

CARTER MARSH & CO.

The
John C Taylor
Collection

Part III

Highlights Exhibition:

Masterpiece, London

30th June to 6th July 2022

Full Catalogue Exhibition:

32a The Square, Winchester

9th to 30th July 2022



Punch, October 1 1960



“A Tompion—or a Quare” mused Mr. Lemon Hart. “The choice is invidious, for both makers produced clocks of similar appearance and unsurpassed excellence and beauty towards the end of the 17th century. Your choice can only be dictated by taste” he reflected. “As in Lemon Hart Golden Jamaica and Lemon Hart Dark De Luxe” he added. “Each is supreme in its own class: it depends on whether you prefer light or dark Jamaica Rum.”



Have a GOOD RUM for your money



Masterpiece London



32a The Square, our home for 75 years

Our business has been dealing in antique clocks and watches from 32a, The Square since 1947. Together we have unparalleled experience in the field, with particular emphasis on the finest English clockmakers. Our heritage has helped us to handle some of the world's most iconic horological pieces, which continues today.

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The John C Taylor Collection

Selling Exhibition – Part III

Carter Marsh & Co. are immensely privileged to be selling the most important collection of English clocks ever to come on the market in the UK. We continue to handle the collection with selling exhibitions from our Winchester premises but, this year, we will be holding a Highlights Exhibition from our usual stand at the **Masterpiece London Art Fair 2022**. The Highlights Exhibition will mainly be taken from this catalogue, but may also include other important items from the collection.

- **Thursday 30th June to Wednesday 6th July 2022**
Highlights from the John C Taylor Collection at Masterpiece London
- **Saturday 9th to Saturday 30th July 2022**
Full Catalogue exhibition at 32a The Square, Winchester.

Over the last 20 years, John has worked tirelessly to share his love of clocks with as many people as possible, striving to give access to his rare and unique collection that, if in institutions, would seldom be working and could only be viewed from a distance. John has participated in ground-breaking exhibitions in the UK, Europe and the USA. These include: *Horological Masterworks* in Oxford and Liverpool in 2003; *Huygens' Legacy* at the Paleis Het Loo in Holland in 2004; *Time for Everyone* at the California Institute of Technology in 2013; *Ships, Clocks and Stars*, originally at the National Maritime Museum in Greenwich, London in 2014, followed by displays in Sydney, Australia and the USA in 2015; also, *Innovation & Collaboration* in London in 2018 and solo exhibitions, *The Luxury of Time* at the National Museum of Scotland in Edinburgh in 2019 and at the Manx Museum in Douglas, Isle of Man in 2020.

As John explains in his foreword, his passion has never been confined to a single area; innovation and quality have governed every acquisition. Many of the items need little introduction, as their significance is both recognised and well documented. These represent a once in a lifetime opportunity for collectors to acquire museum level items of importance and gravitas. Even the more unassuming items in the collection are, almost invariably, interesting and unusual in their own right. So as well as the iconic pieces, there are other desirable and beautiful horological examples, priced at a fair and competitive level.

We hope you will enjoy our third selling exhibition catalogue and look forward to welcoming you to Masterpiece London and Winchester to view the third instalment of this extraordinary and wonderful collection.

Jonathan and Darrell
Carter Marsh & Co.

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Dr John C Taylor OBE

Every reasonable person knows that you cannot change the world, but as an inventor I set out to change it - does that make me an unreasonable man?

My father was a polymath who claimed never to have passed Man exam in his life. During World War Two, he worked designing and perfecting electrical heated suits protecting the RAF bomber crews from the freezing cold, redesigning their parachute harness and incorporating a life jacket, thereby saving many lives. His 'can do' approach to life had a major influence on me from my earliest memories. In 1940, four days after Dunkirk, my father said goodbye to his wife and family on Liverpool quay, just before we set off across the Atlantic to Canada as evacuees. I clearly remember his last words *Don't forget to look after Mummy for me*, which implanted a sense of responsibility for others that has stayed with me throughout my life. Nearly five years later in January 1945, my father came to Canada to collect us and we returned in an ex-banana boat to England. Our convoy included five merchant ships that were torpedoed and sunk on the Atlantic crossing.

Dad was also a gliding instructor who had trained would-be Spitfire pilots. After the War, most weekends he took me to the club, to run wild with a pack of other gliding orphans, but if bad weather stopped flying, I would often see him seated at our kitchen table with a clock, carefully taken apart with all the parts in jam jars. He showed me how to clean and polish the gears and bearings. As he reassembled the mechanism, he demonstrated how to put a minute film of oil on each bearing and gear face, pointing out that too much oil attracted dust that became a stiff grinding paste - which was generally why the clock had stopped in the first place!

We lived in Buxton, Derbyshire where I walked each morning to school but, in contrast to my sister, I failed my 11+ and then my Common Entrance exam. In desperation my father flew with me to the Isle of Man to take the entrance exam for King William's College. After reviewing my exam answers, the Principal told my father, *your son is practically illiterate - he cannot even spell the name of his own school!* However, I had achieved good maths and science results and he thought he might be able to make something out of me. I went on to study Natural Sciences at Cambridge and afterwards I joined Otter Controls Ltd., my father's post-war company. In the mid 1960s, I designed the *V series* of over-temperature controls for all portable domestic heaters, together with the *G series* of miniature electric motor protectors. Both are still in production today. The *G series* has averaged sales of 250,000 units per week for more than 55 years.

In 1967, Laura was born followed by Neil in 1969. Sadly my wife became unwell and I found myself alone with two young children, so I decided on a new start. In 1977, I resigned all my directorships, sold the house I had designed and built; now the

children and I were ensconced in a bungalow in the Isle of Man.

With little money, a mortgage and two children in private education, I decided to start a new business making kettle controls. My father had impressed on me, *never borrow money from a bank*, his belief was that banks view money like an umbrella - while the sun shines they are happy to lend, but if it starts raining, just when you need the umbrella, they want it back. I tried to stick to that advice as I set up Strix Ltd.

At this time, electric kettles were only used in tea-drinking democracies - New Zealand, Australia, South Africa, Ireland and the UK. My inventions were taken up in those places and Strix expanded, increasing sales every year by 25%. European countries did not use UK electric kettles as the copper elements were thought to be unhealthy - particularly when they went green after too much descaling. I came up with new inventions: a stainless steel element and next, a hidden element underneath the stainless steel bottom of a plastic jug. This was also combined with a 360° cordless connector, and



John C Taylor with his kettle control invention

demand became worldwide with production increasing 35% every year. We were named UK manufacturer of the year and won four Queen's Awards for Enterprise. By the time I retired, I had over 350 patents and Strix had sold almost one billion kettle controls, with a 75% world market share.

Over the years my interest in horology grew. I started to see the parallels between my business, based on new inventions and innovations, and what the clockmakers had achieved all those years ago. I gained a greater appreciation of just how visionary and skilled the first clockmakers were to create such incredibly precise and beautiful objects in a period when there was no existing large market for their products, and to build successful businesses on the back of their innovations. Each clock is testimony to their skill and perseverance, making

intricate components by candlelight in draughty unheated workshops, without technical drawings or power tools.

For my inventions, each kettle control was tested against an absolute standard, 100°C. If the control dropped in temperature, the water would never boil and if the control rose in temperature the kettle would never switch off.

For clockmakers, their absolute standard was the average length of a day divided into 24 hours. Over 360 years apart, for both products, quality control is essential. I was intrigued - how did the clockmakers control their quality? To my way of thinking, clocks were some of the first products ever made in a *factory* environment, and the problems I had, starting and growing my business, must have been similar to those faced years before by early clockmakers. The maker who epitomised innovation was Fromanteel, while quality control was undoubtedly Tompion's forte. Initially, I used to think a Tompion clock was like a house with a view; you paid a lot for a vista that you scarcely had time to appreciate. I was wrong; through collecting his work I now see that everything about his clocks oozes excellence. But he stood on the shoulders of the clockmakers before him, who established the basic layouts of the movements; men like Vallin, Harvey and most especially Fromanteel.

Most things I learnt during my working life are not taught in Business School. I soon determined that *you are not in business to make profits*; they are an invention of governments used to calculate tax. In the 1970s Rolls Royce was *profitable* but went bust; they simply ran out of cash and *could not pay the wage bill*. So I was in business to generate cash, not profits. Another thing I learnt was - *you cannot determine selling price by your costs; it is the market that determines the price*. For Strix, the question was - would people pay for my cordless kettle when there was nothing wrong with a kettle with a plug? Would they pay for a neon light, a filter, a stainless-steel element, an invisible underfloor element and a 360° connector?

The early clockmakers also had to learn these lessons and this would have translated into considering how to develop their timepieces in such a way as to ensure that they made more money; they could use less materials and labour, or offer more accurate clocks, perhaps ones with more features or requiring less maintenance.

Their question was - would people choose to pay more for a clock looking like a miniature ebony building, or one with a long pendulum, or clocks in cases made of exotic woods and bright marquetry panels? Some innovations were tried and died - Roman striking, tic-tac escapements. Others appeared rarely, such as musical clocks. East, Tompion, Knibb and Quare all died rich men, but Fromanteel was unable to truly capitalise on his early advantage, while Ramsay and Gould died paupers. Was this because they made inferior items? No, absolutely not!

I never made a conscious decision to build an early clock collection; it was my passion to understand the progression

and innovations that led to me buying most of the items in my collection. I considered these through the eyes of an inventor, entrepreneur and manufacturer - a very different perspective to most horologists and commentators from an academic, museum, or general antiques background.

The early clockmakers' ability to work out ways around an issue to improve products and move the market forward appeals very much to the innovator in me - particularly given the challenges facing them. The timepieces in my collection are a reference to progress, often in terrible circumstances - the mini ice age with the Thames freezing over, disease, religious and civil war, Regicide, quasi dictatorship and the Restoration. During the Great Plague and the Great Fire of 1665/6, one third of all clockmakers died and of those left, a third lost their stock, work-in-progress and tools in burnt out workshops.



John C Taylor with the Dragon Chronopage

I always wanted to share my collection with as wide an audience as possible, to convey my amazement at the incredible articles that these English clockmakers produced within the context of the period into which they were born, worked and eventually passed on their legacies.

Every item has a personal meaning to me and, as I approach 85, I feel it is only right to take responsibility myself to oversee their handover to others, so I hope you too will enjoy some of the wonderful fruits of our clockmakers' labours.

Dr John C Taylor OBE

Georg Hartmann, Nuremberg Dated 1532

A rare Emperor Charles V
(Habsburg) brass planispheric
astrolabe



Dimensions	5 $\frac{1}{2}$ inches (137 mm) diameter
Description	Signed <i>GEORGIUS HARTMAN NURENBERGAE FACIEBAT ANNO MDXXXII</i> (trans: Made by Georg Hartmann, of Nuremberg, in the year 1532) on the reverse within the shadow square. The mater consists of a single sheet of metal riveted to the limb and, with the body of the suspension mount, is cast in one piece with the limb, the suspension mount itself consisting of a low scroll carrying two stylised flowerheads with acorn cones above, flanking a third flowerhead, through which the shackle is pinned. Engraved on the limb is an equal hour scale (twice I-XII) and a degree scale (0-90-0-90-0), numbered from East to West points and reading to one degree. The interior of the mater is engraved with circles for the Equator, the Tropics, and the two Meridians. The back of the mater is stamped around the edge with a degree scale similar to that on the front, within which is a concentric-type Zodiacal calendar (0 degrees Aries = 11 March), the degrees against the Zodiac segments numbered in groups of 10 in Roman numerals, and the days of the months in Arabic numerals. Within this are, in the upper left quadrant: a scale for conversion between unequal and equal hours; in the upper right quadrant: a scale of unequal hours, the 6 o'clock line labelled <i>CIRCULVS MERIDIEI</i> (circle of the Meridian, i.e. Noon), and engraved across the hour lines a semicircle marked <i>OPOSITVS MERIDIEI</i> (converse of the Meridian). The vertical dividing line between the two quadrants is marked with a scale (0-60 degrees) labelled <i>DIVISIONES DIAMETRI</i> . The lower quadrants contain a double shadow square surrounding the maker's signature. There are 3 plates for latitudes at degrees 39, 42, 45, 48, 51, and 54, each obverse or reverse marked with the corresponding respective latitude, plus the 12 astrological houses of the heavens and, beneath the horizon only, a set of unequal hour lines. The alidade, which is not divided, is marked with a scale of latitudes.
Provenance	Sotheby's, London, 8 December 1983, lot 159; The Time Museum, Rockford, Illinois, USA, inventory no.3123; Sotheby's, New York, 2 December 1999, lot 3, sold for \$134,500; John C Taylor Collection, inventory no.77.
Exhibited	1990s, <i>The Time Museum</i> , Rockford, Illinois, USA
Literature	AJ Turner, <i>Time Museum Catalogue of the Collection: Time Measuring Instruments, Part 1: Astrolabes, Astrolabe Related Instruments</i> , 1985, p. 128-31 AJ Turner, <i>Early Scientific Instruments: Europe 1400-1800</i> , London, 1987, p. 39-40
Comments	The mater of the present astrolabe is marked with the position of 27 named, fixed stars corresponding with those listed by Hartmann in his 1528 account of astrolabe construction with the exception of the addition of <i>Cauda Ursa</i> , which is not included in the 1528 list.

The planispheric astrolabe is a two-dimensional model of the celestial sphere in relation to the earth, based on the assumption that the earth is in the centre of the universe. It is a multifunctional instrument and can be used to tell the time, to determine the length of day and night, to simulate the movements of the heavenly bodies, for surveying and for astrological purposes.





