

# A MAINMAN with a unique ope

by John R



Figure 2 (above). Detail of the name on the chapter ring.

Figure 1 (left). Dial of an eight-day longcase clock by William Mainman of Beverley, about 1740-50.

William Mainman of Beverley in East Yorkshire is an enigmatic clockmaker who has proved difficult to trace. *HULL AND EAST YORKSHIRE CLOCKS* by Stuart Walker (1982) lists a William Mainman at Howden, about 20 miles to the west of Beverley, but the only information is 'See

Wainman, William'. William 'Wainman' of Howden is listed as 'c.1775-85' solely on the basis of a couple of longcase clocks. But there was a William Wainman baptised at Beverley in 1739 and married there in 1765, though his occupation is not known.

A later watchmaker of this name was

at Hessle, near Hull, in 1834-67. The surname Mainman is quite an unusual one that appears to originate in east and north Yorkshire, but not this man and I have not managed to find any genealogical information on him by using the usual online sources. But this dial is clearly signed Mainman so it is likely that

# AN MOON

## rating mechanism

obey, UK



Figure 3. The penny moon and the silvered ring showing one lunation of  $29\frac{1}{2}$  lunar days.



this was his name and that 'M' has been misread as a 'W' on his other clocks. As this dial was made before the two reported clocks signed at Howden it can be deduced that he was earlier working at Beverley.

One would expect that a clock by an unrecorded maker would be a

rather standardised affair, with the dial, movement and case bought in from the actual makers and assembled for retail sale. This is certainly what happened quite regularly in the nineteenth century, although there were some who made their own movements almost to the end of the longcase era. The buying-in of

dials and movements also took place in the early years of the trade, although on a more limited scale. But instead of being a predictably standard dial this one has some interesting features, including a moon-operating mechanism of a simple type not recorded before.


It is an orphan dial (there is no )



Figure 4. The moon disc has a full moon and a 'dark of the moon', with 59 teeth round the edge.

movement, hands or case) that was acquired for a modest sum, purely as a decorative artefact, but proved interesting enough to write this article about it. Unfortunately, in my eagerness to clean the blackened chapter ring, matting and partly corroded dial plate, I omitted to photograph its 'as was' state.

Figure 1 shows that it is a provincial dial with a penny moon in the arch and a plain matted centre. The dolphin spandrels in the arch are of a pattern that was widely used from about 1720 until the appearance of rococo designs in the 1760s, of little use for dating. The corner spandrels were missing, but these replacements have the holes for the fixing screws in the correct position. They are of a pattern that was introduced in the early eighteenth century and after a couple of decades of popularity they went out of fashion in London, but in the provinces they continued to be used for almost another half century.

The lozenge or diamond-pattern half-hour markers and the ringed winding holes were also introduced in the early part of the century but continued to be used on northern dials long after they had fallen out of fashion on clocks made in the capital. Dating any artefact relies

on its latest features—in this case it is the large arched calendar aperture and especially the recessed seconds dial, which first appeared about 1740. On this basis this dial can be dated to the 1740s or 1750s. The day of the month is shown by a fixed iron pointer, while the seconds dial has a prominent six-pointed star in the centre, indicating every tenth second with bold triangles for the intermediate five seconds.

The name of the 'maker' is competently engraved on the chapter ring with accompanying decorative scrolls. Below is 'BEUERLEY FECIT', clearly meant to be 'Beverley', figure 2. The inclusion of 'Fecit'—another early feature that was still used in the north long after its demise in London—implies that it was Mainman's own work. But by this period the word was often included as a means of imparting status, just as in the Victorian era traders would regularly advertise themselves as 'manufacturers' when they were no more than wholesalers or retailers of items made by others. This was long before the introduction of the Trades Descriptions Act. So we are still no nearer to knowing how involved William Mainman was in the actual making of this dial.

Figure 5. Rear of the dial.



The penny moon is particularly interesting, figures 3 and 4. Penny moons can take several forms.

- Two moon faces on a dark starry background, with 59 teeth advanced once a day with two sets of 1-29½ lunar days engraved round the ring showing the age of the moon.
- A heart shape on a dark ground visible though the usual circular 'penny' aperture. The disc has 59 teeth advanced twice a day to show one lunation per rotation. The heart shape produces a more realistic representation of the moon as seen from earth than the other types,



but it is by no means perfect.

- The third type, like the heart moon, shows one lunation per revolution, but it is less realistic. The disc shows a full moon and opposite it is a black starry circle indicating when there is no moon visible. This 'no moon' was known as 'the dark of the moon'. This type of penny moon, especially when it was above the centre of a square dial, was particularly popular with clockmakers in north Cheshire and south-west Lancashire. On painted dials the dark moon is sometimes a deep blue. It has been suggested, incorrectly, that this is the origin of the



Figure 6. Outer part.

phrase 'once in a blue moon', which is actually due to special atmospheric conditions. Examples of all these types of penny moon are shown in the *THE LONGCASE CLOCK REFERENCE BOOK*, second revised and enlarged edition, 2013, volume 1, pages 348-53.

William Mainman's moon is of the third type with a mustachioed moon face looking rather like Hercule Poirot and a dark moon with seven large stars. The moon phase is shown through the usual circular aperture, above which is a comic sun with large startled eyes, a long nose and what looks like a protruding tongue. The age of the moon is indicated by a (replaced) hand.

