Louisville Area Woodturners

LAW Newsletter February 2016

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Notes:

We had three guests at the February meeting, Jerry Robertson, Frank Pal and Danny Garret.

Frank and Danny would join us as new members.

Kathleen Deaver has taken over the reins and became the official club treasurer.

The club has a DVD library and will maintain it. If you have any out on loan please return them.

Anyone interested in some ¾ rough cut cherry can contact Parker Curtis.

Parker also brought in some old and recent AAW magazines that went for 3 for a 1$.

Robin Costelle brought in some plastic nut and bolt boxes to give away.

Some upcoming events:

Our next meeting will be March 10th with Ron Thomas doing a demonstration on coloring.

(I missed this one. Does anyone have some good notes and pictures?)

April 23rd will be Mike Sorge and some geometric lidded boxes.

The meeting in May meeting is up in the air due to Thursdays being taken by the school.

In June Avelino Samuels will be demonstrating twisted hollow turnings.

Show and tell

For the February meeting there was a challenge put forth. Bob Faletti and Jack Parsons are both turning hollow forms for each other's wives as presents. Why not challenge a friend and bring it in for show and tell.

Ornaments by Chris Howell.

A dyed maple bowl by Ron Roby.

A egg with a rose inside on a stand by Richard Stottman.

three acrylic dyed pieces by Ron Thomas.

A knitting Nancy, needle and skein holder by Mac Langford.

A dye maple plate by Jamie Donaldson.

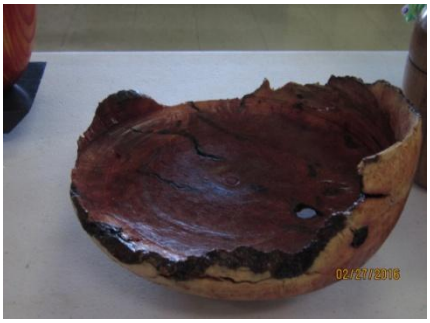
Two piece ornaments by Don Grecco.

Demonstration

Alan Lacer has been involved in the turning field for over 38 years as a turner, writer, exhibit coordinator, expert witness, demonstrator and past president of the American Association of Woodturners (AAW).

His work has appeared in a number of regional and national exhibits. Alan has been a regular instructor and demonstrator of the craft, having worked in all 50 states s well as 5 foreign countries. He has published over 150 articles, columns and tips, covering technical aspects of woodturning, many specific projects and stories related to both contemporary and historical woodturning and the turning traditions of Japan and Germany. He has also produced 5 videos on his own, with three of them winning a total of 5 national awards. In 1999 the AAW awarded him their Lifetime Honorary Membership Award for his contributions to the field. He has also appeared on national TV woodturning programs on PBS and DIY.

Two kinds of black dyes piece,



A burl bowl by Paula Mclain.

a red and yellow plate and

Alan would explain and demo several aspects of the skew chisel and hook tools.

Alan believes the skew chisel is the best teacher though a hard teacher. You either use it correctly or you get instant feedback as a catch or a run back.

A bowl gouge is much more forgiving.

Alan started his demonstration with a little warm up exercise.

Using the skew he created two tiny tops. One would spin on its base the other would spin on its handle.

You need a straight grained wood such as maple or dogwood.

Alan used six different tricks with the skew to make these. A v cut and a parting cut are needed for a good point or they will not spin.

The skew chisel:

The skew does not behave like you think it should.

You have to consider a few points. The geometry has a cut away area.

There is a clearance angle.

You can see the viewing angle.

There is a left and right area so it is two tools in one.

This is not a tool for face grain work!

What is the angle a skew sharpened at? Too much of an angle and it gets “dippy”. Too little and it digs in. Twenty degrees off 90 or 70 degrees is good. A few degrees off is fine.

How far back should the bevel go? Take the thickness of the steel and times that by 1.5.

The two points of a skew have their own jobs. The short point is good for making rounds. The long point is good for breaking edges.

On the body of the skew you round off the edges on the sides. This will make the tool friendly to use. You can do this on a belt sander.

Sharpening:

The usual grind for a skew is one that is bevel that is straight across and tilts at an angle so you have a long and short point.

Another way to grind this bevel has a straight area 1/3 to ¼ then a curve. The bevel is about 70 degrees and 1.5 x the thickness. An example is a ¼ inch skew has a ¾ of an inch bevel.

Traditional grind:

Color the tip and bevel with a marker.

Set your grinder platform so that the wheel makes contact all along the bevel.

Angle the tool and sharpen the left and right bevel.

When the sparks just come over the edge you are sharp.

Curved bevel skew:

Color a section of the skew about ¾ of an inch on each side for the straight area.

