POSTED-FRAME CLOCK from Liège

by **John Robey**, UK

Figure 1. Liège clock by 'N Pome'.

There are two general observations that can be made about English posted-frame clocks.

- They usually originate from south of a line between the Severn estuary and the Wash, though there are the inevitable exceptions.
- Their movements are all much of a muchness, and once you have seen one you have seen them all, with just a few minor differences of detail.

English posted-frame 30-hour clocks have very similar arrangements of the components for striking the hours: the hammer is on the left and the two arbors carrying the strikework detents are positioned one above the other on the right. These

WHEEL COUNTS

Going train

escapewheel	30	6
2nd wheel	60	6
greatwheel	72	8
hour wheel	48	
minute wheel	18	
wheel-of-report	36	
beat = 1 second		

Striking train

fly		6
warn wheel	54	6
locking wheel	60	8
greatwheel	72	6
countwheel	39	
hammer pins	12	

Duration = 1 day

Overall dimensions
12½in tall x 8½in wide x 6¼in deep (318mm x 215mm x 160mm)
Frame: 7¾in tall x 6½in wide x 4¾in deep (197mm x 165mm x 121mm)

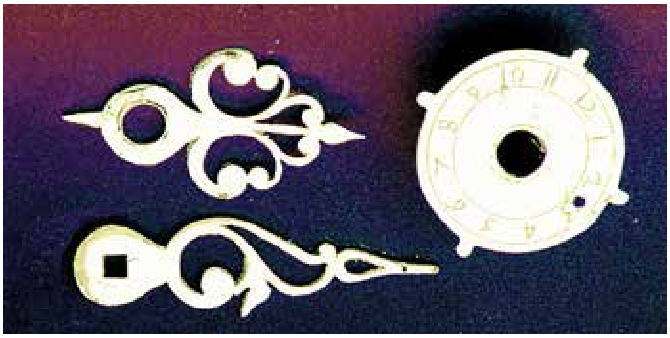
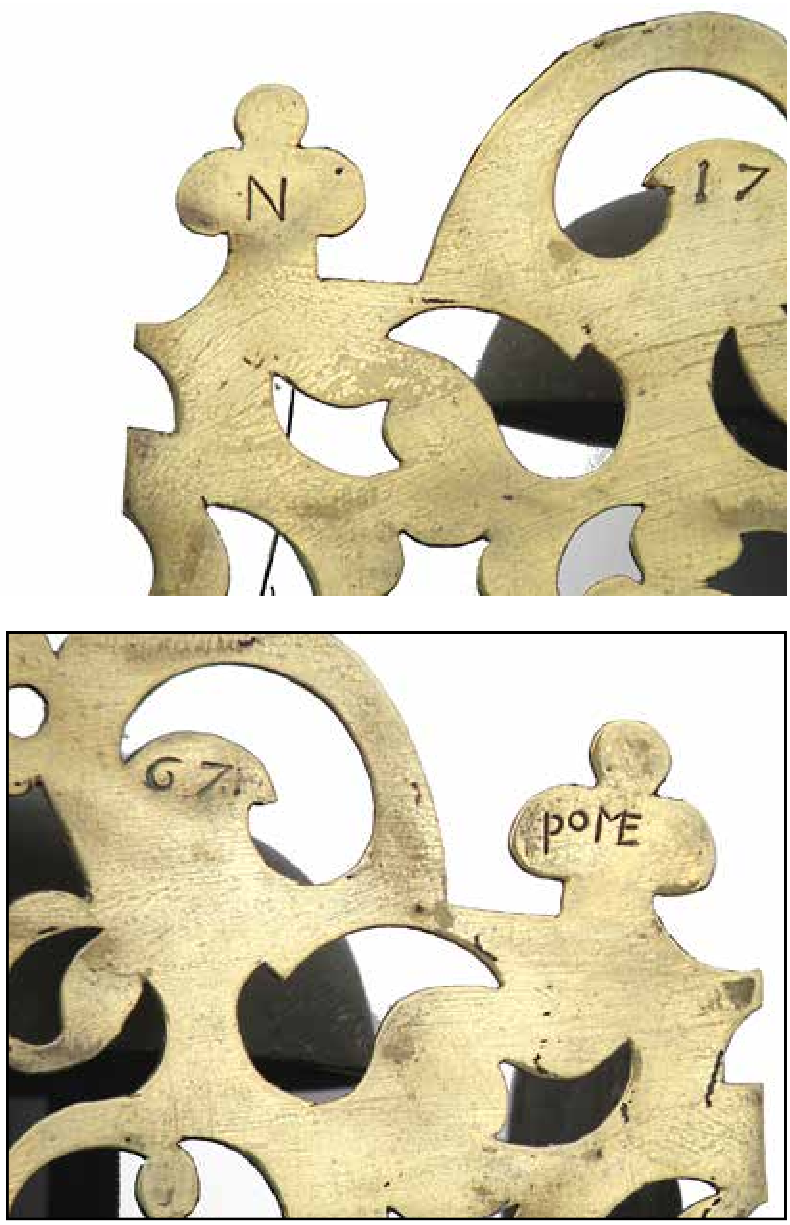


