

The York Woodworkers Association

Newsletter for March 4, 2019

Tool Sharpening

Greetings all and welcome to the March 2019 club newsletter. If you have suggestions for improvements, please email me at martinsolutionsrh@att.net
Or ron.martin52611@att.net



Message from the President: I for one, am enjoying the newsletters that Ron is creating. From what I understand Ron has received emails from some of the members that have not been able to attend all the meetings. One important thing to share is the newsletters will be posted on our web Page, (only 3 at a time though). We will keep this change in place and maybe even improve as time goes by. I hope each of you have a spring project underway. I am inspired by the works of Bill Wilson and Richard Summers and their “High Boy” construction, this may be my next project. I am also contemplating china cabinet with 13 pane glass doors. Oh, the decisions one must make.

Don Lee

The April 2019 Meeting: Monday, April 1, 2019

We'll be at Jimmy Matthews shop – 300 Grayson Road, Rock Hill, SC 29732. Phone: 803.325.4952. Donnie and Richard Summers will be presenting a program on Leigh Dovetail Jig & Hand cut dovetail demo. Leigh dovetail jig & hand cut dovetail demo.



For our March 2019 meeting Donnie Lee presented a very informative presentation on Tool Sharpening. As always, his presentation was well organized, filled with valuable information and contained many demos on how to properly sharpen numerous shop tools (lathe, chisels, etc.).

Before starting his presentation, Donnie went over changes that had been made to our web site. Some of these included: the meeting schedule and topics for 2019, telephone numbers in case you needed to call one of us, times and places for our meetings, and told the members that we had schedules populated with proposed topics through part of 2022 but to avoid confusion only 2019 was being posted on the web site. He also strongly encouraged everyone to visit the web site to ensure they were headed to the right location and phone numbers have been posted throughout the web site in case there are any questions, or anyone needs further directions to a location.

Donnie also took minute to show off his newest completion: A Handkerchief Table. These were originally made in the 1740's out of Boston. A gentleman found one of these and received permission to make a copy of it. In 1985 Fine Woodworking shared the completed rendition of this age-old classic. It's a drop leaf table which was no problem for Donnie. It also has a wood hinge on the back leg. In the article the gentleman had a built-in stop at 64 ½ degrees to stop the leg so it would be in relation to where it needed to be in relation to the table top. As Donnie built the hinge which served as a stop for the back leg, it was required to round off part of the rear skirt which served as half of the hinge. This allowed the hinge to reach a point that it would not open anymore. This created an approximate stopping point allowing the correct position of the real leg when opened.

Also, he had been asked about the beautiful bowl, he turned last month, if the table was going to be a door prize, his answer was emphatically the same..."NO"! I spoke with his wife, Vickie and she said he was saving both to use as door prizes for the Christmas Party in December! Just kidding Donnie!!!!

With this business taken care of, Donnie began his presentation on tool sharpening. He does most of his sharpening on a Tormek (slow speed grinder) for things like wood chisels, plane irons, etc. He had a separate jig for sharpening his lathe tools (however you can buy a jig for the Tormek that does this as well). This is coupled with grinding stones, leather belts, etc. On the wood turning tool grinder he has a CBN (Carbon Boron Nitride) which is a man-made substance on the wheel which is almost as hard as a diamond. In fact, it's so good on the aluminum wheels that it's guaranteed for life. This high-speed grinder runs about 2800 rpm's and with the stone wheel on it, it's very easy to get your tools hot. If you get them too hot, you lose that temper and they are not going to stay sharp. With the Tormek (even with the CBN wheel on it) running at 200 rpm's you don't get the heat buildup or the sparks like you do on the other grinder.

Donnie emphasized sharp tools are a must for bowl turning. A dull tool will hurt you. Another thing you want to do is always to protect yourself – face shield, goggles/protective eyewear, dust mask, etc. Another thing he warned against was wearing gloves around rotating equipment. You can use them while setting the piece, but never while the equipment is in use. The dust mask he uses is called "Dust Be Gone" – it is relatively inexpensive (~\$30) and is washable. With the Tormek (you can run either dry or wet {through a bath water}) you are running at a much slower speed (the manual says if you sharpen dry the stone is not going to last as long). Tormek Grinding System (Pictures 1 & 2)



This is Harold - he is not associated with the Tormek Grinding System. He comes as a "free" add on accessory during this demonstration :-).

Chisel mounted in accessory jig

Tormek Grinding System

Sharpening Stones



Donnie started his presentation with an old abused, beat up chisel and started to show us how to put an edge on it as well as a secondary bevel. He will also demonstrate sharpening on wet stones. For stone sharpening he showed us a jig made by Veritas that is inexpensive. (Picture 3, 4, 5)



Donnie likes it because it has a wide wheel on it. Also, it has a little cam on it (once you get the angle right) which allows you to adjust the angle in one-degree increments. This lets you know what degree you are putting on the secondary bevel. He showed another one as well however it only has about a $\frac{1}{2}$ " wheel and when you are trying to hold it with the chisel in it, it's easy for it to rock and roll and even worse if you have a stone which might not be true, the wheel is going to follow whatever is on that stone.

