



Contains February, 2015 Minutes

March, 2015

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**BUCKEYE WOODWORKERS
AND WOODTURNERS
February 14, 2015**

Anyone wishing to submit pictures for the newsletter please send them to the editor within two days of the meeting

**BUCKEYE WOODWORKERS
AND WOOD TURNERS
Feb. 14, 2015**

Respectfully submitted,
Jerry Schaible, Sec.

The meeting began with Pres. Bill Stone giving a welcome to all 38 members in attendance. He hoped that they would have a great learning experience at the meeting.

Pres. Stone indicated that there would be free donuts today due to the fact that the board of directors voted to include that in the Give Back program that was started several months ago.

Pres. Stone also mentioned that part of the meeting today would be given to David Dudley from Pittsburgh so that he could explain the upcoming AAW Symposium scheduled for Pittsburgh, Pa. He will be allotted ½ hour to explain his need for volunteers required to put on the show.

There will be the planned February Tool Sale at Hartville Hardware this coming Friday and Sat., Feb. 20 and 21. We will have two lathes available to turn on. Members will be needed to demonstrate. They are to bring their own tools as well as their own wood blanks to use during their demo. Hartville Tool will

have discounts available on all turning tools. We are in the process of creating ID cards for our members so that they can be given a tool discount throughout the year. Hartville is also interested in carrying exotic woods and character wood, such as wood crotches, spalted maple, curly maple, walnut, and cherry for turning blanks in the near future.

George Raeder will be giving the demo today on vacuum chucking. The March demo will be given by Dave Wells on Finial Fundamentals.

Pres. Stone mentioned as an update, that the new lathes are in the store room and all are set up and ready to go. They will be used for the Hands On activities that the club has for its members, several times during the year.

Bill Stone stated that 5 wood turned pieces were submitted and donated to Doll Lumber Co so that they could take the turned items to the State Lumberman's meeting to be held in March. It was mentioned that Eric Doll has become one of the members that judges some of the wood projects for the Ohio State Fair. He mentioned that they have a category at the state fair for wood turned items and that we should encourage our members to submit some pieces. There is some monetary award that will go to the judged places by the committee.

Pres. Stone wanted to take a head count on whether we have enough interest in having a Hands On activity on Sunday, the day after we have a pro demonstrator, John Lucas, at our club. A show of hands yielded a total of 8 people that were interested. It was noted by the president that the Sat. demo would be free to all our members but that the Hands On activity on Sunday would be at personal expense by those taking the class and depending on what John Lucas would charge per day.

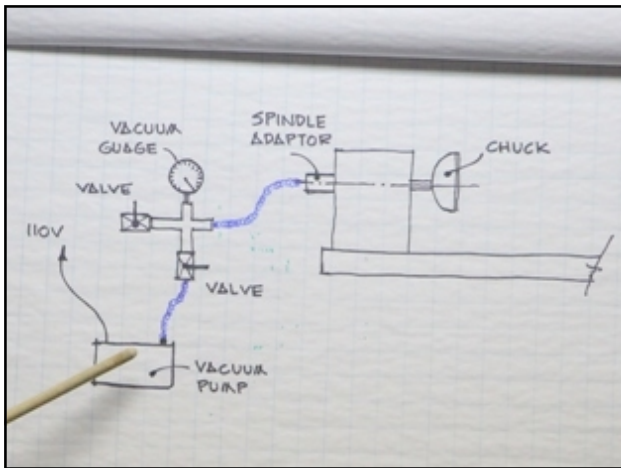
The June meeting will be held at the Doll Lumber Co. saw mill grounds. The meeting will be attended by

both BWWT members as well as North Coast members. It was noted that there will be a lot of people on the grounds and everyone should have a good time. There was no mention of a demonstration during the day.

George Raeder, Vacuum Chucking Feb. 14, 2015

Respectfully submitted
Jerry Schaible, Sec.