Figure 2. The brass hands and alarm disc.



Figures 3 and 4. Name and date engraved on the front fret.

hammer and strikework arbors pivot in the ends of side arms on the front and rear movement bars. This is a specifically English arrangement that is only very occasionally found elsewhere.

On the Continent of Europe posted-frame clocks assume a wider variety of different arrangements and provide many different variations on the same theme. This makes them appealing to collectors interested in the technical and constructional features of clocks. The clock shown in **figure 1** is an interesting and attractive example. Not only is the movement different to those found on English 30-hour clocks, but it also has an appealing dial with the movement encased by a metal and glass.

It is a two-handed clock, with an iron posted frame, brass wheels, an anchor escapement and warned countwheel striking. So far not much different to its English counterpart, but the thin sheet-brass (not cast) fret at the front and crestings at the sides, and brass side doors with green glass windows, mark it out as something rather special. This is only the start of the differences as the eye-catching iron dial, 8½in wide, is framed by brass strips along the sides and bottom edge, with a pewter chapter ring, and stumpy brass hands. There are gold-painted lead spandrels of the small cherub-head pattern, which were popular on English clocks about 1670-90, though these very early ones were made of brass of course. There is a brass alarm disc, **figure 2**, but the alarm mechanism, which would have be

There are gold-painted lead spandrels of the small cherub-head patttern

Figure 5. Left-hand side of the case showing the side cresting and the glazed door.

Figure 7. Movement bars, left to right: front, centre, rear.

located inside the movement on the left-hand side, was never installed.

The front fret, which largely hides the bell, is riveted to the iron dial plate, and is naïvely engraved 'N 17 67 Pome', **figures 3** and **4**. The total height including the fret is 12 1/2in. Each of the side crestings, **figure 5**, which are not pierced so they cannot strictly be called frets, is fixed to the top plate of the movement with a single screw. They take the form of the crown (or more correctly the bonnet) of a Prince Elector of the Holy Roman Empire, which was a popular decorative feature in pre-Napoleonic Europe.

The side doors are made of thin brass sheet, and have decorative windows in the shape of ovolo mouldings supporting a depressed arch, and are fitted with green glass, **figure 5**. The iron pin hinges are of a similar shape and are riveted to the doors. Small brass springs press against the rear of the dial to keep the doors shut, with simple flat pull 'knobs'.

Small brass springs press against the rear of the dial to keep the door shut.

The inner surfaces of the doors are coated with a red oxide paint. There is a plain iron rear cover, without a hoop or spikes, and is held in place by taper pins through tabs on the top and bottom plates.

The iron frame has thin square-section pillars riveted to the top and bottom plates, without finials or feet, **figure 6**. Since the frame cannot be dismantled and the doors cannot be lifted up to disengage the bottom pin hinge (as on an English lantern clock), it did not seem possible to remove

Figure 6. Iron frame and brass side doors.