One thing about whatever system you are using is the use of jigs. Jigs provide a means of consistency. Once you have them set and if you don't change anything, you are going to get consistent result each time. By putting a secondary grind on the tool, you are going to make it even sharper. Should you dull it up, you don't have to go back and re-grind the whole hollow grind, all you have to do is touch up the $\frac{1}{16}$ " secondary bevel you put on it on the stone or you can go back to the Tormek and do it.

Using leather (I.e. leather barber strap or leather wheel on the Tormek) gives that final polish and razor-sharp edge to your tools. You can also use Aluminum Oxide (leather strap and Aluminum Oxide available from Amazon). You can sprinkle the aluminum oxide onto the leather strap and just rub it in. What this does is just put a mirror finish on the secondary bevel.

Next, he talked about diamond sharpening stones. Donnie had both diamond stones and hand-held diamond sharpeners. He also uses these techniques for putting an edge on card scrapers.

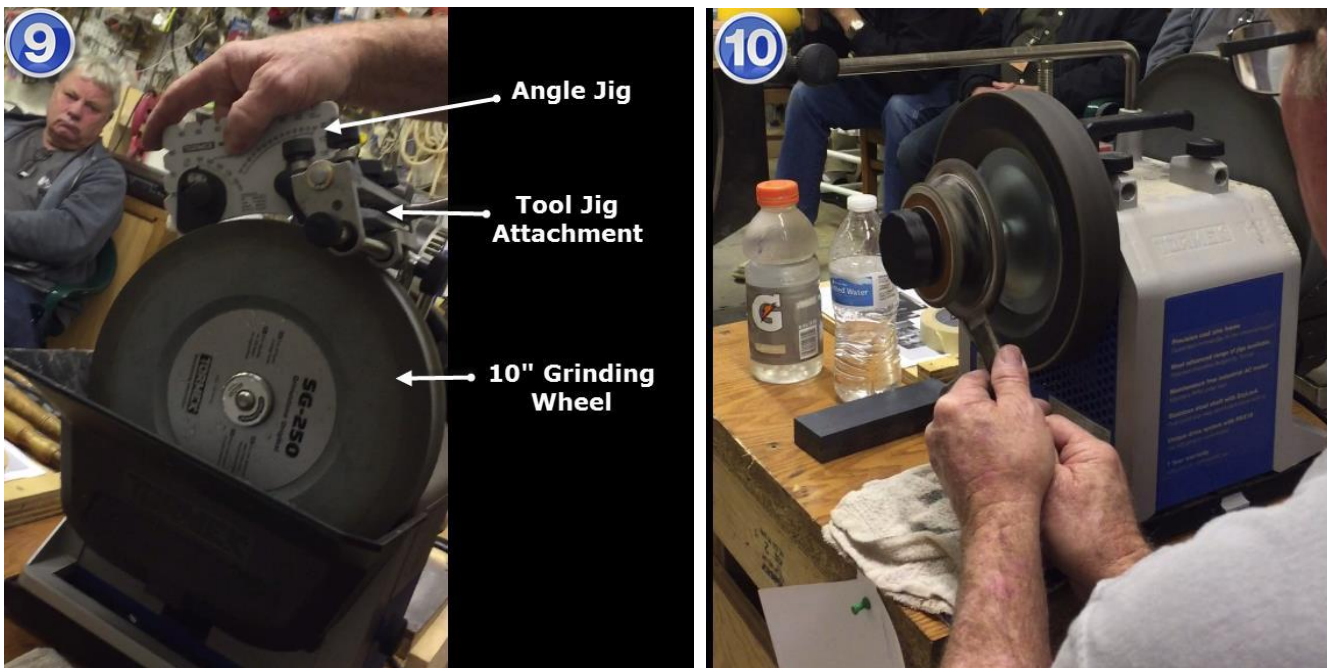
Donnie started his demonstration by placing the chisel in the Tormek jig. He pointed out that you don't have to put a lot of pressure on the chisel. He also had stops on both sides of the jig because you don't want the chisel to run off the edge of the grinding wheel. (Picture #7) Before starting he takes a black magic marker and marks the edge of the chisel so he can see where the grinder is cutting.

He then adjusts the jig to obtain the perfect angle. A chisel is typically sharpened between 15 – 30 degrees. 15 degrees would be more for softwoods and for hardwoods you would need to go to 25 – 30 degrees. When you are grinding, it's best to grind toward your cutting edge. When you're finalizing your edge on leather obviously, you want to do just the reverse because if you go toward the cutting edge on leather, it's going to grab and throw the tool, tearing your leather up.

