# Dismantling the 'East School' - Edward East and the clock trade in seventeenth-century London

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*The article summarises a London Lecture given by the author on 13 July 2023 and suggests that Edward East was acting principally as a retailer of clocks manufactured by others. By examining the movements of clocks signed by East we can see that they correspond with the work of John Hilderson, Ahasuerus Fromanteel, William Clement, Samuel Knibb and others. Further groups of movements from a common source but different signatures can also be identified and suggestions as to the maker are made.*

Edward East was apprenticed into the Goldsmiths' Company and took up his freedom in 1627.[1] He soon became established as a watchmaker and we know he was successful as many of his watches survive to this day. Although he did develop other business interests in property and a coaching inn, he does not seem to have been involved in making lantern clocks, and the only known surviving clocks of his from this early (pre-pendulum) period are two small horizontal table clocks.[2] A further enigmatic and very fine piece is the well-known silver and gilt brass *grande sonnerie* cube-shaped clock with two signatures, 'Eduardus East Londini' and 'A Fromanteel Fecit'.[3]

Many things changed for Edward East in 1660 with the restoration of the Monarchy and the end of Cromwell's Republic. The new pendulum clocks introduced by Ahasuerus Fromanteel in 1658 or earlier were gaining in popularity and East was appointed clockmaker to Charles II. From the early 1660s, few watches are known but we see a series of spring-driven table clocks in architectural wooden cases signed on the backplate 'Eduardus East Londini'. The distinctive movements of these clocks are very different from the work of Ahasuerus Fromanteel and known as 'East School' movements (Figs 1–4).

Features of these movements, setting them apart from Fromanteel's work, include the plates set close together separated by seven baluster pillars pinned to the backplate, large flanged spring barrels with conical 'fat' fusees and indirectly driven 'floating' motionwork.[4]

Not all movements of this pattern are signed for Edward East, surviving numbers are estimated at twenty to thirty by East, six by John Hilderson and a further six by different individual makers. Our three clocks illustrated include one from each group, signed (left to right) for Samuel Haley, Edward East and John Hilderson. The dial of Samuel Haley's clock is representative of the usual pattern, rectangular with punch matting all over and no applied spandrels. The night clock variant shown with East and Hilderson's

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1. For a full account of the life of Edward East, see Adrian, Valerie and Anthony Finch, 'Edward East', *Antiquarian Horology* September and December 2017.

2. A small round table clock illustrated in R. Garnier and L. Hollis, eds., *Innovation & Collaboration. The Early Development of the Pendulum Clock in London* (Fromanteel Ltd, Isle of Man, 2018; hereafter *I&C*) Catalogue no. 10, and a square table clock sold Sotheby's New York 19 June 2002, lot 105.

3. *I&C* Catalogue no. 16.

4. See P. Dawson, C. B. Drover and D. W. Parkes, *Early English Clocks* (Antique Collectors' Club, 1982; hereafter *EEC*) p. 84 for more comment on East School.

Fig. 1. East School dials L–R Haley, East, Hilderson.

Fig. 2. East School backplates L–R Haley, East. Hilderson.

clocks is much rarer but as the movement used is the same with minor layout changes the comparison across all three remains valid.

All three clocks show dial and signature engraving by the same hand and the similarity between the movements is obvious. Examining the detail of these movements it is clear that the component parts are exactly the same and finished in just the same way but it is the small details like the decorative touches and the way that the tails of the fusee click springs are filed up that makes the conclusion inevitable – all three movements are from the same workshop and have been made by the same craftsmen. The dials would be engraved and signatures added as the movements were in the workshop given the same craftsman was responsible for all the work. It has been suggested that Wenceslaus Hollar was the engraver employed, given the outstanding quality of the work and the similarity of the flowers to his published designs.[5]

There are two likely contenders for the manufacture of the series of movements, Edward East and John Hilderson, both of them already working in the business before

5. *I&C* p. 203.

Fig. 3. East School signatures. L Haley and Hilderson, R East. For close-ups of these and other signatures on dials and backplates illustrated in this article, see the appendix.

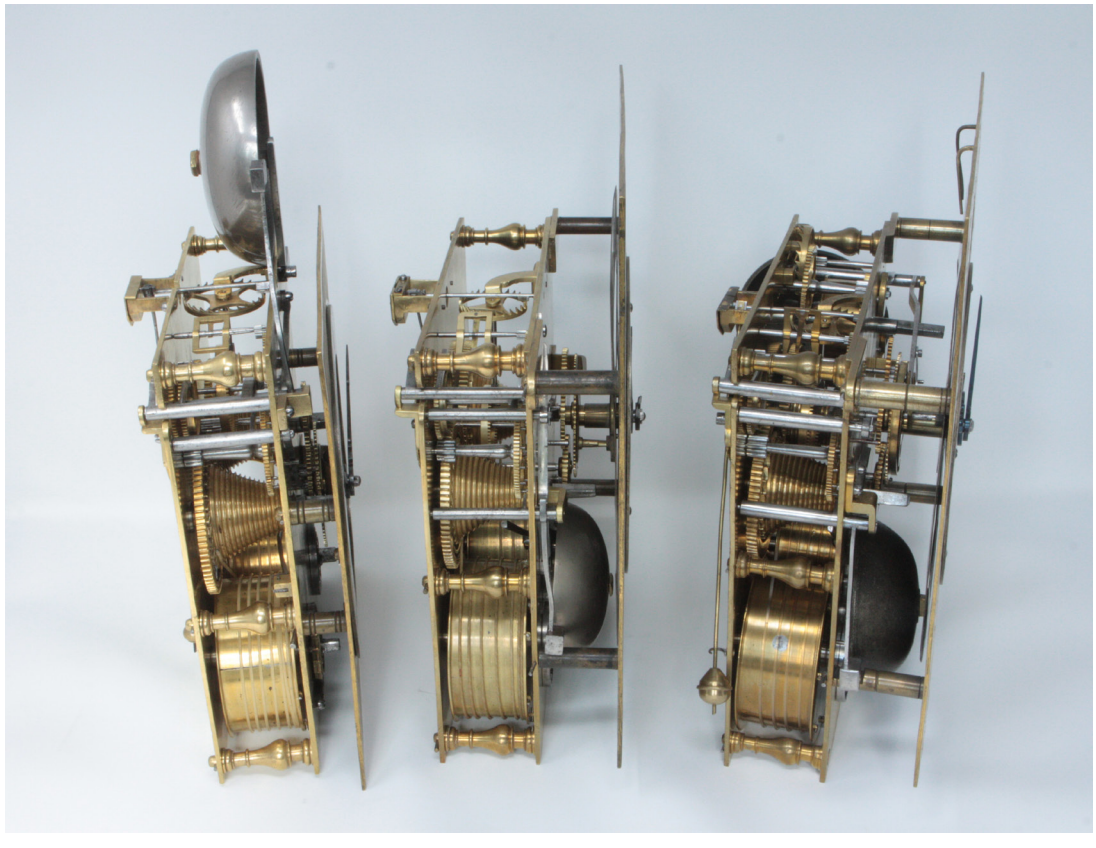


Fig. 4. East School movements L–R Haley, East, Hilderson.

