

Rocky Mountain Woodturners



DECEMBER 1995 NEWSLETTER

Officers and Committees

President

David Nittmann 482-0222

Treasurer

Trent Bosch 493-6476

Newsletter

Linda Fellion 484-4628

Club Library

Dick Branecki 587-2561

Program

Trent Bosch 493-6476

Wood Aquisition

Dale Mikkelson 356-4514

Fundraising

Linda Fellion 484-4628

Trent Bosch 493-6476

**If you are interested in
helping with one of the
above committees,
please contact the name
listed**

Coming Attractions

Planned Demonstrations

December 21 Christmas Party

January 18	Alabaster/ Exotic Wood	Max Krimmel
February 15	Sharpening	Dave Nittman
March 21	Turning Goblets Chip Carving	Earl Ellis
April 18	Natural Top Bowls "mini"	Lee Carter

MONTHLY MEETING

*Thursday, December 21
Colorado State University
Industrial Sciences Bld
Room 105
7:00 Christmas Party*

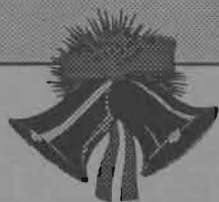
Bring cookies to share. RMWT will provide drinks. Also bring show & tell items. The "turning" portion of the meeting will be informal discussion of show & tell items. Of special interest are problems for which you have developed or need a solution, and special techniques you have observed or developed.

If you have woodturning related items you would like to buy, sell or give away give the information, in writing, to Linda Fellion. The club decided publishing these items in the newsletter would be a valuable service to members.

NUTS & BOLTS

The Following Books are in the RMWT Library as of December 1995

AAW Project Book - AAW
American Woodturner all 1994, Mar 95
Artistic Woodturning - Nish
Beyond Basic Turning - Nish
Creative Woodturning - Nish
FWW on Faceplate Turning - Fine Woodworking
FWW on Spindle Turning - Fine Woodworking
Master Woodturners - Nish
Multi Centre Woodturning - Hopper
Polychromatic Assembly for Woodturning
Practical Tips for Woodturners - Woodturning Mag
Sculpting Wood - Lindquist
Turned Bowl Design - Raffan
Turning and Mechanical Manipulation - Holtzapffel
Turning Miniatures in Wood - Sainsbury
Turning Wood - Raffan
Woodturning Techniques - Woodturning Mag



Notes from November Meeting

It is sometimes necessary to notify club members of schedule changes on very short notice. Members willing to help make phone calls signed up to be part of a calling tree.

No new information was available on the mini-symposium being sponsored by the Pike's Peak Woodturners, Front Range Woodturners and Rocky Mountain Woodturners.

Committee information

Treasurer's Report - Trent has a statements of income and expenses. This information is available to members who would like to see it. Chris Stott was paid a \$100 honorarium.

Club Library - Ken Colasuonno has a conflict on Thursday nights and will not be able to attend the meetings regularly. Dick Branecki will assume responsibility for the library.

Program - Chris Stott, a box maker from England, gave a demonstration on December 6. The calling tree was very helpful. Every effort was made to notify all club members. We apologize if anyone was missed.

Wood Aquisition - Please continue to bring wood for the raffle. Don't forget to bring in items made from wood won in the raffle.

Fundraising - At the January meeting the club will need to discuss fundraising plans for 1996. The primary question is whether we want to persue any fundraising projects other than the raffle. So far the raffle and member dues have provided enough money to cover expenses. Bring your ideas to the meeting in January.

Recap of Pen Turning Demonstrations

Single piece pens--Linda Fellion

Single piece pens are a good way to use up small off cuts from other projects. Purchased pen blanks in a variety of exotic woods are also relatively inexpensive. Turning single piece pens is also a good way to develop a delicate touch and improve tool control. A small catch, which may be only a minor mishap on a larger piece, often spells disaster on a small turning.

Steps in turning single piece pens are as follows:

