



Established 1987

First Woodturning Club in New England

Next Meeting

August 7, 2014

5:30 PM

Learn & Turn

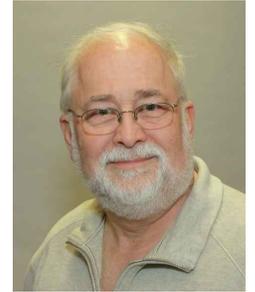
Mickey Goodman

Demo

Mike Peters, Todd Heino

Tool Making Jig

President's Letter



My failing memory recollects some Kennedy guy making an address saying “Don’t ask what your country can do for you, but what can you do for your country”. Well let’s take it that statement one step further and change it to “Don’t ask what your turning club can do for you, but what can you do for your turning club?” One area that I really enjoy and feel fulfilled is when I help other folks that are learning and new to turning to improve their skills. I have been involved in many crafts; pottery, fine furniture making, stained glass, glass blowing to name most (I don’t think paint-by-number counts). Wood turning is the only craft I have been involved in where others in the craft truly WANTED to help others improve. That’s from the nationally and internationally named turners to someone in a club that shows/demonstrates to others a skill that they have that would be interesting. I again think about the AAW Symposium where so many “new to me” techniques and innovative turning options were demonstrated.

I saw a demo by Neil Scobie, an Aussie turner, where he made an offset donut with the top being thinner than the base. My explanation doesn’t do it justice. Bill Oliver and I are attempting to reproduce it. My notes were a little vague so I decided to email Neil for clarification. Neil emailed me back and clarified where my notes weren’t clear and also said he was really glad someone was attempting to make what he demonstrated.

Why don’t you help a member advance their turning skills or why don’t you challenge yourself by stepping out of your comfort zone and make something you have never made before. That’s how you can help your club!

Here is a good change by making the “monthly challenge” of either an inside-out ornament or a bird house ornament. I bet Reid would like to see who would make the attempt and worth the time and effort he had to put in to making the demonstration. Bring in your successes as well as your failures. We can all learn from both.

See you at the next meeting on Thursday, August 7th.

Mickey

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Minutes June 5, 2014 Meeting Art Bodwell for Eric Holmquist

- Visitors - 0, Attendance 20 +/-
- Minutes - Approved
- Treasurer - current balance \$3,835
- Old Business

Mickey reviewed the AAW Symposium he attended in Phoenix. Mickey asked for a volunteer for safety officer-Steve Reznek volunteered. Howard agreed to construct a safety shield for the lathe

- New Business

Todd discussed a problem with too much stuff in the limited space we have for storage.

Members voted to increase insurance coverage at the next renewal date

Todd volunteered to hold summer picnic. He will email possible dates.

Steve discussed possible chapter participation in AAW project challenge at next symposium

Jerry reported on outside demonstrators

Tim Yodder-October 2014

Joe Ruminsky-April 2015

Mike Mahoney-Sept 2015

Other possibilities were mentioned for future times.

Members agreed to host up to 4 outside demonstrators per year.

Al Faul's wife donated several pens for the returning soldiers fund

Howard will hold originals of information for the librarian.



Todd is cooking!

eNEW picnic

Saturday August 16th

Rain date Sunday August 17th

11:00 am to whenever

148 Howe Street, Natick,
MA 01760

508-736-1117

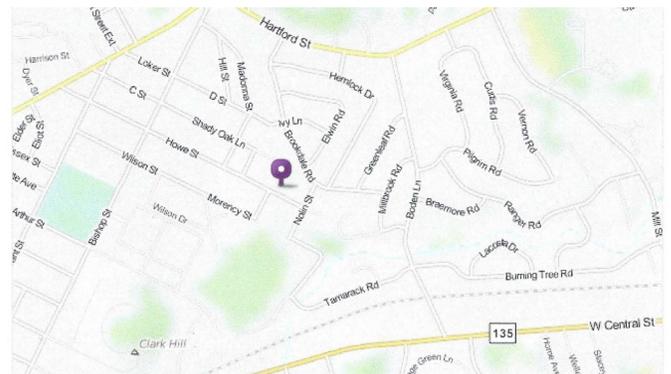
tvheino@comcast.net



Todd will supply the main course

Bring an appetizer, desert, beverage of choice and a chair.

Please RSVP to Todd so he has a head count for food



CA Glue



Safety:

Cyanoacrylate Adhesive (CA Glue) is a very useful tool for woodturners. It is a useful and fast acting adhesive, can be used to stabilize and fill cracks and is a very good finish for pens and other small objects.

It must however, be used with caution and knowledge of it's potential safety hazards.

- ◆ **Wear eye protection** (full face shield is recommended) CA is water activated and adheres instantly to eye glasses, contact lenses and eyes.
- ◆ **CA vapors are irritating** to mucous membranes and lungs. Use in a well ventilated area and use a fan or vacuum system to draw vapors away from the user. CA vapors can trigger asthma attacks and difficulty breathing.
- ◆ CA adhesives can **cause irritation to the skin** and cause allergic skin re-actions.
- ◆ CA **reactions generate heat** and at times enough to cause burns and irritating fumes.
- ◆ CA glue **can react with cotton** and generate enough heat to cause burns or ignite the cotton. It can also **react with paper towels and cause smoking**.
- ◆ **Accelerators and de-bonders are flammable** and can be irritating to the skin, eyes and respiratory system.