1660, but Samuel Haley's clock helps to clarify which of the two is most likely. Although not a member of the Clockmakers' Company, John Hilderson was making lantern clocks and worked in Chiswell Street just outside the City boundary.[6] Samuel Haley was apprenticed through the Clockmakers' Company to Hilderson in 1657,[7] and although his seven year term finished in 1664 he was never freed.

Edward East of course was right at the top of the trade, he was a wealthy businessman with premises in Fleet Street, had twice been Master of the Clockmakers' Company and held the prestigious royal appointment. Haley by contrast was at the very bottom, as an apprentice without his freedom. It hardly seems possible that East would make a clock engraved with Haley's name for him to retail. However if Hilderson was the manufacturer it seems perfectly possible he would allow Haley to sign a clock which he had made himself on completion of his seven year term, perhaps as his passing out piece or simply to prove he had learnt all that was needed. Although both Haley and Hilderson died in the plague in 1665, Haley's death was some months earlier than Hilderson's (see note 6), so the clock would have been made and signed with Hilderson's blessing.

Of course there are other reasons to suggest Hilderson must have been the source of the 'East School':

- Use of these movements ceases in the later 1660s consistent with the end of manufacturing on the death of Hilderson in 1665. We then see a variety of different movement types signed by East consistent with him buying from other makers.
- Both Haley and Hilderson sign 'Londini Fecit' whereas East's signature is simply 'Londini'. East continues with this practice from 1660 onwards always signing in Latin 'Eduardus East Londini' but some earlier pieces (from his own workshop) such as the small round table clock mentioned above (see note 2) are signed 'Londini Fecit'. It should be noted here that this seems significant for East but the general principle does not follow through to other makers.
- East's weight-driven clocks have nothing in common with the spring clocks so are not made in the same workshop.
- As a watchmaker, East seems less likely to be set up to manufacture the larger components needed for clocks than does Hilderson, already making lantern clocks.
- East ceases taking apprentices after 1657 taking none until 1676 (see note 1), suggesting he has little need for cheap labour.

It appears likely that these clocks from Hilderson's workshop were supplied to the retailer without a case as East and Hilderson use different casemakers. East's cases are sometimes criticised as clumsy and lacking architectural proportions,[8] but this is not always true as several different case styles are found, suggesting the use of more than one maker. Hilderson's cases are plainer, ebonised or ebony veneered usually on a carcass of pine[9] without any mounts but in general do follow architectural principles. They have fine mouldings around windows and raised pads on top of the full depth pediment of the case. Unlike Hilderson, his casemaker survived the plague and continued making clock cases for Samuel Knibb and others.

Weight-driven clocks by Edward East from the period 1660–65 are very rare and a single example, again signed 'Eduardus East Londini', is illustrated in Figs 5–6. As can be seen this is very different from the spring clock movements and very obviously supplied from Ahasuerus Fromanteel's workshop. Every detail confirms this, the dial has steady pins for the spandrels and the date ring is engraved by Fromanteel's engraver. The signature however is by a different hand so it seems likely it was supplied to East as

6. Following research on John Hilderson by Tony Weston, published *Antiquarian Horology* June 2000, further research by James Nye, adding much new information, is published in the current issue.

7. Clockmakers' Company Register of Apprentices printed for the Company 1931.

8. See *I&C* Catalogue no. 42.

9. Pine was often preferred for veneered surfaces such as drawer fronts in English cabinet work so this is likely to be a preference rather than a cost saving. These pine clock cases are often catalogued as oak in available literature making identification of this casemaker's work more difficult.


Fig. 5. Edward East longcase 1662–5 dial and signature of East compared with that of Fromanteel.