Georg Hartmann (1489-1564) was a German engineer, instrument maker, author, printer, humanist, churchman, and astronomer. He was born in Eggolsheim and studied theology in Cologne, as well as being tutored in mathematics there by Henricus Glareanus (1488-1563). In summer 1518 he travelled through Italy, where he became friendly with Copernicus's brother Andreas, plus studied the design of sundials and discovered the principle of magnetic dip. In 1518-44 he held the post of vicar of the fashionable church of St Sebald's in Nuremberg, and while in the city he also established and directed a commercial manufactory of instruments. A friend of Albrecht Durer (1471-1528) and of Johann Schoner (1477-1547), Hartmann worked in the practical mathematics tradition, which emanated from the Middle Ages. He was greatly influenced by Johannes Stoffler (1452-1531), as well as Regiomontanus (1436-1476), some of whose manuscripts and instruments he possessed and whose *rete* design he adopted. In 1518 Hartmann began a practical treatise on the construction of sundials and astrolabes. Although this was completed in 1528 it was not published. In 1542 however he produced an edition of John Pecham's *Perspectiva Communis*, a treatise on optics dating from 1292, and in 1554 an astrological work, the *Directorium*.

Hartmann's instrument-making workshop was one of the major suppliers of such objects in 16th century Europe. He

produced fine instruments for royal and noble patrons such as Duke Albrecht of Prussia and Duke Ottheinrich, but was also a pioneer of production in quantity. He was perhaps the first maker systematically to print astrolabe parts on paper for assembly on cardboard or wood, thus providing an inexpensive instrument, and he also produced his more prestigious brass instruments in batches. The instrument offered here is one of six known dated 1532. All six instruments are the same size (within a measurement error range of 2mm), while the similarity of the suspension mounts suggests that they were initially cast from the same mould as were the *retes* which carry the same 27 stars. At least some of the same punches appear to have been used on these astrolabes, although minor differences of positioning and impression occur, as one would expect. Between the six astrolabes there are also some differences in the scales. The present instrument indeed is exceptional in this group for its treatment of the upper quadrants on the back of the instrument. The combination of the equal/unequal hour conversion diagram (top left quadrant) and the unequal hour diagram (top right quadrant), like the provision of Noon arcs and the diametral divisions, is not only unique to this 1532 group, but apparently also to the entire known corpus of Hartmann's astrolabes. Neither is this layout described in Hartmann's 1528 manuscript on astrolabe construction.





The Cummer Vallin

Circa 1595

An exceedingly rare Elizabeth I engraved gilt-brass striking square horizontal table clock by Nicholas Vallin, London



Size	3¾ inches (83 mm) square
Case	The square brass case of multi-piece construction, largely retaining its original fire-gilding of superb depth and colour. The step-moulded sides are engraved with geometric bands above arcaded courtyard vistas in perspective and each central arch has a different view: an oak tree, a castle, a windmill and a bridge, each representing an allegorical view of late 16th century London. The latched gilt-brass base panel has a multiple-line engraved border and is signed <i>VALLEN</i> within a beautiful scroll engraved cartouche. The square gilt-brass top plate has engraved fan spandrels flanking a re-instated bezel holding a restored pierced, arcaded and engraved cupola bell cover.
Dial	The original 2¼ inch (56 mm) delicate solid-silver champlévé Roman chapter ring has flower-head half hour markers, surrounding a further gilt Arabic 24-hour ring marked from 13 to 24, while the concentric engraved centre is interspersed with arcades and foliage and central steel counterpoised arrow-head hand.
Duration	30 hour
Movement	The fire-gilded square movement plates are held by four detailed square section baluster pillars, the going train has a fusee and verge escapement, with restored barrel, balance cock and brass balance. The strike train has a fixed steel barrel and calibrated gilt-brass countwheel for striking on the re-instated bell. The backplate retains much of the original gilding and secures to the case with steel turn catches.
Escapement	Restored verge and balance
Strike Type	Countwheel hour
Provenance	The Cummer Museum of Art & Gardens, Jacksonville, Florida, USA, until sold; Christie's, 19 Nov 2009, lot 21 for £79,250; Private collection UK until sold 2018 for £130,000; John C Taylor Collection, inventory no.190
Exhibited	The Cummer Museum, Jacksonville, Florida, USA 2019-20, The Luxury of Time, Nat. Museum of Scotland, Edinburgh, exhibit no.1:3
Literature	<i>The Luxury of Time, Clocks from 1550-1750</i> , 2019, p.8
Comparative Literature	Dawson, Drover & Parkes, <i>Early English Clocks</i> , 1982, p.25, pls.16-18; Lloyd, <i>The Collector's Dictionary of Clocks</i> , 1964, p.182, fig. 463; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018

Nicholas Vallin or Vallen (*circa 1565-1603*) was the second son of John Vallin (*c.1535-1603*), a Flemish clockmaker, originally from Ruysell (now Lille). He married Elizabeth Rendmeesters in 1590 at the Dutch Reformed Church, Austin Friars, and they had three daughters. Nicholas worked first with his father and is then believed to have set up on his own in St Annes, Blackfriars in 1593. He died soon after his father, of the plague on 17 September 1603, and his widow remarried in 1604 to Gerart Cosin, a tailor.

The earliest recorded English domestic clocks were mainly made by Netherlandish immigrants from Flanders and all known examples date from post 1575. There are perhaps only fifteen or sixteen pre-pendulum English spring clocks known to survive and, like the Cummer Vallin, most have had an element of restoration, but many are either missing their original movements or cases altogether. A number of these surviving clocks were made by Nicholas Vallin and the earliest known English clock with a carillon, dated 1598, is also by him, formerly part of the Ilbert Collection, and now found in the British Museum (inventory no.1006.2139).







The Cummer Museum of Art & Gardens was built on the site of the home of Arthur and Ninah Cummer, and opened in November 1961. From Ninah Cummer's relatively small collection of sixty pieces that launched the museum, the permanent collection has now expanded to over five and a half thousand works of art, encompassing eight thousand years of art history.



The Cummer Museum of Art & Gardens, Jacksonville, Florida

Only three square table clock by Nicholas Vallin are recorded and each are very closely related in design:

1. Musée international d'horlogerie, La Chaux-de-Fonds, Switzerland.
2. The Portland Collection Museum, the Harley Gallery, Welbeck, Notts.
3. This example, formerly at The Cummer Museum, Jacksonville, Florida.

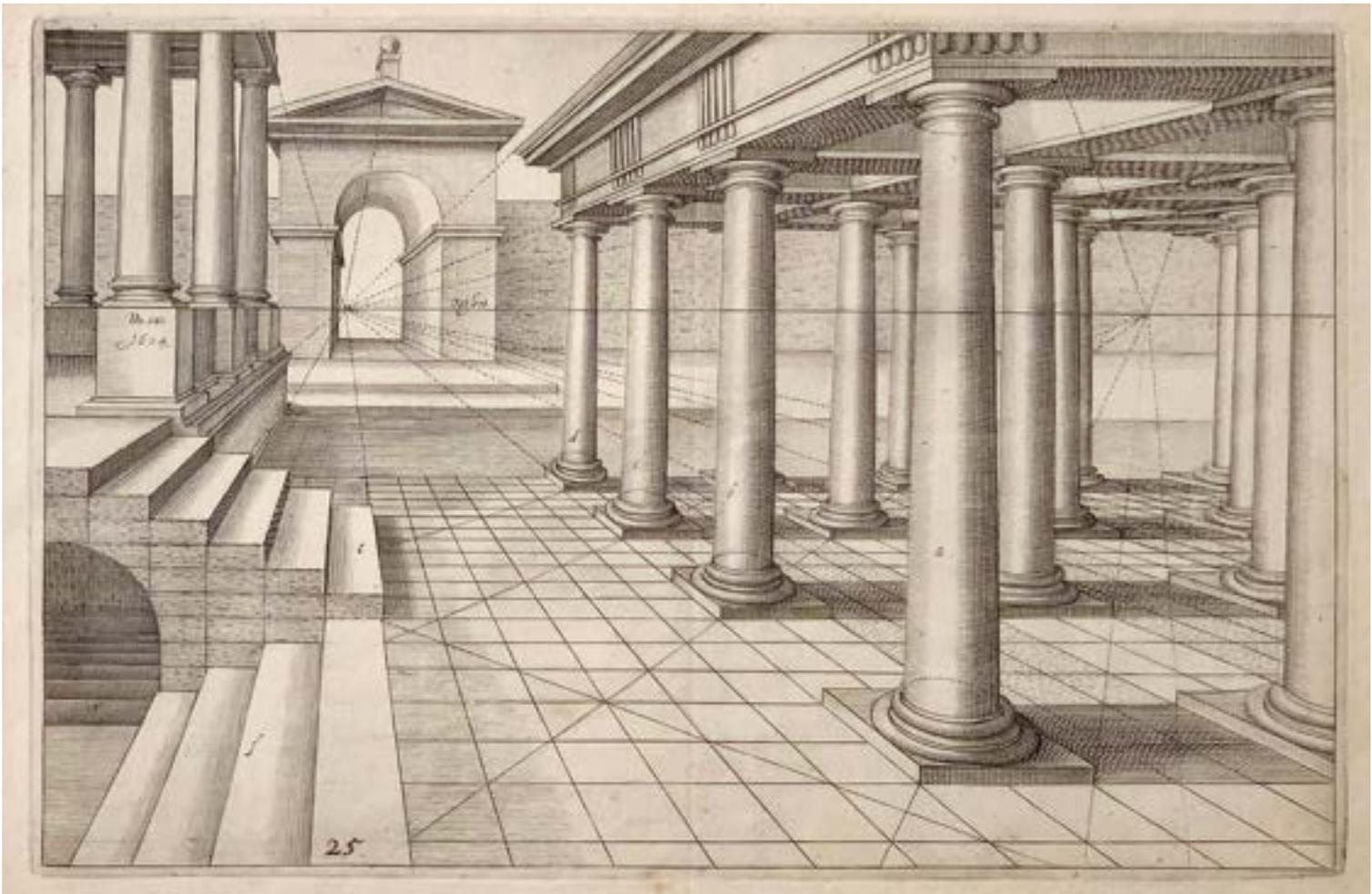
There are numerous similarities between the Chaux-de-Fonds, Portland and Cummer clocks. All have superb and related engraving to the sides, including geometric bands above arcaded courtyard scenes in perspective. The upper, top-plate sections of the cases all have engraved fan spandrels and similar engraving to the dial centres. The chapter ring of the Portland clock is similarly engraved with Roman chapters and flowerhead half hour markers and an inner 24-hour ring, while the La Chaux-de-Fonds Vallin is recorded as having a *later dial*, however, it would appear from the other two surviving examples, that only the chapter ring may have been changed. The base plates to all the clocks have square and circular line engraved borders and all are signed *VALLIN* within similar engraved shield cartouches. While a very similarly engraved dial centre may be seen on a watch by Gylles van Ghele dated 1589 (David Thompson, *Watches*, British Museum Press, London 2008, p.21).

When the Cummer clock came up for sale in 2009, the original central dial and chapter ring had at some time been lowered onto the box case's square horizontal top plate, and it was thus a striking clock, but without a corresponding bell, or pierced and arcaded bell assembly. As mentioned, although itself with restored elements, the Chaux-de-Fonds clock had been first illustrated by FJ Britten in 1899 (*Old Clocks and Watches*) and the design of that bell assembly was used as a template to restore the current example, which is also entirely reversible.



There are six other spring clocks signed by Vallin, known to have survived:

1. Vertical table clock case only (*later dial and movement*), dated 1600, The British Museum, London (inventory no.1902,0617.1);
2. Monstrance clock (*formerly a drum table clock*), previously on loan to The British Museum, London;
3. Small drum table clock with astronomical indications, The Science Museum, London (inventory no.1938-429)
4. Small astronomical drum clock (*later case*), formerly The Time Museum, Illinois, now in the John C Taylor Collection (inventory no.89);
5. Small drum timepiece (*with later geared movement and globe*), The Banff Museum, Aberdeenshire;
6. Small drum striking clock with alarm, illustrated in 'Early English Clocks', 1982, p.21, pl.8.



Perspective had been a part of the education of artists and architects since the Renaissance, and it was used in many aspects of the decorative arts of the period. About 10 years after this clock was made, the Dutch painter and architect, Hans Vredeman de Vries (1527-1606), published what became one of the major guidebooks, 'The Book of Perspective', 1604-05, with engraved scenes and projections employing one-point and multi-point perspective.