Use:

- ◆ **Shelf life is about 6 months** at room temperature, up to 2 years unopened in a refrigerator.
- ◆ Generally the **thinner the glue the shorter the working time**.
- ◆ CA alone has **poor gap filling properties**, but when mixed with sawdust, shavings, powdered stone and the like, works well to fill gaps and decorate.
- ◆ **Wicking or capillary action** to flow into narrow spaces is **best with thin glue**.
- ◆ CA produces very strong bonds, but has **poor strength in shear** because it produces a brittle joint. Thus a side force can easily cause a CA joint to fail.
- ◆ CA is **not heat resistant** and will melt at high heat levels.
- ◆ Generally a **thin coat is more effective** than a thick layer.

Overall, CA glue is something virtually every woodturner has and uses. Like any other tool, knowing it's limitations and used with caution it will produce safe and satisfactory results.

Excerpted from Woodturning Fundamentals, AAW

Use:

MAKING TOOLS FOR WOODTURNERS

By: Michael Peters



I started making wood turning tools more than 20 years ago because I had access to a my father in laws garage full of tools and a pile of scrap metal. At that time I had just enough knowledge to be dangerous and I was still young enough to believe that I actually knew what I was doing. Since that time I have learned from my mistakes by seeking out the proper methods for tool making. My goal is to share what I have learned with anyone who wants to make their own tools.

When I started I was trying to save money now I make tools simply because I enjoy it and it gives me a sense of accomplishment. The best feeling is to make a useful tool as good as any tool from a catalog for a fraction of the price. The process of making tools can be as simple as grinding a custom shape on the end of a large screwdriver or it could be a complex multi-step process using exotic tool steel the choice is yours.

Before attempting to make any tools please ensure that you **follow the appropriate safety practices for the activity**. This includes the use of safety glasses, face shields, and dust mask/respirator. Never weld, braise or heat treat metal inside your woodshop this could be a serious fire hazard. If you are working in a garage have a fully charged fire extinguisher within reach. If you have any questions or concerns seek professional help before proceeding.

If you decide to make a tool it is best to start small. One of the easiest ways to make a tool is to repurpose an existing tool. Old spindle turning tools can be reshaped with custom profiles to make custom cuts in hard to reach places. I recently made a captive ring tool out of a large broken screwdriver. It took about 30 minutes to shape heat treat and sharpen the tool. With this new tool I was able to make several captive ring baby rattles.

The complete tool making process can be broken down into four steps; select the metal, shape the tool, heat treating and making the handle.

If you enjoy going to yard sales and flea markets you can find some very high quality tool steel if you know what to look for. Tool bits from machine shops like drill bits, reamers and large hacksaw blades are made from tool steel and can be reshaped into bowl gouges, scrapers, skew chisels, hollowing and parting tools. I have made several bowl gouges out of recycled half inch tool bits. These tools work as well as any tool that I have purchased over the years. Typically this scrap metal is extremely inexpensive and will cost much less than drill rod purchased from a catalog. If you do not like going to flea markets then I recommend O1 drill rod that can be purchased from MSC or most industrial supply shops. Most drill rod is annealed which means that it has not been hardened. This makes it easier to shape, bend and forge.

If you are using O1 tool steel you can grind, bend and forge it into its final shape as long as it is not hardened yet. You can bend and hammer annealed O1 drill rod but I recommend heating it to a cherry red or yellow glow first. If you are working with a tool bit from a machine shop you will need to anneal it before you can bend it. To anneal the steel you must heat it to a cherry red then slowly lower the temperature over several

hours. You can do this with a wood or coal fire by leaving the steel in the coals until it is below 300 degrees Fahrenheit (F). There are many different tool steels that are used for metal working and some are designed to hold the cutting edge when it is red hot. Because of the variability of the metal you might be using you will need to experiment to find the best method for shaping your tool. If the tool bit you are using is labeled with the type of steel, i.e. M42 or 8% Cobalt I recommend searching the internet for instructions on how to shape and heat treat. One method to identify steel is with a spark test. **The following web site provides a good overview of the process: [igor.chudov.com/manuals/ Spark_Testing_for_Mystery_Metals.pdf](http://igor.chudov.com/manuals/Spark_Testing_for_Mystery_Metals.pdf).** With many tools I have simply experimented with shaping and heat treating and ended up with a very useful tool that could hold an edge.

Heat treating is a science and an art. Some exotic tool steels should be heat treated professionally and all the rest can be done in your back yard fire pit or with a propane torch. When hardening steel you can estimate the temperature by the color of the steel when it is glowing hot. The following web site provides a good overview of the process: blksmith.com/heat_colors.htm. When the steel is cherry red it should be approximately 1500 degrees F and is ready for quenching. The tint scale can be used when tempering. The following web site provides a good overview of the process: simplytoolsteel.com/temperature-color-guide.html. Steel that has been polished to a bright clean finish will form a thin oxide layer when heated. The color of this oxide layer will indicate the highest temperature that the metal reached. Straw or yellow indicates approximately 440 degrees F which is a good temperature for tempering.