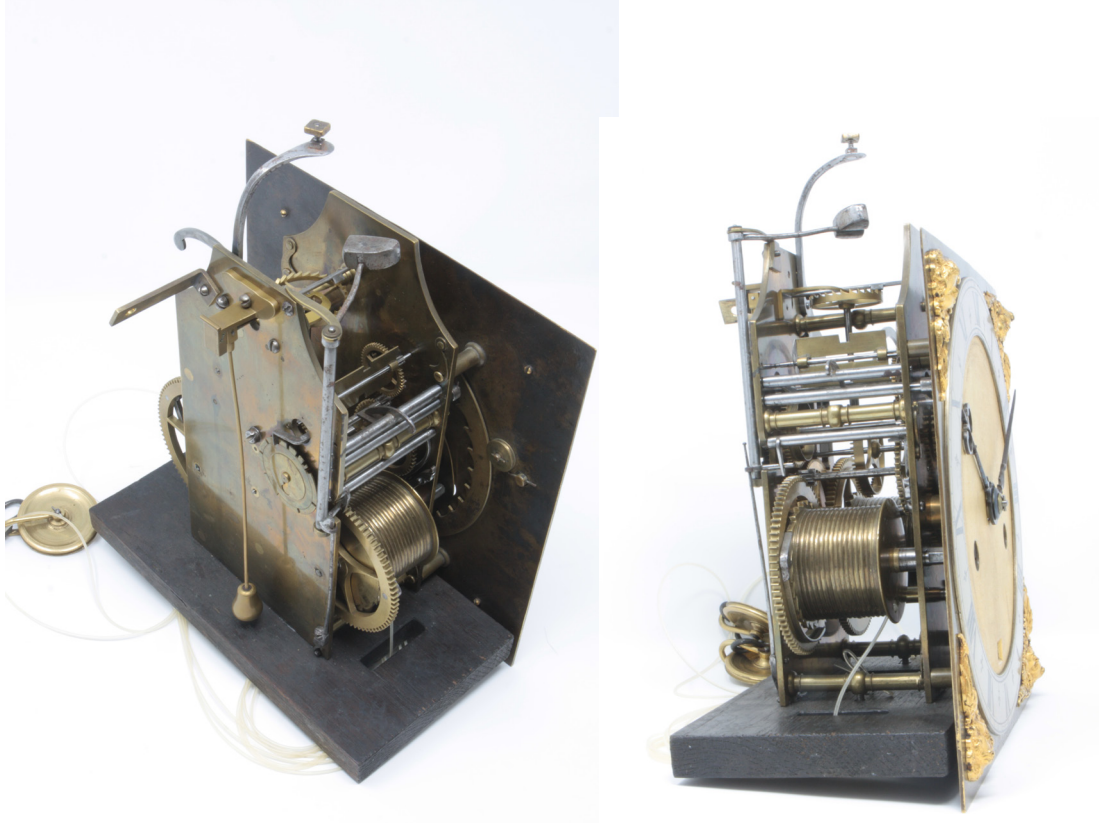


Fig. 6. Edward East longcase 1662–5 movement.

Fig. 7. (L) Night-clock movement from Hilderson's workshop *c.* 1665 completed with conventional dial and (R) unused backplate with East signature.

an anonymous clock. The movement is the usual 8-day pattern with shaped plates as used by Fromanteel from 1662–65 and is very similar in detailing to the example signed 'A Fromanteel Londini' in the British Museum.

Edward East and Ahasuerus Fromanteel held very different views with Fromanteel often at odds with the Clockmakers' Company,[10] and it has always been thought unlikely that Fromanteel would go out of his way to help East, but it seems possible that some of these differences became the reason for a degree of cooperation. Fromanteel was undoubtedly the pre-eminent clockmaker of the period but was well-known as a supporter of Cromwell's republic. His clocks were available for sale at the Mermaid in Lothbury[11] run by Thomas Loomes, Fromanteel's son in law. Loomes equally was a well known republican and was arrested in 1660 and 1662 in connection with this.[10] Because of his political views and those of Loomes, it seems unlikely that Fromanteel or Loomes would be in any position to sell clocks to the new elite of the Royal court after the restoration in 1660. East however had the appointment as Royal clockmaker so was in the perfect position.

In this context the silver cube clock (see note 3) might just have some relevance as the first indication of reluctant cooperation between the two men. The dual signatures would begin to make a bit more sense with a date of 1660 or soon after and a customer who would be willing to order such an expensive item from East but not from Fromanteel. The construction of the clock with turned knopped and finned pillars also fits well with Fromanteel's work in the 1660s and the extravagance of the clock sits better with the Restoration than the rather puritan outlook of the Republic.

After the death of Hilderson in 1665 it appears likely that some incomplete and unfinished stock remained in the workshop and that East was able to utilise this, resulting in a small number of 'hybrid' clocks. Some of these use a centrewheel but all are clearly made from the components in use earlier. Fig. 7 shows a completed night clock movement, unsigned on the backplate but with a conventional dial fitted, very finely engraved and with the same signature as before, all executed by the same hand that engraved our examples shown in Figs 1–4. Strangest survivor of all, also shown in Fig. 7, is an orphan backplate complete with Eduardus East signature but never drilled or used (except for scrap brass).

10. Brian Loomes, *Clockmakers of Britain 1286–1700* (Mayfield Books, 2014).

11.Fromanteel's well-known advertisement of 1658 is reproduced *I&C* p. 62.

Fig. 8. Split-plate movement 1666–70 with gilt dial signed East.

Throughout the second half of the 1660s East uses a variety of spring driven movements. **Fig. 8** shows a very fine ten-pillar fully latched split-plate movement following an earlier design from Ahasuerus Fromanteel.[12] Our illustrated movement would date from 1666–70, and is probably supplied to East by Samuel Knibb[13] who continued to make clocks to Fromanteel's designs over this period. The fully gilded dial would be added by East,[14] and is once again the work of the same engraver as the previous examples. The backplate is left plain but with the usual form of signature on the dial.

12. Fromanteel's prototype probably the clock illustrated *I&C* Catalogue no. 36.

13. *I&C* Catalogue no. 46 shows the counterpart movement signed by Samuel Knibb, virtually identical if restored elements are ignored.

14. Apart from a single anonymous example, the engraved spandrel pattern appears unique to Edward East and is used with movements from different sources.

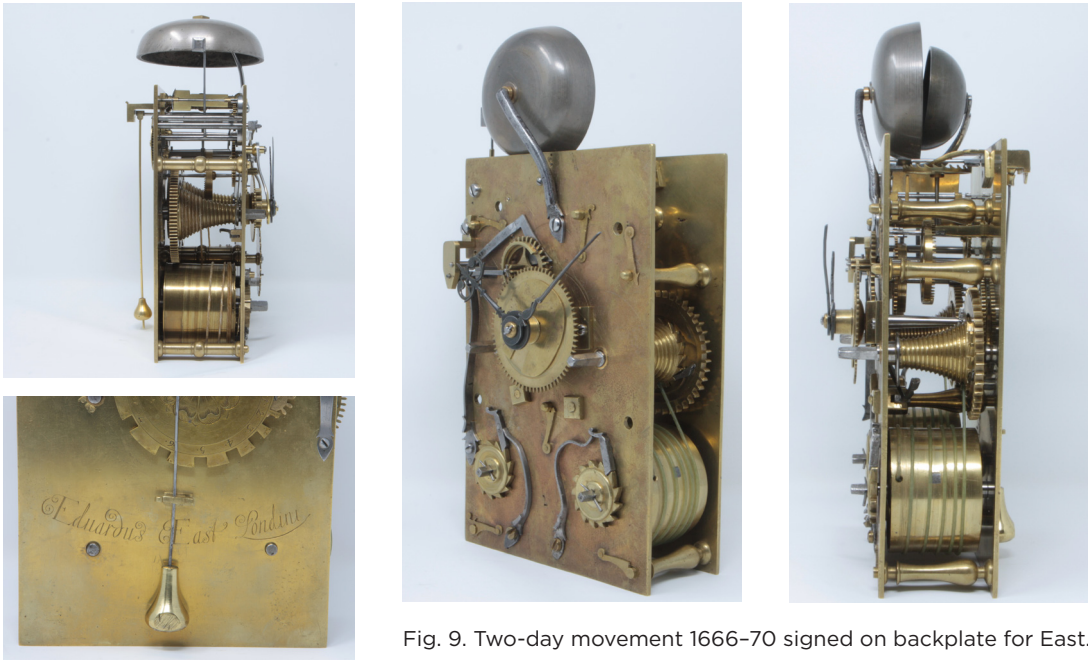



Fig. 9. Two-day movement 1666–70 signed on backplate for East.

