ONE GOOD TURN

Meetings: Odd Months Second Tuesday 6:30 pm Dan Hershberger Shop

Even Months Second Saturday 12:30

Beads of Courage

Thanks to all who made boxes for the Beads of Courage program. This will be an ongoing program because it is for such an important cause. Members are encouraged to make a box or boxes to donate

It's Election Time

It is that time of the year. Elections are taking place all over the place and the Great Falls Woodturners are no exception. Due to family health issues, Tom Krajacich will not be returning as President, so that position is open for nominations, as well as the Secretary position and a position on the board of directors.

Please consider running for any of these positions, or nominate anyone you think would make a good candidate.

Nominations will be accepted at the June meeting and elections will be conducted in July.

We need participation to be a viable club!

May Club Meeting

The GFWT Club held its Tuesday night meeting on 5/10/2022 at Dan Hershberger's shop with 14 people in attendance. "Yours Truly" showed how to make a Do It Yourself (DIY) chatter tool using a $\frac{1}{2}$ " lag screw, short length (about 1 $\frac{1}{2}$ ") of 3/8" galvanized pipe, $\frac{3}{4}$ " copper coupling for a Ferrell, a machine





screw and a 2x2x5" piece of ash shaped for a handle. The galvanized pipe is threaded

June 2022

to hold a ¼" x 20 tpi machine screw to hold the chatter tool blade in place. The cost of



this project is less than \$10. I did spurge and



bought the Craft Supplies replacement 4 blade kit for the tool blades. Total cost of the chatter tool is probably \$20-25. If one wanted to use old jig saw blades that had the teeth ground off and tip squared off with a ½"to ¾" bend (about 15 degrees) it would be about \$10. Cutting a slot in the lag screw was accomplished with a thin kerf blade for my angle grinder. Cuts very quickly. I did round off the hex head on the lag screw to make it round using a belt sander and a cup of water to cool the metal as I sanded. Fairly quick project that I did not invent. Attached is a an article that describes this project better than I could write it up. Hope this give some members of the club a project idea. A drawing was held for the completed tool and the prepared tool kit (just needed to turn a handle) and two members walked away with those as door prizes. Thanks to all who attended.

Tom Krajacich, Pres. GFWT



June 2022

Making a Chatter tool

Based on an article by Ken Grunke of the Coulee Woodturners and Bonnie Klein Modified by Greg Smith Detroit Area Woodturenrs



Tools needed:

♦ A jigsaw (sabersaw) with a metal cutting blade--16-20 tpi ◆
Electric hand drill, or drillpress

♦ centerpunch

• A threading tap and drill bit for the setscrew

• •

♦ ♦

Parts needed:

Lagscrew, 3/8 in. dia., anywhere from 5 to 6 in. long

Setscrew, 1/4-28

A collar with a close fit on the lagscrew. I drilled out a 1/4 in. pipe nipple, and cut it to the length of the shoulder on the lagscrew, which should be about 3 to 4 in. long. – Long enough to pivot on your tool rest.



A 1/4 or 17/64 drill bit for the clearance hole in the collar
The slot for holding the chattertool blade is cut across the points of the

lagscrew's head, and as straight as you possibly can right down the center of the screw. It helps to start a guiding cut with a hacksaw

June 2022

and/or a triangular file, then clamp the screw horizontally in a vise for using the sabersaw. I tried a hacksaw to cut the whole slot, it just wasn't wide enough for a 1/16 in. blade.

Next, drill and tap through the shank of the lagscrew 1/4-28 (10-24 or 12-24 will be fine as well). It should be 1/4 to 5/16 in. from the bottom of the hexhead. Make sure you centerpunch the spot first. Here's a trick for getting right on, or very close to center. Lay the screw flat on a surface with the slot horizontal, a flat on the screw's hexhead will be the guide. Place a flat file on the screw's shank, and making sure the file is parallel to the surface, drag it to make just a bit of an impression on the highest spot of the shank, which should be right on center. If you didn't saw the slot right on center, choose the thicker side to drill and tap the setscrew hole in.



Making a Chatter tool

Aside from making a handle,

we're almost done. Except for one thing: When tightening the setscrew on the blade, what's to keep the two halves of the screw head from spreading apart? Well, that's where the collar comes in. It doesn't have to be thick- walled pipe, in fact copper tubing will do if it fits without play on the lagscrew's shank.

But this is the part that rides on the lathe tool-rest, so steel would be better.

Use a fairly new 3/8 in. drill bit to enlarge the hole in a 1/4 in. Black pipe nipple, held in a vise. Cutting oil is recommended for this.

