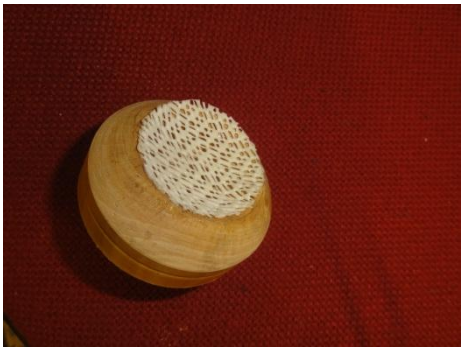
June **Woody's World** The Newsletter of OFFCHURCH WOODTURNERS **2018**

The perfect, well almost, sphere

By Mick Smets

Preliminary to starting Mick pointed out that you can make a very good sphere by just a few careful straight cuts. For this you would need to be able to hold the round in the lathe. This means you would need two small dish devices to hold and clamp the nearly finished ball. Also to get a really good even finish it pays to have your sanding sheet held in a curved frame then you will not sand flats onto the face of the ball.



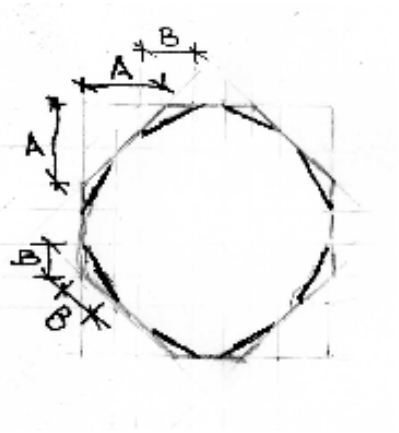
Creating a 4 inch sphere – outline instructions

1. Start by turning a four inch cylinder or tube.

2. Now make it just four inches long but do not cut right through. You now have a block to work on.

3. Using the chart (see below) to get the exact distance mark up dimension A on each end of the block.

4. Trim these pieces off the block try to keep exactly to the lines and maintaining a smooth chamfer.



5. On each of the faceted edges you have now created mark up dimension B.

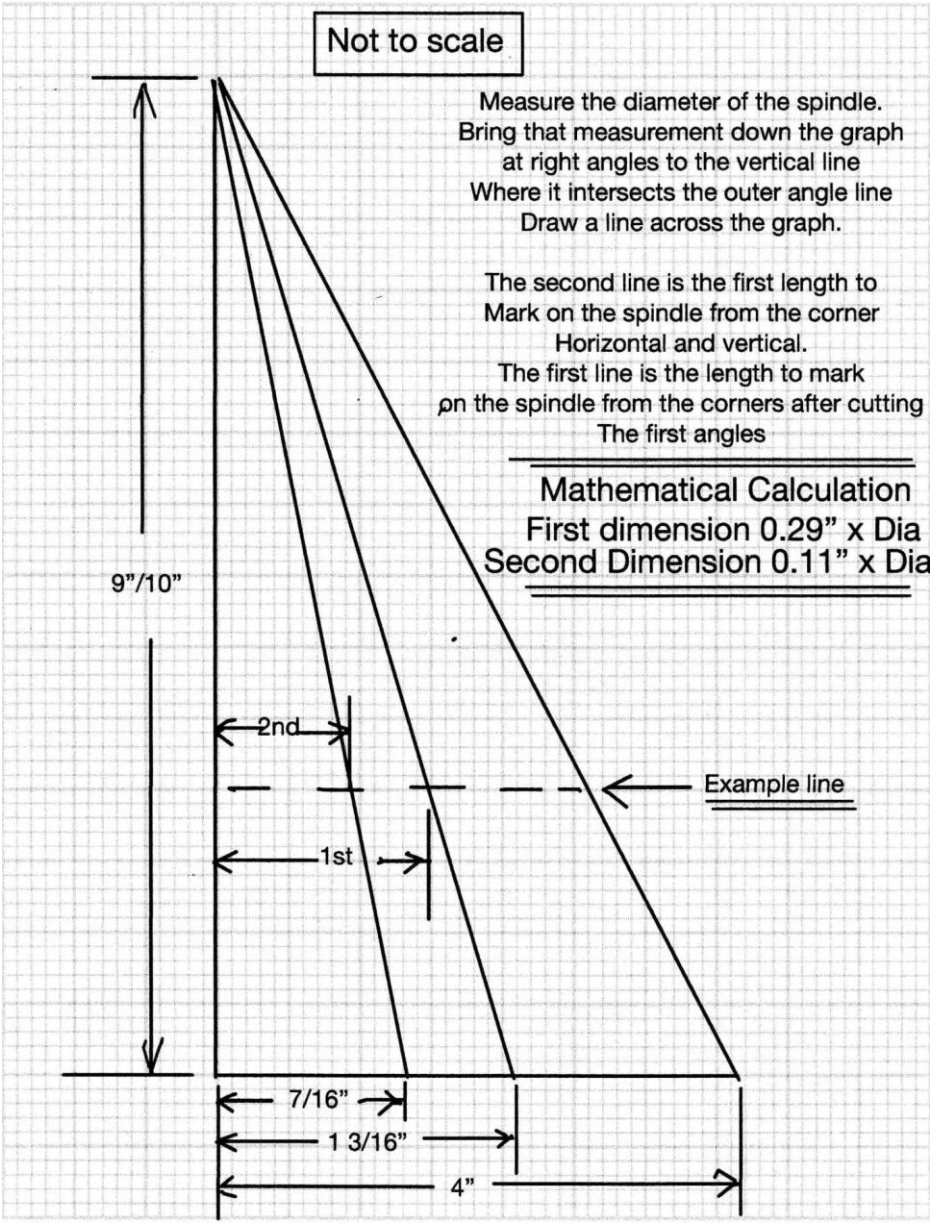
6. Trim off between the lines so you have almost a sphere albeit in a series of small flats. Use a scraper or similar cut.

