

# Woodworkers Guild



of

Southwestern Michigan - <a href="http://www.woodguild.org">http://www.woodguild.org</a> April 2016

**Next Meeting** 

April 12, 2016 7:00pm

Al Collison's Shop at 10292 Douglas Ave.

Take Douglas North to Cooper, it is 2 ½ miles North of Cooper, on the right (East) side. Or you can take 131 to D ave East to Douglas and turn left, (North). Al will have an orange cone and flashing light out to get your attention.

Agenda: The speaker will be Tim Lane who will be talking about boat building with emphasis on 'Rack of Eye' construction, which is building a boat without using plans or line drawings.

The March meeting was held at Al Collison's shop with over 37 members and guests in attendance.

Bill Crown presided over the meeting and solicited for a new guild photographer. Neal Ferguson stepped up to take over Gary's position. A big thank you to Gary Doyle for serving as our most excellent photographer for many years.

Woodcraft donated a Wood River shoulder plane to be raffled with proceeds going to the guild. John Wells went home with a nice new shoulder plane and the guild earned \$95 for its various programs.

Several items were discussed during show and tell.

Art Wurfel presented tops he builds with rip cord handle for launching. He has developed a streamlined building process and provided an instruction sheet for our web page.





Thom Kelley brought in a blue glass vase for which he made a wooden stopper. To apply spray lacquer, he and Art came up with spinning the stopper by a string dangling from a pole. He also has a unique postage stamp dispenser fashioned after a mail box. He and Art also got a jump on cars, truck and road graders for the annual Christmas toy charities.

While in Roanoke Virginia, Ralph Babcock visited a Packard museum with over 90 cars and a Packard built WWII PT boat motor that produced 1200HP via 12 cylinders, based on their Liberty aircraft engines. The curators sent him down the street to a museum with a Gerstner Tool box collection



Matt Erdmann brought in turned bowls from applewood and a beverage tote he made from 100 year old barn wood.





Kevin Wixson brought in a Stanley #2 plane he had purchased from an antique tool dealer in Bangor. He also purchased a Miller plow plane from 1876. He is gathering tools to outfit his 100 year old home with period furniture, having lost all his existing furniture in a house fire.

Ben Tanis is asking for some help with his personal project of having elementary school kids learning about woodworking. This year he is going to have them build (assemble)

bird houses. He needs some help making the parts for about 250 houses and he has it all set up in his shop so all you have to do is show up and he'll put you to work. Please contact him at 269 345-7446 for more information and to sign up.

The evening was turned over to feature speaker Chris Barber from the Grand Rapids Woodcraft store. Chris started working for Woodcraft in Grand Rapids right out of high school. He soon joined the Navy and served our country for six years. He returned back to Woodcraft and has become and accomplished woodworker and instructor. He is in the process of starting his own custom furniture business Maple River Furniture.

Chris's presentation for the evening centered on mortises and tenon joints. He discussed hand cut methods along with machine cut methods that included band saw, table saw jigs, router jigs, and dedicated mortising machines. We watched a short video of Paul Sellers quickly carving out a mortise using only chisels. To cut tenons by hand one will want to consider having access to dove tail, crosscut and tenon saws. Chris demonstrated cutting with a Veritas saw that went through the wood like butter. Then with a Rob Cosman saw that cut the wood like hot butter. The Veritas saw has a 0.003" tooth set, and the Cosman have 0.002" tooth set. For reference a typical sheet of paper is 0.004" thick. The Cosman saws are a little heaver, have a stiffer brass back, and the leading teeth are finer cut to ease starting. Those features come at a price of 3~4 time the Veritas. To clean up the tenons, Chris has an arsenal of hand planes at the ready.









There was discussion on dedicated mortising machines. Chris had just upgraded from a bench top unit to a dedicated floor model. He commented the floor model is a significant step up in performance. The heft alone is a big improvement. Set up of the cutter/drill and sharpening techniques we discussed.





Chris also brought down from the store a new table saw tenoning jig from Powermatic. It was difficult for everyone to see the jig setup and operation; however Powermatic has an online video showing the setup and operation in great detail. Once

setup and dialed in this make cutting repetitive tenons a breeze. As with everything, it comes at a cost. List price is \$330. Link to the video is

http://www.powermatic.com/us/en/p/pm-tj-tenoning-iiq/1799000.





Chris recommends which ever method one choses start with the tenons first. Other tidbits of information passed along include the use of Shapton stones to keep a sharp edge. A lot of his hand tools come from Lie-Nielsen, so he also purchases their tools for maintenance as well, small screwdrivers for example. As one would expect, they come with Lie-Nielsen quality and price.



Weaved into the evening was discussions around haunch tenons, draw bore pegs, through tenon and wedges and the use of twin tenons to compensate for expansion in thick material.

