

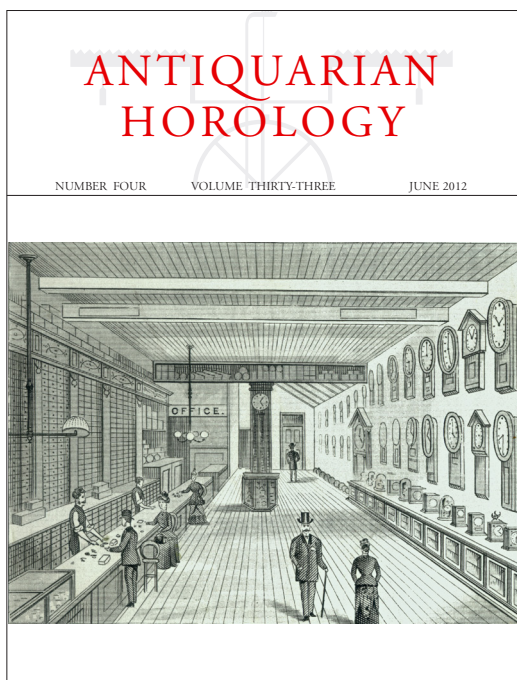
Steve and Darlah Thomas
'WILLIAM LEIGH OF NEWTON-LE-WILLOWS,
CLOCKMAKER 1763-1824: PART 2'

Antiquarian Horology, Volume 33, No. 4 (June 2012), pp. 469-478

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Volume 33 No. 4 (June 2012) has 128 pages. It contains the articles listed below, as well as three Notes and the regular sections Horological News, Picture Gallery, Book Reviews, AHS News, Letters to the Editor and For Your Further Reading.

James Nye, 'The Antiquarian Horological Society An Early History', pp. 457-468

Steve and Darlah Thomas, 'William Leigh of Newton-le-Willows, clockmaker 1763-1824: Part 2', pp. 469-478

John A. Robey, 'Moorfields and Clock-Brass Founders Part 1: The London Horological Trades in Moorfields', pp. 479-486

David Read, 'The Synchronous Mains Revolution and "Time Gentlemen, Please"', pp. 487-492

Clive N. Ponsford, 'New Light on Jacob Lovelace' pp. 493-500

WILLIAM LEIGH OF NEWTON-LE-WILLOWS, CLOCKMAKER 1763-1824: PART 2

Steve and Darlah Thomas

William Leigh (1763-1824) worked as a clockmaker in Newton-le-Willows, a small market town in Northwest England. The first part of this article discussed turret clocks which he made for churches and country houses in the region. In this second part we discuss four other products signed by him, three longcase clocks and a remarkable kaleidoscope.

LONGCASE CLOCKS

Around about the time of the Haydock Lodge clock commission, William Leigh made two high specification longcase clocks. It is difficult to be precise, but both clocks belong to the period 1780 to 1800. They are both in beautiful, mahogany cases with very detailed mouldings and inlays. The two clocks are fine examples of Lancashire clockmaking of the time and are equal in quality and sophistication to any made in London. Both clocks would have been specially commissioned by wealthy clients.

The 'Christie's clock'

This clock (Figs 1-5) was included in 'The Grandfather Clock' by Ernest L Edwardes¹ and came up for auction at Christie's in 2005.² It has a three-train quarter chiming movement with six bells. It is described as an astronomical clock, with a whole year, centre sweep calendar, centre sweep seconds hand and a rolling moon with tidal indication. 'W^m Leigh NEWTON' is signed in the dial centre. Around the arch is engraved: 'On TIME'S uncertain DATE eternity DEPENDS'.

This clock has a rhomboidal pendulum, which is an unusual feature for a longcase clock. The Christie's catalogue notes:

The invention of the rhomboid pendulum is accredited to Dr. Robert Hooke (d. 1703). The principle is that the greater coefficient expansion of the brass than that of the steel causes the rhombus to become broader, whilst its vertical measurement remains

constant. Unfortunately to obtain perfect compensation the pendulum needs to be broader than it is long which precludes its use on a domestic clock. However by conveniently proportioning the pendulum an excellent partial compensation is achieved and it may then be accommodated in a (broad) clock case. Another famous clockmaker known to have used a rhomboid pendulum was Joseph Finney of Liverpool.

