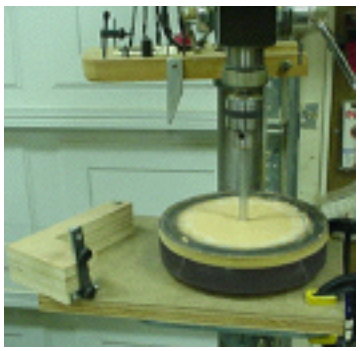
Lake Charles Woodworkers Club, Inc. October 2002

SEPTEMBER HIGHLITES

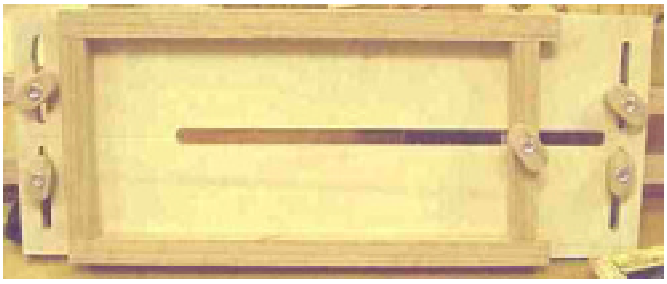
What would we do if we couldn't make jigs. We would be pulling our hair out, that's what. But George Kuffel loves building jigs as an exercise in problem solving. George was our host this month in his fine shop. Roger Richard, representing Advanced Machinery and Hegner Tools, showed off their latest scroll saw of a unique design. See the full article on the next page.

One of George's most interesting new jigs is a sharpening system he built from a plan in ShopNotes. The unit is driven by his drill press, is adjustable for various blades (including turning tools) and works especially well on chisels and plane irons. It consists of a two-inch thick disk wrapped with abrasive paper or cloth. He covered the top with leather and uses a polishing compound to acheive a remarkable edge on a tool. The tool holder gives you lots of flexibility for mounting various blades and you can free-hand tools as well, such as a turning gouge or carving tool.



Another great item is George's surface planer bench. The bench securely holds the planer while in operation while providing plenty of support for feeding long work peices. The support table folds up for storage and the lower part of the bench has a large storage drawer for tools. Not having a surface planer of my own, I've used George's several times and found the bench an excellent addition to any shop.

Some other great jigs included a mortising jig for a router. This consists of a plate into which



the router is mounted and a slot through which the bit extends. The jig can be set to cut a mortise anywhere on the workpeice. George also has built a versatile drill press table that allows him to do compound drilling with great accuracy. Along with the drill press table, the auxillary table can be positioned at any angle up to 45 degrees.

Several more of George's shop jigs included a set of table saw inserts made of oak that permits various standard angles of the saw blade while maintaining a close fit. Another set provides for standard dovetail configurations without the need for a commercial dovetail rig. Another jig, made of oak, is a long adjustable clamp that can be used as an auxillary table saw fence, clamp, router guide, etc.

Chuck Middleton brought an interesting jig for making precission angle cuts on a table saw. The purpose is to be able to do segmented bowls on a lathe. He got the plan from www.turnedwood.com/index.shtml, the Kevin's Woodturning website. Kevin has got lots of tips, plans and good advise for wood turners. Barry Humphus brought his favorite panel cutting jig. This is a push type where the push bar is behind the work instead of in front of it. This arrangement provides for a bit better control when cutting a panel.

Lee Frazier brought a couple of great scrollwork peices: A Halloween scene and a tribute to Firemen scene (see both in the LC WW Gallery).

Roger Richard showed off the new Hegner Fretsaw. See the full review on the next page.

