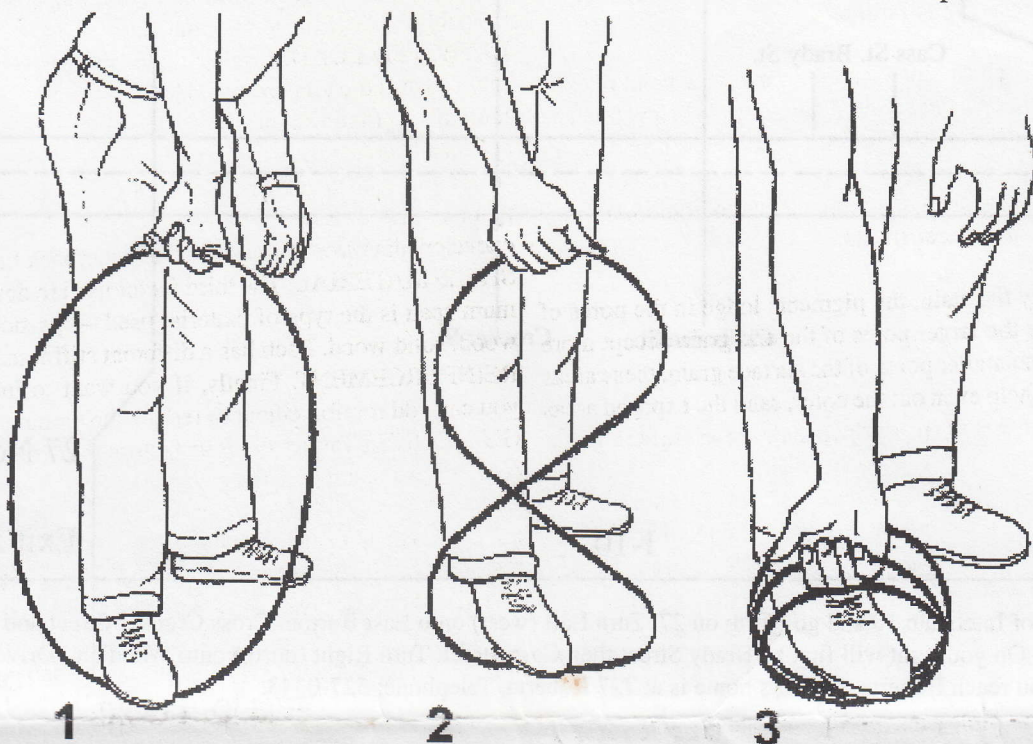
Shelf Material	Maximum Span
3/4" Particle Board	24"
3/4" Plywood	30"
4/4 (13/16") Solid Stock	36"
6/4 (1-5/16") Solid Stock	60"
3/4" Plywood Reinforced with:	
1-1/4" wide face strip on edge	36"
1-1/4" wide face strip on side	32"
Aluminum strip underneath	36"
Molding strips underneath	36"

ARTISANS GALLERY TRIBUTE TO BOB FERGUSON

The Artisans Gallery honored Robert Ferguson on Saturday, August 28th at the Gallery next to the Imperial Calcasieu Museum. Many of Bob's creations were exhibited along with photographs of works he had done over the years. Many other works were on display as well from Woodworkers Club members and former members. Food and refreshments were provided by Gallery volunteers.

FOLDING A BANDSAW BLADE

Folding a bandsaw blade is trickier to explain than it is to do. I once knew how to do it but somehow the information was displaced by something else. I recently found this illustration in an old Sunset Books article on tools, tried it and it always works for me. The illustrations below show the process, step by step.



1. First hold the blade beneath your toes, grasping the blade at the top with your arm twisted so your thumb is pointing out and your elbow is facing away from your body.
2. Then turn your hand clockwise. As your hand approaches 180° from your starting position, the blade will look like a figure eight.
3. Continue turning your hand while following the blade down until your thumb is pointing outward again. The blade will have coiled up on itself.

FINISHES FOR TOYS

Natural compounds found in many woods aren't altogether friendly. Most woods contain some compounds that could adversely affect health if consumed in an adequately high dose. These compounds, however, pose very little risk when put in the mouth for a short while. So I doubt that blocks of any of the species you mention would be harmful to a child. The bigger risk is asphyxiation. Children, especially toddlers, have an irresistible urge to put everything into their mouths. It's critically important the blocks, for example, be large enough to prevent a child from getting one stuck in his throat.

Oak contains high levels of tannic acid, and pine contains resins and terpenes. If a child were to gnaw on either of these woods vigorously, the result could be a very memorable bellyache.

Cherry produces cyanide-like compounds, which are potentially lethal, but they tend to concentrate in the fruit and foliage of the tree. The wood is not known for causing fatalities.

Walnut contains a substance called juglone, which is both a sedative and a laxative. I never use walnut when making toys or kitchen utensils, though I'm probably being overly cautious.

Still, using a finish such as shellack, is a good idea. Blocks will stay bright and clean. Also, a finish will seal the grain, making it less likely the child will pick up any splinters or that germs will establish a home in the pores of the wood. But be sure to select a finish that you know to be nontoxic.