Figure 8. Rear movement bar held by the back cock.

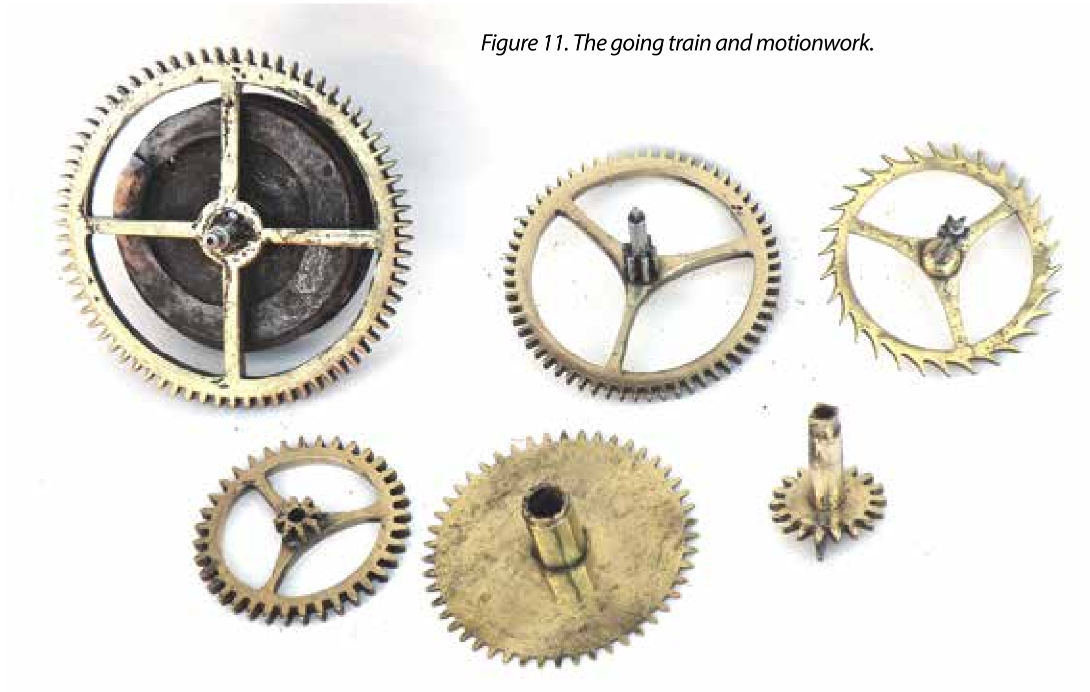


Figure 11. The going train and motionwork.

or insert the doors. The previous owner advised me that they have to be removed by sliding out the panes of glass and gently bowing the doors, which are quite springy, until the shorter pin hinge clicks out of its hole in the bottom plate.

The iron movement bars are straight without side arms, **figure 7**, with the rear and central ones, having horizontal access slots for the pallet arbor, which sits below the top plate instead of the more usual position above it. This gives less chance of dirt getting into the escapement and causing wear, but the striking train has to be set a little lower down otherwise the fly would be blocked by the pallet arbor. The rear bar also has a vertical slot for the locking detent, as is discussed later.

While the front two bars are held by the usual iron wedges, the rear bar is held by a slot in the back cock, which is fixed to the plate by two screws, **figure 8**. This is a very unusual, though neat and secure. method which I have never seen before. The pallets themselves are of the conventional anchor type, **figures 9** and **10**. The brass bushes in the bars are probably original, but re-bushed later.

Figures 9 and 10. The pallet arbor, anchor pallets, crutch and back cock.

Figure 12. The striking train and countwheel.

The wheel trains are fairly conventional, **figures 11** and **12**, though with some details worthy of comment. Both greatwheels have four straight crossings, the hour wheel and countwheel gear are solid, while all the other wheels have three crossings. The rope pulleys, the countwheel, its slip washer and the unusual oval fly are made of iron. Broken or damaged teeth on the countwheel gear have been replaced by knocking pins into the countwheel itself. This would have been a quick and easy repair, though not up to present-day best practice, and is only possible where the toothed wheel is backed by a disc of a larger diameter.

