Chippewa Valley Woodturners Guild

JULY 2016

Club member Bob Eberhardt demonstrates the art and manufacture of knitting needles. By using various home made jigs he was able to speed up the process of making the estimated 15,000 knitting needles that he and his wife made.

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Knitting Needles and Tool Sharpening Techniques
Bob Eberhardt

Tool sharpening

Sharpening turning tools effectively requires practice, the right grinding wheel and jigs which can assure consistent results for one's efforts.

The right grinding wheel should be 80 grit. The higher the grit the more apt that the tool will be burned.

Color of the wheel is important. Wheels should be white, pink or green not gray.

Wheels should be dressed often to ensure a smooth edge. Putting a crown on the wheel will enable the tool to be ground evenly due to the process of turning the tool while sharpening. A flat wheel cannot evenly grind a tool that is curved.

Use a sharpening system with an angle setter and obtain a larger tool rest than the standard one supplied with the grinder.

Bob has made a number of jigs that he uses to make the sharpening process go better. Each of these jigs holds the tool steady so the grinding process is even with that type of tool.

Knitting Needles

Bob and his wife actually went into business making the knitting needles and said they made approximately 15,000. It all started because they could not find a #13 knitting needle. It was at a time when knitting was the thing to do

and that everyone selling knitting needles were sold out. Later bob found out that the manufacturers of knitting needles were few and they limited production to keep prices high. Bob and his wife then decided to make them. After all, how hard could it be to make a knitting needle?

This was an interesting demo from the stand point that the whole process was more complicated than one would expect. It isn't a matter of just turning a piece of wood into a knitting needle but a process that required precise measurement and thought which fit perfectly with the engineering mind that Bob has.

One aspect was getting the right type of wood which was Birch. That wasn't as much of a problem except getting Birch dowels. A supplier was found in Minnesota but he had to buy a thousand at a time.

Another aspect of knitting needles was sizing. Knitting needles come in sizes ranging from 6 to 16 as well as 3 different types: one point, two point and circular.

The next problem to be solved was an efficient production. Starting out, Bob only did a very few an hour. After considering the process, he was able to build jigs that brought up production to 20 or more an hour. He even made several with pencil sharpeners that when attached to the lathe, turned larger dowel stock to the correct needle sizes of smaller diameters.

The manufacturing process consisted of 3 steps after sizing the dowel:

1. Making the points with a skew. If really small, he used a pencil sharpener.
2. A topper for one point needles were either Walnut or Cherry.
3. Sand, then shellac, then spar urethane and then finish with a wax buffing. ➶➶

Demonstration: Rick Bauer at June Meeting
(text for this demo was not available at newsletter time in June)

Rick talked about drying wood and also demonstrated his method of making a vase with green wood. He uses the microwave for drying quite often. Rick recommends getting to know your microwave, different models have different power levels. Three minutes on one microwave might barely warm the wood, while on a more powerful model might be a spontaneous fire. Experiment with small increments of time (30 seconds to a minute).

Rick started his vase by mounting it between centers and roughing out a cylinder and making a tenon for his four jaw chuck. While it's between centers he looks at the grain of the wood and adjusts it to find the best features. Once the tenon is formed he mounts his blank in a four jaw chuck.
Here he still pays attention to the grain of the wood, as he forms the outside of the vase the grain patterns inform him on whether to take off more wood and where. Rick likes to find the natural beauty of the wood.

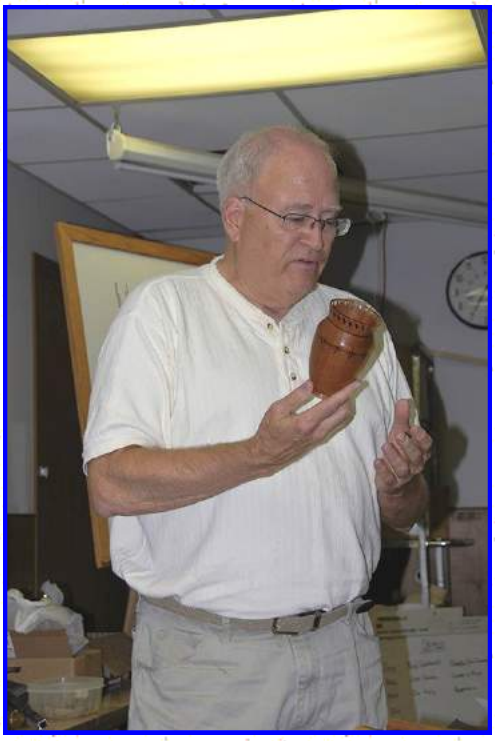
Once the outside of the vase is done he works on hollowing. A forstner bit of the appropriate diameter is a good hollowing short cut. Back out often and evacuate the chips with an air compressor. After this he uses a carbide to take out more material, but at this point he leaves more wood at the base for support.

