



# Tutor's Tidings

TT

No 35 - Friday 9th October, 2015



## **RICHARD'S NO-DIGIT CLOCK**

*Members of our team of clockmakers are learning new skills with the use of plug cutters.*

*The point of this turning exercise was primarily in precision measuring and drilling. Next step is to have a go with **double plug inlays**. Woo hoo!*

## ***This week's Gallery***



*This is particularly well turned liquid amber bowl made by a turner making great progress with turning projects.*

*Well done **JAN**, a determined effort.*



*A kauri garden dibber.*

***HEATHER's** is flying through the club's **STAGE ONE** with each project completed quickly and newly learned skills well applied.*



*CHRIS' has made effective use of contrasting colours in his no-digit clock.*



*. DAVID R has almost completed his excellent lidded pot. Next step is to add a 3D effect with a resin inlay*



*IAN's high quality two-wood cake stand. This time its claret ash combined with blackwood.*

## **Visiting turner - Shane Hewitt**

A single vacancy has occurred for the Shane Hewitt weekend starting tomorrow Saturday 10th October.

This spot is now available for a club member to join the group for the Hewitt woodturning weekend.

**\$50**

If you would like to capture this vacancy give President Murray Price a telephone call.



**MALCOLM's** dinky little pepper mill operates smoothly on the inside. On the outside its shape, balance and proportion are special features of this turning project.



***DES'** Aussie blackwood table ornament will hold a flashing, colour changing light device.*

*Another great finish to the wood Des.*

*A salt and pepper set made from spalted Taraire wood. **CHRISTINE** has worked patiently throughout the process and produced these fine examples of replicated shape.*



***COLIN** has been busy in his home workshop again. This week it's a swamp matai clock suspended between a pair of deer antlers and then a dinner setting made from black maire wood.*

# This Week's Pictorial Roundup



**CHRIS**



**RICHARD**



**GRANT**



**DES**



**DAVID M**



**JAN**



HEATHER



MALCOLM



IAN



DAVID R

*Many thanks to our youngest member of the club, **DYLAN RANSTEAD** who treated his fellow club members to a sumptuous supper of superb scones.*

*This was because Dylan had made a rolling pin and tradition has now been set. Make a rolling pin and a shout of scones must follow.*

*You scored 10 out of 10 for the scones Dylan. Much appreciated by everyone.*

# The History of the woodturning LATHE

*(Information to be presented in five parts over five weeks)*

## Part ONE

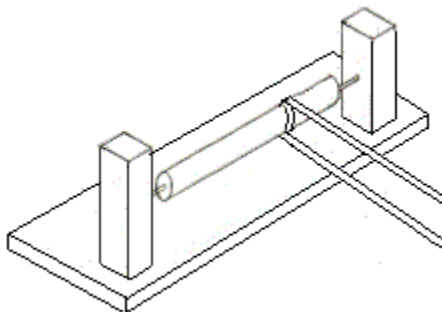
### Types of lathe

- (1) The strap lathe
- (2) The bow lathe
- (3) The pole lathe
- (4) The great Wheel
- (5) The treadle lathe

The list in the box on the left represents a very rough attempt to set out the chronological development of the lathe. It is imprecise because no-one knows exactly at what date any of them first came into existence. It should also be noted that the earlier lathes were not made obsolete as soon as a new type came into existence. Indeed, examples of all of them can be found in very modern times.

One aspect of the problem of dating is that no physical remains of the lathe itself have been found from before the 10th century AD, at the very earliest. The only evidence we have of the nature of early lathes is that of a documentary nature.

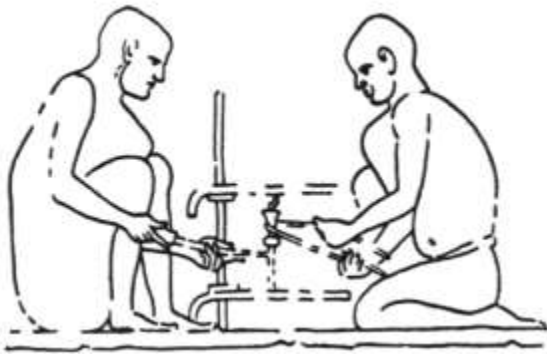
## The strap lathe



On these lathes the work-piece is held between two iron spikes supported by a crude wooden framework. The tool rest is formed by a long rod, which runs parallel to the axis. The motive power is transmitted by a strap which takes a couple of turns around the end of the

**Fig 4: Schematic diagram of a strap  
lathe**  
(tool rest not shown)

work-piece; the strap is pulled backwards and forwards by the turner's assistant to provide a reciprocating motion. Usually, both the turner and his assistant had to sit on the ground to operate this device.