Fig. 9 shows a very different movement, again from 1666–70 signed on the backplate with East's familiar signature so again the same engraver. This example probably supplied by Edward Stanton, the movement of only two days duration.

Weight-driven clocks by East from this period are again rare although more numerous than from 1660–65. Movements follow a similar pattern with shaped plates, probably supplied by Fromanteel's workshop, the dials using engraved spandrels added by East. A typical example can be seen illustrated,[15] using a similar spandrel pattern to Fig. 8, the signature now slightly different although probably by the same hand.

By 1670 the verge and short pendulum used on weight-driven movements had been superseded by the anchor escapement. From this date longcase clocks signed by East become much more numerous and the movements used, with a very few exceptions,[16] are supplied by William Clement.[17] To study these movements we need to start with clocks that Clement signs himself as features of his work are easily recognised and his spring clocks and weight-driven movements have many features in common. A typical Clement spring clock movement of about 1668–70 is illustrated in Figs 10–11 and this pattern of movement continues in use up to the 1680s. The quality of Clement's work is excellent and confirms him as a maker on a par with Knibb or Tompion. The hands of this clock include a 'heart shaped' cutout near the centre and this feature has been noted before[18] and can sometimes be seen on clocks by other makers. A hand pattern of this type will almost always lead to a movement from Clement's workshop behind the dial but Clement also makes a

15. *I&C* Catalogue no. 57.

16. Exceptions include a longcase clock veneered in Cocobola wood in the Lord Harris collection and an orphan movement sold Bonhams 6 July 2016, lot 103.

17. Loomes, *Clockmakers of Britain 1286–1700,* p. 124 tells us that Clement was admitted to the Clockmakers' Company as a free brother in 1677, the fee being waived, and then promoted to Assistant in 1678 'by unanimous consent and approbation and for good reason and especial esteem'. Although the reason he was held in such high esteem is unclear his position as a key supplier to others may be relevant.

18. Jon Parker, 'Was there high-quality wholesale movement manufacture in seventeenth-century London?', *Antiquarian Horology* December 2019, and subsequent query from the Clockmakers' Company.

Fig. 10. William Clement spring clock and hands 1668–70.

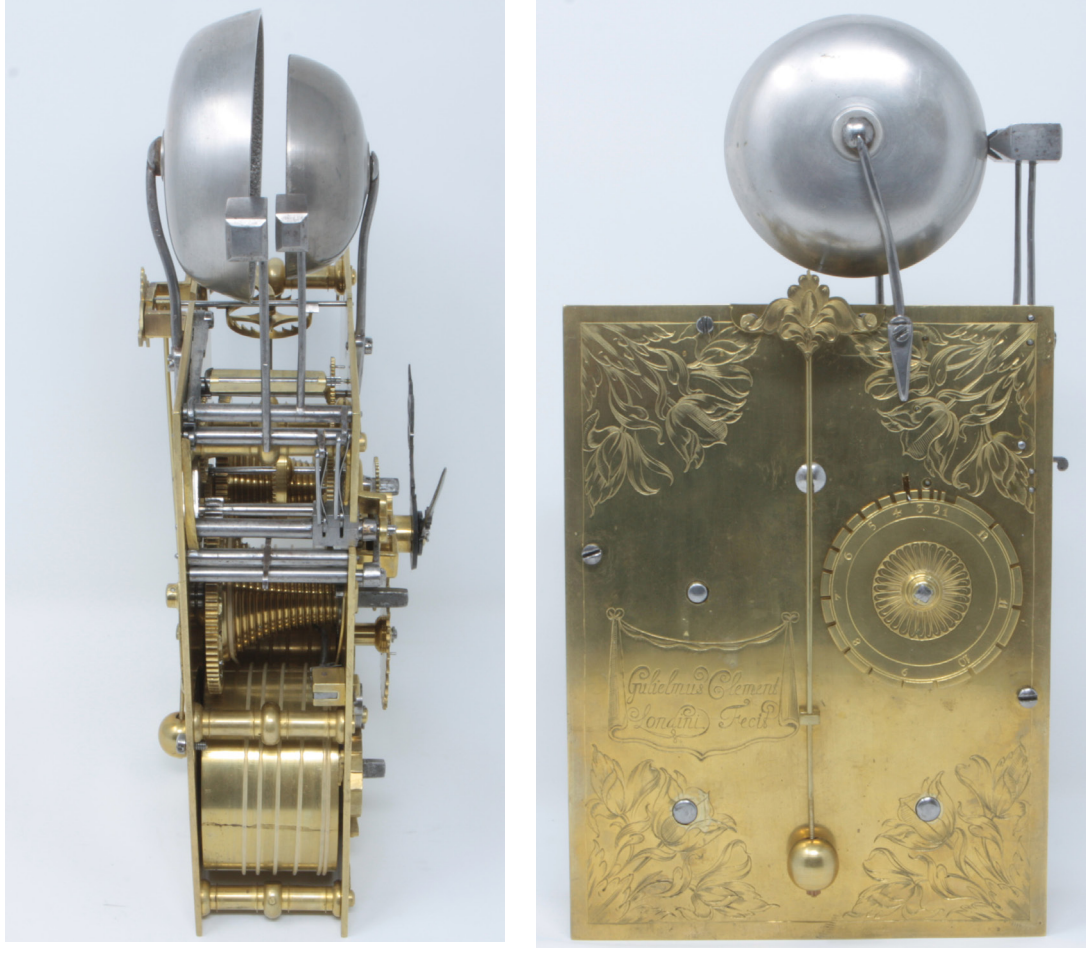



Fig. 11. William Clement spring clock movement and backplate.