As the wet wood spins on the lathe centrifugal force causes it to shed water. By the time he was ready for microwaving the wood was already quite a lot dryer. Making the walls thinner allows less time in the microwave. In Rick's experience hard grained woods crack more when they are microwaved. Cyanoacrylate (CA - or crazy glue) with coffee grounds or sawdust makes an excellent crack filler. Sometimes pieces can't be saved, but wood grows on trees.

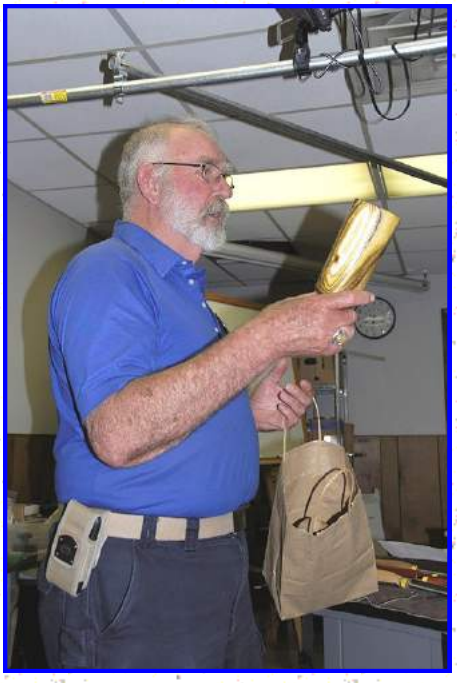
After microwaving the vase is put back on the lathe and the inner and outer shapes finalized.

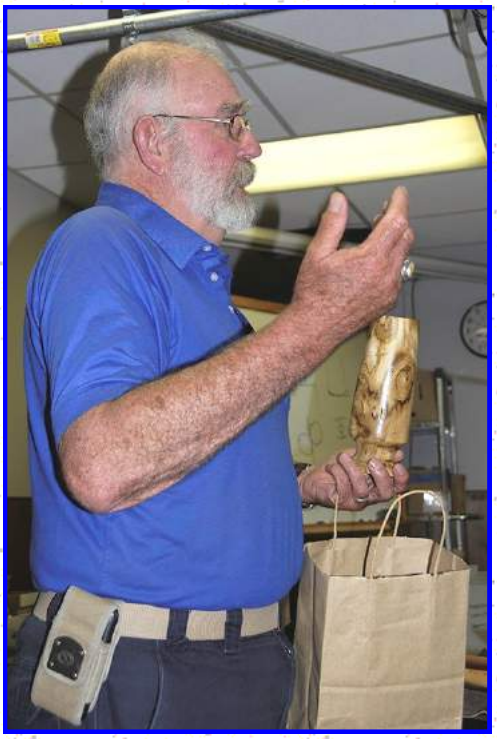
Rick sands on the lathe. Rick applied a wax polish (he keeps a small rag for application in the can - so it's always precharged with wax - less waste). He uses the back of cloth back sandpaper to burnish the rim.

SHOW AND TELL

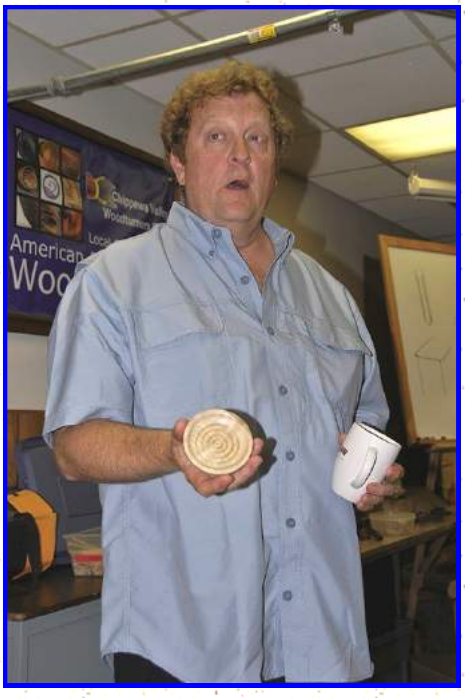


Rich Thelen with 3 pepper-mills plus a carved turning by another member that Rich finished off