Both trains are powered by a single weight using a Huygens' loop, but the conventional circular spring click acts on the crossings of the going greatwheel, rather than the striking greatwheel, which is the usual arrangement. This makes winding the clock a little more convenient since it is the front right-hand section of rope that is pulled, rather than the rear one. The weight hangs from a wooden pulley. The wheel and pinion counts, along with the clock's dimensions. are given in the panel on page 10.

As well as the dial, glazed side doors, and the pallet arbor being under the top plate, it is the layout of the warned striking that is also of special interest, being an arrangement that is mainly found in Flanders and a few areas of northern France. On English posted-frame clocks the arbor with the lifting piece and warning detent pivots on the left below the arbor carrying the locking and countwheel detents, with a link that allows them to be lifted together, but fall independently.

On this clock the basic principles are the same, but the physical arrangement is different, with the two pairs of detents pivoting on opposite sides of the movement. Here the lifting piece and the warning detent are on a rectangular-section arbor pivoting between the left-hand pillars. Since the lifting piece is on the left (the same as a balance lantern clock) it is straight instead of being a hook shape. As the frame is riveted firmly together and cannot be dismantled, the rear of this arbor is supported by a pivot screwed into the pillar, a system widely used on French posted-frame clocks.

The other component of the strike-work is a flat bar that pivots on a shouldered screw in the rear right-hand pillar and sits between the movement bar and the countwheel. The locking detent and a link pin are on the front side of the pivoted bar, with the countwheel detent on the rear side. The dog-leg left-hand end sits behind the pillar to prevent excessive sideways movement. The locking detent passes through the vertical slot in the rear movement bar and drops into a slot in a disc to lock the train. This disc acts in exactly the same way as the hoop wheel on an English clock. When the warning detent is lifted into position it

The locking detent passes through the vertical slot in the rear movement bar and drops into a slot in a disc to lock the train.

also raises the rear bar to unlock the train, which then runs to warn and is held until the lifting piece falls. The components of the strikework and hammer are shown in **figure 13**.

As often the case with Continental clocks the hammer is a rotating vertical shaft with a separate hammer tail on an arbor that pivots between the right-hand pillars, with a screw-in pivot at the front. The lower end of the hammer shaft sits on a pointed screw in the bottom plate, instead of a more usual pivot. The ends of the two links that convert the lifting of the hammer tail into a partial rotation of the hammer shaft are the only parts of the movement that are decoratively finished, **figure 14**. A tapered wire spring presses against the link on the hammer shaft, while a short arm on the arbor of the hammer tail acts as a stop when it contacts an iron block fixed to the bottom plate. Various views of the movement are shown in **figures 15** to **18**.