Fig. 12. Collets (R) Clement spring clock (L) East longcase movement from Clement's workshop.


Fig. 13. William Clement longcase *c.* 1680 dial and signature.

different, more generic pattern of hands and East's clocks use this latter option. Other features of Clement's work that can be seen on this movement include the double-screwed backcock rounded at the lower corners and with a small projection either side at the top, the bell standards with domed top and shaped foot and the finely-made square hammer shafts. The layout uses eight pillars secured with small latches including central pillars middle and top, the latter providing support near the escapement. Each pillar is finely turned with a narrow central knop and very narrow rings. Collets are turned to a 'stepped' profile (Fig. 12). Clement's countwheels have decorative ringing and are numbered for spring clock movements. The countwheel detent on the locking arbor operates through a slot in the backplate on both spring and 8-day weight-clocks when they use external countwheels and this practice is a feature suggesting a link with Ahasuerus Fromanteel's work as well as providing identification of Clement-made movements. Spring clock movements of this eight-pillar pattern from Clement's workshop can be found signed by a variety of makers including East, Tompion, Seignior and others.

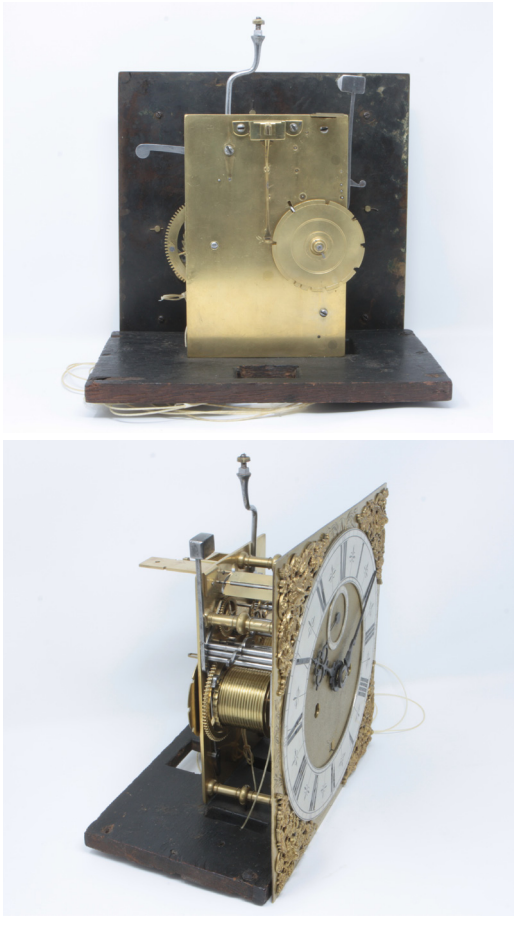


Fig. 14. William Clement longcase *c.* 1680 movement.

Most of the features seen on the spring clock carry through into Clement's weight-driven movements and a typical example from around 1680 is illustrated in Figs 13–14. Although the 'domed' bell standard is most common, an alternative top is seen here, used when the hammer and bell are mounted to the rear of the movement. Clement used a nib dovetailed into the backcock to suspend the pendulum (a very easy way to identify movements from his workshop) often with a figure-8-shaped hole to insert the anchor and he usually added a horizontal fixing bracket at the top of the backplate. The movements have six pillars (sometimes seven) and again include a central pillar near the escapement. Winding barrels are mounted high in the plates and the striking arbors grouped close together. Edward East continued to use Clement's movements for longcase clocks over the period 1670–1690 and many examples are known. Figs 15–17 include examples of different dates signed by East and Clement showing the progression of movements dials and hands. Once again the signature used always omits 'Fecit' on those retailed by East. Clement again follows Fromanteel in fitting a steady pin to the corner of his spandrels,[19] but only on early examples and this feature can also be found on early movements he supplied to East such as the example on the left in Figs 15/16.

Although Edward East was the biggest user of Clement's longcase movements, individual examples can also be found retailed by other makers. A very typical Clement-made clock signed 'Henry Jones in the Temple' can be found illustrated,[20] and this shows all the expected features.

19. See for example *I&C* Catalogue no 59.

20. See *I&C* Catalogue no. 74.

Fig. 15. Longcase dials (L–R) East *c.* 1670 Clement *c.* 1680 East *c.* 1685–90.

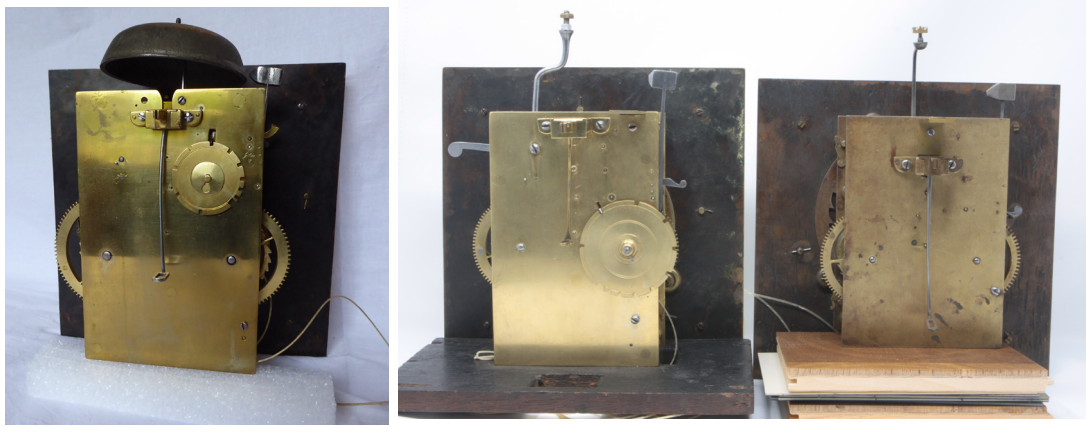


Fig. 16. Longcase backplates (L–R) East *c.* 1670 Clement *c.* 1680 East *c.* 1685–90.

