



Tutor's Tidings

TT

No 37 - Friday 23rd October, 2015



What is James doing?

What is he thinking?

It's funtime: Provide a caption and win a block (round) of beautiful turning wood.

Best caption to be determined by popular vote. *(email your caption entry to Clive asap)*

↓

WORKING BEE

....to deal with a small pile of logs that have accumulated outside the workshop doors.

We need willing hands with chainsaws to slab the logs then extract the good wood by cutting out rounds the band saw.

SATURDAY 31st October - starting at 1.00pm

This time was preferred as World Cup rugby is scheduled for the morning.

Go the ALL BLACKS!

The History of the woodturning LATHE

Part THREE

The pole lathe

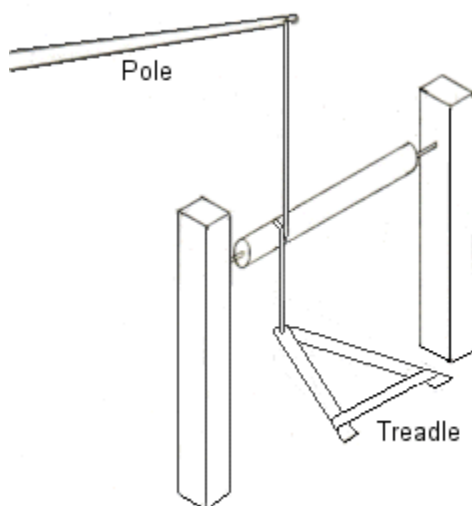


Fig 13: Schematic diagram of a pole lathe

(The tool rest and other features are omitted)

The pole lathe was invented sometime before the 13th century AD. Although it represented a great advance the pole lathe was not that much more complicated than its predecessors. The differences consisted of a framework to raise the bed of the lathe clear of the ground, the addition of a pole and a treadle. The basic construction is shown in the diagram. It can be seen that the upper end of the driving cord is attached to the tip of a flexible pole and the other end is fastened to a simple treadle arrangement below the bed of the lathe. It should be noted that function of the pole is to act as a return spring and to keep the string taut - nothing more.

For its time this was a major technological breakthrough; it not only freed the turner from the need for an assistant but also enabled him to stand instead of having to sit on the ground.

Together these factors gave him more control over the process; they made it possible for him to control the rhythm of work, to apply more power and to exercise greater freedom of movement. Many of these early lathes would have been portable enabling them to be set up near the raw material, or near the customer, whichever was the more convenient. Others, however, particularly those for turning bowls may have been fairly substantial constructions being heavy and rigid.

It is not known when or where the pole lathe first came into use. It has been suggested that its origins date back to at least to the Saxon period in Europe but this is speculation. The first clear evidence of its use comes from two sources in the 13th Century. One of these is a manuscript illumination of a nun turning a bowl and the other is a stained glass window in Chartres Cathedral. As is to be expected the window does not provide a very clear picture but we know it shows a turner at work because it was donated to the Cathedral by the local Turner's Guild. It must depict a pole lathe because the cord can be seen running down the centre of the window.



Fig 12: Stained glass window - 13th C



Fig 15: Manuscript illumination - 13th C.

Fig. 15 shows a man at work on what is clearly a pole lathe. The lathe appears to be of relatively light construction but this may be due to artistic licence. In common with many early illustrations of the lathe the tool rest is not shown.

Source: La Bible Moralisee

(Note: When I first loaded this image I thought it depicted a nun turning. A lady has kindly pointed out that: "it is a man wearing the latest fashion of his day: a dark blue tunic which falls well over his knees, to halfway over his calves. On his head he wears a coif. Being outdoors it would be inappropriate to go without any head-covering, unless maybe if being a noble".)

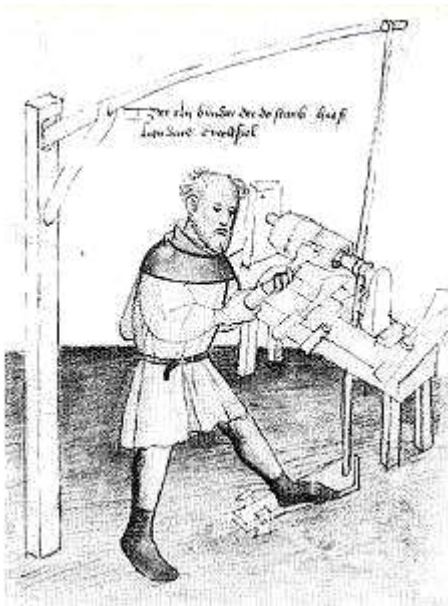


Fig 16: Pole lathe turner - 1395

Fig. 16 shows a turner working on a pole lathe which is much more robust than that shown in Fig. 13. Here, again, the toolrest is not shown. It is not clear what the tuner is making but it could be the hub of a wheel.