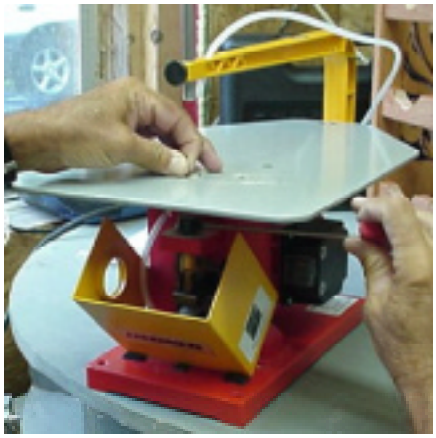
Coming Up: Saturday, October 12, 9:00 a.m. at the shop of Bubba Cheramie..

NEW HEGNER SCROLLSAW

Roger Richard (the local rep for Advannced Machinery, the North American firm that markets the German Hegner line of tools) recently demonstrated one of Hegner's new power tools to the Lake Charles Woodworkers Club at George Kuffel's shop. Recall that Roger demonstrated Hegner's 18" scrol saw and thier unique MK4 multifunction tool last year at Bubba Cheramie's shop.

Hegner has introduced a new scroll saw specially designed for fretwork. While you could do regular scroling on this saw, it is best for fretwork, possible one of the best around. It is small with a 13" overarm. But the overarm can be easily removed for large work without compromising any of its sawing functionality. The saw blade connects to the driving mechanism on one end only. The saw uses a direct drive cam and a ceramic blade holder and the special blades are inexpensive at about 25 cents each. You can also use standard shortened blades.

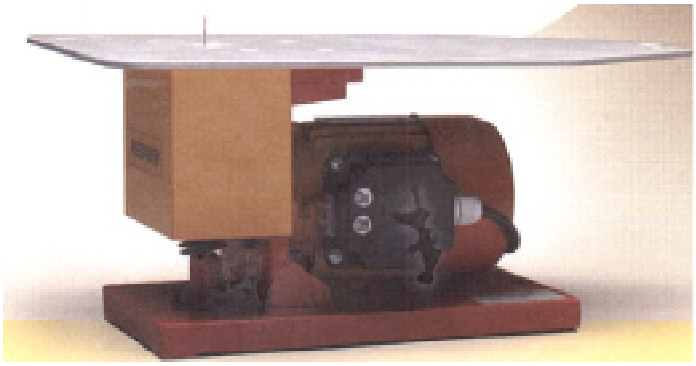
The saw has no blade release, no blade tensioning, no throat restriction and you can get the overarm completely out of the way. The unit weighs just 31 pounds, so its easy to move from place to place in the shop. It has the same 1700 RPM induction motor as their larger saws (but without built-in varible speed). Because it is an induction motor, you could add an after-market varible foot switch. The table is 11" x 17" in size. While it does not need to be bolted to your bench, hold-down lugs are cut in the base. If fact, Roger set his up on a card table to show off its stability. The unit also includes a standard dust blower tube operated off the motor.



With the arm in place, you can handle 1/2" softwoods or hardwoods of lesser thickness, plastics or soft metal. With the arm removed, maximum thickness is to 1/4" in most woods. Note that when the arm is removed (two screws), the dust blower is also removed as it is attached to the overarm.

The real advantage of this design is that you never have to disconnect a blade to drop your workpeice over the blade. Just pull up the guide (which also functions as a hold-down), drop the peice over the blade and begin work.

Despite the lack of an upper support overarm, the saw cuts very smoothly. We compared the



cuts to ones made on ElteeThibodeaux's regular scrol saw and found that they were the same. We found that it cuts best when you apply a slight pressure on the blade as you move the work through.

While running, the unit is very stable and quiet with no noticable vibration despite its speed. The unit is simple, safe and low cost. Roger said he would give any LC Woodworker member the "show" price of $349 plus shipping. Give Roger a call at 762-4274.

Aaron Andrepont mentioned that Ruckers in Grove, TX now carries 1/8", 1/4" & 1/2" Russan birch plywood in 5' x 5' sheets starting at $8 per sheet for the 1/8". *Barry Humphus*

OIL-VARNISH FINISHES

Over the past year, we've learned about finish products and finishing from Tom Sims,Steve LeGrue and a great book by Bob Flexner, "Understanding Wood Finishing." One of the important things Steve emphasized was to experiment with finishes. For example, Steve puts sample finishes on glass plates so he can see the effect of the finish regarding its transparency.