Since there is a fret at the front and crestings at the sides, as well as close

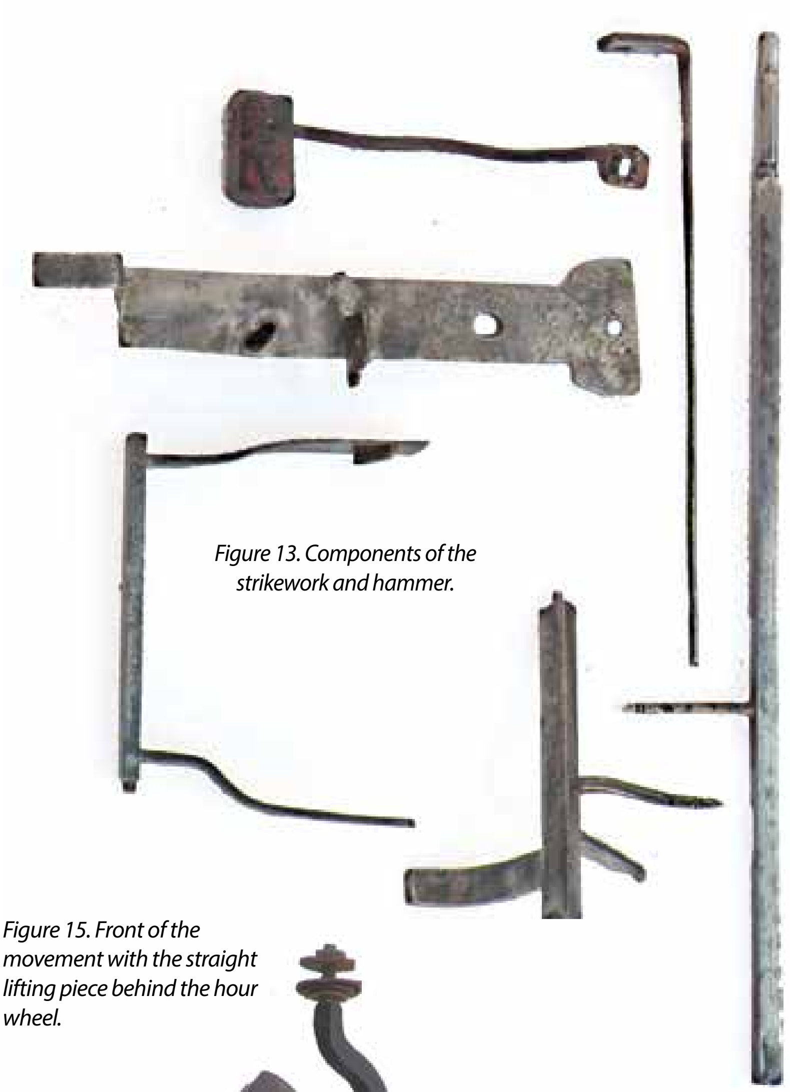


Figure 13. Components of the strikework and hammer.

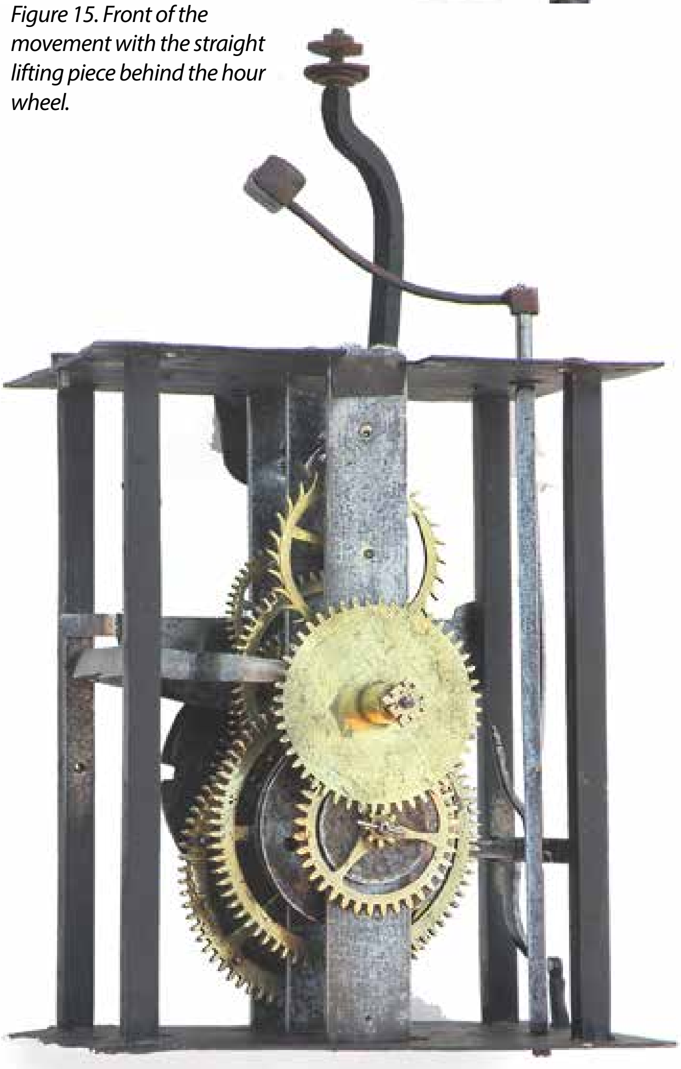


Figure 15. Front of the movement with the straight lifting piece behind the hour wheel.