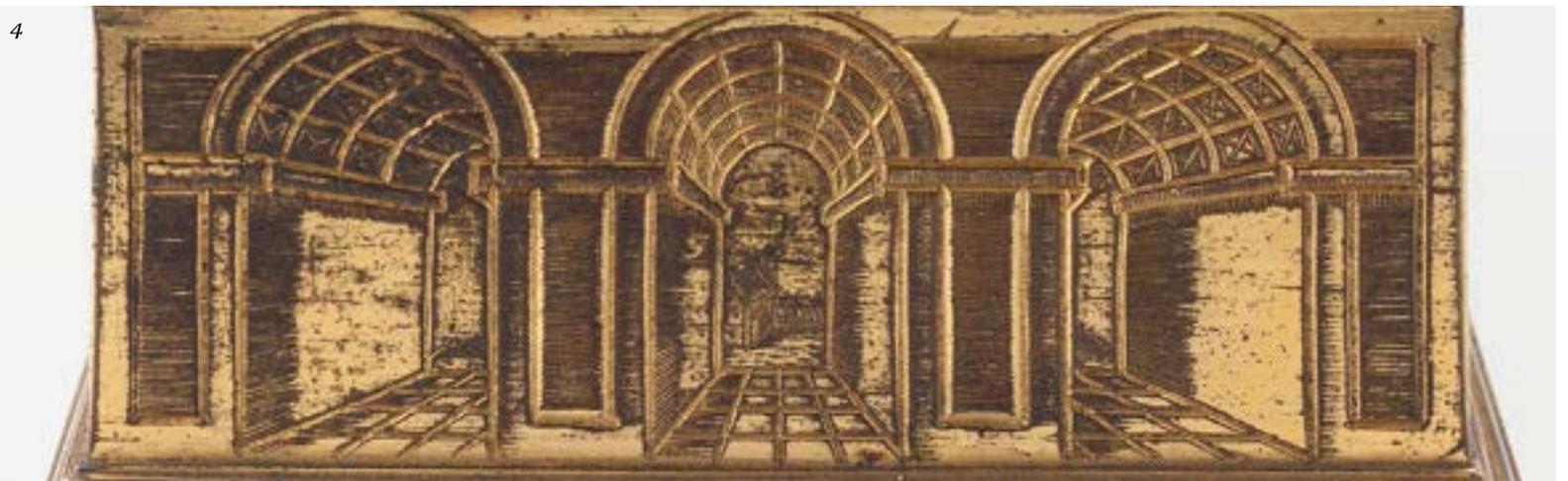
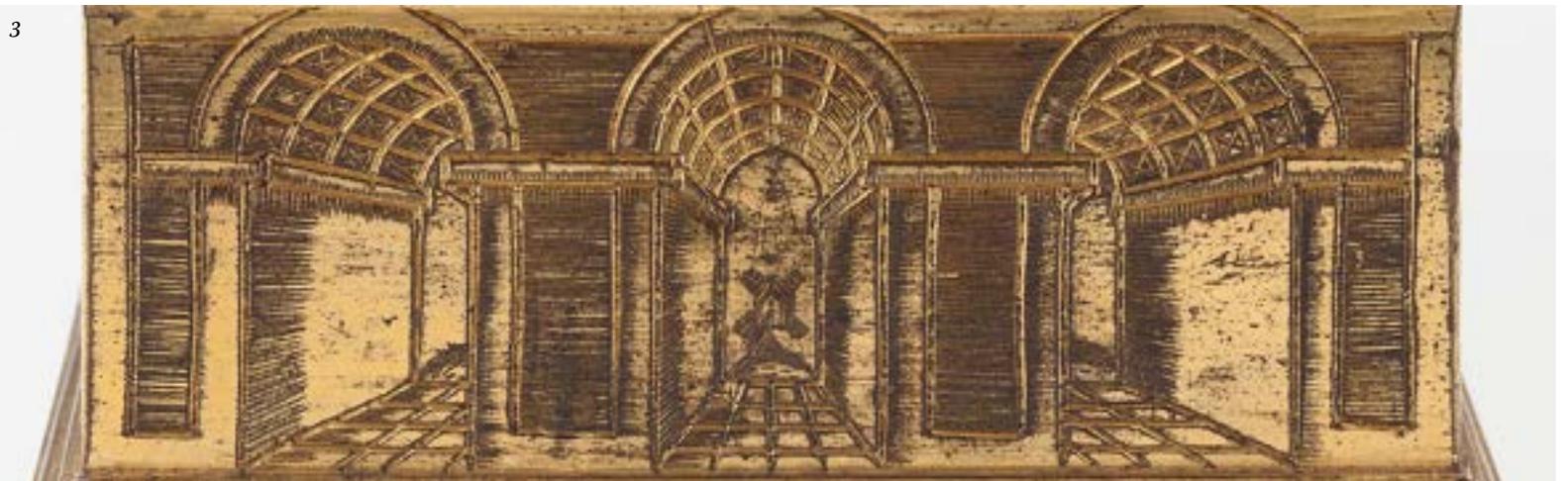
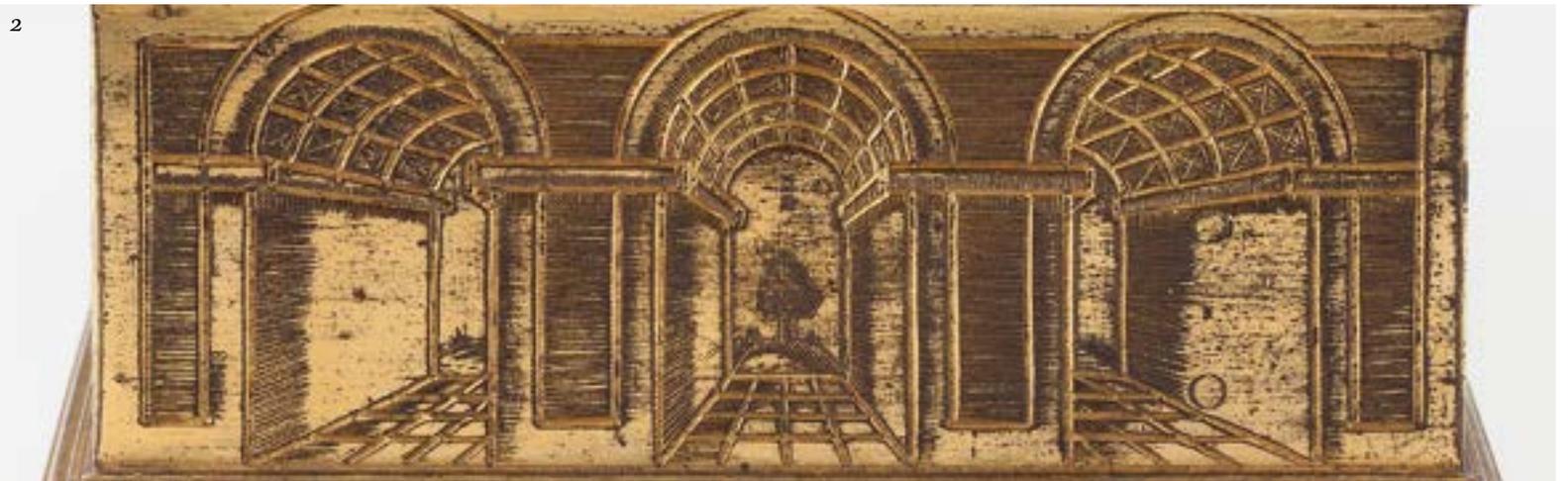
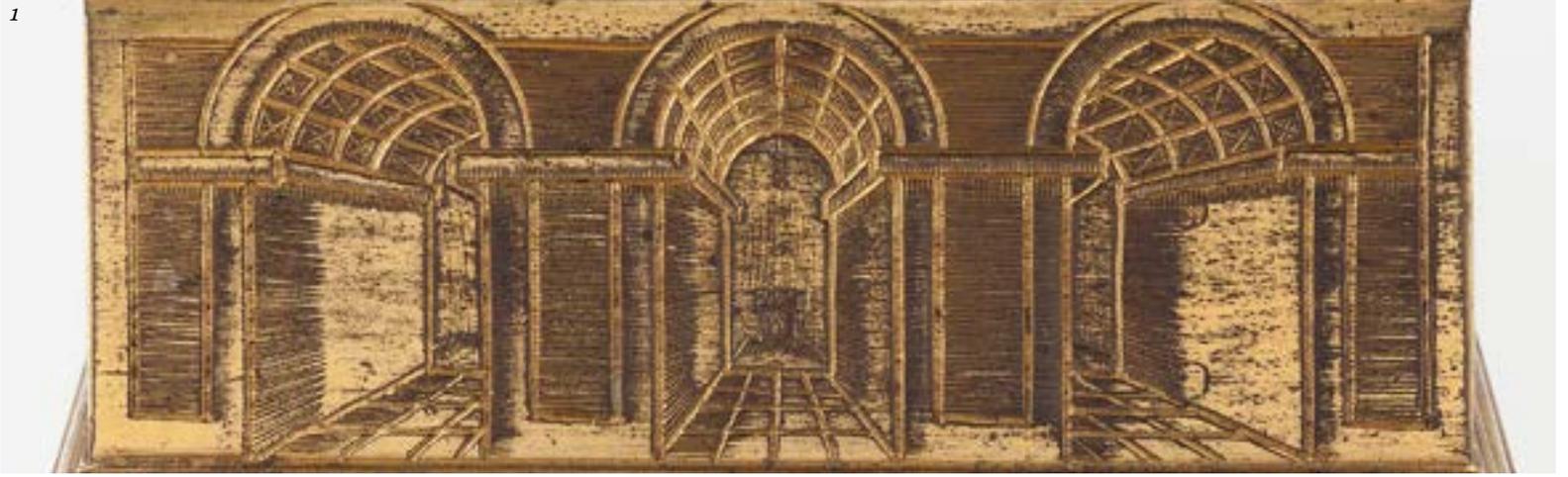
By the time this clock was made, Queen Elizabeth I (1533-1603) had been on the throne for nearly 40 years; she had become celebrated for her virginity, and a cult of personality had grown around her which was celebrated in the portraits, decoration (as seen here), pageants, and literature of the day. The period is famous for the flourishing of English drama, led by playwrights such as William Shakespeare and Christopher Marlowe, and for the prowess of English maritime adventurers such as Francis Drake and Walter Raleigh. Some historians depict Elizabeth as a quick-tempered and sometimes indecisive ruler, who enjoyed more than her fair share of luck and, towards the end of her reign, a series of economic and military problems did weaken her popularity.

However, her long reign (1558-1603) soon became renowned as the *Elizabethan* era, and she is acknowledged as a charismatic leader and a dogged survivor at a time when government was ramshackle and limited, and when monarchs in neighbouring countries faced internal problems that jeopardised their thrones. After the short and unsteady reigns of her half-siblings, her 44 years on the throne (1558-1603) provided welcome stability for the kingdom and helped to forge a sense of national identity. The central scenes (opposite) contained in each individual panel of this clock epitomise this and, taken together, all proclaimed

Queen Elizabeth's deep-rooted and fundamental right to the English crown:

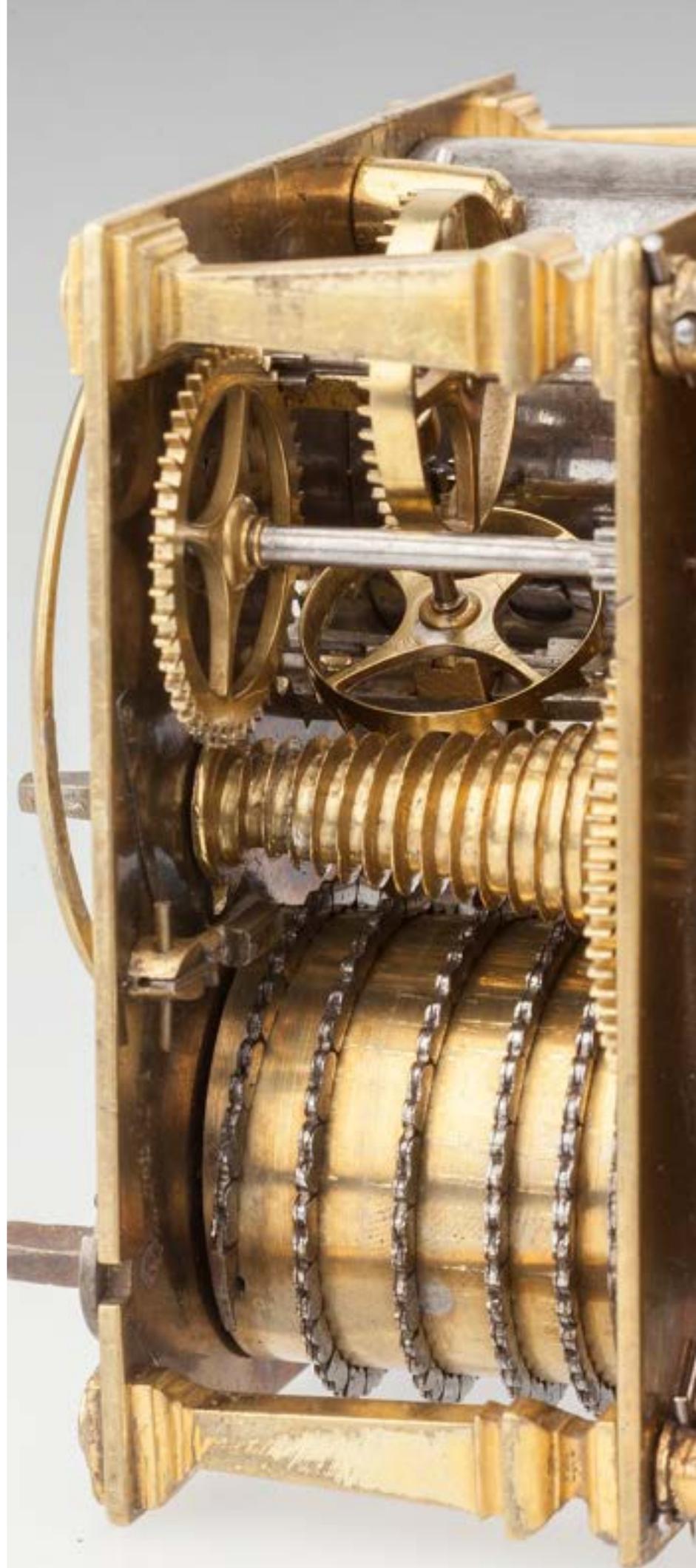
1. The castle represents authority, dominance, power, romance, safety, sovereignty, and wealth.
2. The oak tree is symbolic of longevity, strength, stability, endurance, fertility, power, justice, and honesty.
3. The windmill is a universal symbol of life, hope, serenity, resilience, self-sufficiency, and perseverance.
4. The bridge embodies the passage (or ascension) from one state to a higher one.

The use of a windmill is particularly interesting, as there were a number of windmills surrounding London at this time, but most were located well outside the City in the environs of Acton, Barnes, Battersea, Blackheath, Chiswick, Finchley, Fulham, Hampstead, Harrow, Richmond, Romford and Rotherhithe. Others had been established in Clerkenwell, Holborn, Kensington (Hyde Park), Mayfair, Newington, Soho, Southwark, Hanover Square, St. James, Westminster and Whitechapel. However it may be more relevant that two new windmills were built in the City in 1596; one was at Queenhithe by the river, while the other was erected near Vallin's own workshop in Blackfriars, and perhaps this new windmill may have been further inspiration for this particular panel scene.





The Vallin [Vallen] base plate (above) with similar late Elizabethan background engraving to the period silver salt (shown right).