7. Carefully cut away and free the ball you have created.

8. Now you will need the dish chucks mentioned earlier so you can hold the sphere at 90 degrees to the original position. This position allows you to clean up the bits of end from the original holding position. Clean up and sand out all the edges.

The above is a simplified version of Mick's talk.

The diagram on the following page is also available on the web site.


Not to scale
Measure the diameter of the spindle.
Bring that measurement down the graph
at right angles to the vertical line
Where it intersects the outer angle line
Draw a line across the graph.
The second line is the first length to
Mark on the spindle from the corner
Horizontal and vertical.
The first line is the length to mark
on the spindle from the corners after cutting
The first angles
Mathematical Calculation
First dimension 0.29" x Dia
Second Dimension 0.11" x Dia
9"/10"
2nd
1st
Example line
7/16"
1 3/16"
4"

Creating a very small sphere using the shadow method.

Mick had earlier shown in outline how you can turn a small ball by projecting a light from above the workpiece so it casts a shadow onto the bench below. In the picture above Mick is making a small ball end judging by eye. A light projecting onto the surface below the workpiece casts a large shadow onto a sheet placed below. This can be compared with a circle drawn onto the sheet so you can get a near perfect sphere.

Here is a fish using the same size sphere as Mick has just made.

Discussion on the use of outside speakers

At the AGM members were asked to consider the use of outside demonstrators. These generally cost around £250 and the cost would have to be borne by those attending at around £20 each. The treasurer having pointed out that the club could not currently sums from funds.

After discussion and a vote it was agreed that for the forthcoming year the club would not use professional demonstrators.

This did not mean we would not have demonstrators but they would be experienced club members from our own or other local clubs.

Forthcoming Attractions 2018

Meetings normally are on the first Thursday in the month except when there are elections. Meetings start at **7pm**.

7th June — Teams compete to turn a perfect egg cup & egg

Remember: members who demonstrate will receive payment.

Committee

Chairman	Nick Milton	nick.milton5@ntlworld.com
Vice-Chairman	Ken Croft	Kay_cee@talktalk.net
Secretary	Steve Jennings	01295 812147 stevejennings070@btinternet.com
Membership Sec.	Dave Simms	
Demo Organiser	Vacant	Nick Milton until AGM
Treasurer	David Williams	01788 810035 vrseurope@btinternet.com
Editor	Mike Sharman	michael.sharman1@tiscali.co.uk