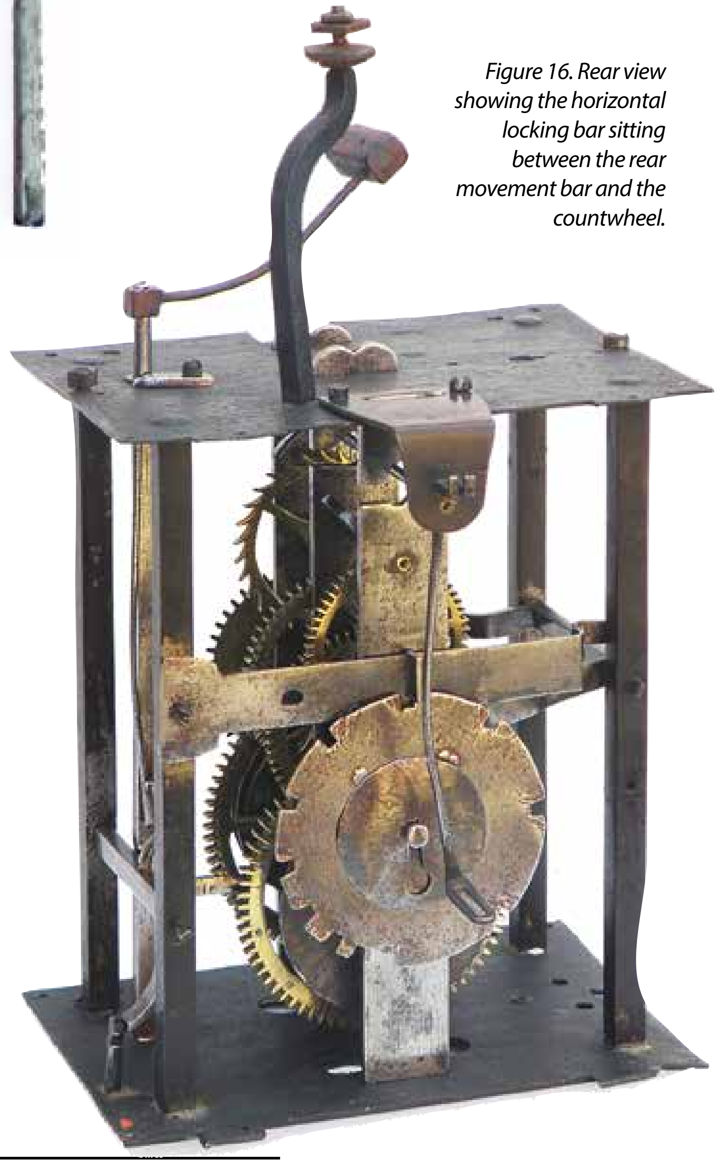


Figure 16. Rear view showing the horizontal locking bar sitting between the rear movement bar and the countwheel.

fitting glazed doors, a rear cover, the escapement is inside the movement, and there is no hoop or spikes, it is clear that this clock was not designed to be housed in a tall wooden case, a hooded wall case, or even just hanging on a hook on the wall. Most likely it originally sat on a simple wooden or iron wall bracket.

Clocks of this type are usually associated with makers such as Rensonnet and De Beefe (both with numerous spelling variations) who worked in Liège, in present-day Belgium, in the early eighteenth century. Other clockmakers with the same names worked in other places throughout the southern Netherlands since the sixteenth century. However, 'N. Pome' is an unrecorded clockmaker, who appears to have been producing this style of clock later than any other previously known examples. All we know for certain is that he made this clock in 1767. It is a very attractive and completely original clock, missing just its one-second pendulum and its weight.