The Hornby Vautrollier Circa 1625

An exceedingly rare Charles I gold double-cased Puritan watch with silver calendar by James Vautrollier, London



Size	1 $\frac{1}{16}$ inches (36 mm) in length
Case	The plain gold oval inner case with fixed turned pommel and loose ring pendant, the glazed split-bezel hinged below the pendant, the plain bowl back with a single shuttered winding hole; the plain and solid outer case hinged at IX with a latch lock opposite, the stepped rim slotted for the inner case pommel at XII.
Dial	The plain gold dial plate, inset with an outer rotating silver Arabic calendar ring, calibrated 1 to 31 and indicated by an engraved 'pointing hand' above XII, the inner 19mm gold hour chapter ring laid-on to the dial pate, with Roman numerals and arrow half-hour marks between, and a single push-fit blued steel bud-form hour hand.
Duration	30 hour
Movement	The gilt-brass oval movement plates are held by four pierced and chased Egyptian pillars, with spring barrel, fusee and gut line to the three-wheel verge train, worm and wheel set-up with blued-steel scrolling brackets, the plain steel balance held by the pierced gilt cock with pinned asymmetric foot, engraved with foliage and flowers, the backplate signed <i>James Vautrollier Fecit</i> in fine cursive script.
Escapement	Verge and plain steel balance with pinned cock
Provenance	Edward Hornby collection, until sold; Sotheby's 1 December 1978, lot 26; The Time Museum Collection, Rockford, Illinois, USA, inventory no.4453, until sold; Sotheby's NY, 2 December 1999, lot 38 for \$29,000; John C Taylor Collection, inventory no.74
Exhibited	1980s-90s, The Time Museum, Rockford, Illinois, USA; 2018, London, Innovation & Collaboration, exhibit no.111 2019-20, The Luxury of Time, Nat. Museum of Scotland, Edinburgh, exhibit no.2:3
Literature	Kate Youde, <i>Collector with a mind for the mechanical</i> , Financial Times, 17 March 2016 (illus); Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.128 <i>The Luxury of Time, Clocks from 1550-1750</i> , 2019, p.15
Comparative	Clutton & Daniels, <i>Watches</i> , 3rd Ed., 1979, pls.79 a-c;
Literature	<i>Tresors d'Horlogerie</i> , exhibition catalogue, Avignon, 1998, no.117







James Vautrollier was born c.1575 in the parish of St Anne's, Blackfriars, to Huguenot immigrant parents. It is not known where he was apprenticed, but the Blacksmiths' records show that he gained his Freedom by redemption from that Company in October 1610. By 1622, he is recorded as an '*alien*' working '*without Temple Bar*' and, in the same year, was one of 16 craftsmen who unsuccessfully petitioned James I to charter the Clockmakers' own Livery Company. After Charles I succeeded to the throne in 1625, he too was petitioned, but it took several more years before the king chartered the Worshipful Company of Clockmakers in 1631. The king specified that the royal clockmaker, David Ramsay, was to be appointed as the Company's first Master, and Vautrollier became one of its first Assistants. It is not known when Vautrollier died, and his last entry in the Clockmakers' records is of a new apprentice taken in August 1641, Robert Wynn, who was never made Free.

Puritan watches are so called on account of their extremely plain, undecorated form and, despite the lack of outer adornment, this example would have been very costly. Puritan watches are scarce in any instance, and while a small number of watches survive in gilt-metal and silver, solid gold examples are particularly rare. Their residual gold value was such that it is presumed many were melted down and recycled, not only to keep abreast of changes in fashion, but also during times of upheaval, such as the Commonwealth.

With the exception of the required engraved 'pointing hand' calendar indicator and chapter rings, this watch is devoid of all outer decoration. The hidden movement however, gave the watchmaker an opportunity to display a little more of his talents and each element, from regulation to balance cock, is beautifully shaped, decorated and finished, the cursive signature is understandably bold, while the Egyptian pillars have been meticulously turned, tapered, pierced and, in opposition to the outside, adorned with delicate highlight engraving.





Edward Hornby (1908-1998) was a lawyer and preeminent collector of rare and important pocket watches in the post-war era, whose historic collection, including this Vautrollier watch, was sold by Sotheby's in December 1978. Hornby bought his first watch in the 1930s, and was a close friend of Cecil 'Sam' Clutton (1909-1991), a Master of the Clockmakers' Company and founder member of the Antiquarian Horological Society. Clutton had introduced Hornby to George Daniels (1926-2011) and in 1969, Daniels made his first ever pocket watch for Clutton. On its delivery in 1970, Hornby immediately ordered his own and the story was told by Daniels himself, when the *Hornby Daniels* was auctioned for the first time by Sotheby's on 22nd June 1999:

Edward Hornby began collecting watches in the 1930s. His interest centred on the origins of his purchases and their aesthetic qualities. I first met him in 1960 when he began to intensify his interest in horology. We became firm friends and, in 1970, Edward expressed a wish to add a 'Daniels' to his collection. This tourbillon was added to the collection in 1971. It was the fourth example made and.... when Edward Hornby sold his collection at Sotheby's in December 1978, he kept the tourbillon Concerned that the tourbillon could not equal his new quartz watch, he ran the two together. The test lasted 8 months before the battery went flat and he cheerfully awarded the honour to the tourbillon. Its daily variation rate at room temperature averaged 0-3 seconds per day.

The 1978 Sotheby's auction catalogue was accompanied by a foreword from Daniels, where he described the sale as *a rare opportunity to acquire some fine and interesting watches of types that have not been available for purchase for many years*. It was a resounding success and from a total of 80 lots, only five remained unsold. The collection represented forty years of careful acquisitions and contained some magnificent pocket watches, including highlights by Breguet, John Arnold, Jaquet Droz, Daniel Quare and, of course, the current Vautrollier Puritan watch, which was estimated at £4-6,000, the hammer not falling until the watch had reached £11,500.



Ahasuerus Fromanteel, London

Circa 1655

A very rare Cromwellian striking
'Second Period' lantern clock



Height	16 inches (402 mm)
Dial	The 6½ inch (164mm) diameter brass chapter ring, engraved with an inner quarter division ring and Roman numerals, with stylised half-hour marks between. The brass dialplate, chamfered and shaped to slot and pin-fit within the profile of the front pillars, with foliate engraved spandrel corners to the top and bottom. The centre with profuse floral engraving with a central flower of six plain petals to the front and six rose-shaped petals behind, and signed in a curve <i>A Fromanteel Londini</i> on two lines in a reserve above VI. The polished iron hand with a pierced indicator and sculpted counterpoised tail.
Duration	30 hour
Movement	The posted frame movement with four tapering Doric columns, with ball feet and urns above, screw-fixing and set flush to the bottom and top plates. With pierced foliate and scroll frets to front and sides, the front highlighted with engraving. The large bell supported by brass standard with pins into the frame urns, and screw-fixed to the matching urn on top. The two trains contained within three vertical plates, the outer two of cruciform shape, and each train planted with three brass wheels on steel arbors; the going train to the front with a crownwheel above the top plate, verge escapement and later cow-tail front-suspended pendulum; the rear strike train governed by a countwheel mounted on the rear cruciform plate and striking on the bell above. The bottom plate drilled for two counterbalanced driving ropes, the top plate with an iron suspension hoop above the iron outer backplate with two riveted wall spikes.
Escapement	Verge with early conversion (from balance) to a short cow-tail pendulum
Strike Type	Countwheel hour striking
Provenance	Brian Loomes 2006, sold for £28,000; John C Taylor Collection, inventory no.172
Exhibited	2018, London, Innovation & Collaboration, exhibit no.14; 2019-20, Luxury of Time, National Museum of Scotland, Edinburgh, exhibit no.3:5
Literature	White, <i>English Lantern Clocks</i> , 1989, p.158, fig. III/68; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.136 <i>The Luxury of Time, Clocks from 1550-1750</i> , 2019, p.22

In his definitive work, *English Lantern Clocks*, 1989, George White comments about this particular example that *...even his ordinary work betrays the sense of proportion and inventiveness which were later to make his name*. It is indeed both well finished and delightfully engraved, but it is also a rare example of his work signed before Fromanteel eventually gained his City Freedom in 1656. The clock was later adapted to improve its time keeping by replacing the top-mounted oscillating balance wheel with a pendulum, which gives us an intriguing insight as to its probable initial provenance.

Most conversions by English clockmakers hung pendulums to the rear, but this front-mounted cow-tail pendulum indicates the work of a continental clockmaker. As mentioned, Fromanteel made several documented trips abroad at this time and this style of pendulum conversion suggests that this lantern clock may have been originally sold for export, and could have been taken abroad by Fromanteel himself and sold direct to an overseas customer. Another Fromanteel lantern clock with a similar continental front-mounted cow-tail pendulum can be found at the Victoria & Albert Museum (accession number M.166-1937).







near GILFORD in SURREY.
THere is lately a way found out for making Clocks that go exact
 and keep equal time then any now made without this Regulator
 (examined and proved before his Highness the Lord Protetler, by such
 Doctors whose knowledge and learning is without exception) and are not
 subject to alter by change of weather, as others are, and may be made to go
 a week, or a month, or a year, with once winding up, as well as those that
 are wound up every day, and keep time as well; and is very excellent for
 all House Clocks that go either with Springs or Weights: And also Steeple
 Clocks that are most subject to differ by change of weather. Made by
 Ahasuerus Fromanteel, who made the first that were in ENGLAND. You
 may have them at his house, on the Bank-side in MOSSES-ALLEY, SOUTH-
 WARK, and at the sign of the Maremaid in LOTHEBURY, near BARTHO-
 LOMEW-LANE and LONDON.
 ¶Here is also by the same Ahasuerus Fromanteel. Engine

Ahasuerus Fromanteel (1607-1693) was a third generation immigrant of Dutch origin. The first wave of French and Dutch speaking Protestants fleeing persecution on the continent were Walloon refugees, who started to arrive in England from the Spanish Netherlands in 1567, having been forced to flee the suppression of Protestantism by King Philip II of Spain's forces led by the Duke of Alva. Queen Elizabeth I welcomed this initial wave of skilled craftsmen, one of whom was Baldewyn Fromanteel, who settled amongst the Dutch community in Colchester. His son Mordachaeus, a woodturner, moved to Norwich where his son Ahasuerus was born on 25 February 1607. There is no record of his apprenticeship, but Ahasuerus Fromanteel was working in London by 1629, perhaps initially for the Anglo-Dutchman, Cornelis Drebbel (1572-1633). What is clear is that Fromanteel was an engineering polymath of diverse and extraordinary talent, working on lenses and water engines, as well as clocks. By 1631 Fromanteel had joined the Blacksmiths' Company, and then the Clockmakers' Company by redemption as a Brother in 1632.

This period marked the start of tensions between Charles I and Parliament that ultimately culminated in the breakdown of relations, civil war, and then Regicide in 1649. Court Books from the Goldsmiths' Company give evidence of the level of precious metal trade in London between 1630 and 1660, which amply illustrates the turmoil that must have been apparent across all the trades in the city, including clockmakers. Through the relative calm of the 1630s, up until 1641, Goldsmiths' records show touch marks on precious goods at a level that was not to be surpassed again until the 1680s, but with the start of civil war in 1642, trade went into an acute recession for 6 or 7 years, only recovering to half the pre-war levels by the early 1650s. Thus the London clockmakers would have found business extremely difficult with an inability to obtain patronage, and to find new markets for his wares, Fromanteel made several trips to the Continent, principally Holland, selling microscope lenses as well as clocks (as testified by the current example), whose high quality found him customers outside the turmoil in England.

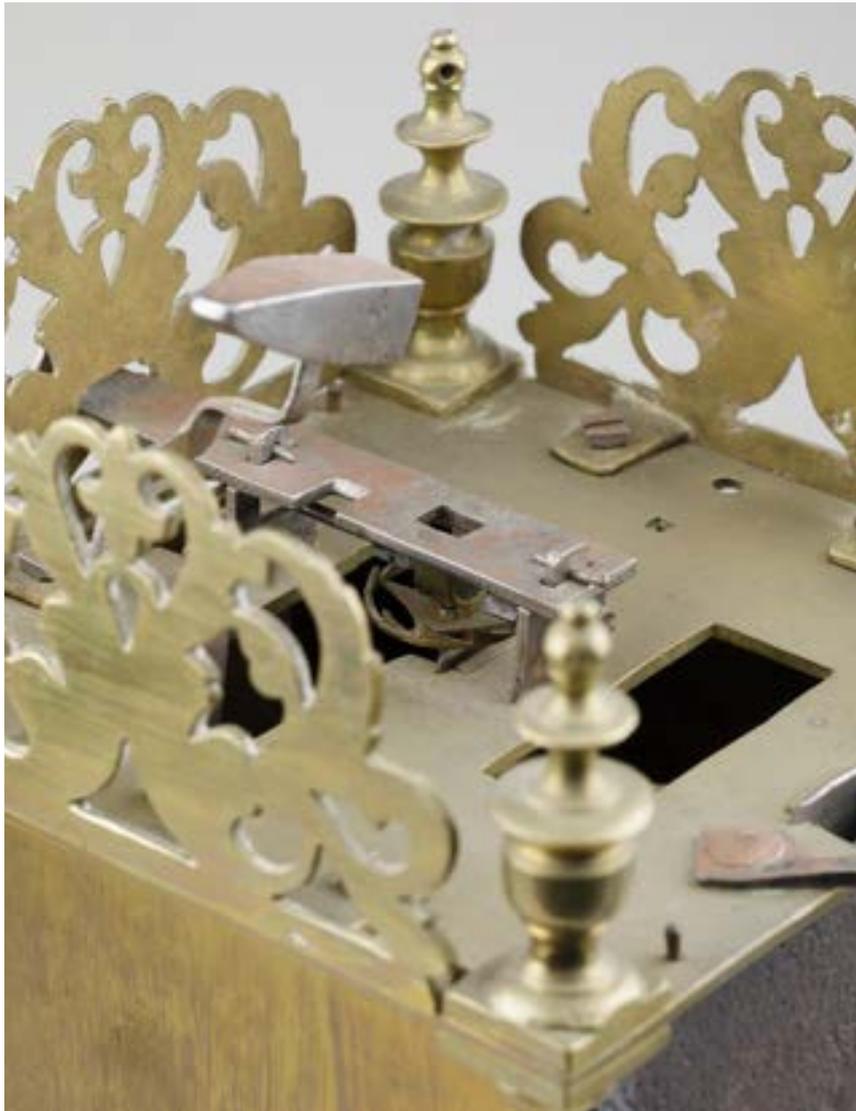
From the start, Fromanteel had been at loggerheads with the Court of the Clockmakers' Company, who would not recommend his Freedom of the City of London. Without his Freedom, he was not legally allowed or supposed to sign or sell clocks in London, which is probably why there are only a small handful of Fromanteel signed clocks prior to that. He undoubtedly made clocks for others, but there is no absolute evidence to confirm this beyond East and Fromanteel's joint signature on the renowned



gilt and silver Grande Sonnerie horizontal cubic table clock (also in this collection, inventory no.40). By the 1650s Fromanteel was back working on horological innovations, and he had aligned himself with Cromwell, reportedly supplying him a clock for the huge sum of £300 and another for Mr Palmer at £200 (Greengrass, Leslie & Hannon, 2013, *The Hartlib Papers*, The Digital Humanities Institute, University of Sheffield).

