

## June 2017 - John Aitken

This was a first time at our club for John Aitken and he did not disappoint.

John's theme was "Putting threads in wood" but specifically the demonstration was about using thread chasers. Starting with a bit of history John showed us that woodturners were probably the inventors of the screw thread when it was noticed (as we all unintentionally have!) that when using a skew chisel on a spindle and it catches, a spiral screw thread is created. He further demonstrated that if on a plain spindle a pencil is run along its length whilst the spindle is rotating, and then a carving "V" chisel is used to follow the pencil lines, a screw thread is created.

John showed us a large selection of his thread cutting tools, most of which he has made himself or acquired from various sources e.g taps from Beall Tools Co and cheap chasers from the now defunct Pennyfarthing Tools Co from a stall at Devizes market.

**Top Tip 1** - grind off the half tooth on a male thread chaser as only metalworkers use this.

**Top Tip 2** - speed of chasing varies according to the size of the thread - slower on a finer thread



**Top Tip 3** - before starting to thread chase it is important to fettle the lathe (a term which I had not heard before). This involves making sure that the toolrest is perfectly smooth by drawing a file along it, then wet and dry paper and finally a light coating of wax.

### Practicing thread chasing ...

With a piece of dowel in the lathe and the toolrest at centre height, draw the chaser tool along and slightly under the dowel. Note that starting from the opposite end of the dowel will create a left hand thread.

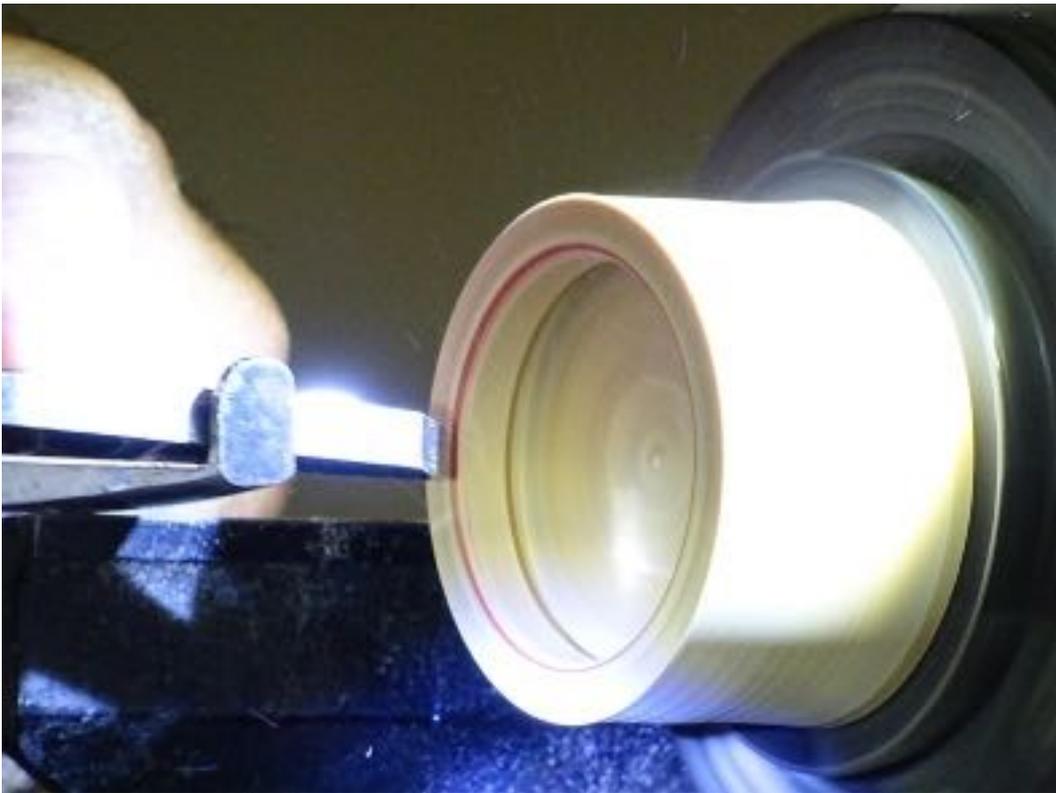
**Top Tip 4** - due to the potential fragility of a wooden pointed tooth knock off the top of the thread with a parting tool