**Fig 5: Depiction of turner at work -  
3rd C. BC**

### **A turner from ancient Egypt**

The earliest information on the lathe dates from the 3rd century BC. This is a bas-relief carving on the wall of the grave of an Egyptian called Petrosiris. This carving shows a craftsman and his assistant busy on a bow lathe very similar to those, which have been found in use in Egypt in modern times.



**Fig 6: Indian turner at work - late  
19th C.**

The image on the left which is taken from a book published in 1881 (*Hand or Simple Turning - Principles and Practice* by John Holtzapffel) portrays an Indian turner. The author states that "He commences by digging two holes in the ground at a distance suitable for the length of the work, and in these fixes two short wooden posts, securing them as firmly as he can by ramming earth and driving in wedges and stones around them. The centres, scarcely more than round nails or spikes, are driven through the posts at about eight inches from the ground, and a wooden rod for the support of the tools, is either nailed to the posts or tied to them by a piece of coir or coconut

rope. The bar if long is additionally supported ... by one or two vertical sticks driven into the ground. During most of his mechanical operations the Indian workman is seated on the ground ... The boy, who gives motion to the work, sits or kneels on the other side of it holding the ends of cord wrapped around it in his hands, pulling them alternately ...". Notice that in this instance the turner is using his toes to steady the tool on the rest.



**Fig 7a: The Ethiopian bowl turner**

A lathe of a very similar type was still in use in Ethiopia in the late 1960's when Nancy Boothby (an American teacher) took the photographs on the left showing the bowl turner at work. (Please note that the copyright to the images shown in Figs 7a to 7g is owned by Taunton Press. These images are reproduced here with its permission.) Fig 7a shows the work piece held between centres made by driving two 6 inch metal spikes into logs embedded in the ground. The end the tool rest support was placed on one of the metal centres and the tool rest itself was laid across that. the turner held the rest in place with his feet. The assistant pulled forward and back on a leather strap wrapped around the mandrel.





**Fig 7b: Rough shaping the bowl**

The Ethiopian bowl maker did the shaping with a primitive axe/adze. This had three interchangeable socketed heads which fitted on a single crooked handle. The handle was made utilising the natural shape of a branch. This device was similar to those used by the ancient Egyptians. But the latter did not have a socketed head, instead the flat blade was lashed onto the handle with leather or sinew. However, it is thought that a socketed head was used in parts of Asia in the ancient world.



**Fig 7c: The roughly shaped bowl**

Turning by these methods is very heavy work so to reduce the effort the blank is shaped as much as possible, inside as well as out, before it is turned. However, because the bowl is held between centres a spigot is left in the middle of the inside until the turning is completed. Similar roughouts, from the late Iron Age, have been found in Britain.



**Fig 7d: Drilling for the mandrel**

With the roughout held between his feet the bowl turner drilled a hole in the centre of the bottom. The drill, which could hardly have been more primitive, was simply rolled between his hands.



**Fig 7e: Attaching the mandrel**

The mandrel was then driven securely into the bottom of the roughout. The mandrel was a piece of branch wood with a tapered end sheathed in metal. The metal sheath is not essential but it speeds up the process - without it time would have to be spent making a mortise and tenon joint.



**Fig 7f: Turning the inside**

The bowl was then turned. Local abrasive leaves, probably from the fig tree, were used for sanding. But little sanding was required because of the smoothness of the cuts. The knobs on the top and the bottom were finally removed with the adze and the rough areas smoothed over with the turning tool.



**Fig 7g: Nearly finished**

Well that's it for this week!

Have a great weekend when **Ireland** will probably clean out France, Those **Aussies** will likely throttle **Wales** and the **All Blacks** should run up a cricket score against **Tonga**.

Cheers

Clive

PS: Sadly the **Ranfurly Shield** will stay in **Hawkes Bay** (another **Waikato** loss).