In January 1656, The Lord Protector finally intervened on his behalf, instructing that he be admitted to the Freedom of the City of London, much against the will of the 'great and good' in the Clockmakers'. Although Cromwell's philanthropy covered the critical period of the introduction of the pendulum in London, it was short lived. Within weeks of Cromwell's demise on 3 September 1658, Fromanteel began advertising his new pendulum clocks as being *...examined and proved before his Highness the Lord Protector by such Doctors, whose knowledge and learning is without exception.*

Fromanteel's clocks were undoubtedly the finest of the time and set the standard for future English clockmaking, but nailing his colours so firmly to the Protectorate cause was undoubtedly a mistake. Richard Cromwell lasted in office just nine months and by May 1660, Charles II was restored to the English throne, and his patronage leaned firmly towards Fromanteel's great rival, Edward East.



Edward East, London

Circa 1662

A very rare Charles II ebony veneered architectural and gilt-brass mounted striking table clock on a turntable base

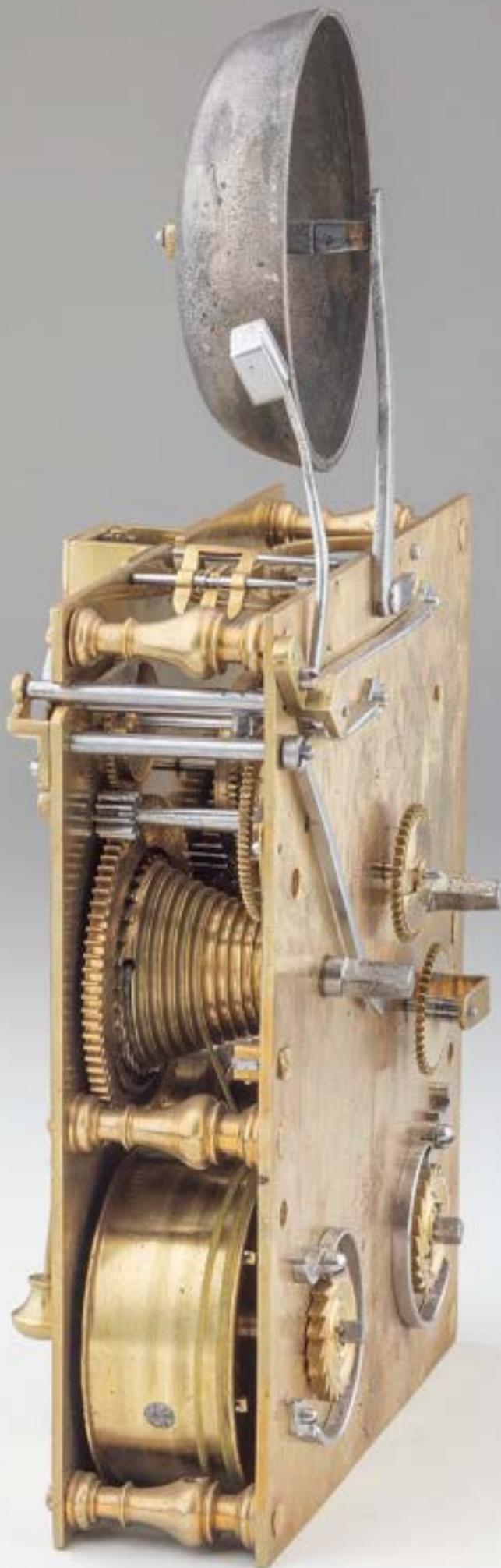


Edward East London



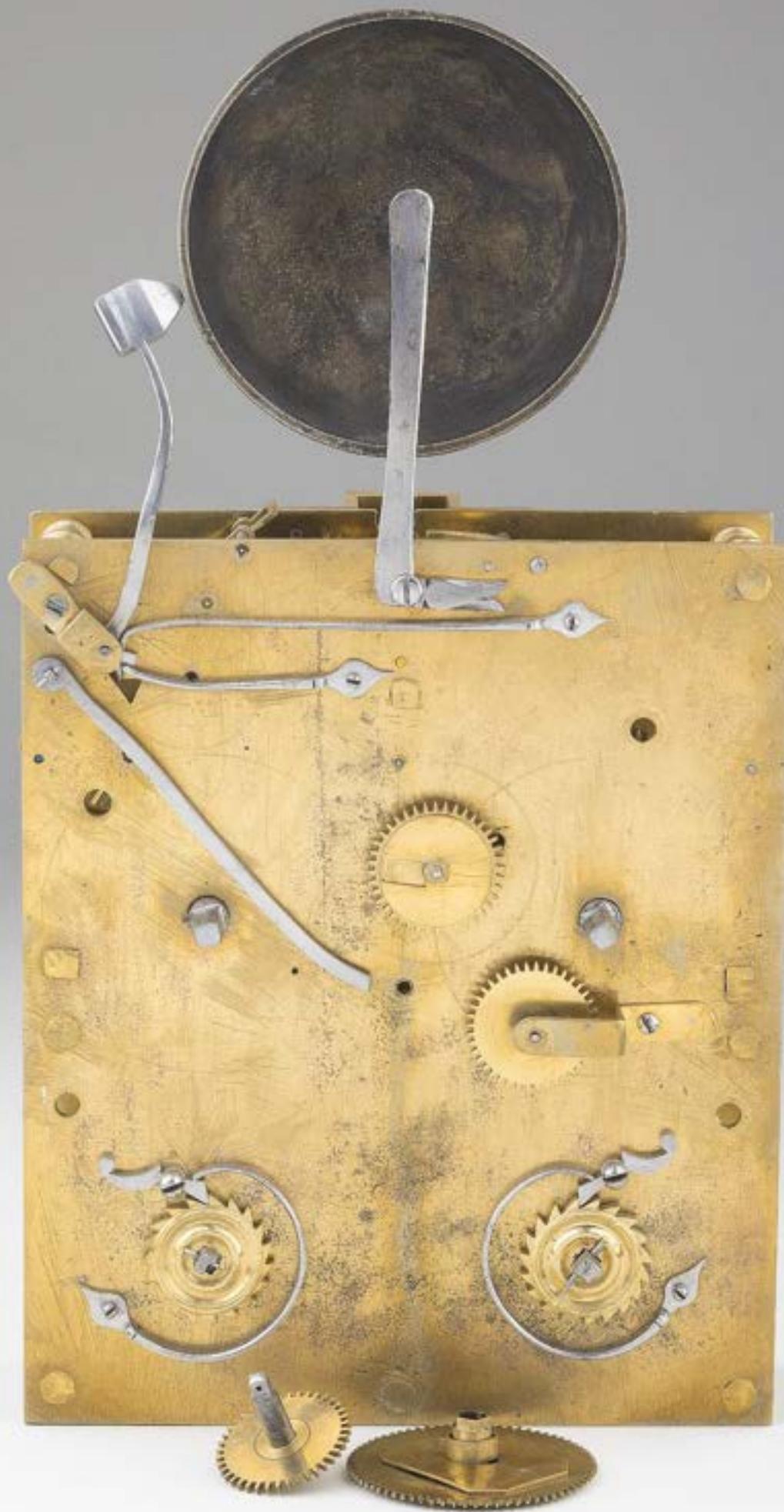
Height	23 inches (585 mm) to the top of the central finial
Case	The case of architectural form with ebony veneers and mouldings onto an oak carcass. The full depth architectural pediment, topped by three gilt-brass finials, centred and half way back on either slope, the front tympanum with a gilt-brass cartouche. All above a plain frieze, supported by gilt-brass multipiece Corinthian capped three-quarter columns to the front and matching half columns to the rear behind the glazed sides. The front door inset between the columns with a fine mitred and raised bolection frame-molding to the glazing, the pearwood mask behind butt-jointed. The fully veneered plain flat back, the lower section inset with a veneered and glazed back door, all supported on a quarter-round stylobate plinth moulding, and resting on a reinstated mitre-veneered turntable base with gilt-brass bun feet.
Dial	The 7¼ by 8¼ inch (119 by 211 mm) rectangular fire-gilded brass dial with fine all-over punch matting framed by a burnished margin and a central reserve with a fine and well engraved Tudor rose. The slender silvered chapter ring with inner quarter divisions, Roman hours and stylised <i>fleur-de-lys</i> half-hour marks, the outer Arabic minutes engraved every 5, within the minute division ring. The centre with high set winding holes and early shaped, sculpted and pierced blacked steel hands. The whole dial secured to the movement via four pinned dial feet.
Duration	7½ days
Movement	The large but shallow rectangular movement in East's early pendulum style, with seven substantial finned bulbous vase-shaped baluster pillars, riveted to the frontplate and pinned to the backplate, planted with traditional flanged barrels and conical-shaped fusees; the going train with engraved apron to the knife-edge verge escapement and short bob pendulum, the under-dial with indirect floating motion-work driving the hands; the strike train governed by a small, Tudor rose and Arabic hour engraved countwheel, mounted high on the backplate with a cocked detent, and striking the hours on a large bell vertically mounted above. The going train winds anti-clockwise and the strike clockwise. The backplate retains traces of original fire-gilding and is centrally signed in a curve <i>Edward East Londini</i> in fine early cursive script. The movement rests on two raised blocks within the case, and held by two bolts into the base pillars.
Escapement	Knife-edge verge with short bob pendulum
Strike Type	Small outside hour countwheel planted high on the backplate
Provenance	Peter Van C Moore MD, 1969; With John Carlton-Smith 1979 and sold to; Private collection UK; Asprey, and sold by Mark Sampson in 2002 for £77,000; John C Taylor Collection, inventory no.14
Exhibited	1969, London, The First Twelve Years of the English Pendulum Clock, exhibit no.18; 2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.10; 2004, Holland, Palais Het Loo, Huygens' Legacy, exhibit no.22; 2018, London, Innovation & Collaboration, exhibit no.42
Literature	Lee, <i>The First Twelve Years of the English Pendulum Clock</i> , 1969, no.18, pl.53, 54 & 55; <i>Horological Masterworks</i> , Oxford, 2003, p.42-47; <i>Huygens' Legacy</i> , Holland, 2004, p.56-59; Garnier & Hollis, <i>Innovation & Collaboration</i> , p.202





In several respects this example personifies the differences between the clocks from Ahasuerus Fromanteel's workshop and his competitors, led by Edward East. In this turntable clock the case in its general proportions and detailing is markedly less pure architecturally, although it follows the general lines first apparently established by John Webb (1611-1672) in Fromanteel's cases. The cornice mouldings do not include a drip mould, the entablature frieze is deeper, and the relationship between columns and apertures for dial and side windows is less resolved. The dial has a burnished margin but is otherwise all-over punch-matted and has no spandrel ornamentation but has an engraved rose in the centre. The movement is shallower than Fromanteel's, but more substantial, the seven bulbous vase-shaped baluster pillars again in contrast being riveted to the front plate and pinned on the backplate. In many ways the characteristics of the movement continue patterns from the horizontal table clock movements of the pre-pendulum era. The spring barrels are made in the traditional way with flanges and pinned on caps, contrasting with Fromanteel's snap-fitted caps. The fusees are nearly conical, unlike Fromanteel's more concave ones, the going train winding anticlockwise, the striking train clockwise. There is no centre pinion and the drive of the canon pinion is by an intermediate wheel on a spring collet squared on the end of the second wheel arbour, known as *floating motion work*, that is mounted unassisted between plate and dial (see wheels off opposite), and which results in play in the minute hand.







Edward East (1602-c.1695) was the longest living of the important London clockmakers of the 17th Century and one of very few Londoners who served as Master to two Companies. East was baptised in 1602 in Southill, Bedfordshire and by 1618 was apprenticed to Richard Rogers of the Goldsmiths' Company. He was made free in 1627 and in the same year he married Anne Bull, the daughter of one of the leading London watchmakers, whose family business had started in the 1570s and in the previous generation had provided two royal makers, John and Randolph Bull, to two monarchs.

Edmund Bull (1585-1644) was an astute businessman, running workshops outside the jurisdiction of the city in Ram Alley as well as within and, by marriage, East became heir to one of the most important watchmaking dynasties in London. For practical reasons, it is likely that Bull encouraged East to join the newly incorporated Clockmakers' Company in 1632, whose success was initially uncertain. By then, East was running Bull's Ram Alley manufactory, employing the very foreigners the company was trying to control, despite this East became the youngest of the ten original Assistants. As the Clockmakers' influence and control grew East was to become Master twice in 1645 and 1653, however he never gave up his involvement with the more influential Goldsmiths' and eventually made Prime Warden, the equivalent of Master, in 1671. In 1644, as the First Civil War (1642-1646) intensified, Edmund Bull died leaving East as the primary clockmaker in Fleet Street, but also increasingly prominent in the Goldsmiths' Company. It is often quoted that Edward East was a Royalist, but this has proved a somewhat simplistic view; the Goldsmiths' were key financiers of the Roundhead Army and had invested over £17,000 in the Parliamentary cause, not only is there no evidence of East's objection but he was later to take ownership of property in West Meath, Ireland, as repayment of a personal loan to Cromwell's army. In contrast to Fromanteel, it appears that East was more politically astute by avoiding vocal support of a Republic or the Commonwealth.