This type of pendulum had been in use in this country since about the 1730s, but these were generally restricted to turret clocks because of the difficulty in accommodating the width of the rhombus. This conflicted with the eighteenth century taste for slim cases, and consequently the trunk of this clock is broad for the period. William Leigh usually reserved these pendulums for only the more expensive of his turret clocks.

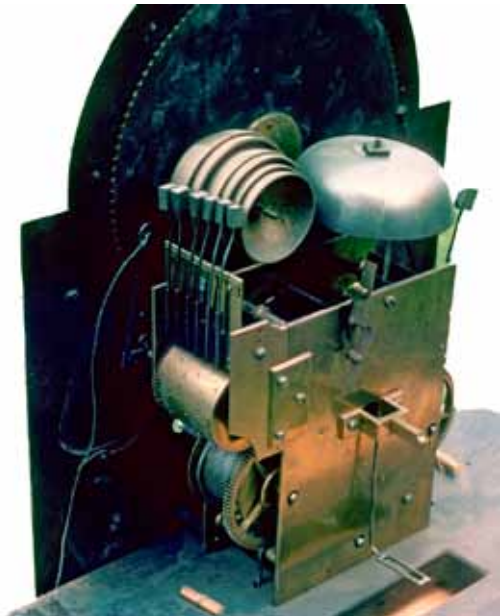
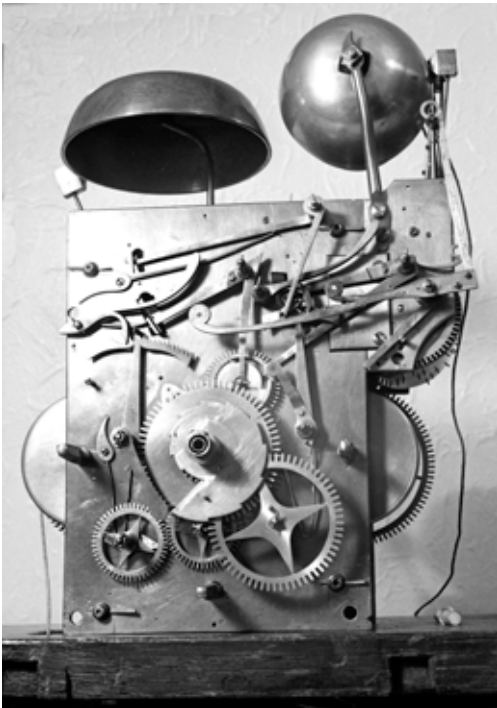
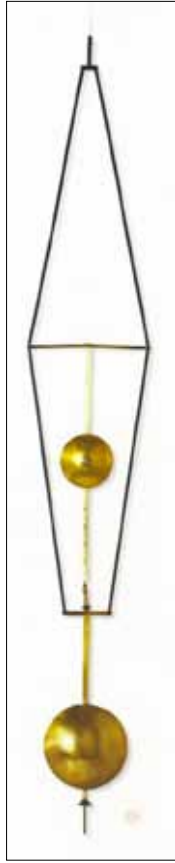
Edwardes described the movement thus:

...of most impressive apparent complication, reminiscent of a special production by Tompion himself. An excellent advertisement for skilled Lancashire work of the best quality.

The rhomboidal pendulum differs from those on William Leigh's turret clocks by having two bobs of differing sizes. It is thought that the second bob lowered the centre of gravity, compensating for the lack of width of the rhombus, and so increased accuracy.

When writing his description of this clock, Edwardes was working from black and white photographs; he had not seen the clock itself.

1. Ernest L Edwardes, *The Grandfather Clock* (1980 edition, Sherratt, Altrincham), pp. 142-3, plates 144-5. We were unable to contact the publishers regarding this book.
2. Sale of 'Important Clocks' 7th December 2005, lot number 73. The sale catalogue features the clock on pp. 64 and 65.



The 'Christie's Clock'. All photos © Christie's. Clockwise:
 Fig. 1. Full length.
 Fig. 2. The rhomboidal pendulum with two bobs
 Fig. 3. The astronomical dial with its year calendar is signed W^m Leigh NEWTON.
 Fig. 4. The movement viewed from the back.
 Fig. 5. The front plate.