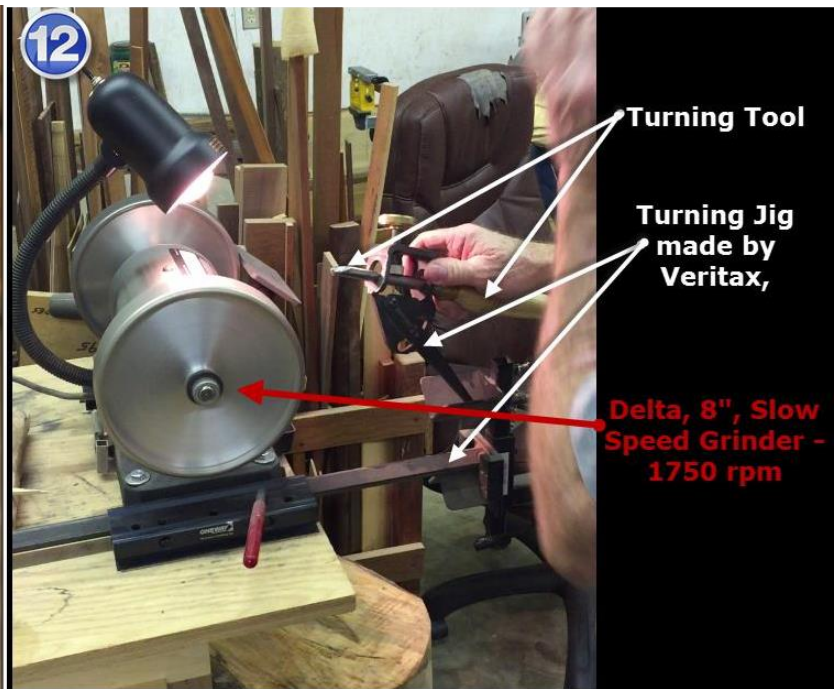


He then showed a jig (or accessory) you can get with the Tormek to set the angle between the grinding wheel and the jig (Picture #9). This jig has two different cams on it. One you set for the size of the wheel (his was a 10") and the other you set for the degree you want this grind to be on. In this demo he set the degree at 25.

He then took the chisel to the wheels mounted on the other side of the Tormek for finer honing (Picture #10)



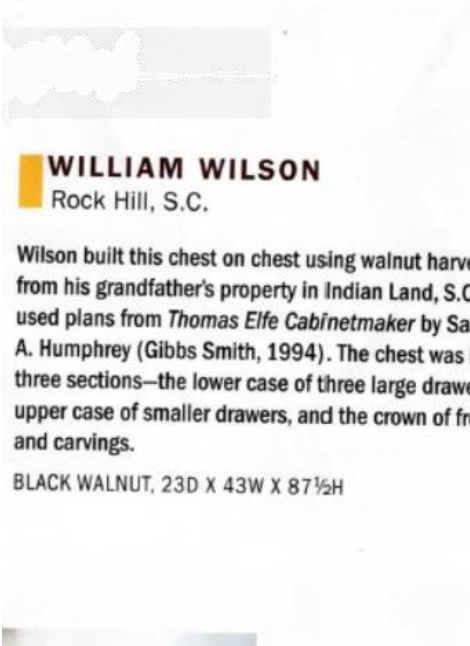
Although still not exactly where he wanted it, he passed the tool around showing the polished edge and the 1/100th secondary bevel. (Picture #11)



Donnie then showed a jig specifically for sharpening turning tools (on the Delta, 8" Slow Speed Grinder – 1750 rpm). (Picture #12) The tool is set at 2" past the jig and this doesn't change. He was able to accomplish both the primary bevel and secondary bevel on this machine.

This concluded the Sharpening Demonstrations.

One of our very own, Bill Wilson, received the distinct honor of having his walnut chest on chest featured in the March/April, Fine Woodworking Magazine edition # 274. Congratulations Bill, on your exceptional craftsmanship.



WILLIAM WILSON
Rock Hill, S.C.

Wilson built this chest on chest using walnut harvested from his grandfather's property in Indian Land, S.C. He used plans from *Thomas Elfe Cabinetmaker* by Samuel A. Humphrey (Gibbs Smith, 1994). The chest was built in three sections—the lower case of three large drawers, the upper case of smaller drawers, and the crown of fretwork and carvings.

BLACK WALNUT, 23D X 43W X 87½H



FROM THE EDITOR: This concludes the March 4, 2019 newsletter on Sharpening. I hope I have done you all and Donnie justice. Thanks, Donnie for a very educational, informative and exceptional meeting. I would also like to extend my apologies for taking so long to get this newsletter out to you. I try to make this as good a newsletter as possible however it does take tremendous amounts of time to create, document and supply this much detail. It is my honor to be able provide this service to such a wonderful and skilled bunch of folks. Hopefully I can supply you with the April newsletter by the by the end of the month. Thanks for your understanding.

Finally, the newsletters are now being published on our web site. You can view and print from the web site but, cannot save the file. Therefore, I will continue to try and email them to everyone as well. We are only able to post 3 newsletters at a time. When we reach the 4th newsletter, the oldest one will be dropped.

Happy Woodworking,

Ron Martin

Newsletter Editor

Greatness is not standing above our fellows and ordering them around - it is standing with them and helping them be all they can be!