### Practical demonstration of a threaded lidded box...

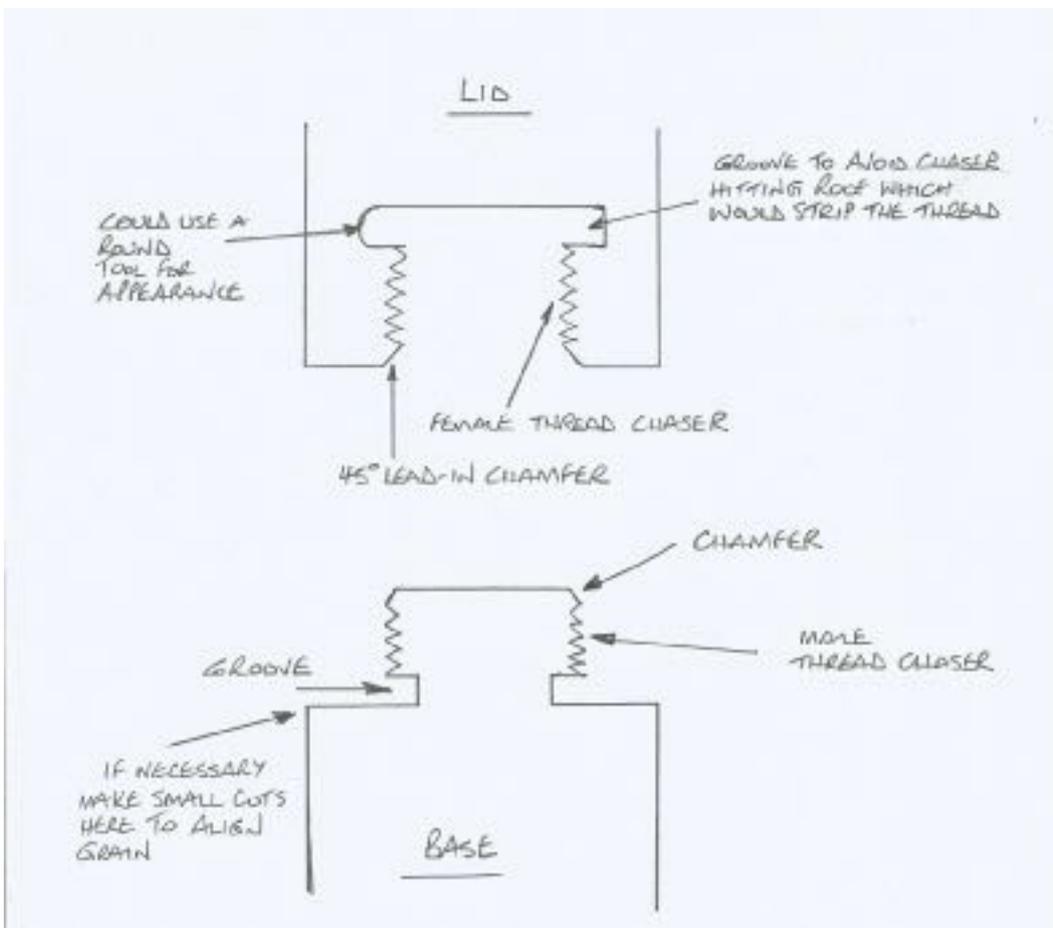


Starting with the square section spindle (Castello Boxwood) turned to round, designate the lid section as being closest to the chuck as it is easier to cut the male thread in the base. (I assume that this would not necessarily be required if a spigot had been created on each end of the spindle in the first place) Having cut off the lid section leaving a "witness mark" for aligning the lid and base screw threads, hollow out the lid and then cut the female thread.

Instead of having the chaser tool supported on the toolrest at right angles to the lathe bed John had the toolrest parallel to the lathe bed and supported the chaser tool on an "Armrest" support tool which itself rested on the toolrest.



The diagram below shows the various features of the process including the important groove and chamfer on the leading edge.



**Top Tip 5** - before completing the thread chase run some superglue along the thread to harden the wood. **WARNING** - make sure the glue is fully dry before restarting the lathe!

The thread chasing on the base is completed in a similar fashion with the toolrest about 20mm away and the tool just below centre. Keep cutting and retrying the lid until the threads match. Knock off any thread tops if necessary and then finally turn a tiny bead on the join if desired.

**Top Tip 6** - aligning the grain when base and lid rejoined ... could assist by marking a pencil line across the join before separating lid and base but final adjustments can be made by taking tiny amounts off the base groove area with a thin parting tool.

This was one of the most interesting, informative, useful and enjoyable demonstrations that I have seen at our club and hopefully we will be able to benefit again from John's vast experience in the near future. I'm looking forward to having a go at thread chasing asap, whilst wearing my new personalised smock from John Hamilton Donovan!

David Langan