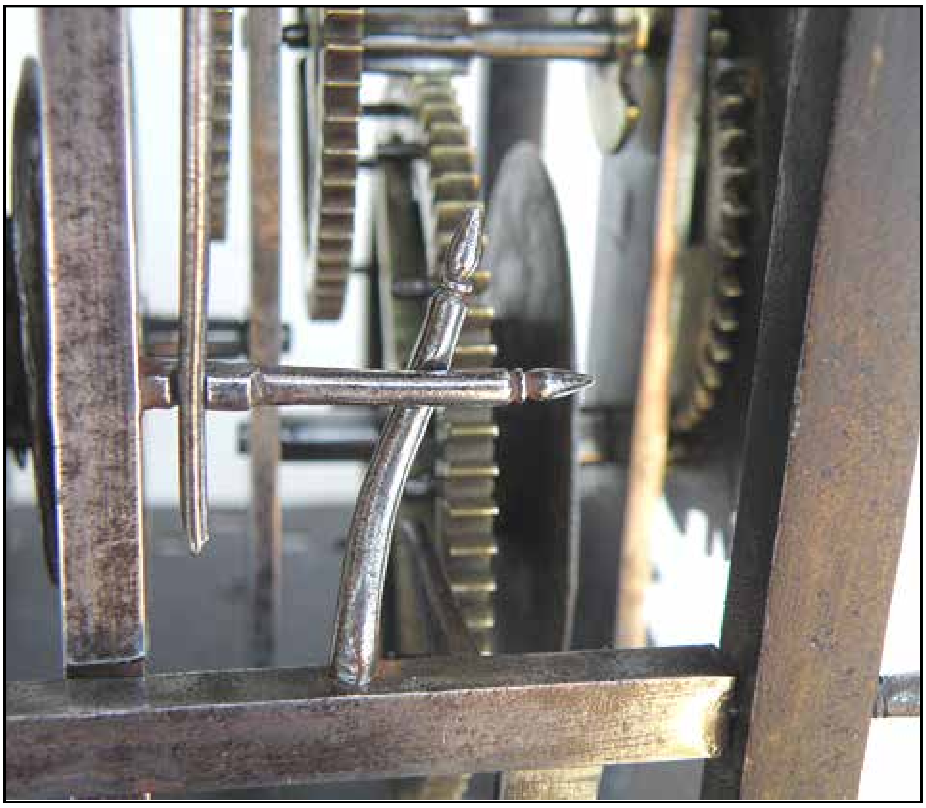


Figure 14 (above). The decorative hammer links.

