



As I hoped, I set up a jig to position and clamp down the 5 sections of each dial while the glue cures. It was heartening to see that the glue just squeezed out of the joints when I gently tapped up the wedges going around them 3 or 4 times. The image at Fig-144 is the first one and releasing that was a little stressful because some glue had seeped out of the back of each joint so I had to apply a gentle tap on a chisel to release it. For the second Dial I added a piece of paper under each joint!

The first Dial has now had the Minute Dots added not as tedious as I had been thinking. Normally I get bored when I have to make more than 4 of the same part and this needed 48 but in fact turning a short length of Maple down from 6mm square to 4mm Ø and cutting of 3mm long lengths went remarkably well. As you can see in Fig-145 the curved joint at the 5 o'clock position is 'tight'

(as are the others) and the Dots are glued in and stand just a little proud. They will be sanded back flat and level with the Walnut on the Mill using a 50mm Ø sanding pad and then finished with the Makita ROS.



I'm not sure that there is any benefit in leaving the Denford to get on with running a G-Code file while I get on with other work:((

This has been my methodology for some time and I've been caught out by something going wrong and destroying the CNC work because I wasn't watching its every move and hitting the emergency [STOP] as soon as any error occurred.

This was brought home today when the blank for the two Escape Wheels released itself from the clamps allowing movement in the X axis. I was totally unaware that there was anything amiss until after the run was complete and I returned

with the intention of changing the tool and setting up the next operation. The first thing I noticed was that the 2mm burr was broken and then I saw the mess that had been made - Fig-146 - I suspect that the Burr had broken because it was being forced to take a deep cut due to the movement of the blank which I suspect was caused by it getting hot and warping because of the moisture content. When I took it off the Denford I could see that it had 'curled up' about 3mm - and when you consider that it is only 8mm thick that is a serious amount and certainly enough to release it from the clamp. Basically, this is down to my reliance upon the eccentric clamp rather than drilling clamping holes and screwing the blank down.

#### 4TH DEC

To make the blank for the last two Escape Wheels I used up the last stock of my 10mm thick Maple offcuts but fortunately I do still have the Hard Maple board and it is 130mm wide so sufficient to cover the 120mm Ø needed. The only 'issue' being that the board is 27mm thick so I had to cut a 10mm thick slice (or rather two slices) off and skim them down to 8mm before running the G-Code again.



Strangely, I didn't learn from my previous mistake and still didn't screw the blank down, nor even clamp the corners, so would you believe that I had a similar failure! - again, for exactly the same reason :(

A third slice off the Maple board and this time I did clamp them down at each corner I eventually got the last two Escape Wheels completed - well, as far as CNC machining is concerned - I still have to mount them on the lathe to trim the faces to finished thickness so there is still an opportunity to scrap them :)

At least I did finish the Dial Minute Dots as my multi-tasking operation so the four Dials are ready for finish sanding