Source: Mendelsches Bruderbuch 1395



Fig 17: Pole lathe turner - 1568

Fig. 17 is interesting because it depicts some of the items that the turner had made. These include dishes, bowls, large spindle turnings, and what appear to be musical instruments (the latter are on the bench in the foreground on the left). The large sphere on which the turner is working is a puzzle: what is it and what would it have been used for? It does show that large, weighty, objects could be turned on the pole lathe.

Source: woodcut in the "Panoplia Omnium" by Hartman Schopper, published at Frankfort-on-the-main in 1568



Fig 18: Pole lathe turner - c1640

Fig. 18 also shows some of the turner's products, namely a chair and a spinning wheel. The bowl perched on top of the headstock would have contained oil that the turner used to lubricate the metal points holding the work-piece. This lathe can be compared with the one shown in Fig.16 above. In the latter the the bed of the lathe is made by cutting a slot in a heavy board. In this lathe it is made from separate pieces of timber bolted onto posts - together these form the frame of the lathe.

On the shelf on the back wall are a number of objects which have been identified by Pinto as "three footwormers, a spice(?) box, a yoke,

flour barrels, etc." Did the turner make these or was it just a convenient place to store them?

Source: copper engraving by the Dutch artist Jan Joris Van Vliet (born at Delft in 1610)

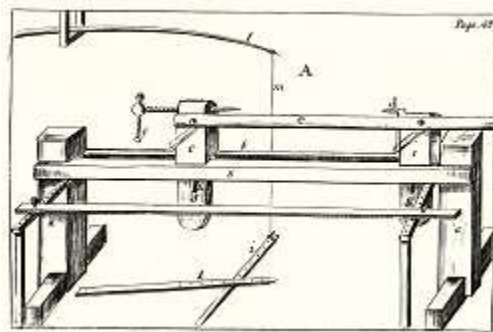


Fig 19: Joseph Moxon's lathe - 1678

The illustration of a pole lathe on the left is taken from Joseph Moxon's book "Mechanic Exercises or the Doctrine of Handy-Works". This was published in 1678 and was the first English book to describe and illustrate the tools of various trades and the way they are used; in effect it was the first of a long line of DIY manuals. Moxon's illustrations are a little crude by today's standards because he not only had to prepare the drawings but engrave the plates himself.

Note the bar in the foreground which rests on two supports. Moxon tells us that it was called the Seat "*not because it was so but because the Workman places the upper part of his Buttocks against it, that he may stand the steadier to his work, and consequently guide his foot the firmer and exacter*". The use of the seat by pole lathe tuners seems to have been a matter of personal preference. Some used it, others did not.



Fig 20: Pole lathe turner in 18th C

Fig. 20 shows a turner making a large baluster. This illustration is from a book published nearly 90 years after Moxon's. The lathe is essentially the same as that used by the pole lathe turner in the 1395. (see Fig. 16)

Source: T. H. Coker and others, *The Complete dictionary of Arts and Sciences* (1764-6), Vol. III.

PROJECT Materials

There are lots of small containers containing items of interest particularly for project turners. Visit our store room and check out the goodies.

I can assure you of some extremely low prices for these bits 'n pieces.

Note: The salt and pepper mill kits in the white "chillybin" box have slightly different dimensions to those shown in the club's instruction booklet.

Be aware of these differences when you are drilling the long and short holes



*This week's
gallery of
completed projects*

Muhannad's beautifully crafted pohutukawa platter is adorned with a paua-resin inlay around the rim. This work of art is intended as a gift destined for Japan.



DES is well on the way to mastering the skill of acquiring a superb finish as shown in his deep bowl project.



COLIN just keeps the snazzy turnings coming. Here's another high quality project turned from what must be his favourite wood - black maire.



DYLAN's enthusiasm and rapidly developing skill has rocketed him onto the club's STAGE TWO programme.

This turning project involved some deep hollowing, two-part matching and precision measuring to make a lidded pot.

This Week's Pictorial Roundup



GARTH



RICHARD



RON and DAVE



DES



GRANT



CHRIS



Pesky laterals!

It's **LABOUR WEEKEND!** It's the traditional weekend for planting tomatoes in your vegetable garden.

Don't forget to pinch out the laterals as they emerge.

Cheers

Clive