Sharpen this area on both sides. You can do this using the platform.

To form the curved section free hand a curve from just below the straight area to the spot you want the curve to end on both sides.

Once you have this blend the curve to meet the straight section.

Besides watching for the sparks to come over the edge how do you know it's sharp?

You can test it on your fingernail to see if it grabs.

Some people will try and see if it will shave hair. This is a good way to cut yourself!

When you ground the tool it will leave burr on the edge that can snap off and dull the tool.

If you look at an edge straight off the grinder in high magnification it will look like it is serrated.

If you hone the edge of the skew using something harder than the steel particles such as a diamond stone you can get a finer edge.

Honing:

To hone a skew with a diamond stone you want to be careful so you do mot roll the edge.

Do not start at the bevel first. Start with the stone on the lower part of the bevel and tip it forward until you have two points of contact.

If you only hit at one point you will roll the edge and dull the tool.

Hone the points moving the stone up and down.

If you hone the skew often it will help you to maintain a sharper edge longer. Once honing does not improve the edge you can regrind the tool and start again.

Skew cuts:

You can rough out spindle turnings with a skew. There are two ways.

A planing cut using the skew at an angle. This is good for smoothing but can grab and remove the corners.

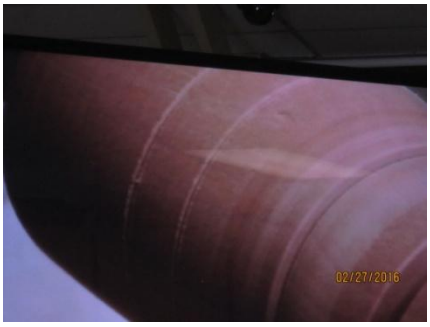
This cut is made with the short point down and the tool positioned at about 45 degrees.

Another option is to use the skew in a peeling cut. You hold the handle low and ride the skew bevel on the work. Bring the bevel and point into contact with the wood by raising the handle.

This will quickly remove wood. Remove a small area at a time. You can use a tradition askew or a rounded version and the straight edge skew chisel.

Oval skews tend to tip too much.

One of the problems you may find using the skew are that it skates or hops.



This can happen with any type of cut. The cause is not being on the bevel but the edge.

Another problem is that the skew may dig in. This is caused when you have engaged a cut but raise the tool too much so that the edge grabs the work.

To use a skew well place the tool on the tool rest.

Bring the tool to the wood but not so it is cutting.
Engage the cutting edge.

You can think of this like a door hinge.

You can use the area near the long point to make a planning cut. The point itself will bite in.

Using the trailing edge above center it can dig in.

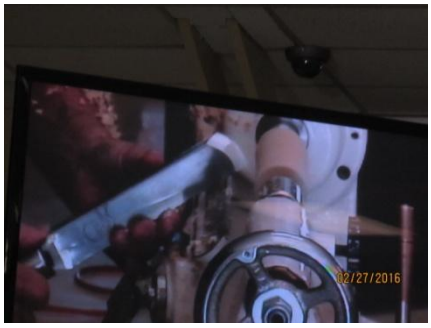
If you use a curves skew stay in the area where it is curved and it cannot dig in though it can skate back.

A skew can cut at 11 o'clock but not on top.

The size of the skew matters on a placing cut as well. One that is too small will have trouble riding the bevel. A 1 ½ to 5/8 are good for rolling beads.

Besides the planeing and peeling the skew is good for other types cuts.

The long point of the skew is good for making V cuts. Angled V cuts are trickier to do. This cut you have to swing in an arc into the work piece by raising the handle.



You can do lines, mark for lay out, make rings and saucer shapes or micro beads this way.

You can roll beads and convex shapes using a skew. For small beads 3/8 or less you can use the long point and small cuts to shape it.

You can use the short point for this also keeping the tools bevel in contact with side of the bead. Use the area right above the short point but not above center of the tools cutting area.

Sometimes it is easier to do this in small passes instead of one long cut.

One cut you will want to master is the shoulder or facing cut. Trying to clean up the end of a piece with a parting tool can make it look like a hay bale.

Use the long point of the skew down with the long edge tilted away from the shoulder about 2 to 5 degrees so there is a shadow.

This cut is performed high on the piece of work using an arcing motion and ending above the center axis of the lathe.

You can also use this for making concave cuts on pieces.

A saucer cut is done much like the shoulder cut except the action is concave. The cut is against the grain so do not take too deep of a cut. This is useful for the bottom of projects.

Parting off a piece from the lathe using a skew is a good way to get a nice finished end.

A series of V cuts a the drive end of the lathe works best.

One problem you may have is a hole in the end of your work. This comes from the piece turning and twisting out a piece of wood.