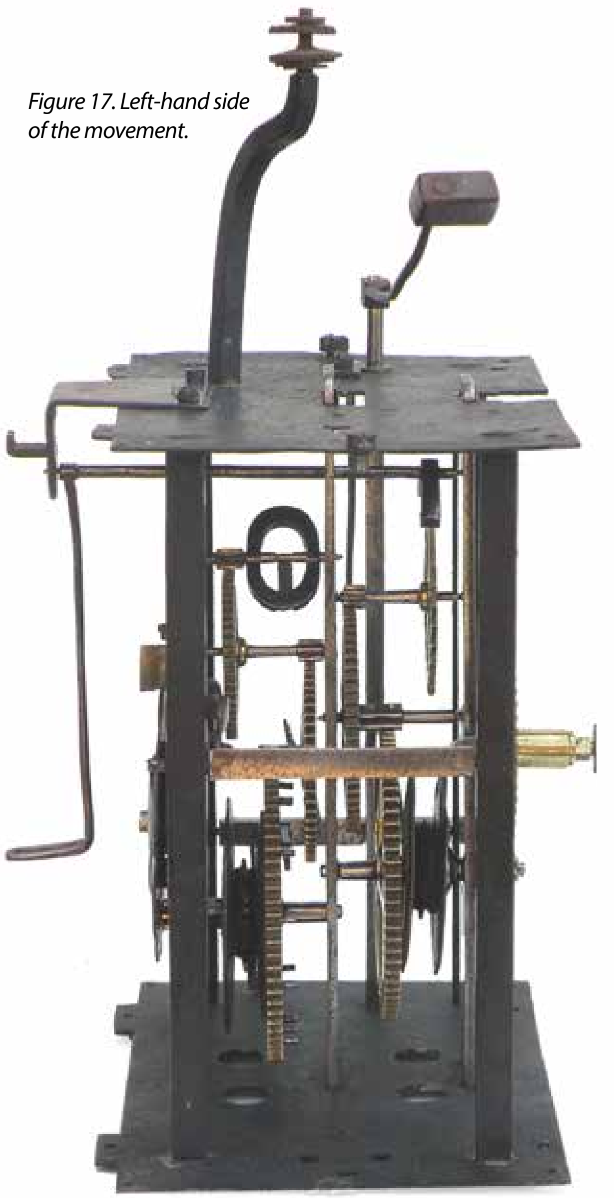


Figure 17. Left-hand side of the movement.

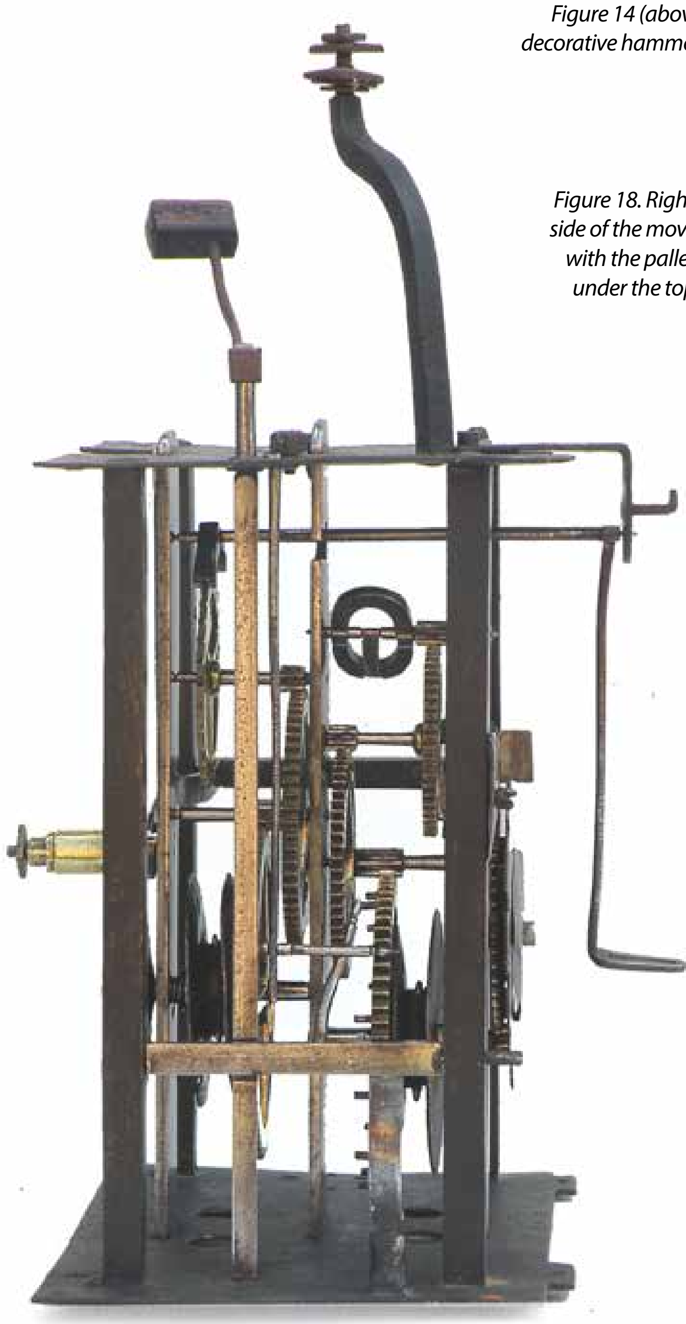


Figure 18. Right-hand side of the movement, with the pallet arbor under the top plate.