1. Cut a blank to at least 5/8 X 7 1/2"
2. Drill a 5/32" hole slightly deeper than the length of the refill. This is done using a drill jig with the pen blank mounted in the lathe and the lathe running. (see drawing) During the drilling process, the drill bit may wander. The hole will follow the path of least resistance. It is important that the pen be designed so that the largest diameter is at the end of the hole.
3. Mount the pen blank between centers, using a cone tipped ball bearing center inside the drilled hole in the tailstock.
4. Rough out the pen blank to a cylinder.
5. Mark the position where the hole ends on the outside of the pen blank, and turn that area to its final diameter. The smallest recommended diameter is around 7/16", although you can sometimes get away with a smaller diameter, and sometimes a much larger diameter still exposes the hole. Woods in which the grain hardness varies a great deal, such as honey locust, cause the most problems.
6. Turn the remainder of the pen using whatever design you choose.
7. Turn the opening end of the pen. Use only light pressure as the pen becomes slimmer. The wood can become quite thin and will split easily if care is not taken. It is often necessary to remove up to 1/8" at the end of the pen, due to the tendency of the cone center to enlarge the hole. As the tip is removed, the blank will become loose between centers and the cone center will need to be advanced a little to keep the pen in secure. The business end of the pen looks best when the wood and the refill flow into each other in a continuous line. It is also uncomfortable to use a pen that has large turned elements where the fingers grasp it. Decorative elements at the tip of the pen should be avoided or kept very small.
8. Finish the other end of the pen, leaving 1/8-3/16" attaching the pen to the waste piece being held by the spur center.
9. Sand the pen through the sequence of grits you prefer. To be comfortable in the hand, the pen should be sanded at least through 320 grit. Sanding with the grain, either with each grit, or with the final grit, may be necessary to remove circular sanding scratches. Circular scratches are often more noticeable in a pen. Pens are held in the fingers and fingers can often detect surface variations the eye cannot see.
10. Apply finish. Rapid pad applied with the lathe running gives a high gloss if several coats are applied. Fewer coats and a final rubbing with 000 steel wool will leave a satin finish. Lacquer, oil and other finishes can also be used.

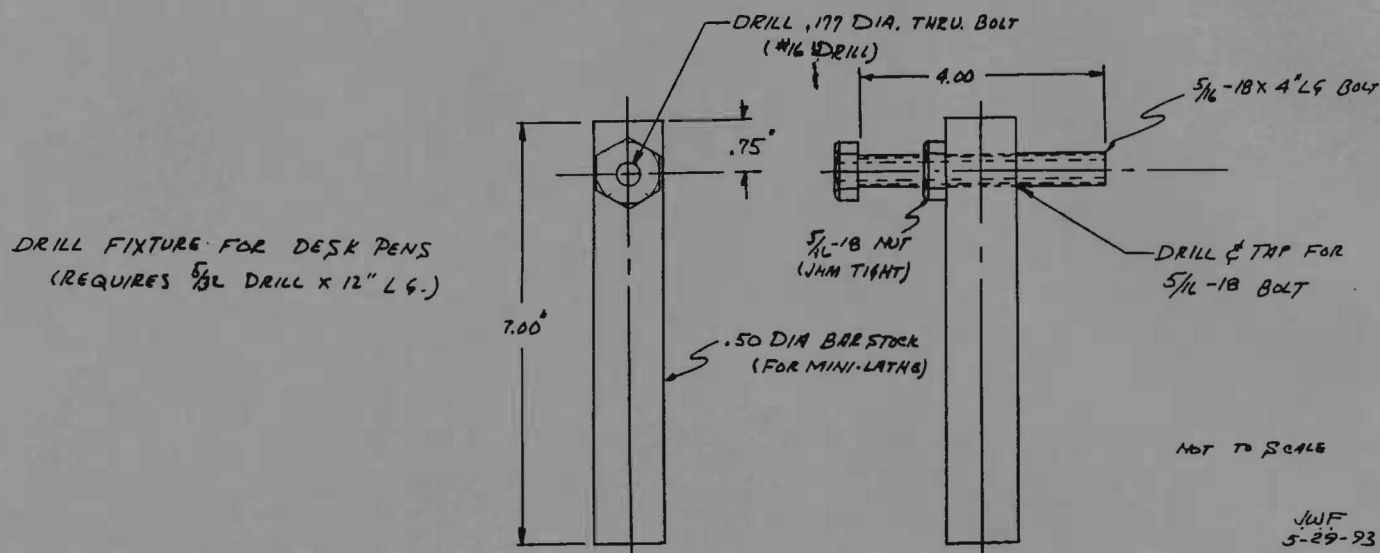
11. With practice, the pen can be cut free with the lathe running. The pen may also be removed from the lathe and the waste block cut off. In either case, hand sand the end of the pen and apply finish.

12. Insert the refill in the pen. If the refill is too long, use a sharp knife and cut the refill to fit into the pen. If the pen does not fit snugly in the drilled hole, put a little white glue around the shoulder of the refill and push the refill into the pen. After 15 or 20 minutes, the glue will be dry and the pen is ready for use.