In order to keep things simple and easier to measure I recommend using two alternate methods for determining the proper temperature for hardening and tempering the tool. They require a magnet and a kitchen stove. Before heating the steel verify that it will stick to a magnet then when heated to the proper temperature for hardening the steel will not stick to the magnet. This is the best indicator that the steel is at the proper temperature for hardening. When the steel no longer sticks to a magnet plunge it into a metal bucket filled with vegetable oil. You can use other types of oil but I recommend vegetable oil because it is environmentally safe, nontoxic and if it has been used for cooking it smells like French fries. The oil can burst into flames when the steel is quenched therefore you must be very careful and always use blacksmith tongs or a large pair of pliers with a long handle.

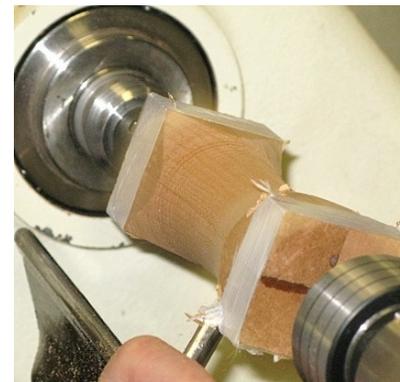
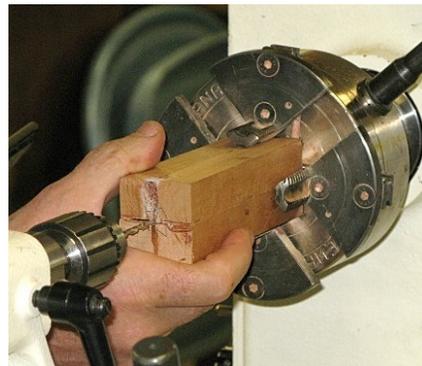
After the steel has been hardened it becomes very brittle and can fracture during normal use therefore it must be tempered. The best way to temper the steel is to clean off the oil and any scale from the hardening process and heat it in your kitchen oven to 450 degrees F for a minimum of one hour. Then without opening the door turn off the oven and let it cool down slowly. This process will make the steel less brittle while maintaining its ability to hold an edge.

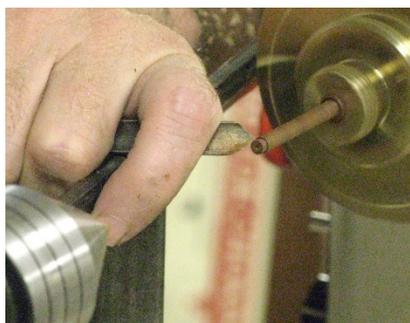
Now that the steel is finished turn a handle, assemble, sharpen and enjoy your handmade tool. This overview of tool making only scratched the surface on this process. If you are planning on making your own tools I recommend searching the internet or purchasing a book on backyard blacksmithing for more detail, start with something small and ask for help from someone with experience. Good luck, have fun and be safe.

Making Ornaments



Reid Gilmore





Show & Tell



Support the CNEW Store

- ◆ 2 & 3 inch velcro sanding disc 80 thru 400 grit - 10 for \$2.00
- ◆ Sanding pads & back up discs coming soon, to be priced at our cost
- ◆ CA Glue Thin, Med Thin, Med, Gel, & Gel thick. - 2 oz \$5.
- ◆ CA Glue Accelerator - Sm \$5.00 Med - \$7.50
10 ounce aerosol - \$12
- ◆ Anchor Seal \$10.00 per gallon
- ◆ Pen Kits Mesa Style - \$5.00
Bushings for pen kits - \$4.00
Pen Kits Diplomat - \$5.00



Central New England Woodturners

A Chapter of the American Association of Woodturners



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Big Name Demo Coord: Jerry Sambrook, Southwick, MA 413-262-5051, jsambrook@comcast.net

Club Project Coord: Steve Reznek, Concord MA 978-287-4821, stevenreznek@comcast.net



Membership

To join or renew membership, please complete the form below and a check made payable to CNEW and bring it to a CNEW meeting, or pay

online at the CNEW website under "join/renew" or mail to: Treasurer, Central New England Woodturners

c/o Todd Heino, 148 Howe St, Natick, MA 01760

Membership Application

To join or renew membership, please complete this form and a check made payable to CNEW and bring it to a CNEW meeting or mail it to:

Treasurer, Central New England Woodturners

c/o Todd Heino
148 Howe Street
Natick, MA 01760

Annual dues: \$30 including e-mail delivery of newsletter; \$35 for postal delivery of newsletter.

Name: _____

Please check appropriately below

Street: _____

New Member

City: _____

Returning Member

State: _____ & Zip: _____

e-Mail Newsletter (\$30.00)

e-Mail: _____

Please let us know of your interests:

How long have you been turning? _____

What programs would you like to see at meetings? _____

Would you like to demonstrate at a meeting? Yes/No If so, what topics do you offer? _____