East remained in London during the First and Second (1648-1651) Civil Wars, expanding his business and taking full advantage of opportunities. In the winter of 1648/9 he took what was perhaps his most poignant commission, an alarm watch for the imprisoned King, Charles I, which although dispatched via the Earl of Pembroke on 17th January went missing during delivery. By the time of the trial three days later, the watch could not be traced and the king remarked '*Ah! Had he not told the officer it was for me, it would have probably been delivered: he well knew how short a time I would enjoy it.*' Charles I was executed on 30th January 1649.

East's business was flourishing, as well as controlling the premises left by Edmund Bull, including *The Musical Clock* in Fleet Street, East had acquired a tenement and shop in St Clement Danes. In 1647 East was made 'Treasurer' of the Clockmakers', becoming its Master in 1653 for a second time. By 1657 East was also made 4th Warden of the Goldsmiths, given his duties he

required several managers working to his command, we know of his brothers, James and Jeremy (by now running Ram Alley and able to use foreign workers) and his son, also James, plus a small army of journeyman and apprentices.

In 1658, Ahasuerus Fromanteel pioneered the introduction of the pendulum in London, stealing a march on his competitors, but by the early 1660s East was also producing pendulum clocks. Initially, like the present example they were unlike his rival's, these evolved out of his traditional fare of horizontal table and lantern clocks; the plates pinned to the rear with floating motion-work, and housed by indigenous English cabinetmakers, interpreting but not following the refinement of Fromanteel's architect designed, foreigner-made, cases. These early pendulum clocks are often referred to as 'East school'.

Having prospered conspicuously during the Commonwealth, with the restoration of Charles II in 1660, East moved seamlessly into prominence as clockmaker to the king. Although not a lucrative position, it bestowed royal approval at a time when status was highly important, and by 1662 another warrant was issued making his son James clockmaker to the Queen. Thus East cemented the reputation of his dynasty and by the mid 1660s the 'East school' had also caught up technically with the 'Fromanteel school' and were producing clocks of equal refinement to their rivals, with lighter wheel and pinion-work, bridged motion work and lighter plates latched to the front. Now in his 60s, East was able to supplement his workforce with apprentices taken through his own ex-apprenticed journeymen, while also continuing to take apprentices through both Companies, the most celebrated of these was Henry Jones (1642-1695), who gained his Clockmakers' freedom in 1663.

In 1665 London experienced the worst outbreak of bubonic plague that century and just as the city was recovering, the Great Fire took hold in September 1666. Two of East's properties, Ram Alley and *The Musical Clock* in Fleet Street, were destroyed and it appears East was forced to retreat to his property in St Clement Danes, which had escaped destruction.

Over the following years it seems East's son James became increasingly central to the business. As well as jointly holding the royal warrant, the accounts of Sir Thomas Clifford show payment on 26 August 1671 of £34 for a *pendal clock and watch* to Mr East junior. While James managed the business, Edward East was made Prime Warden of the Goldsmiths' Company in 1671. Now almost 70, in that year the Clockmakers' applied for a coat of arms and he was described as *Edward East, the only person now living of those mentioned in the said Letters Patent of Incorporation* of 1631.

The London Gazette of 12 September 1672 records an advert from East ...*whoever shall give notice of this Watch to Mr Styles the Goldsmith in Covent Garden, or to Mr East the Watch-maker at Temple bar, shall be extraordinary well satisfied for their pains...* indicating East was now trading at Temple Bar. With the business at the height of its fame and succession seemingly secure, tragedy struck and his eldest son James died in 1674. James's untimely death gives us





a snapshot of the wealth the Easts had accumulated, and his estate was valued at the huge sum of £2027 10s od. He was owed over £1350 by wealthy debtors: the King and Queen, the Duke of Richmond, the Earl of Craven, Mr Rosewell the Queen's apothecary and the Chancellor of the Exchequer, Sir John Duncombe. As was often the case at this time, the vast majority of debt was from the Crown.

Now in his 70s, we see renewed evidence for Edward East at the helm of his business and he again took apprentices, whilst the influential post of Royal Clockmaker, held jointly by Edward and James, was offered in 1674 to Robert Seignior (1645-1686) on the death of Edward East. This might indicate that Seignior took over management of East's business and, at sometime after 1674, East moved out to Hampton on the outskirts of London.

In the event, East was to outlive Seignior by nearly ten years, but his business continued most probably under management. It is clear that good relations continued with East's former apprentice Henry Jones and in 1693, East and Jones placed £100 in trust with the Clockmakers' to pay five freemen or their widows, twenty shillings per annum. When the donation was recorded it was recommended that *...the Master and Wardens do go to Mr. East and give him hearty thanks for his charity.* This is the last record of Edward East alive and by now 91 years old, he was an extraordinary age for the time. He died between that date and the proving of his will on 23 February 1696, most likely in late 1695.



The Messer Fromanteel Circa 1663

A highly important Charles II ebony veneered and ebonised architectural striking verge longcase clock by Ahasuerus Fromanteel, London

Case design attributed to John Webb (1611-1672)



Height	6 foot $\frac{3}{4}$ inch (1850 mm)
Case	The slender ebony and ebonised pearwood veneered architectural longcase of delicate proportions. The ebony rising hood with very fine moldings to the triangular pediment and drip-moulded cornice, the tympanum mounted with a gilt-brass cartouche. The plain frieze supported by gilt-brass multi-piece Corinthian capitals on three-quarter tapered ebony columns to the front and matching half-columns to the rear, with typical matching gilt-brass rear-screw-fitted swag mounts to the front and sides between the capitals. The hood with inverted acorn finials below the columns, resting on the narrow ebonised trunk with ebony blind-fret shaped apron 'support' above the inset rectangular raised panelled trunk door with an eagle-head escutcheon, mounted straight to the trunk sides, that have matching recessed moulded panels. The plain ebonised pearwood-veneered plinth raised on four turned bun feet.
Dial	The 8 $\frac{1}{4}$ inch (208 mm) square brass dial, with traces of fire-gilding, signed <i>A: Fromanteel Londini fecit</i> along the lower edge, the corners applied with gilt-brass cherub head spandrels. The slender silvered chapter ring with Roman hours and later lozenge half-hours markers with Arabic minutes, every 5, within the divisions. The finely matted centre with calendar aperture above VI, shuttered winding holes, and well-sculpted hands in blued steel. The whole dial held to the movement frontplate by four latched dial feet.
Duration	8 days
Movement	The archetypal slender scooped-top rectangular movement with six finned baluster pillars, latched to the frontplate. The going train with bolt-and-shutter maintaining power for the verge escapement and short bob pendulum. The strike train is governed by a high positioned outside countwheel to the backplate, striking the hours in the early Renaissance manner via the vertically pivoted hammer arbor on the bell above. The whole movement raised on seatboard blocks, the bottom pillars secured onto iron taper pins and held by later screwed hooks.
Escapement	Verge with short bob pendulum
Strike Type	Countwheel hour striking
Provenance	27 July 1955, bought by Samuel Messer from Mallet, the invoice endorsed by RW Symonds; Christie's, The Samuel Messer Collection, 5 December 1991, lot 37 sold to; Private collection UK, until sold by Ben Wright 2014, for £275,000; John C Taylor Collection, inventory no.157
Exhibited	1969, The First Twelve Years of the English Pendulum Clock, loan exhibition at RA Lee, Bruton Place, London, exhibit no.9; 2018, London, Innovation & Collaboration, exhibit no.30
Literature	Lee, <i>The First Twelve Years of the English Pendulum Clock</i> , Exhibition Catalogue 1969, pl.26; Fabian, 'Could it have been Wren?' <i>Antiquarian Horology</i> , Vol.10, No.5, Winter 1977, p.550-570, fig.50; Dawson, Drover & Parkes, <i>Early English Clocks</i> , 1982, p.119, 166, pl.146-47, 219-20; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.176-177, illus.







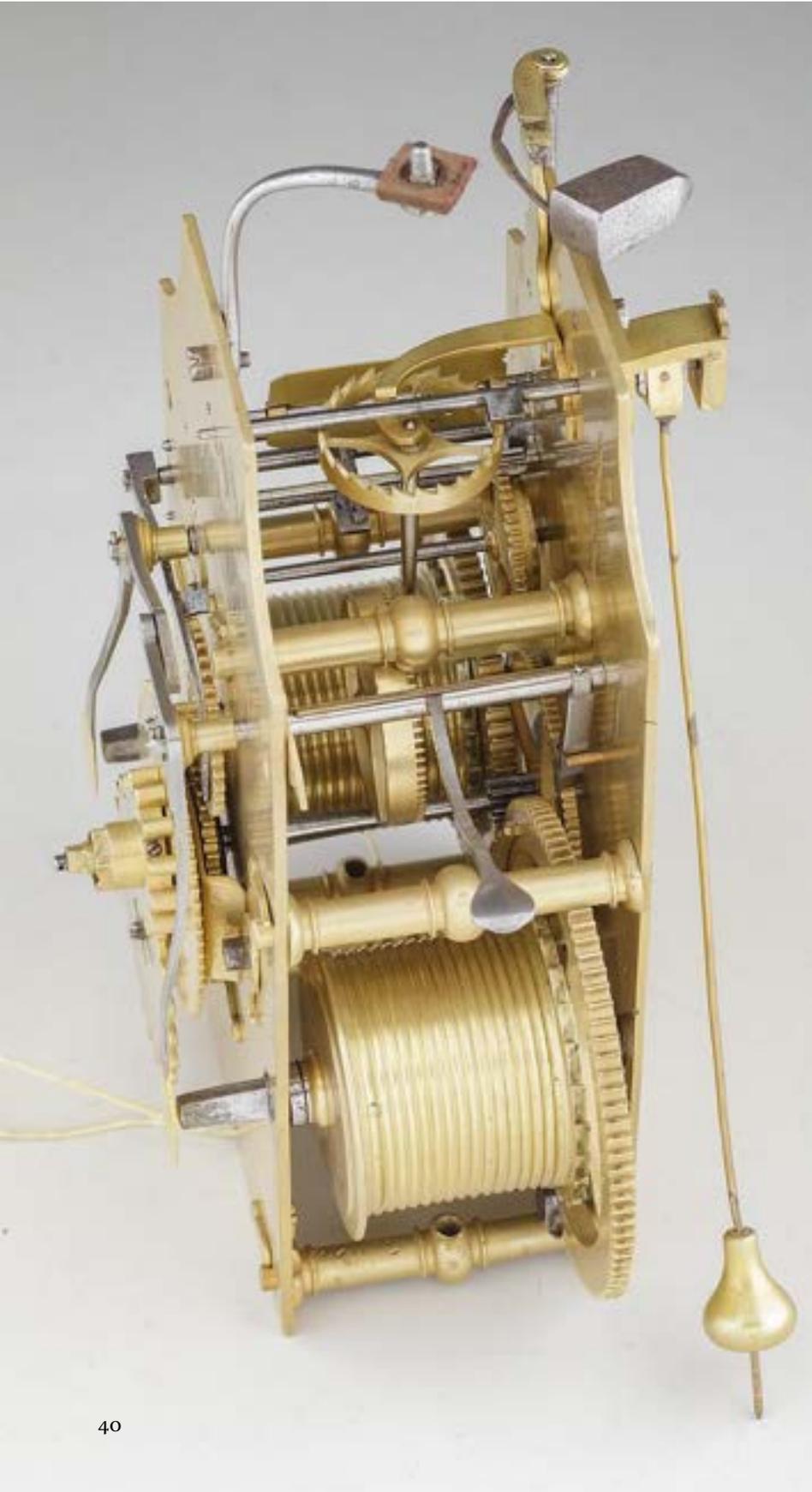
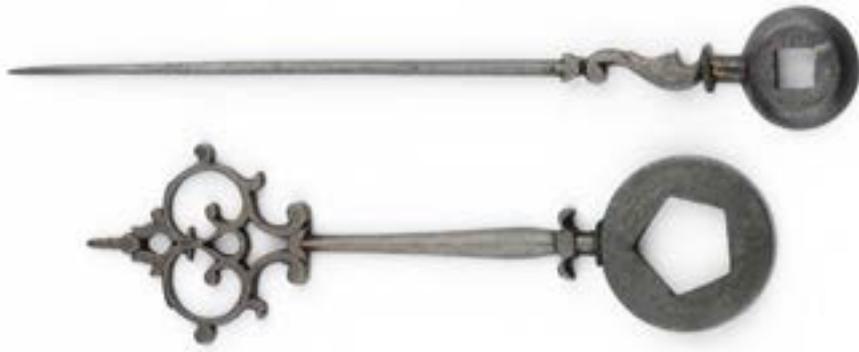
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- Comparative Literature Cescinsky, *The Old English Master Clockmakers and their Clocks 1670-1820*, 1938;
 Symonds, *Masterpieces of English Furniture and Clocks*, 1940;
 Symonds, *A Book of English Clocks*, 1947;
British Clockmaker's Heritage Exhibition, 1952;
 'Huygens Tercentenary Exhibition,' *Antiquarian Horology*, September 1956;
 Lee, *The Knibb Family Clockmakers*, 1963;
 Edwardes, *The Grandfather Clock*, 1974;
 Tom Robinson, *The Longcase Clock*, Antique Collectors' Club 1981;
The Noel Terry Collection of Furniture and Clocks, 1987;
 Dawson, *The Iden Clock Collection*, 1987;
 Derek Roberts, *British Longcase Clocks*, 1990;
Horological Masterworks, 2003;
Huygens' Legacy, 2004;
Horological Treasures of the Lord Harris Collection, 2017
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This important longcase clock belongs to a very small and exclusive group of early weight-driven pendulum clocks by Ahasuerus Fromanteel, first conceived as wall clocks but contemporaneously updated to the then new-fashioned, long-cased format. These extraordinarily rare clocks demonstrate the rapid transitional period that English clock casemaking was going through in the early 1660s: for a short period, hooded weight-driven pendulum wall clocks were supplied as a more sophisticated continuation of a wall-hung format that would have been familiar to Fromanteel's customers, and still available, the lantern clock (see exhibit 4, p.24-27). Another example with a similar contemporaneously upgraded ebonised trunk can be found at the Victoria & Albert Museum (accession number W.10:1 to 5-1963). While examples of early pendulum hooded wall clocks of a similar date can be found in *The British Clockmakers' Heritage Exhibition*, 1952, No.84 and illustrated on the front cover, Dawson, Drover & Parkes, *Early English Clocks*, pl.214-215 and *Horological Treasures of the Lord Harris Collection*, 2017, front cover and p.25. All three of these examples exhibit similar truly architectural hoods with gilt-brass mounts and pendant under-finials.