The 'Anglesey clock'

The second clock (Figs 6-12) was purchased by Lord Fairhaven for his home, Anglesey Abbey, near Cambridge in the first quarter of the twentieth century. This is a quarter chiming longcase which closely resembles the 'Christies' clock, but has the addition of a musical movement. It stands in a stone niche in the Lower Gallery. It is a spectacular setting for the clock which is 9 feet 4 inches tall.³

The dials of the two clocks are very similar. The 'Anglesey' clock also has a centre sweep, counterbalanced seconds hand, and another centre sweep indicator which shows the months and date on the outside of the chapter ring. The signature is applied on cartouches on the lunar humps and the dial has two quotes: in the arch, '*The MOON is APPOINTED for SEASONS*' and on the dial centre: '*That MAN is yet unborn.... who duly weighs an HOUR*'. Tidal and lunar calendars are in the arch.

The fact that the tune dial is fitted into a circle cut from the main dial and which cuts across the engraving of the dial centre, indicates that the music may have been an after-thought.

It was presumed that the musical movement was a later addition, but Brian Jackson who has worked on the clock, believes the addition to have been made by William Leigh himself. There are stylistic features especially in the design of the hammers, which echo the design of those in the main clock movement. The musical movement has necessitated the cutting of a winding hole in the chapter ring between the numbers 3 and 4. There is also a fifth winding hole, in the dial centre. It does not appear to serve any function at the moment and its purpose is currently unknown.

The major difference between the Christies and the 'Anglesey' clock is that the latter does not have a rhomboidal pendulum; this has a flat iron rod.

The clock is maintained by Brian Jackson. He led an AHS tour of Anglesey Abbey which is recorded in this journal, where the clock is described as 'a delight to behold'.⁴



Fig. 6. The 'Anglesey Clock' – its magnificent case.

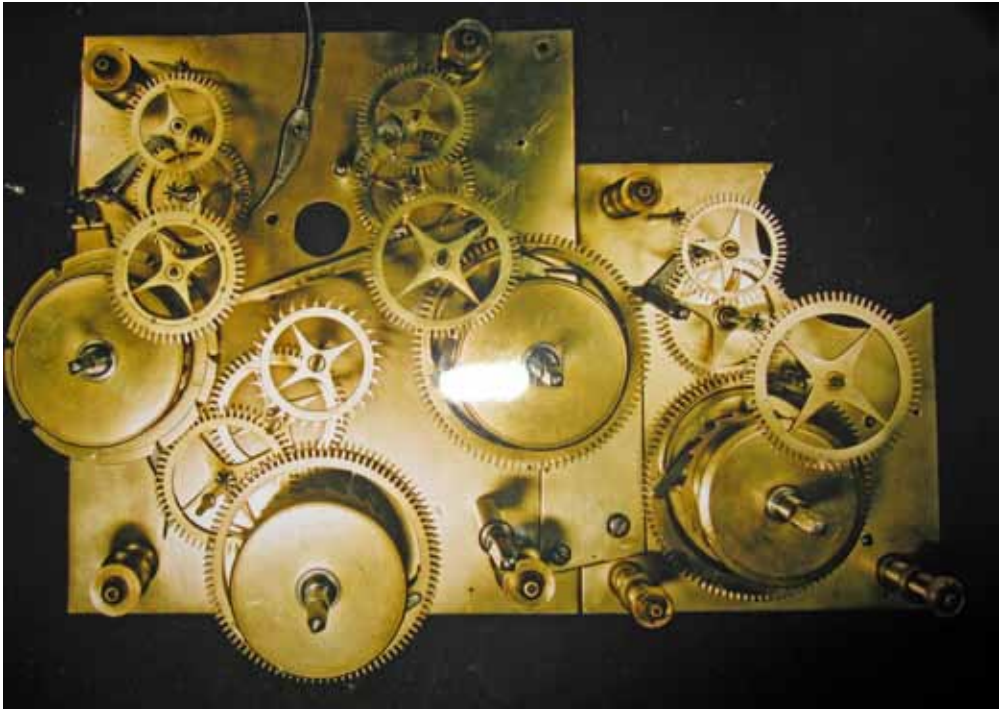
3. Information and assistance given by Gareth Sandham, House Manager, Anglesey Abbey. Photos taken and included with his permission.

4. *Antiquarian Horology* 31/5 (September 2009), 700.



The 'Anglesey Clock'.

Top: Fig. 7 – rolling moon. The clock is signed, 'W LEIGH NEWTON' on two applied cartouches on the moon humps. Left: Fig. 8 – its hood and dial. Bottom right: Fig. 9– the clock plays a choice of seven tunes.



The 'Anglesey Clock'.