George Raeder introduced the club members to the vacuum chucking system that was purchased with the money from the Larry McCardel Memorial Money Fund. George stated that the vacuum chucking system will use science in wood turning. He indicated that we will use atmospheric pressure to press the bowl against the lathe chuck so that the bottom can be turned and any fancy design can be added or scroll chuck gripping marks can be removed.



George indicated that you will use a vacuum pump that will create a vacuum through the headstock spindle to hold the bowl against the rubber cupped or flat surface on the chuck. The vacuum will pass through a flex line, to a valve which will control the vacuum to the bowl. There will also be another valve so release some of the vacuum if it is too much, so that it will not crack the bowl with too much atmospheric pressure. He also has a vacuum gauge attached to the in line process, so that one knows how much vacuum you are drawing. George did state that one can get up to 350 lbs or more of vacuum and that is strong enough to crack the sides of thin

walled bowls. He indicated that the pressure cannot be determined by a number, because each bowl is different. He said that this has to be a trial and error judgment and previous experience will be a great help.



George indicated that there are different ways to create a vacuum. One method is to use a vacuum generator. Those cost about \$150 plus you need to have a compressor to create the vacuum through the Bernoulli principle of a high volume of air passing over an orifice, creating a vacuum at that opening. He said that he has experienced some problems with this method. One of the faults is that it is very difficult to create a consistent vacuum throughout the vacuum and compressor cycle. The other option is to use the vacuum pump system. George indicated that the pump that they purchased was made by Gast and sells for a cost of \$460. By this method you will get a consistent vacuum throughout the system. This system connects to the outboard side of the headstock.



You could use a lamp rod system to carry the vacuum through the headstock. You would use rubber washers to seat the rod at each end of the spindle. You would also have to use a ball bearing and a 1/4" npt

compressed air line fitting at the outboard side to make the system functional. These are sold commercially through most wood turning supply catalogs. One can also purchase an adaptor that will fit on the outboard side of the head-



stock and it has a bearing that rotate with the headstock revolutions. It should be noted that this adaptor will need to fit the threads or shaft that is on the outboard side of the lathe. Again, George warned that one must be able to regulate the amount of vacuum or you will crack the thin walled vessels. The vacuum pump gauge will give you some indication of the amount of vacuum that you are pulling, but you

have to use judgment on what is sufficient to hold the bowl in place.

There are several vacuum chucks that are available to hold the bowl in position. They are as follows.....

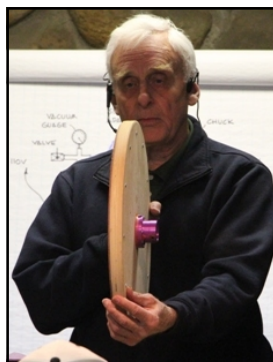
1. One can make a chuck by simply getting two layers of plywood and glue them together for double thickness and then mount them to a dedicated face plate. Then turn them round and true up the front face.

Take a piece of PVC pipe that is about 4 inches in diameter and 4" to 6" in length, and true up



both ends of the pipe on the lathe. Then cut a groove 1/4" to 3/8 inches deep into the double thick plywood and then to match the wall thickness of the pipe. This section of pipe can be glued into position with the use of Titebond glue. Use some closed cell foam to cover the end of the pipe so that this will provide a tight seal so that the vacuum will not leak out. This chuck would be ideal for bowls and some enclosed vessels.

2. One can make another style of vacuum chuck by using a dedicated face plate and take make a double thick plywood face, using 3/4" plywood. Make this about 12" to 18" in diameter, depending on what size the lathe will take. After the plywood has been glued



together, and the ends trued up, turn a flat true surface on the inboard side. Glue a large sheet of closed cell foam onto the surface of the chuck. This chuck would be ideal for platters and flatter turnings. But one needs to be careful to use the bleeder valve to release some of the vacuum on these large turnings.

3. Another style that one can use is to purchase some Oneway chucks with circular rubber boots attached to the end. These will cost from \$90 to \$200, depending on the size desired. Make sure that the threads fit your lathe. This would be ideal for bowls and platters.

