Golden Ratio Calipers

as presented on Craig Drozd's website *http://studioturning.com/?p=311*

The Golden Ratio is represented as a ratio of 1 : 1.618…. In art and architecture the Golden Ratio is frequently used in the form of the Golden Rectangle. Because this ratio is widely considered to be aesthetically pleasing it has also been used by woodworkers for a long time. The dimensions of dressers, book cases, tables and other furniture often contain aspects of the Golden Rectangle.

In woodturning I frequently use this ratio as a guide during the design process to develop the height and width of my turnings. As an example, if the block of wood allows for a 6 inch wide vase then using the golden ratio calculation the target height should be approximately 9.75 inches high.

The other day I found instructions for making Golden Ration Calipers. Anything that allows me to spend more time turning and less time doing math calculations gets my approval. So I decided to make a set and see how they work.

The instructions are located on the Woodturners Unlimited site at:
http://www.woodturnersunlimited.com/index.php/tools/29-golden-ratio-calipers-fibonacci-gauge

Take the jump over there and check out the directions. They are very straight forward. Then come back and I'll tell you what I did differently and what I would change if I made another set.

Golden Ratio Calipers

The first decision to make is what size I want the calipers to be. To keep it easy I used the same dimensions that the author used. These seemed like they would fit the size turnings I frequently make.

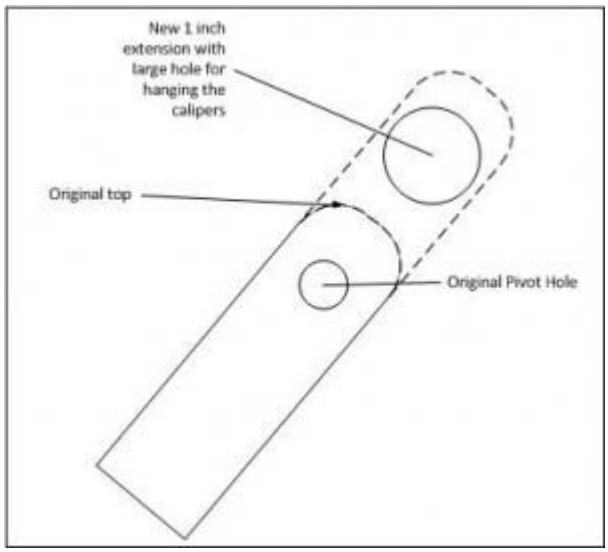
I decided to make my calipers out of a spare Lyptus board I had on the wood rack. Lyptus is a Brazilian grown plantation wood that was developed from several Eucalyptus species. The tree grows quickly with long straight trunks. Being a very straight grain wood means the calipers will not easily warp.

The instructions call for 4 quarter inch binding posts from Lowes. I don't have a Lowes close by but finding binding posts elsewhere should not be that hard. At least that's what I thought. I search two local hardware stores where I've always been able to purchase any size nut and bolt but came up empty. I then tried Home Depot and again could not find them. So I ended up taking a trip to Lowes and found the parts.

I also purchased 4 nylon washers. I placed these between the pieces of wood on each binding post. I thought this would be just as effective and simpler than making my own out of acetate as the instructions indicate.

During assembly I used blue thread locker on the binding post screws instead of CA glue. If the need to disassemble the calipers occurs the thread locker will be easier than trying to break the CA glue bond.

If I make another set, one design change will be to add the ability to hang the calipers from a peg. I would do this by extending one of the long legs an additional inch above the top pivot point to accommodate a peg hole.



The following two pictures shows a vase I'm turning and how the calipers where used to guide me in sizing and shaping the vase.