The clearance hole for the setscrew isn't critical, just measure, mark, and center-punch for it so the hole ends up over the

June 2022

setscrew when the collar is up against the head of the lag-screw. So, you can tighten the setscrew on the blade quite hard, and the collar also keeps the blade from moving side-to-side.

Now, just make yourself a nice handle, with a hole drilled to accept the lag screw. Snug it up tight against the collar, you can grind down the hex points flush with the collar if desired.

If you can't find 1/16 inch carbon steel, try a sabersaw blade-grind off the teeth and bend the end 1/2 inch back from the tip to about 10-15 degrees. I like a round- nosed tip, you can experiment with different shapes.



THERE ARE TWO MAIN REASONS FOR

chatter to occur: either the wood or the tool vibrates. The Chatter Tool is designed to let tool vibration create a decorative chatter; pattern. It consists of a substantial handle with a springsteel tip mounted in the end. Pressing the tip against the spinning workpiece causes the tip to bounce along the surface, producing a chatter pattern. The character of the pattern is determined by the surface speed

of the material, the pressure of the tool against the workpiece, and also how fast you move the tool across the surface.

This method of chatter works best on the end grain of wood or on materials without grain, 'such as tagua nuts, bone, antler, many plastics, and soft metals. In any case, the material should be dense, with a fine, even texture; it doesn't have to be hard.

In the tip of the tool shaft is a 2inch length of spring steel approximately 1/16 x 3/8 inch, shaped to a V- point on the end, which is bent slightly downward. After sharpening, which is seldom, Remove the burr from the tip with' a couple of strokes across the top with some 220- grit sandpaper. If the tip is too aggressive, it will tend to tear the surface of your workpiece. not settle easily into a chatter rhythm. Once the tip is adjusted to the proper length (approximately 1 to 11/4 inches), don't change it. Use a combination of speed, pressure, and tool movement to vary the patterns. It is important to listen for the chatter noise, a sort of squeal, before you move the tool or change pressure. An easy way to describe where and how to hold the tool on the end of your workpiece is to picture this surface as a clock face and to imagine a line from the center to where 7:30 would be. If you move, the tool along this line, with the tip parallel to the line (photo left), it keeps the angle between the face of the tool and the work surface less than 80 degrees and offers the best opportunity for chatter to result.

Using the Tool

Hold the tool so the tool-rest supports the shaft about 2 inches from the work, allowing the tip to chatter without interference. If the tip is too long or too short, it will

June 2022

Chatter tool in Position



It is found that for a workpiece 2 inches in diameter, a range in lathe speeds from about 1,000 to 3,000 rpm will successfully result in a variety of chatter work. The faster the lathe speed, the farther the surface will travel between bounces of the chatter tool, resulting in a larger pattern. A slower speed will result in a finer, more delicate pattern. Because the chatter is partially dependent upon the surface speed, it is more difficult to get a chatter pattern near the center of the workpiece. As the diameter increases, more pressure is needed to keep the chatter rhythm and, conversely, less pressure is needed nearer to the center or on smaller diameters. The Chatter Tool may

be held briefly in one place or moved across the surface. The pattern may become distorted or eliminated if the tool is held in one place too long or if you apply chatter on top of another pattern. Once you have become proficient at creating chatterwork, it is fun to play around with finishing possibilities. Experiment with chatter on either sanded or unsanded surfaces, then sanding or burnishing the patterns. Color with paints, stains, or colored pens under the chatter and/ or on top of the patterns. The possibilities are endless!

Below are two examples of the myriad possibilities for chatterwork enhanced by coloring with felt-tipped pens.

June 2022





the pattern

Instant Gallery



Roger Wayman

Our instant gallery has been a little sparse. If you have made any turnings, send me an e-mail pic of the item and I will include it in the next newsletter.

Jay Eklund

Next Club Meeting

The next meeting will be held Sat June 12 2022 at 12:30 pm. Paul Carson will demonstrating.

June 2022

Thanks

Our thanks to all the Canadian Woodturners Guilds for inviting the Great Falls Woodturners to be a part of their IRD's and their sawdust sessions and zoom meetings

Club Photographer: Paul Snyder

Newsletter/ Web Site Manager: Jay Eklund

Website : http://gfturners.org

Thanks to this months contributors, Tom Krajacich and Paul Snyder

Great Falls Woodturners Directors

President: Tom Krajacich - 727 - 3464

Vice President: Randy Setzer - 453-5226

Treasurer: Chuck Kuether - 727-2442

Secretary: Open at this time

Directors:

Wayne Petrini - 868-8420

Jay Eklund - 737-4529

Camille Good - 590-0714

Roger Wayman 460-0507

Gary Campbell 454-3733