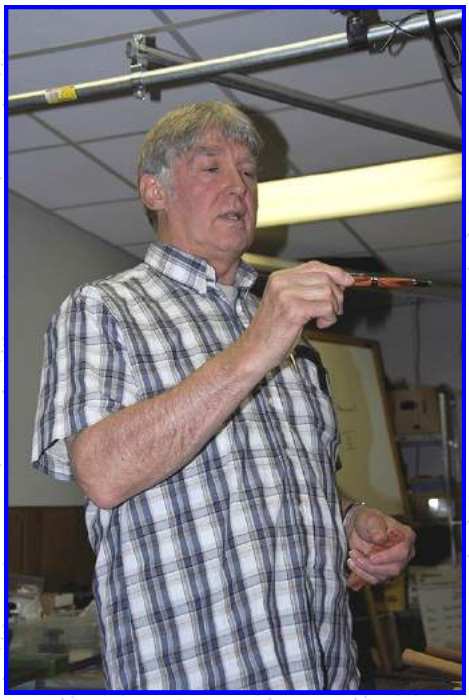


Duane Walker with a Sumac Goblet / Chalice and a Locust Chalice



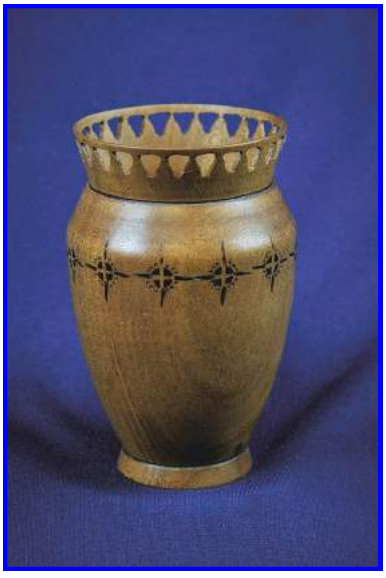
Mark Palma with a coaster

Tom Leonard with a pen made of Brazilian Tulipwood



Missing is Joe Nycz who had patterned bowl bottoms and a mini chop saw from Harbor Freight

GALLERY



MORE WOODTURNING MAGAZINE

YOUR MONTHLY ONLINE WOODTURNING MAGAZINE

Make a Walking Stick

by Fred Holder

When I was younger and my wife and I did a lot of camping and hiking in the woods, I used to pick up a suitable stick around 5 to 6 feet long and about 1-1/2 inches in diameter at the largest end and use it for stability along the trail. It helped to push you up hill when you were climbing and it helped to put a brake on when you were descending a slope. I generally adopted this stick for the duration of the camping trip if it was a good one. I then discarded it when we went home. Well we don't go camping anymore and I don't hike on hillsides, but I do still walk along side of the road and sometimes the uneven ground makes one a bit unsteady. I had thought of making a walking stick for several years. A couple of months ago, the bug got even stronger.

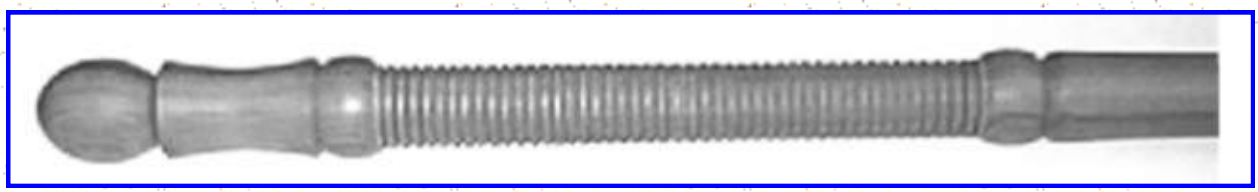
I selected some dogwood square stock that I had and began to work on my walking stick. I wanted it to be about 5 feet long and about 1-1/2 inch in diameter at the hand hold area, but I also wanted to be able to take it in the car should I wish to go hiking in the hills. This meant at least one join.

I didn't think that the brass joins available for canes would be heavy enough for my walking stick. Initially, I made up a join out of lignum vitae, but it didn't work out because as I got the female portion down to size, it was too thin to stand up to the pressure and cracked. It was redesign time! I decided that a 3/4" pipe coupling should be about the right size. I made up two male threaded pieces out of lignum vitae with 3/4" tapered pipe threads on one end and a tenon on the other to join to the walking stick. I had an insert out of a pipe threading machine, so I clamped this into a pair of vice grips and used it as a thread chaser to chase the threads. The iron coupling looked ghastly, according to my wife. So a visit to the hardware store turned up a brass coupling with a hex exterior shape. She didn't like that either.