The Paul Sellers video of cutting a mortise in oak can be found on YouTube at <a href="https://www.youtube.com/watch?v=LPBkO2chZxk">https://www.youtube.com/watch?v=LPBkO2chZxk</a>

The guild thanks Chris for coming down and giving us an informative evening.





### **Guild Officers**

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Vice President - Al Collison 685-8428

Treasurer - Mike Cline 685-0535

Newsletter Ed. - Scott McDavid 544-2177

Secretary - Douglas Lynes 324-1449

Photographer – Gary Doyle 273-8035

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## **Spinning Top**

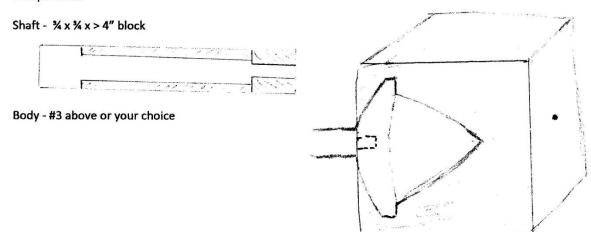
#### Art Wurfel

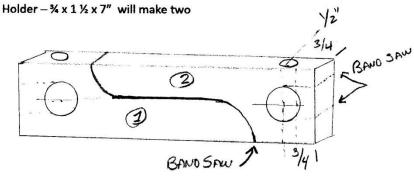
Based upon my experience with my grandkids, these things are fun toys for all kids from about 3-10 years. They're also fun to make and leave room for a lot of creativity.

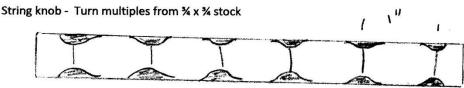
All you need to manufacture these is basic tools and a lathe. I found a couple of things worth considering:

- 1. Cherry and Maple are the best for strength, finish, and turning. (I used misc. scrap)
- 2. Glue-ups are fine for the body and mixing woods gives a unique look
- 3. 2½ wide by 2-2½ deep is a good start size but overall the top works best if the finished body is a bit wider than it is deep.
- 4. You can make the whole thing from a solid piece, but turning the shaft section will mean clearing out a lot of wood, so I made that separate as shown in these manufacturing plans.

#### Components:







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bit wider than it is deep.
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Components:
Shaft - % x % x > 4" block
Body - #3 above or your choice
Holder – ¾ x 1 ½ x 7" will make two

String knob - Turn multiples from % x % stock

#### **Manufacturing Process**

Warning! I am a completely self-taught mini-lathe operator with only the basic (gouge/skew/parting) tiny tools. All were originally purchased to turn pens and I surely do a lot of things "wrong".

Prepare the BODY for turning on the lathe by locating the center on each end.

Drill a centered 3/8" hole %" deep on what will the top side. Center-punch the bottom for the tail stock. I then penciled a circle on the Body and cut just outside of it on the band saw – saves the chore of knocking off those edges on the lathe.

SHAFT: Prepare centers on both ends for mounting in the lathe. On the tail end, turn a 3/8" tenon < 3" long (test for insertion into the body). Turn the remainder to approximately 5/8 round at this point, and leave at least 1/2 " of the head stock end for later re-mounting on the lathe.

Glue the Shaft into the Body and let the glue set.

Remount into the lathe and begin shaping the body to your preference. I found it easiest to:

- 1. work the body to rough shape
- 2. Turn the shaft down to 1/2" (now everything is in smooth balance on the lathe)
- Use a parting tool to curve/taper the top of the body from the outside down to the shaft (multiple passes required). I found this is necessary to assure balance and it adds to the appearance as well.
- 4. When you are shaped and have the point down to about ¼ from the tail end, do the sanding and confirm with a calipher that the shaft is a bit less than ½" (so it will fit easily in the holder).
- 5. Finishing the tapered point and parting it from the waste at the tail end is a bit tricky (go slow with a sharp skew).
- 6. Hand sand the point, and drill a 1/8" hole in shaft for the string about 1" from the body. Good idea to counter sink that a bit to make it easier to insert the string.

HOLDER: I made two at a time out of the ¾ x 1 ½ x 7" stock. It's pretty simple:

Drill the  $\frac{1}{2}$  hole for the shaft, bore the  $\frac{3}{4}$ " hole for the string opening, cut it out on the band saw then finish by routing, sanding, etc. I also used a large counter-sink on each end of the  $\frac{1}{2}$ " hole to clean up the looks and make it easier to put the shaft in there.

PULL KNOB - I just turned multiples about 1" long from %" stock then drilled a 7/64 hole for the string.

The string I used was the braided stuff like what is used for plumb line. Singe the ends, knot one end so it won't pull through the knob, and I found dipping the other end about 1/2 " in paint stops it from coming unwound under use.

FINISH: I like using spray can laquer for this kind of stuff because it's tough and dries fast. I use a thin wire to hang the top from a long string, spin it, then spray while its rotating. Same for the holders and knobs.

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