

Mark's multi-axis candlesticks

The three main tools Mark Sfirri uses to make his multi-axis candlesticks are a 32mm, 1 1/4in roughing gouge, a 10mm, 3/8in spindle gouge and a 13mm, 1/2in bowl gouge ground like a spindle gouge. He uses this for 85% of the turning.

Mark stresses the importance of a stable lathe in multi-axis turning. In his newly-acquired Oneway 2036 he feels he has found his 'dream machine.'

It is the most stable lathe he has come across, enabling him to turn faster, so saving time while achieving a better finish.

The work is mounted between ring centres – a tip from Del Stubbs. A catch makes the wood stop while the lathe continues to spin.

After extensive research, Mark decided that the optimum height for candlesticks was between 180-305mm, 7-12in, on a base of about 75mm, 3in.

He also found, after trial and error, that the best way to make a recess for the candle was to use a 3/8in Forstner bit mounted in a drill press – making sure to project the centreline of the hole to the bottom of the base and mark it there, before starting to turn.

Mark says there are three different types of multi-axis turning: parallel offset axis (which will necessarily be in the same plane), non parallel offset axis (in one plane), and non-parallel offset axis (in different planes).

Precarious

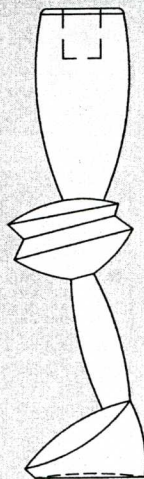
For his candlesticks, Mark prefers the non-parallel offset axis in one plane, as this offers the precarious angling of one spindle form to another from the side view, but is aligned and sympathetic when seen from the front.

The first part of the turning uses the most extreme centres. These may be 35mm, 1 1/4in off centre in opposite directions. While the piece is on these centres, the middle to bottom is turned (though not the very bottom).

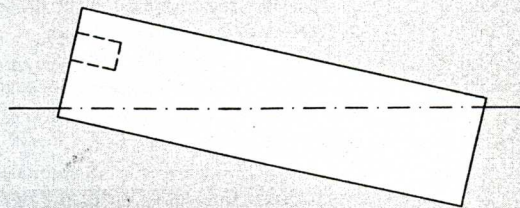
The second set of centres is closer to the centre, particularly at the bottom. A plug is placed in the candle hole at the top for the drive centre.

On this set the top is finished-turned and the very bottom is squared up to the top and slightly hollowed. Care should be taken not to turn the diameter too small on the first set of centres, or the pressure from the second set could bend the piece.

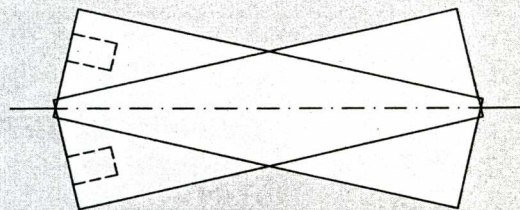
With all these odd angles flying about, it's important to keep your knuckles well out of the way. Much of the sanding has to be done with the piece stationary, so it's important to get a good tool finish in the first place. No room for sloppy technique to be corrected later by 60 grit! ■



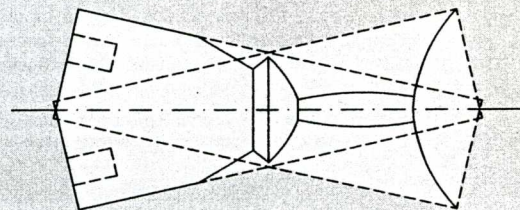
The turned candlestick.



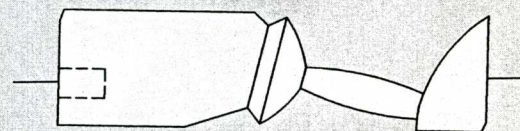
Blank mounted on first axis.



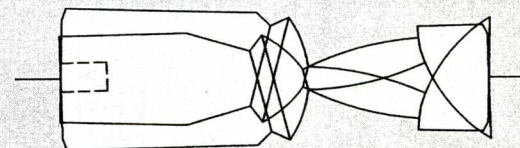
Blank spinning on first axis.



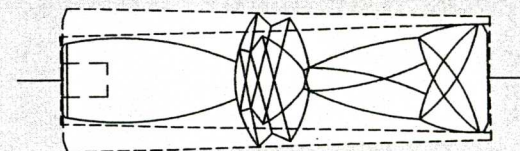
Blank turned on first axis.



Blank mounted on second axis.



Blank spinning on second axis.



Blank turned on second axis.