I mounted a piece of Osage Orange in one of my Nova chucks and chased a thread for the coupling. Using a 1/8" parting tool, I faced off the end of the coupling until it was square with the threads, reversed it so the faced off end was against the shoulder on my holding chuck. Now, both ends were square to the threads. Using the 1/8" parting tool, I then turned away the hex shape of the coupling, sanded and polished. It looked great on the walking stick and my wife was happy with it too.

My join worked well and looked good and was strong. The only weak part was the glue and lignum vitae. It finally took epoxy to hold. I made two more walking sticks with somewhat improved joints using lignum, but I believe that I would settle for boxwood if I make anymore.

Because a lot of my walking is done on pavement, I chose to use a rubber crutch tip on the ground end. They come in black and blond--the blond looked better on the dogwood walking stick, black might look better on a different wood.
Rather than try to make the wood of the stick blend in perfectly with the brass coupling, I placed a bead on either side of the coupling. This gave the coupling a shoulder to butt against and gave a perfect fit. The wood above and below the beads was turned to look like a continuation right through the coupling. I also felt the stick should have some form of texturing for a better grip in the grip area. I toyed with a couple of different ideas, but finally settled on a section about 9-1/2" long made up of 1/4" beads. I have a Robert Sorby beading tool that made this job fairly easy. This worked very well and I've used it to good effect on the other two walking sticks that I've made.



Even though these pieces were only about 29-30 inches long, I had to use a steady rest to stabilize the wood for turning. On small things like lace bobbins and treen, one can normally stabilize it with their fingers. I simply couldn't do so on something this size.
The top part of the walking stick has no function other than decoration. However, the beaded section between the two large beads serves a very useful purpose of providing an excellent hand hold area. I made this section about 9-1/2" long because that was about right for my tool rest. I could bead the whole area without moving the tool rest. The join was made with two threaded pieces of lignum vitae and a 3/4" brass pipe coupling. The threads are 14 tpi chased with a die insert held with vice grips. ⊗⊗

Harold Swanson, a friend who was helping me demonstrate and tend the booth at my last craft show, shows off one of my walking sticks in front of our booth.

Board of Officers Meeting

July 6, 2016

Present:
President Rich Thelen
Treasurer / Membership Keith Jones
Program Director Mark Palma
Newsletter Editor Tom Leonard
Web Master Jerry Engedal

Keith Jones
Membership: Paid - 87
Checking / Savings - See on web site

Mark Palma
Hyde Center Art show in progress until July 13. Clear out works on July 14.

Rich Thelen
Chainsaw Carving Event - Need a few more volunteers.

Tool Director Tom Scyhe resigned position and a call for At Large position as replacement was called for at the last meeting on June1. Two members volunteered for the position and a vote was called for Joe Nycz and Duane Walker to share this position. All present members approved.

Summer Picnic at Bob Eberhardt's family cottage in Colfax is scheduled for July 23. Announcement and directions sent by e-mail to all members and information is also available on line on web site.

Chippewa Valley Museum demonstration on July 4th was done by CVWG members Dennis Cieselski and Richard Ryan.

New Business:
The board has previously authorized the purchase of an additional lathe. Discussion revolved around whether to continue purchasing Delta lathes or look at different brands.

The board also authorized the purchase of a Delta lathe extension.

Summer Picnic

When: Saturday July 23rd 12—4 pm

Where: Bob and Pam Eberhardt's property near Colfax

Bring: A dish to pass, plates and utensils and a chair or two

Show and Tell: Bring your favorite pieces to show the members. Tables will be set up to showcase the pieces.

Directions to the Eberhardt property:

1. Go north on Hwy 40 from Hwy 29 near Elk Mound to Colfax.

2. Go through downtown Colfax and take a left turn into Hwy 170 west.

3. Go about 1 mile on Hwy 170 the take a left turn at the bottom of the hill onto 910th St. (also known as River Rd).

4. Follow 910th St. for 1 mile.

5. Turn left into driveway at E7950.

COMING EVENTS

Meetings are first Wednesday of the month. Open house—Coffee and Chips - is the second Saturday of the month.

Meeting Dates and Demostrations
August 3—Jeff Fegan—Something musical and something on the lathe
September 7—To Be Announced
October 5—To Be Announced
November 2—To Be Announced
December 7—To Be Announced

Open House-Coffee and Chips Dates
August 13
September 10
October 8
November 12
December 10

Board of Directors for 2016

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