The rear of the dial, **figure 5**, shows more unusual features. Instead of gaps cast in the dial plate behind the chapter ring, as normally found on dials made outside the sphere of London influence, the centre is separate and held with just four straps riveted in place, **figure 6**. There are usually eight cast gaps, sometimes six, less often five or four, although four is usual on Irish dials. Why Mainman chose this method of construction is not known, possibly to save brass, as sometimes speculated, or possibly it was to salvage an otherwise

faulty dial casting. These straps are not a later modification, because to accommodate the extra thickness of the strap the holes in the chapter ring feet for the taper pins are a little further out than usual. In any event there is no sign of any modifications.

The rear view also shows what is the really unique feature of this dial—the mechanism to operate the penny moon in the arch. This is usually a lever moved by a pin on the hour-wheel pipe or snail to advance the ratchet-shaped teeth of the moon disc twice a day. There is normally a gravity or spring-loaded tip to allow the lever to return without moving the moon disc backwards. Often there needs to be a jumper spring to give positive advancement of every tooth and prevent inadvertent movement. The tension and setting of this jumper can sometimes be quite critical.

Mainman's answer was to use what is in effect an inverted anchor escapement with a long tail and a return spring, **figure 7**. Although the spring shown is a replacement it is modelled on the remains of the broken original, using the existing brass foot.

When the lower end of the lever is moved to the left (as viewed from the



Figure 7 (left).  
The operating  
mechanism for  
the penny moon.



rear of the dial) by a pin on the hour-hand pipe, the sloping face of the left-hand 'entry pallet' advances the moon disc by half a tooth. When the end of the lever drops off the pin the return spring pushes

the right-hand 'exit pallet' to give another half tooth advancement.

Moving the moon disc by two half-tooth steps every 12 hours avoids the need for the usual hinged actuating tip. Since

there is no clock movement to drive the moon it is not known how reliable it would be in practice. It is suspected that if it had been a foolproof method it would have been used more often, and its rarity

Figure 8.  
The dolphin  
pattern arch  
spandrels.

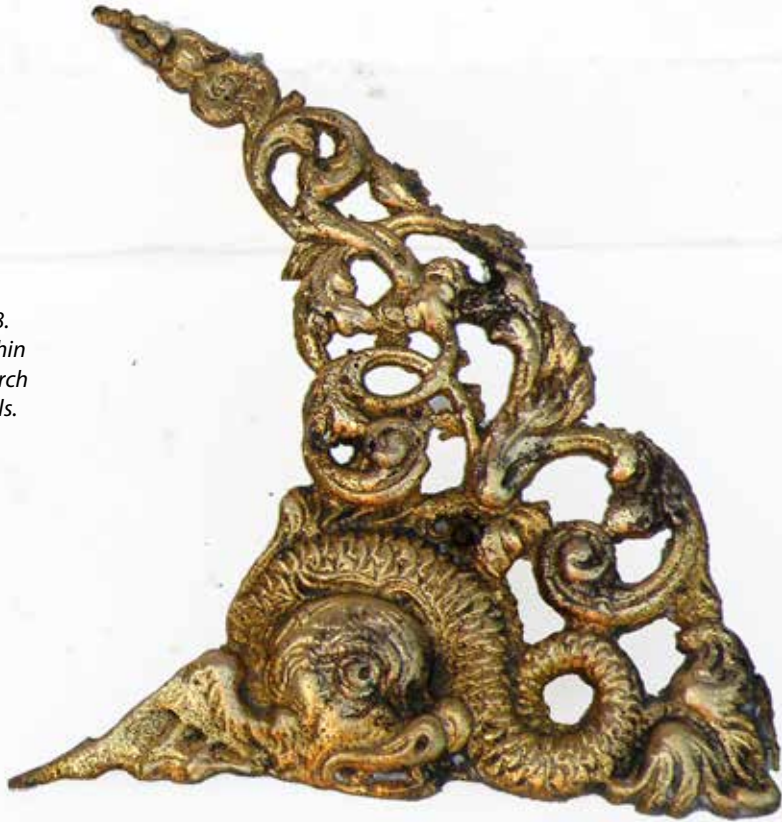


Figure 9. Rear of the  
arch spandrels. The one  
on the right has been  
repaired using a riveted  
strap. The one on the  
left has been cast using  
a similarly repaired  
original as a pattern



may suggest that it was not a long-term solution.

On the other hand, it may be that Mainman produced so few clocks with his own special mechanism (if indeed he

was its inventor) that they never came to the attention of other clockmakers who might otherwise have copied the idea. In any event its use was probably restricted to operating penny moons, which are of

a relatively small diameter. Larger rolling moons might have been less practical, especially as the tail of the lever would have to be shorter with less leverage force available on the pallet faces to push the teeth round.

This dial has one more unusual feature to reveal. The dolphin arch spandrels were gilded and from the front they look perfectly normal, **figure 8**. However, the rear, **figure 9**, shows that one had been repaired with a riveted brass strap. The other had been cast using a similarly repaired original as a pattern. No doubt a pair of broken spandrels had been repaired and then used as pattern to cast others, either by the clockmaker himself or by a local brass founder.

When the components of this dial were assembled two arch spandrels were taken from a box, one being a new

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casting and the other one of the repaired originals. I have never seen this before, but it cannot have been the first time that it had ever happened.

What seemed at first glance to be just an attractive and decorative dial, revealed several interesting features, including a unique moon mechanism. Instead of bemoaning the loss of the movement and case, be thankful that at least this interesting piece of horology has survived, and regard the glass as being half full, rather than half empty. If you have seen anything similar to this moon mechanism please let me know. 📧