This vacuum system and chucks takes the place of the Cole Jaws that can be purchased for about \$100 without the cost of the chuck. The problem with the Cole Jaws is that they are not tight and will not hold the bowl securely from coming off during the turning process.

Hold Fast does make a very nice centering device for centering up the scroll chuck after the piece has been turned. These are placed into the tailstock end by

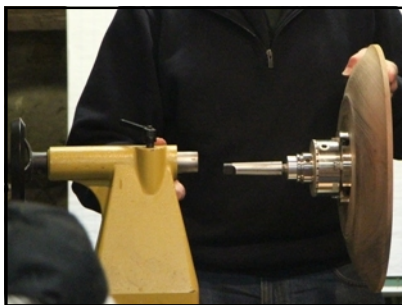




means of a Morse Taper #2 shaft, and the scroll chuck with bowl mounted, is hand tightened into position and then brought up to the vacuum chuck on the headstock and the vacuum is

turned on to hold the bowl. The tailstock and the scroll chuck are removed and the bowl should remain in position on the vacuum chuck and ready for turning the bottom. Another method of centering the bowl to the vacuum chuck is to use the tailstock indent in the bowl and place the ball bearing center into the tailstock and bring up the tailstock until they point of the ball bearing center is mounted into the indent in the bottom of the bowl.

That should center the bowl in position to finish turn



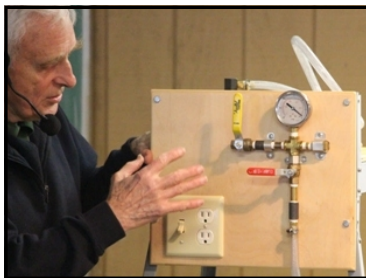
the bottom. It must be noted that there cannot be any carvings or piercings in the bowl because then it will not hold a vacuum. Ambrosia maple will not work well since there are

bug holes that will not hold a vacuum either.

The total cost for a vacuum system is broken down as follows.....

Cost of fittings was about \$90, cost of the Gast vacuum pump was \$460, cost of valves was about \$70, with other sundry costs for vacuum lines, chucks costing \$100

or more to fit your needs. If a multiple of chucks are desired then the cost would go up from there. The complete system could cost as little as \$300 with buying some items as used equipment and making many of the chucks yourself, OR the cost could be \$650 to \$800 if you purchased everything new and depending on how many chucks you desire.

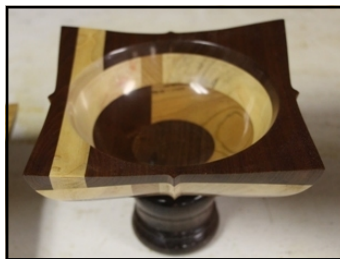


George stated that it is difficult to determine the amount of vacuum that is needed to hold a piece on the chuck. He cautioned that one should always take light thin cuts so as not to put pressure on the vacuum system and chuck. When turning near the center of the piece, only a low amount of vacuum is needed. When turning near the outer rim of the piece, a higher vacuum is needed. Sometimes George will leave a thicker bottom in the interior of the bowl or platter. He may later cut a recess or tenon in the interior so that he can remount it on a scroll chuck. This may be required to true up the bottom recess if needed, due to the drying or warping out of position or if he wishes to make any refinements to the bottom. Then he can remount it in the bottom recess and turn the interior thickness away to have a very clean and true interior.



Thank you to George for describing and informing the members on all the fine points of vacuum chucking.





Calendar of Events

PLEASE NOTE

BWWT MEETINGS ARE HELD ON THE SECOND SATURDAY OF EACH MONTH BEGINNING AT 9:00AM

March 14, 2015.....Dave Wells, using a bearing to support spindle turning & Finial Fundamentals.

April 11 2015.....Hoby Horn on Wood burning and Electrification Art.

May 9, 2015.....Howard Lorson, Demo to be announced

June 13, 2015....Annual Club Outing at Doll Lumber Co.

July 11, 2015....Annual Club Auction of Donated Equipment and Wood

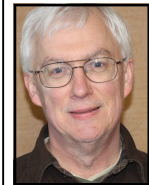
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