Clement also made a month-going movement and a three-train *grande sonnerie* version for longcase clocks, his approach on both showing innovation. Two different designs of month clock can be found, one pattern with 'reversed trains' (striking on the right) to permit a four-wheel striking train and a five-wheel going train, both winding anticlockwise. Clement's alternative pattern of month clock with striking train on the left can be seen illustrated[21] with a clock signed for John Fromanteel, although in this instance the backcock does not conform to the expected pattern. This movement also includes Clement's system for rise and fall regulation using a dial at the side of the plates.

A good example of Clement's three-train *grande sonnerie* movement signed for Edward East can be seen illustrated,[22] and other movements of this type have been described and discussed by John Winterton.[23]

Moving away from Edward East, two further groups of movements from a common source but used by various makers have been identified and discussed.[24] The first pattern is seen throughout the 1670s and is characterised by an 'odd-footed' backcock; Fig. 18 shows examples by James Clowes and John Ebsworth. Although examples are known signed by several different makers the largest number are used by Joseph Knibb in his 'Phase 1' table clocks (Figs 19–20). Joseph

21. See *I&C* Catalogue no.77.
22. See *I&C* Catalogue no. 91.
23. 'An Unusual *Grande Sonnerie* Movement', *Antiquarian Horology* Spring 1989.
24. *EEC* p. 310.