Remove a little of the pressure from the tail stock and make an angled cut at the core. Use a slow light pass.

Hook tool:

There are two types of turnings. Straight grain turnings such as boxes you need to allow a little bit if play for wood movement. Too tight and it will split.

If you do an end grain box you can create a snap, suction or snap fit.

In Japan they make end grain bowls. The Greeks did end grain calyx. Most of our western turning is about hiding the end grain like in a bowl turning.

The tool for this is sometimes called a bowl loop or other names such as a hook tool.

To use one of these you rub the bevel and pull out wards.

RESOURCES FOR MAKING A BASIC HOOK TOOL:

- Drill rod of "O l "tool steel, 3/8" diameter, 9" length
- Quart of olive oil
- Heat source: forge, MAPP Gas, acetylene, propane with oxygen, etc.
- Tempilstik (optional) in 1450 and 450 or 488 degrees
- Mill file
- Needle nose pliers
- Grinder, Norzon disc mounted on lathe in 60 grit, slip stone

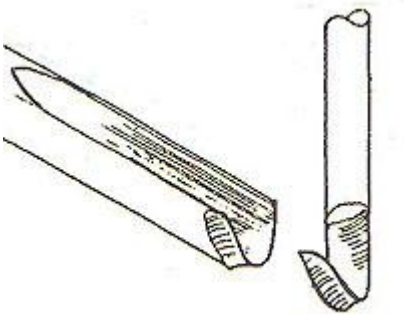
KEY TERMS:

Annealed:
in a softened state

Hardened:
Steel that has been heated to its critical temperature to bring to a very hard and brittle state

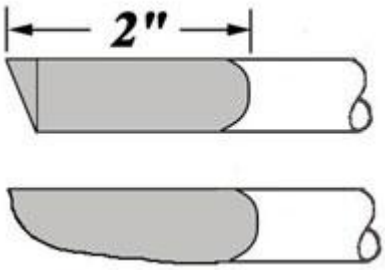
Tempering:
the process of bringing hardened steel to a softer, working hardness for a particular use.

Oxidation color spectrum:
the color spectrum that results from the oxidation of cold steel as it slowly gets hot. First appearing is light yellow moving to darker yellows, bronze, purple, then blues (dark to light), then back to silver.

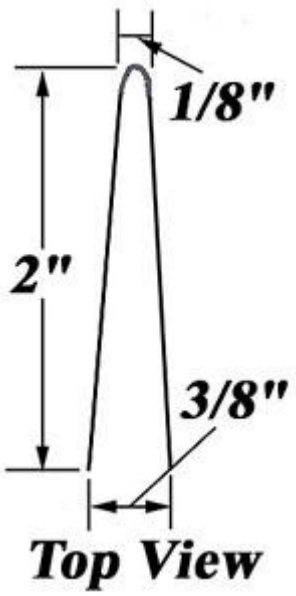


PROCESS:

1. Grind steel to profile in diagrams above (don't get the edge sharp at this time).



2. Heat last 1" or so to bright red and bend with needle nose pliers to create the hook-bending to left as viewed from above (cutting edge down). A "flute" that is about 1/4" to 3/8" across is about right--just be sure you can gain access to the inside flute with the hone!!!



3. Reheat hook area to bright cherry red (around 1450 degrees) and quench in oil, stirring rapidly for about 1 minute. Take your time in heating get a very uniform bright red consistently through the hook area.
4. Test for hardness by trying to file top of hook--should skate off, as it is now harder than the file.
5. Clean the hook and about 3 inches behind the hook--goal is to get as

clean and polished as possible (use soap and water, wet/dry paper, sometimes even a polishing wheel).

6. Temper: heat about 3" behind hook very gradually--avoid bringing to any red--and let the oxidation colors develop. When the hook looks to be a dark yellow color, quickly quench in water. Tempilstik is an option.
7. Sharpen the outside bevel to achieve a cutting edge--cool in water regularly to avoid bluing the edge. Hone the freshly ground edge with a slip stone, followed by honing the inside flute of the hook.

Lathe tips:

The lathe is more than a fulcrum for turning bowls. It is also a runway.

Add some wax to the ways so the tailstock slides easier.

The tool rest can get rough spots or nicks in it. These can cause marks on your work. Use a file to remove any of these.

A steb center has a spring loaded points and many teeth. A safe driver has a point and a cup center.

You can modify a safe driver by removing the pin.

Use a file to with the lathe running to file it round.

Using a round chain saw file add three notches to the cup. These allow it to grip the wood but also will allow it to slip if there is a catch.

Our next meeting will be May 8th with Ron Thomas. He will be demonstrating coloring.

If you would like to see anything in the newsletter or have any suggestions contact:

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