This ebony hood is of Fromanteel's earliest truly architectural type, with a properly articulated cornice with drip moulding to the fully-expressed entablature, and a broad stylobate (base) on which the angle columns stand, those at the rear sides being of half-column form, and having multi-piece cast gilt-metal Corinthian capitals, plus pendant 'acorn' finials below, otherwise exclusive to Fromanteel's wall mounted clocks. The veneers are of ebony and there is an apron to the front applied with blind strapwork, a relic of its initial conception as a wall clock. The contemporary trunk is, by contrast, veneered in ebonised pearwood, and has raised panels to the long door and to the recessed sides; there is no front trunk-frame and the door is hung directly on the trunk side timbers. Also in Fromanteel's earliest fashion, the dial chapter ring was originally intended to be faced in silver, but instead the lead brazing holes were filled with brass and silvered. The movement has comparatively narrow, early pattern scooped-top plates with the great wheels extending beyond the sides. Although the verge escapement is correctly positioned and has a fine typical backcock and potence, intriguingly the backplate has a filled 'key-hole' slot below, but this could have been a workshop error, particularly as there are no corresponding backcock fixing holes and its position is planted too low for an escapement. The hour striking is, as expected, governed using a high-positioned outside countwheel via an early, Renaissance-



A. Fromantel Londini fecit.

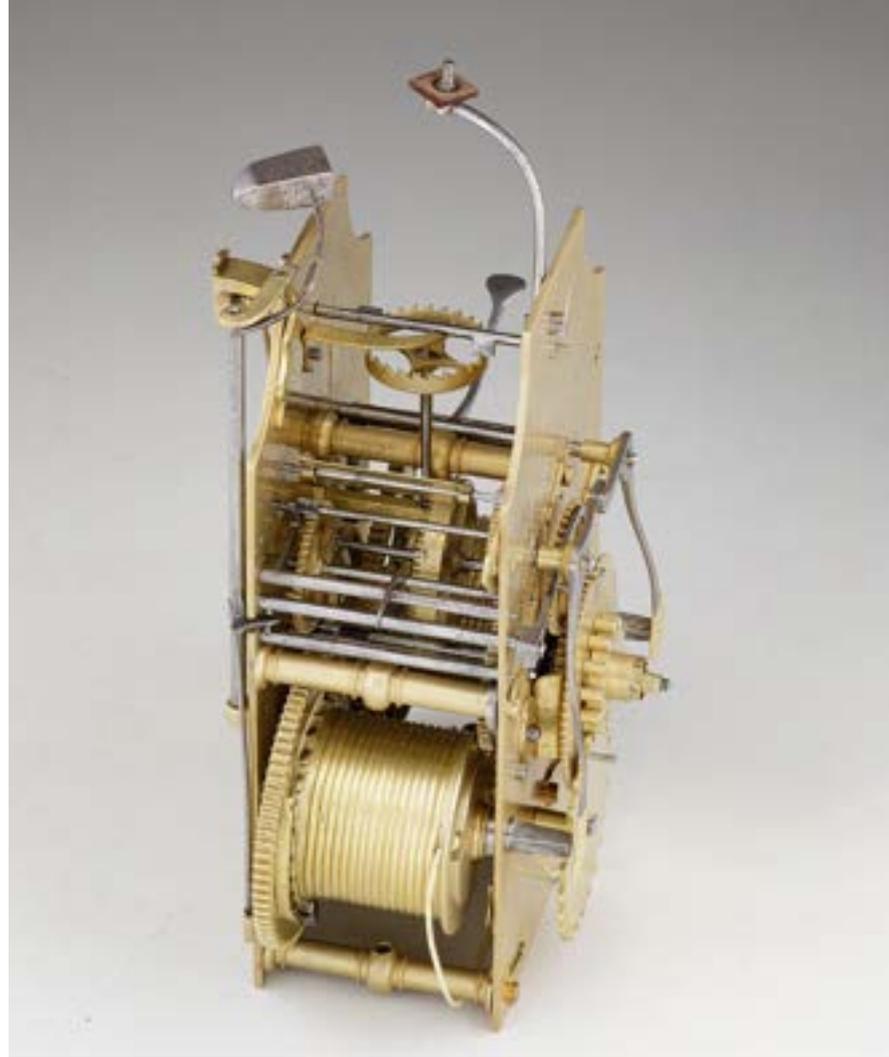


inspired, vertically mounted and pivoted hammer, and throughout the movement are archetypal, Fromanteel workshop, bent-brass cocks with well-shaped feet.

When the brand-new 'long' cases were introduced in c.1660-62, the first probably being the Norfolk Fromanteel (also in this collection, inventory no.41), it is apparent that the hooded format also initially continued - but, perhaps for practical as well as aesthetic reasons, they very soon lost popularity and, as with a very small number of other examples, Fromanteel contemporaneously upgraded this clock to the new longcase configuration. Not only did he utilise the complete ebony hood with under-finials, but he also retained the blind-fretted 'support' to integrate the design with the ebonised trunk, which would otherwise have had a convex throat moulding, as first developed and found on the Norfolk Fromanteel.

It is interesting to note that these scarce upgraded trunks were veneered in fruitwood, barely indistinguishable from ebony at the time they were finished, but undoubtedly a cost saving for Fromanteel. Arguably they also appear to re-affirm the idea that the workshop was batch-making to meet initial demand for early pendulum clocks in the early 1660s, at a time when Fromanteel did not have royal patronage, but was undoubtedly leading the horological field, and held the commercial upper-hand.

However, he still needed to be cost-conscious and his initial advantage would soon be challenged by his rivals, particularly Edward East, who had essentially 'caught up' with his workshop by the mid 1660s. While this clock exemplifies the technical advances that Fromanteel had first introduced in London's competitive horological world, the rapidity of adopting his mechanical changes meant that, within the decade, the knife-edge verge escapement with short bob pendulum was to be superseded by the long pendulum, first using a cross-beat, to be followed almost immediately by the anchor escapement. The movement pillars, here riveted to the backplate and secured by latches on the front plate, was a format very soon adopted by all English clockmakers. Meanwhile the high-positioned outside countwheel was to be soon brought down the train, and on 8-day clocks mounted direct on the greatwheel. The vertically pivoted hammer arbor, here still in the Renaissance-clock format, was soon to be planted horizontally between the plates. With this dial, Fromanteel initially intended to face the chapter ring in expensive solid silver, and he was still using steady-pins for the spandrels; even the economic use of fire-gilding behind them ceased, possibly because the cost of labour, in marking out and careful application of the gold amalgam, outweighed the cost of a relatively small amount of gold.







The Musical Fromanteel

Circa 1663-65

A supremely important Charles II ebony veneered architectural and gilt-brass mounted 'experimental' musical spring table clock by Ahasuerus Fromanteel, London

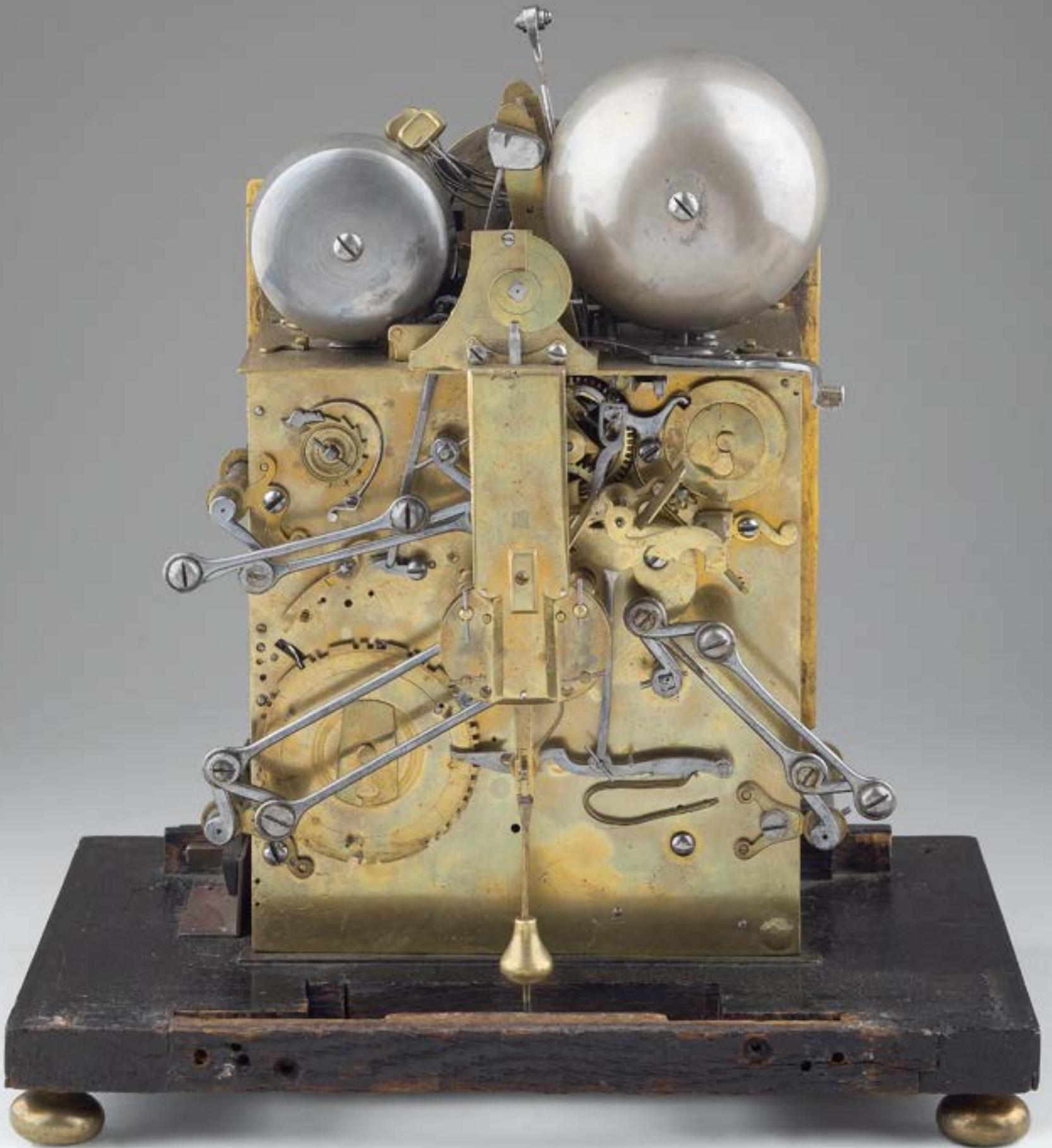


Height	15¾ inches (400 mm)
Case	The case of basic architectural form, with 'rising hood', of ebony veneer and mouldings onto an oak carcass. The simple flat-top main moulding, surmounted by a plain cushion dome top with central finial (working as a handle to lift-off the pad section to give access to the musical repeat lever), and flanked by four matching finials mounted above the columns. The dome top supported by gilt-brass moulded Doric capitals on three-quarter tapered ebony columns to the front door, with matching half-columns to the rear (Fromanteel's earliest architectural format), their gilt-brass bases resting on the main stylobate moulding. The separate square-edge-veneered base-board standing on four long-neck brass bun feet. The front door locking system is released in Fromanteel's usual manner, via a turn-square to the right (III) side. The whole columned and domed case structure lifting off the wooden base-board, like a longcase clock hood, from the rebated un-veneered oak backboard, which itself slots into the base-board, and is screw-fixed, but removable.
Dial	The 7½ by 8 inch (190 x 200 mm) rectangular brass dial signed <i>A: Fromanteel Londini fecit</i> along the lower edge, the corners applied with gilt-brass cherub head spandrels. The slender solid-silver faced chapter ring with Roman hours and <i>fleur-de-lys</i> half-hour markers with Arabic minutes, every 5, within the divisions. The finely matted centre with subsequent mock pendulum below the regulation sector, and well-sculpted hands in blued steel. The whole dial held to the movement frontplate by four latched dial feet, of different lengths on either side, with the going motionwork mounted to the dial back.
Duration	30 hour
Movement	The extraordinary and complex musical movement, with a triple divided and stepped frontplate held by thirteen latched fined baluster pillars of two different lengths, mounted above is a further horizontal top-plate, for the bell assemblies and snail pendulum regulation, fixed with four latches via riveted studs to the top of the main vertical plates. The going train is positioned within the top right-hand (III) side in the slimmer, 2 inch deep, section with early-form flanged spring barrel, fusee and angled verge escapement (original anti-friction roller-cage present), now pivoted with spring-suspension regulation and short bob pendulum. The hour and quarter train is mounted below (III side) and governed by a large outside countwheel, mounted on the backplate, the hammer tails mounted in a pumped frame, via a face cam on the cannon wheel, up to hammers on the top-plate, sounding ting-tang quarters with the hours struck on the largest bell. The music train is within the deeper, 3½ inch, divided-movement section on the left (IX side) and is tripped and set off by three pins (repositioned) on the countwheel, now at V, IX and XII, or manually by a lever at the top, and governed by a single slotted outside countwheel. The flanged spring barrel with fusee (innovatively extended for the extra depth), and greatwheel driving the large changeable two-tune music barrel, engraved and pinned for the <i>Granadeers</i> [sic] <i>March</i> and <i>Western March</i> , which is sprung, and pumped by a forked selector on the top-plate, via a lever through the left (IX) side of the case.
Escapement	Pivoted verge with crutch and spring suspended short bob pendulum with remote regulation square through the dial plate above XII
Strike Type	Countwheel hour and ting-tang quarter striking, and playing music on 10 bells at V, IX and XII o'clock
Provenance	Prior to 1930, JHS 'Hansard' Watt of London: After 1930, purchased by dealer AS Vernay, of London and New York, and sold to; Private collection USA, where it was 'the clock that sounded the New Year in on American radio,' until 1958: RT (Peter) Gwynn collection, UK, inventory C1; John C. Taylor Collection, inventory no.62