Top: Fig. 10 – front plate removed; photograph by Brian Jackson 2001. Left: Fig. 11 - Brian Jackson believes the musical movement was made by William Leigh at the time of the clock's original manufacture as some components match exactly. Photo by Brian Jackson. Right: Fig. 12 – the movement from the strike side.-

A special longcase clock

This longcase clock (Figs 13-16) was made by William Leigh around 1810. It has a high-quality mahogany case, and a white dial; it is of eight day duration and has a moon phase dial in the arch. Like many of his counterparts in this area of South Lancashire, William Leigh

had begun to buy in parts for his clocks from a variety of specialists. What makes this clock special, is that Leigh bought parts from three specialists who signed their work. The false plate, the case and parts of the movement were all signed. William Leigh had his name applied to the centre of the dial and he assembled and finished the clock.

| Name of maker | Parts of clock signed by maker |
|---------------------------|--|
| William Leigh | Dial signed 'W. LEIGH NEWTON' |
| William Whitaker, Halifax | 'William Whitaker Halifax A286' cast into the falseplate and painted on the rear of the dial (William Whitaker Halifax dial maker and painter) |
| Ainsworth, Warrington | 'Ainsworth Warrington' cast into the top of the front of the front plate of the movement (George Ainsworth brass founder and pinion maker.) He is known to have supplied named castings and bells for longcase clocks and may have cut wheels and pinions for turret clocks as well as domestic clocks. (see <i>Your Time</i> catalogue p. 80) |
| Atherton, Warrington | 'Atherton 54' stamped on the front right side of the case trunk below the pillars (Thomas Atherton, Warrington known to have also made cases for William Lawson, and others). |



'The Special Longcase'. Photos © Edward Bacon.
 Left: Fig. 13 – dial. Top: Fig. 14 – the moon, detail.
 Bottom: Fig. 15 – Atherton case maker's mark.



Fig. 16. 'The Special Longcase' – full length view.
Photo © Edward Bacon.

A REMARKABLE KALEIDOSCOPE

In quiet times, clockmakers had traditionally made tools and sometimes turned their hand to instrument making. There was a well established industry in the South Lancashire area of tool making and parts fabrication. This freed clock and watchmakers from the need to produce all their own clock parts, so the clock making trade was beginning to rely on these specialist part makers and some of the older skills were being lost. Sometime around 1820, William Leigh was commissioned to make a kaleidoscope. The result is of exceptional quality which was undoubtedly a one-off commission from a wealthy customer, possibly the Legh family. William Leigh combined all the old skills to produce something completely different: a kaleidoscope.

The instrument was invented in Scotland in 1816 and patented the following year by Dr (later Sir) David Brewster. It consists of a tube about a foot long with two glass mirrors running along the whole length separated from each other at an angle of 60° . At the eye end is a small hole near the junction of the mirrors, and at the other end is the object box. This is formed of two disks of glass between which are fragments of coloured glass. As the tube is rotated the fragments alter their positions and different symmetrical patterns are seen. It was named after the Greek words *kalos* (beautiful), *eidos* (form, shape) and *skopein* (to see).

Kaleidoscopes were made under license by several instrument makers and soon became highly popular; as Brewster later wrote: 'A universal mania for the instrument seized all classes, from the lowest to the highest, from the most ignorant to the most learned, and every person not only felt, but expressed the feeling that a new pleasure had been added to their existence'.⁵

In making his kaleidoscope, William Leigh was working on new technology. He used many of his clockmaker's skills, but in new ways, to fabricate all the parts required. It was a huge task, possibly occupying him for a year or more. It is not known where the kaleidoscope spent its first one hundred and seventy years, but in recent times it has had a number of homes. In

5. For further information on Brewster and the kaleidoscope, see Gerard L.E. Turner, *Nineteenth-century Scientific Instruments* (London, 1983), p. 287, and the Brewster Society's website www.brewstersociety.com

1987 it was auctioned at Sotheby's,⁶ and was described by an independent expert as 'the most beautiful kaleidoscope ever made'.⁷ In 1999 it came up again for auction, this time at Christie's, who described it as:

A fine kaleidoscope
English; the cylindrical body tube with rack and pinion and worm screw geared mechanism, with ivory handle activating two independently periphery geared collar tubes rotating at different speeds and fitted with two mirror angle setting levers, each scale engraved from 6-12, supported on a compass joint with rackwork altitude adjustment on a mahogany and brass telescopic stand and tripod base with ivory castors, levelling screws with acorn finials and two circular stretcher rings, the outer ring engraved:

*Who could from thy outward case,
Half thy hidden beauties trace?
Who from such exterior show,
Guess the gems within that glow!
Emblem of the mind divine,
Cased within its mortal shrine.*

the inner ring engraved *W. LEIGH, NEWTON MAKER*, in a mahogany carrying case with approximately twenty various cut-glass discs and six interchangeable periphery geared collar tubes, 42cm., (16in.) minimum height, 54cm. (21in.) maximum height, extended).⁸

It next showed up in 2000 in a Sotheby's sale entitled 'Masterpieces of Science and Technology from the 16th to 20th Centuries', but it was either withdrawn or failed to sell.