I want finishes that give me consistent results with a minimum of fuss and effort. Over the years, I've found a good combination of off-the-shelf materials you might consider for future projects. The first is polymerized oil such as Watco. This is a very easy product to apply and leaves a fine satin finish on wood. But it is not very protective. The alternatives such as shellack, lacqure or varnish (such as polyeurathane) have their uses as well. Shellack is also not very protective and is not particularly moisture resistant while still very easy to apply. Lacqure is also fine, but without spraying equipment and a dust-free place to spray, it's lots of trouble. Polyurethane is very protective and can be brushed on but should also be applied in a dust-free environment.

However, a combination of varnish and oil (such as boiled linseed oil) and thined with turpentine or mineral spirits (also called petroleum-distillates or paint thiner), is easy to apply, doesn't require a dust-free finishing room and won't obscure the character and texture of the wood. Because of the poly, it offers much more protection than oil alone.

The varnish content helps the finish build fast which reduces the effort of application. There's also no need to fill pores on open-grain woods because sanding the finish creates a slurry of wood dust, oil and varnish that fills the pores perfectly. You can tint it with oil-based stains to match just about any wood. Because the proportion of varnish is relatively low, the finish is easy to repair or renew as an oil finish.

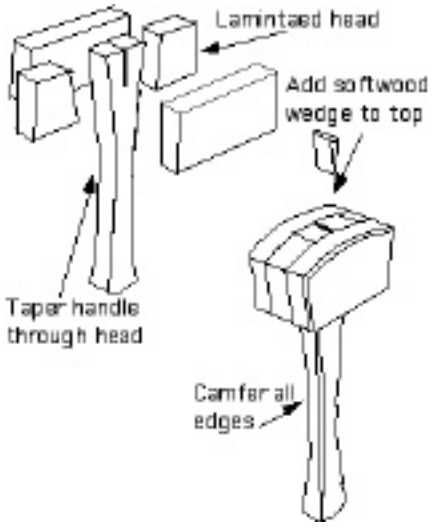
The finish is very forgiving so far as the proportions and generally, you use equal parts. If you want more protection, use up to about 50% varnish. If it is too thick (and on the first coat), add more thinner to get better surface penetration. If you're going to tint the mixture, add oil stain—lightly at first and darkening the mix as needed.

The trouble with polyurethane varnish is that it is almost impossible to repair. By loading the polyurethane with more oil and thinning the mix with mineral spirits or turpentine, you get a fine satin finish that is easy to apply, dries fast and is easy to repair. *Barry Humphus*

WOODEN MALLET

Member George Kuffel didn't show us everything. He also makes hand tools in addition to jigs. He knows that at least one wooden mallet belongs in every woodworker's tool collection. The advantages of a wood hammer over a steel one are obvious: less damage to your tool handles, your work, and your thumbs and eyes. For the price of one good steel hammer, you can make a dozen mallets, each configured for a particular job.

The traditional mallet has a solid wood head mortised through for the wedge-shaped handle. However, a laminated head is actually stronger and a lot easier to make. The reason for the strength is the very slight shock-absorbing nature of the PVA glue — it moves a tiny bit.



Begin by cutting the handle and two center laminations for the head from the same 1 inch thick board (which saves a lot of fitting later). Copy the handle's wedge angle (with no more than 1/2 inch of taper) onto one of the side laminations. Then glue up the head, aligning the center laminations with the wedge-angle lines. When the glue has cured, bandsaw, scroll saw or jigsaw the head to shape. Be sure to camfer the edges to reduce the chance of splitting and insert the handle. Use a softwood wedge (like pine) as a hardwood wedge (e.g., oak) may split everything apart as it is driven home. *Barry Humphus*