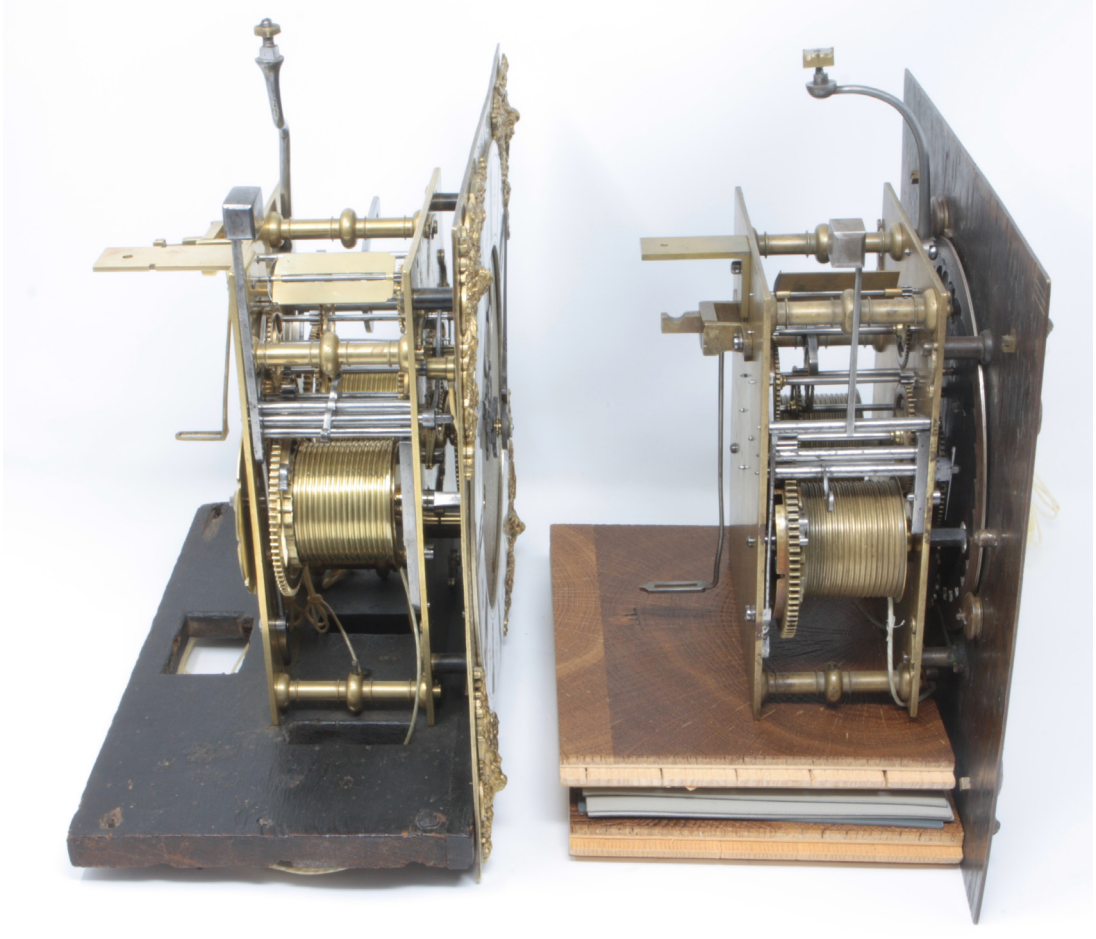


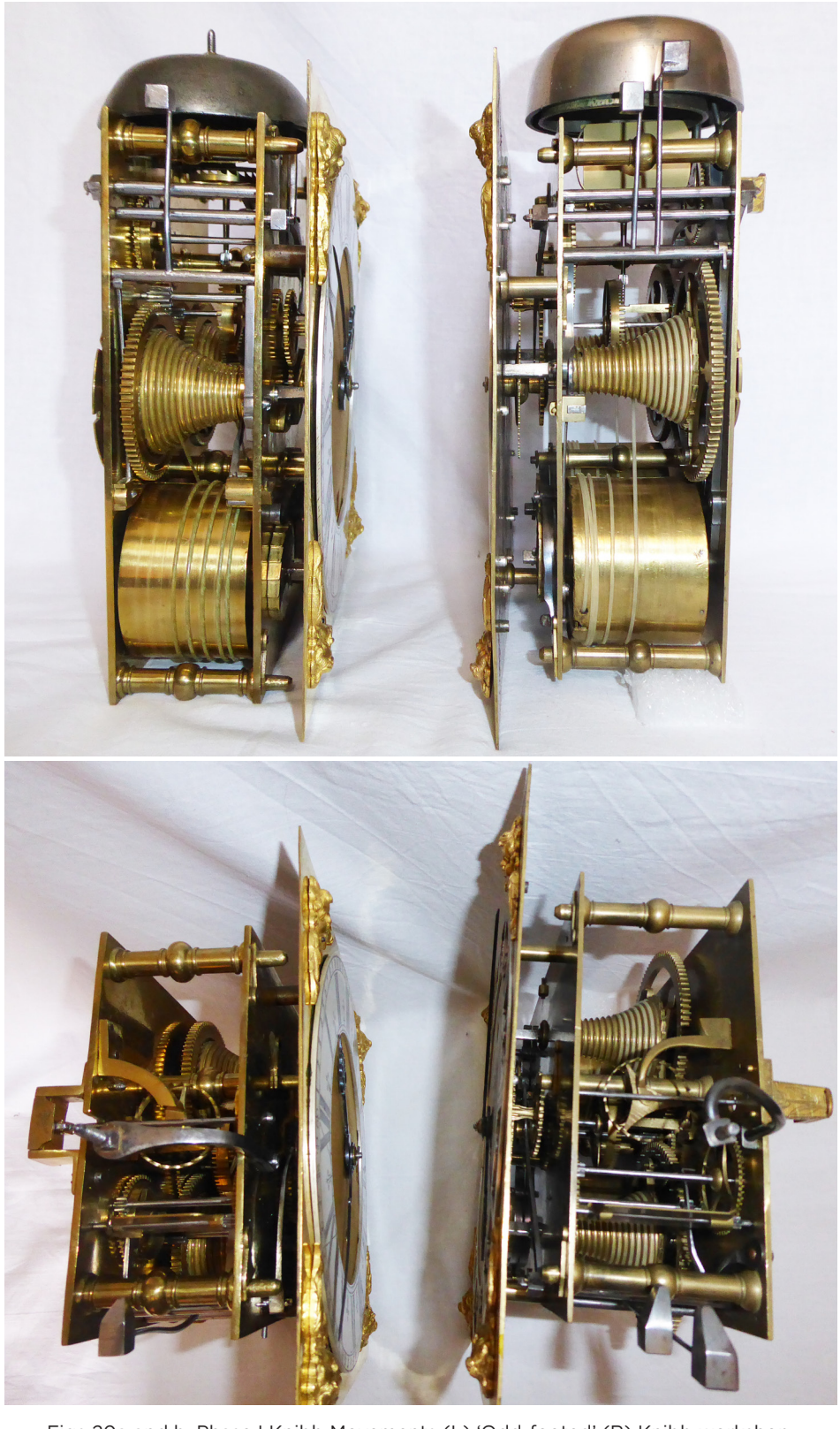
Fig. 17. Longcase movements (L) Clement *c*. 1680 (R) East *c*. 1685–90.

Fig. 18. 'Odd-Footed' backcock movements (L) James Clowes (R) John Ebsworth.

Figs 19a and b. Phase I Knibb clocks *c.* 1675 (L) 'Odd-footed (R) Knibb workshop.

Knibb originally worked in Oxford making weight-driven clocks but moved to London in 1670 where he soon started to make a series of table clocks to his own design and referred to as 'Phase 1'.[25] Around twenty-three examples are known to survive, all outwardly similar but the movements are very varied, some of Knibb's making and some bought

25. R. A. Lee, *The Knibb Family Clockmakers* (1964), p. 69.



Figs 20a and b. Phase I Knibb Movements (L) 'Odd-footed' (R) Knibb workshop.


Fig. 21. Burgis spring clock movement 1680s,

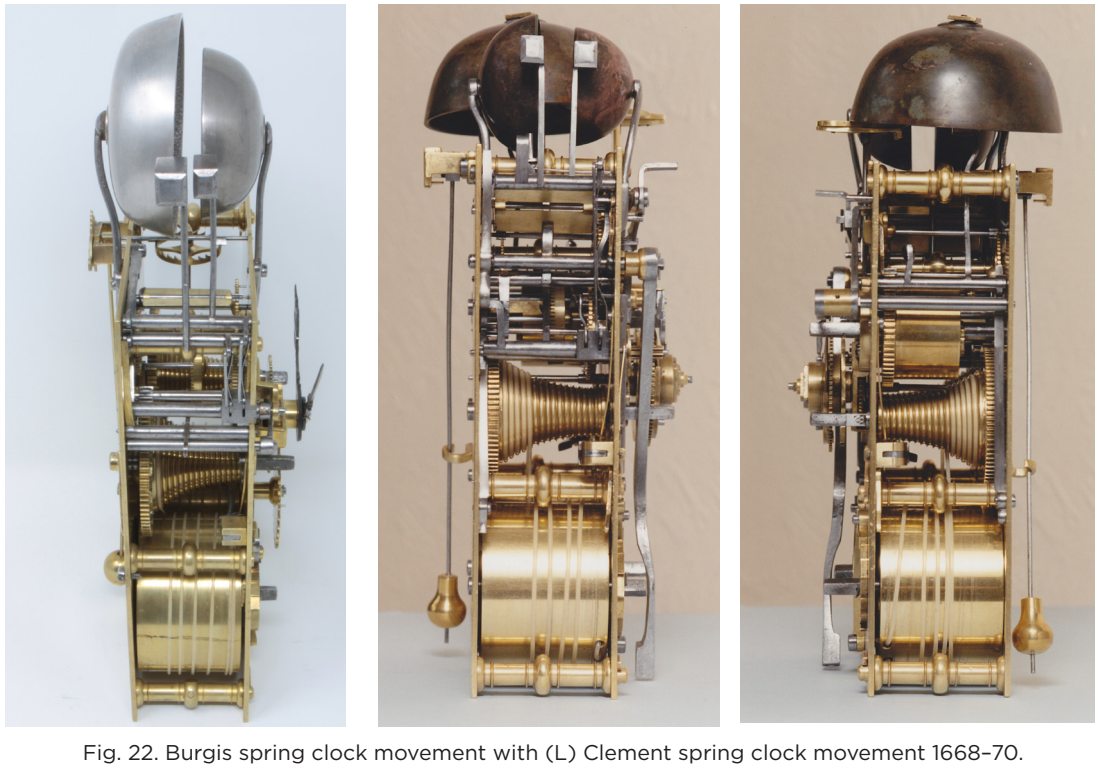


Fig. 22. Burgis spring clock movement with (L) Clement spring clock movement 1668–70.


Figs 23a and b. George Etherington 1690s (L) Quare movement (R) Windmills movement.

in, the 'odd-footed' pattern. It is clear that these bought-in movements were finished in Knibb's workshop with dials, engraving and even screw-threads of his making but the rest of the movements lack the refinement of his work. Although more research is needed here it seems likely that Clowes is the source of these movements, based on his use of it and the workmanship evident, but that they were supplied part finished.