In 2006, it was sold at auction at WestLicht Photographica in Vienna, where it was knocked down to the maiden bid of €40,000 - well below the estimate and a considerable drop on the 1999 price.⁹



The Leigh Kaleidoscope. Photos © WestLicht Photographica Auction, Vienna.

From top: Fig. 17 – the lens close-up, showing brightly coloured glass fragments which would make the patterns. Fig. 18 – close-up showing how precise adjustments could be made. Fig. 19 – fine adjustments could be made via worm and gears.

6. Its full description in the Sotheby's auction sale catalogue is quoted on the Brewster Society's website under FAQ, where the instrument is singled out as 'one of the most expensive kaleidoscopes', reaching a hammer price of £45,500 at the later Christie's sale.

7. Martin Roenigk, The Brewster Society, *Newscope* Vol. 2, Number 1, Spring 1987.

8. Christie's South Kensington, Sale 8590 'Magic lanterns, optical toys and camera's, 25 November 1999, Lot 28.

9. Information from Martin Reinhart, WestLicht Photographica Auction; their website is www.westlicht-auction.com. In November 2006, the Euro was worth £0.67 in sterling, which indicates a sale price of c. £27,000.



Fig. 20. The Leigh Kaleidoscope with all its components. The fitted wooden box is not shown. Photo © WestLicht Photographica Auction, Vienna.



Fig. 21. The Leigh Kaleidoscope. The base, showing the adjustable feet, and the inscriptions, with Leigh's signature on the inner ring. Photo © WestLicht Photographica Auction, Vienna.



Fig. 22. Leigh's cheaper clocks – the dial of the clock auctioned at Capes Dunn, Manchester, is typical of many of the period.

WILLIAM LEIGH'S LEGACY

William Leigh's regular output of clocks is unlikely to have been of the high standard of the Christie's or Anglesey clocks or of the kaleidoscope. In order to make an adequate living to support his family, he would have had to accept smaller commissions and to have made items for stock. A typical example might have been the clock he made around 1820 which was auctioned recently by Capes Dunn in Manchester (8 Sept 2009, lot 48) (Fig. 22)

William Leigh has left us a range of interesting clocks. In a working life of over forty years a clockmaker could have made hundreds. This article contains evidence of perhaps just twenty-one. Are other items by William Leigh waiting to be found? Hopefully more will come to light as time passes and they can then be added to this record.

ACKNOWLEDGEMENTS

Three persons in particular have been especially encouraging during this project; we thank Phil Irvine and Stewart Whillis for sharing their boundless knowledge of turret clocks, and Neil Fairlamb, an old friend and Rector of Beaumaris, whose clock inspired our research. We owe a

huge debt to the many people who unlocked their church towers to give us access and we are grateful to the National Trust, Christie's and Capes Dunn Auctioneers for their permission to photograph their clocks or to use their images. West Licht, Vienna kindly sent the superb photos of the kaleidoscope. We also thank Edward Bacon of the Clock Room, York, for information on, and images of the 'special' 1810 longcase, and Steven Dowd's Newton-le-Willows website, which helped us locate Haydock Lodge and provided the images of St Peter's Church, Newton-le-Willows and the Haydock Lodge outbuildings. (The website has an excellent collection of photos of the Lodge, including many of the interior.) We would also like to thank the energetic volunteer staff of Combe Mill, Oxfordshire, who enabled us to confirm the link between the clock in their possession and the missing Haydock Lodge clock. Gwynedd Archives Service enabled us find the newspaper report on the installation of the Beaumaris clock and Salford University Archive kindly sent us the article on the Worsley clock. The St Helen's Local History and Archives Library, Cheshire Archives Service, Lancashire Archives and Leigh Library, all helped with our parish register searches. To any persons inadvertently omitted from this list we also offer our grateful thanks.