

2ND - MAR

It seems that I spoke too soon :(

Due - I think - to the change in the weather, certainly here it is a few degrees warmer and probably more humid than of late, it seems that the second train main gear has distorted and become 'oblate'. I only know this because I eventually made a point of marking the 64T Gear whenever the clock stopped, that is every few minutes!

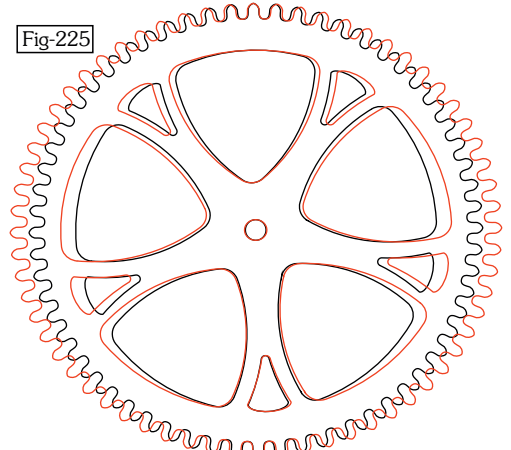
After about twenty or so restarts I was able to notice that there was a preponderance of marks at 180° to each other.

I had by now re-located the clock from my workshop to my office so that I could more frequently check how the timing was progressing without constantly moving to and from the workshop. This meant that I had to dismantle the Pendulum and re-attach it in the new location which meant that the delicate geometry between the latch/finger/pivot was upset so I needed to make small adjustments (I think I need to find a way to 'fix' the pivot screws once I have them at the correct position). Because I had been making small - I'm taking less than a ¼ turn of an M3 screw - adjustments to the 'Beat', as well as the pivot screw positions when trying to find that 'Sweet Spot' again, the tick was no longer 'In Beat' so I was fighting well against the odds :(



In Fig-224 you can see the pencil marks I'd been making each time the clock stopped. They are not all in the same (ish) spot but there is certainly a pattern, which is repeated directly opposite.

This leads me to surmise that the outline is now nearer to that shown as a red line in Fig-225 – somewhat exaggerated of course – as opposed to the concentric black outline. I'll have to do some more work on the other 64T gears before I build the



other clocks but for now I'm resigned to waiting for the weather to settle down again before spending more time in trying to get the first clock fully operational.

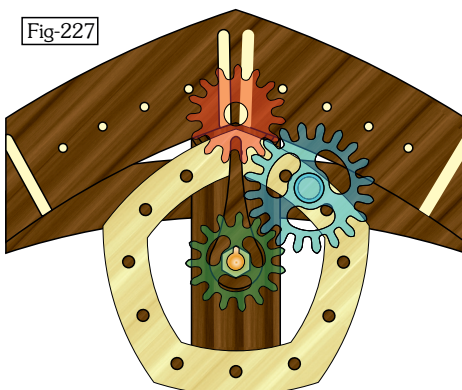
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In the meantime, two things have been keeping me occupied.

1 - When needing to make adjustments to the length of the Pendulum I found that I couldn't remember from one adjustment to the next which way I was making the change so had to work it out from first principles each time! This made me decide to add marks to the Bob showing [F] and [S] to signify whether the adjustment should be Faster or Slower. I've made small Maple buttons engraved with the two letters filled black. (Fig-226) These will be set into recesses in the Bob, either side of the Adjusting Nut.



2 - I've decided that I could add a 'Seconds Sub-Dial' to the basic design. Had I done this originally, it would probably have been at the 12 o'clock position which might have impacted upon the design of the Dial but, doing it with hindsight, it will go 50mm lower and be set inside the main Dial. This means that it is slightly more complex in-as-much-as it will need three gears rather than a direct 'pointer on the end of the Escape Spindle'.



I've shown the Gears super-imposed on top of the Dials in Fig-227 and - in the light of the issues I've had with respect to the 'binding' of the other gears - I've changed the tooth profile to provide more clearance. In reality the Gears will all be behind the frame. As silly as it sounds, this 'complication' has added 20 components to the total and that's only counting the 'dots' as one!