Turning a two piece pen with a router -- Dick Anderson

Dick has developed a mass production process for turning two piece pens and pencils with purchased mechanisms. The process is as follows:

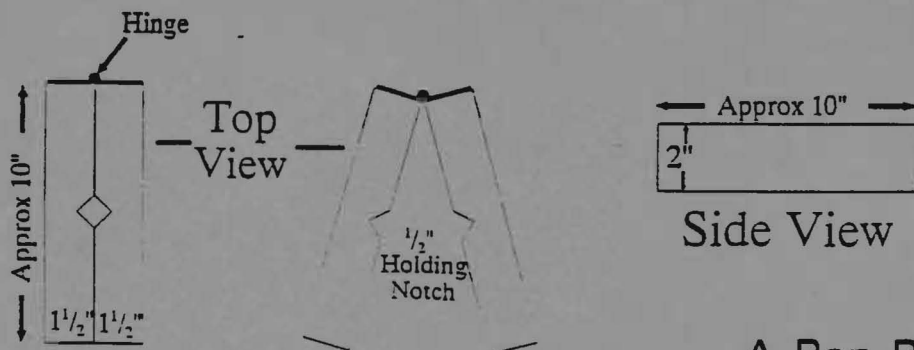
1. Cut pen blanks 1/2 inch wide. Dick uses lumber, often 6' in length.
2. Mark each pair as it is cut. This ensures that each pen is made from a continuous piece of wood and that the grain matches on the two pieces of the finished pen.
3. Drill the hole to receive the brass tubes. Dick uses a precision drill and the drill jig shown in the drawings. As the blanks are drilled, they are placed on a storage rack made from a board with rows of dowels glued into it. Blanks which were adjacent in the lumber are kept side by side. When a pen and pencil set are made, sets of blanks next to each other on the rack are used. The resulting sets have closely matching grain.
4. Glue in the brass tubes. Before cementing in the tubes, Dick places them on the arbor and sands with 80 grit sand paper to clean and roughen the barrel. Dick uses either a Cyanoacrylate glue or "Gorilla" (TM) glue. Dick feels the Gorilla glue does a better job of filling in voids.
5. Mount blanks on the lathe in a double mandrel and turn to finished diameter. The pens are turned using a jig Dick designed and a router. (Drawings of the jig were unavailable. However, Dick has volunteered to allow interested members of the club to visit his shop to see the whole process). This is done in two passes, using a spacer under one side of the router on the first pass, which results in a lighter first cut. The spacer is removed, and the second pass cuts the pen almost to its final diameter of .333" +/- .002". Dick uses a micrometer (!!!) for this fine measurement.
6. Final sanding brings the diameter of the pen into tolerance.
7. Apply the finish. Dick applies wax from a Hut stick to fill in the grain, then applies padding lacquer. Both are applied with the lathe running. A polishing cloth is used to rub out the finish and "burn it in".
8. Assemble the pen. Dick uses the drill press to assemble his pens. He uses a wooden cylinder, with a step turned on it to fit in the drill chuck. The pen is pressed between the cylinder and a flat piece of wood on the drill press table. Dick has found it necessary to put a hose clamp on the wooden cylinder to prevent it from splitting as pressure is applied. The pen is now ready for use.



Drilling Hints for Pen blanks

Build a jig as shown in the diagram. Place a 1/2" or 3/4" board between the jig and the drill press platform. Hold the jig to the platform, loosely, at the hinge end with a C-clamp placed on the rear member of the jig. This allows the operator to quickly open the jig for pen blank insertion. The jig works quite well using only hand pressure to hold it closed during drilling. Open the lock on your drill press so the platform can swing fairly freely from left to right. Remember, the sole purpose of the jig is to hold the blank at right angle to the platform.

Use a machinist's square to make sure that the platform is at a right angle to the drill bit. What the looseness in the above set up does is allow the drill bit the freedom to drill straight through the blank. Very often a drill bit, even a brad point, will deflect ever so slightly when it first meets the wood. If your blank is rigidly fastened down to an immovable drill press platform, any deviation of the bit as it first strikes the wood will be continued. The bit will bend or flex and will drill out through the sides of the pen blank.



HUT
Products for wood

A Pen Blank Drilling Jig

Resources for Pen Turning

Pen Turning Manual - Hut Products for Wood, 15361 Sturgeon, MO 65284, (314) 875-0472
Twist Pen Instructions - Craft Supplies USA, 1287 E. 1120 S., Provo, UT 84606, (801) 373-0919
E-Z Torque Jobber Drill bit - Production Tool Supply, 8655 East 8 Mile Rd., Warren, MI 48089, (800) 545-8655. Letter J size is closest to 7mm.

Turning Fancy Pens - article by J. Paul Fennell, American Woodturner, September 1989.
Also can be found in the American Woodturner Project Book, 1987-1982.