The second group of movements is seen throughout the 1680s and characterised

by repeating work that is powered by the striking train, avoiding the need for a separate spring to be tensioned by pulling the cord. Examples are known by Burgis, Colston and several other makers.[26] An example by Burgis is illustrated in Figs 21–22 and, as can be seen, this is top-quality work, well made and finished throughout. The backcock, square-shafted hammers and domed bell standards as well as the finely-turned pillars with narrow central knop are all familiar patterns from the Clement movement in Figs 10–11. The layout of the pillars and the design of the hammer tail block are again very similar to the earlier version, suggesting very strongly that these movements are from Clement's workshop. In the context of Clement supplying Colston with spring clock movements, a recent auction lot also shows Colston's use of a Clement-made month-going longcase movement.[27]

By the 1690s we no longer see such clear supply lines where certain makers are supplying many more movements to others than they market themselves, but this does not imply any reduction in trade between makers, more likely an increase. It is well understood that Tompion would supply Quare with a movement on occasion and that Quare would reciprocate at other times. Other makers such as Knibb also seem very willing to supply movements for others to retail but the practice seems to be very much more widespread. The final illustrations Fig 23 shows two clocks by George Etherington, one with a Quare movement, the other by Windmills.

## Acknowledgements


- Laurence Harvey who has an unrivalled knowledge of early clock movements.
- James Nye who has done much to progress this article and provided many of the photos.
- Gavin Perham who provided the estimated survival numbers for 'East School' movements.


## Photo credits

Fig. 7 left and centre: Gardiner Houlgate auctioneers. right: Oli Cooke, British Museum.

Fig. 18 left: Gardiner Houlgate auctioneers.

Fig. 21: Private collection.

Fig. 22 right and centre: private collection.

All other images: James Nye / author.

26. *EEC* p. 392. Also Parker, 'Was there high-quality wholesale movement manufacture in seventeenth-century London?'

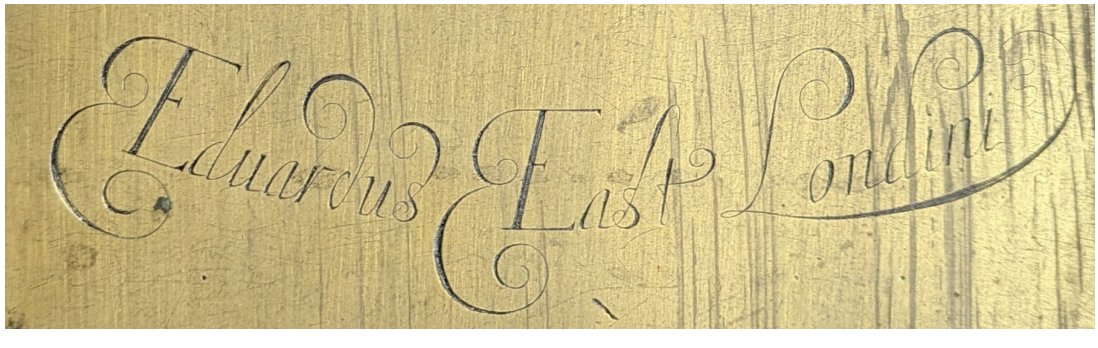
27. Hutchinson Scott auctioneers 4 August 2023, lot 729.

## Close-ups of signatures on dials and backplates illustrated in this article


Fig. 3 Hayle

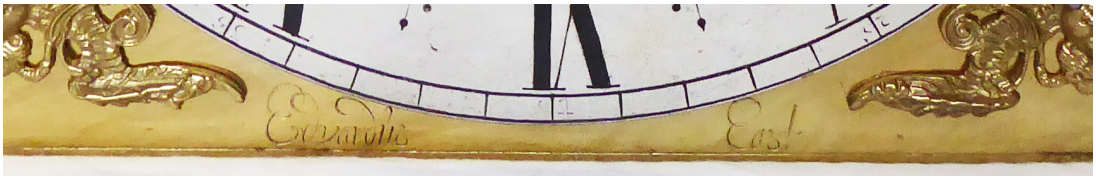




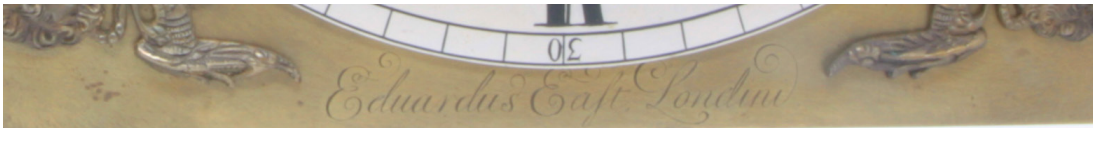




From above: Fig. 3 East, Hilderson / Fig. 5 Fromanteel, East / Fig. 7 East dial and unused backplate

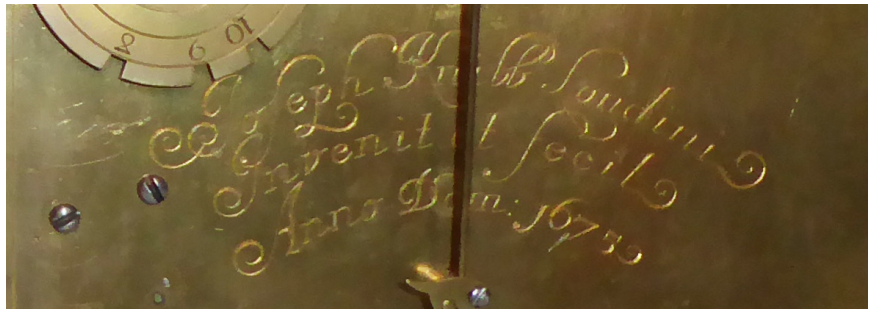







From above: Fig. 8 East dial / Fig. 9 East backplate / Fig. 13 Clement / Fig. 15 dials East, Clement, East / Fig. 19 Knibb backplate left








From above: Fig. 19 Knibb backplate right / Fig. 21 Burgis/ Fig. 23a left, 23a right, 23b left, 23b right: Etherington dials and backplates