A
Tomantec Londini fecit





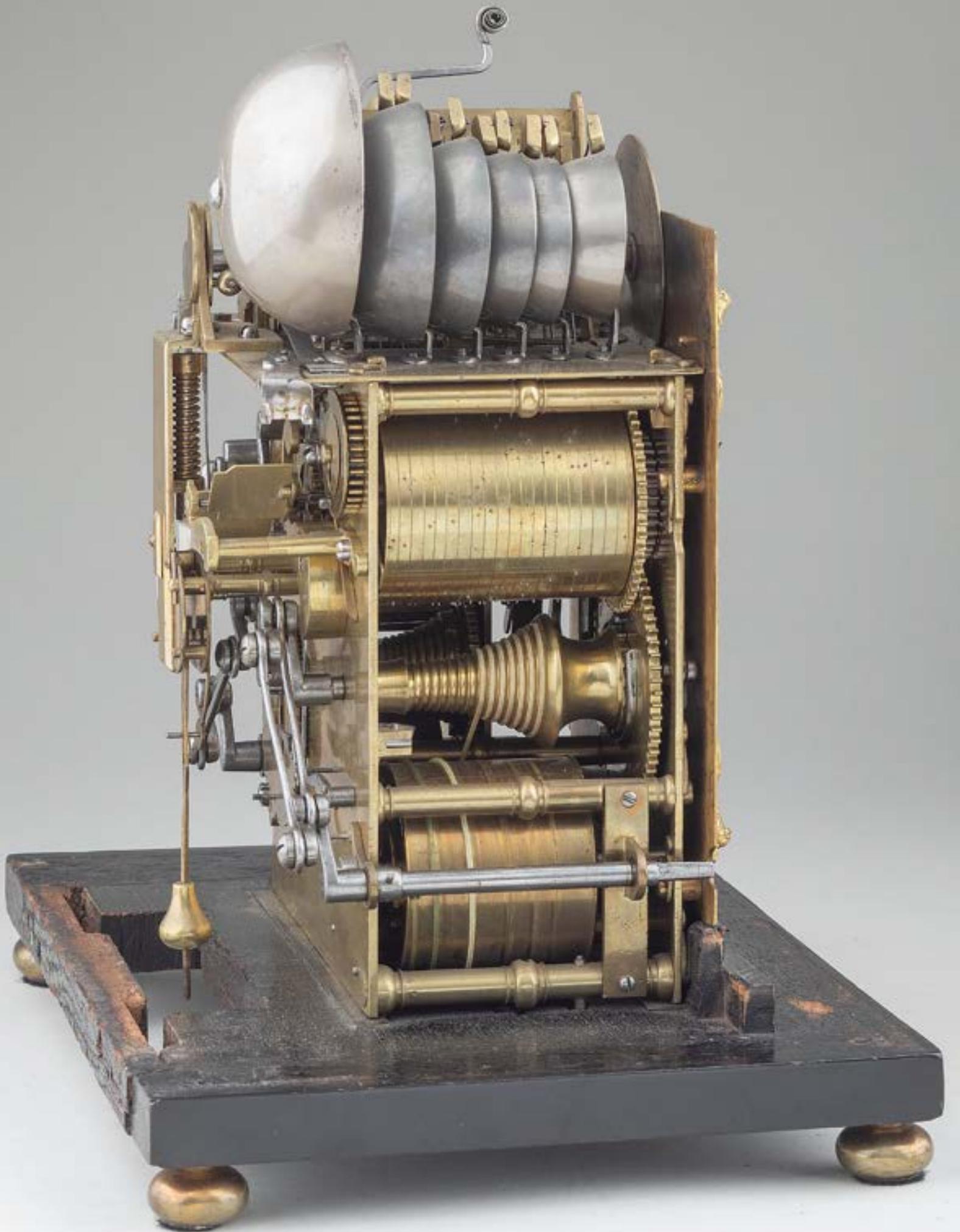
Exhibited Winter 1960-61, Age of Charles II Exhibition, The Royal Academy;
 1969, The First Twelve Years of the English Pendulum Clock Exhibition,
 Bruton Place, London, exhibit no.6;
 2003, Horological Masterworks, Oxford Museum for the History of
 Science, and the Walker Art Gallery, Liverpool, exhibit no.14;
 2004, Holland, Palais Het Loo, Huygens' Legacy, exhibit no. 27;
 Sept. 2010, London, Swedenborg Society, Antiquarian Horological Society
 lecture on 'Ahasuerus Fromanteel' by Rebecca Pohancenik;
 2018, Innovation & Collaboration, London, exhibit no. 38

Literature Cescinsky & Gribble, *Early English Furniture and Woodwork*, Vol. II,
 1922, p.327;
 Britten, *Old Clocks and Watches*, 3rd ed., 1922, p.503-5;
The Connoisseur Magazine, June 1959, 'Fromanteel's Portrayal of Thing's
 to Come', p.40-43;
Illustrated London News, 28 Jan. 1961, p.146;
Antique Collector Magazine, Feb. 1961 Dawson (& Parkes), 'A Spring-
 Driven Musical Clock';
 Lee, *The First Twelve Years of the English Pendulum Clock*, Exhibition
 Catalogue 1969, no.6, pl.21, 22, 23 & 24;
Antiquarian Horology, June 1969, M Hurst, 'The First Twelve Years of
 the Pendulum Clock', p.150;
 Dawson, Drover & Parkes, *Early English Clocks*, 1982, p.93, fig.115, p.502-
 512, fig.744-50;
RT Gwynn Collection Catalogue, private, 1990, inventory C1;
Horological Masterworks, Oxford, 2003, p. 62-67;
Huygens' Legacy, Holland, 2004, p. 72-75;
 Garnier & Hollis, *Innovation & Collaboration*, 2018, p.176-177

JHS 'Hansard' Watt was a sometime poet, and well-known literary agent. His collection of humorous poems *Back Numbers* was illustrated by Lady Sybil Grant and published in 1914. Hansard was the grandson of AP (Alexander Pollock) Watt (1834-1914), who is considered the first true literary agent.

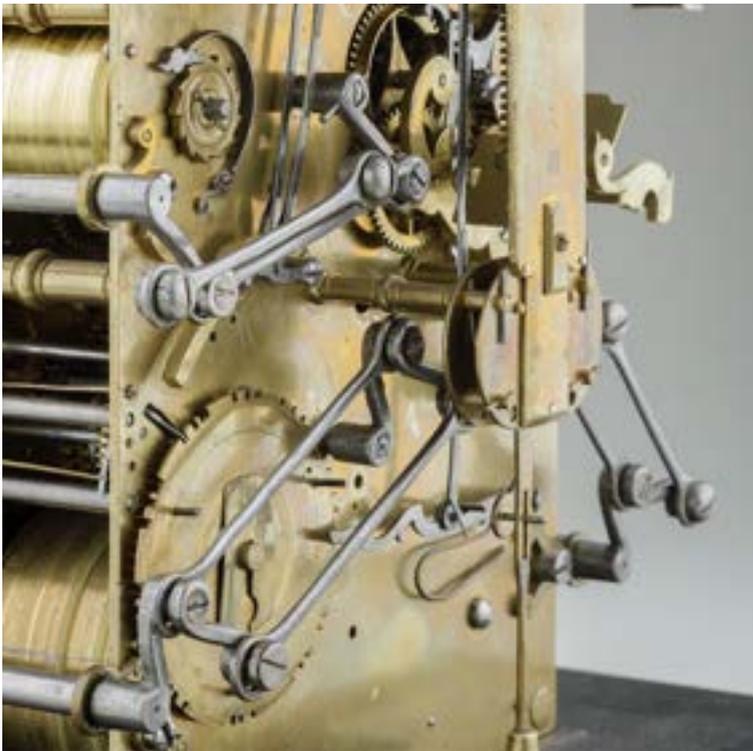
AP Watt had moved from Glasgow to London to work as a reader for Alexander Strahan's publishing company and by 1876, he was promoted to partner in the recently incorporated Strahan & Co. By 1878 he was operating as an advertising agent, selling space in Strahan's stable of periodicals. Through his experience at Strahan & Co., Watt became acquainted with many of the leading authors of his day, such as Wilkie Collins, Arthur Conan Doyle, Thomas Hardy, and Rudyard Kipling, all of whom later became his clients. AP Watt started working as a literary agent in 1875, when his friend, the author George MacDonald, asked him to negotiate a contract with a London publishing company. By late 1881, AP Watt incorporated his business, creating AP Watt & Co. and began to define the role of the modern literary agent. The agency is considered the world's first and, for a time, was the largest as well.

After AP Watt's death in 1914, his son AS Watt took over the literary agency, which became AP Watt & Son, the company was world-renowned and soon included his sons: Hansard, William and Peter. Together they had attracted many of the most important and best-selling authors of the time, among them Pearl Buck, GK Chesterton, Robert Graves, W Somerset Maugham, Rafael Sabatini, Nevil Shute, Mark Twain, PG Wodehouse, WB Yeats, and HG Wells. By 1965, the last surviving member of the family, Peter Watt, had died and it ceased to be a family-run business, but continued to operate in London until 2012, when the oldest literary agency in the world, was sold to one of the youngest, United Agents.



This extraordinarily important musical and quarter striking spring table clock has the most complicated movement of any made in the first twelve years of the pendulum, and both case and movement retain evidence of experimental developments, while the early Fromanteel features remain and are indisputable. In their notes produced for RT Gwynn, Percy Dawson and Dan Parkes concluded: *There is little doubt that this clock remained in the Fromanteels' workshop from approximately 1660 to 1666, during which time alterations were made by way of experiment, resulting in a clock without parallel.*

The case is of simplified architectural form and is one of the earliest departures from the architectural pediment and, from its movement features, conceivably started before the 'fishscale' dome top series spring clocks. Although with undoubted elements of restoration, and certainly anomalous in its lack of a frieze, hindsight might suggest the appearance of a case produced closer to the end of the decade, however the distinctive, and arguably archetypal, Fromanteel features belie this and ignore his renowned ability to innovate, conceive, develop and adopt new techniques and styles. In similarity to an early



longcase, and hooded wall clock (see Messer Fromanteel, exhibit 6, p.36), the 'hood' lifts off, leaving the backboard affixed to the base. This was unique and it endures as the first known 'rising hood' spring clock case. This was a design concept that Tompion would adopt, together with the casemaker Jasper Braem, but not until over ten years later, for his two-train Grande Sonnerie spring clocks in c.1677 (see p.114), although that series lifted-off in their entirety without a backboard. Whilst the top is of caddy type without a frieze, it retains the architectural features to the main body, the corner columns have Doric capitals, as found in the Oxford Science Museum Fromanteel longcase (Museum no.54420), and the Lord Harris hanging East

(*Horological Treasures of the Lord Harris Collection*, 2017, front cover and p.25). Whilst, arguably critically, to the rear are matching half-columns, Fromanteel's earliest architectural format, as seen on The Norfolk Fromanteel longcase (from this collection, inventory no.41), dating from before he introduced quarter-columns, set against upright fillets set behind, in c.1665. Meanwhile, the front door is secured in archetypal fashion, by a catch with a square, key-operated at the side, in similarity to almost every Fromanteel case dating from his introduction of the pendulum to until he departed from London in 1665, because of the Great Plague. Initially, Fromanteel sought safety in East Anglia, but he soon departed to the continent, not to return to London for over ten years.

The fire-gilded dial is consistent with Fromanteel's other early clocks, the centre is finely matted and with fine winged cherub head corner spandrels, while the absence of winding holes is reassuring. The chapter ring is brass-backed, with a thin plate of solid-silver lead-soldered to the front, in the manner which only Fromanteel appears to have been doing at this time, while the sector aperture below XII for the rise and fall regulation is apparently unique.

Meanwhile, the movement is of supreme horological importance, as the very first musical clock recorded or known with pendulum. Looking at the front of the clock, the going train is contained in the upper right-hand (III) side of the movement, the striking and quarter train is planted below it in the lower right part, and the musical train is contained on the whole of the left-hand (IX) side. The going and striking trains are of similar depth and the right-hand side half frontplate is again split horizontally. The musical train is considerably deeper and occupies the whole of one half-plate. Further splitting of this is not necessary, as the hammers and bells are on a platform which is positioned on top of the main plates.

It retains a 'remnant' roller-cage on the backplate, for anti-friction wheels as used in the aforementioned Norfolk and Oxford Science Museum longcase movements, as well as in an early spring clock by Edward East. The verge is now pivoted and works with a spring-suspended bob pendulum with regulation through the dial. These are later features, but probably experimental upgrades undertaken in Fromanteel's workshop, as seemingly confirmed by the concurrent and consistent regulation disc and dial aperture. Dan Parkes was more absolute in his notes ... *the present verge was undoubtedly altered before the clock left Fromanteel's workshop.* The method of winding is also ingenious, original and unique; operating by means of a series of levers and cranks to their respective fusees, (shown left) that allows the winding arbors with their key-squares to be set to the sides of the dial, which are only visible when the front door is opened. On the other hand, the mock pendulum is a subsequent addition, almost undoubtedly by a later clockmaker, perhaps undertaken in the 1680-90s. However, its inclusion has undeniable logic, as it serves to complete the set of features required to operate the clock entirely from the dial, without the necessity to remove the hood.



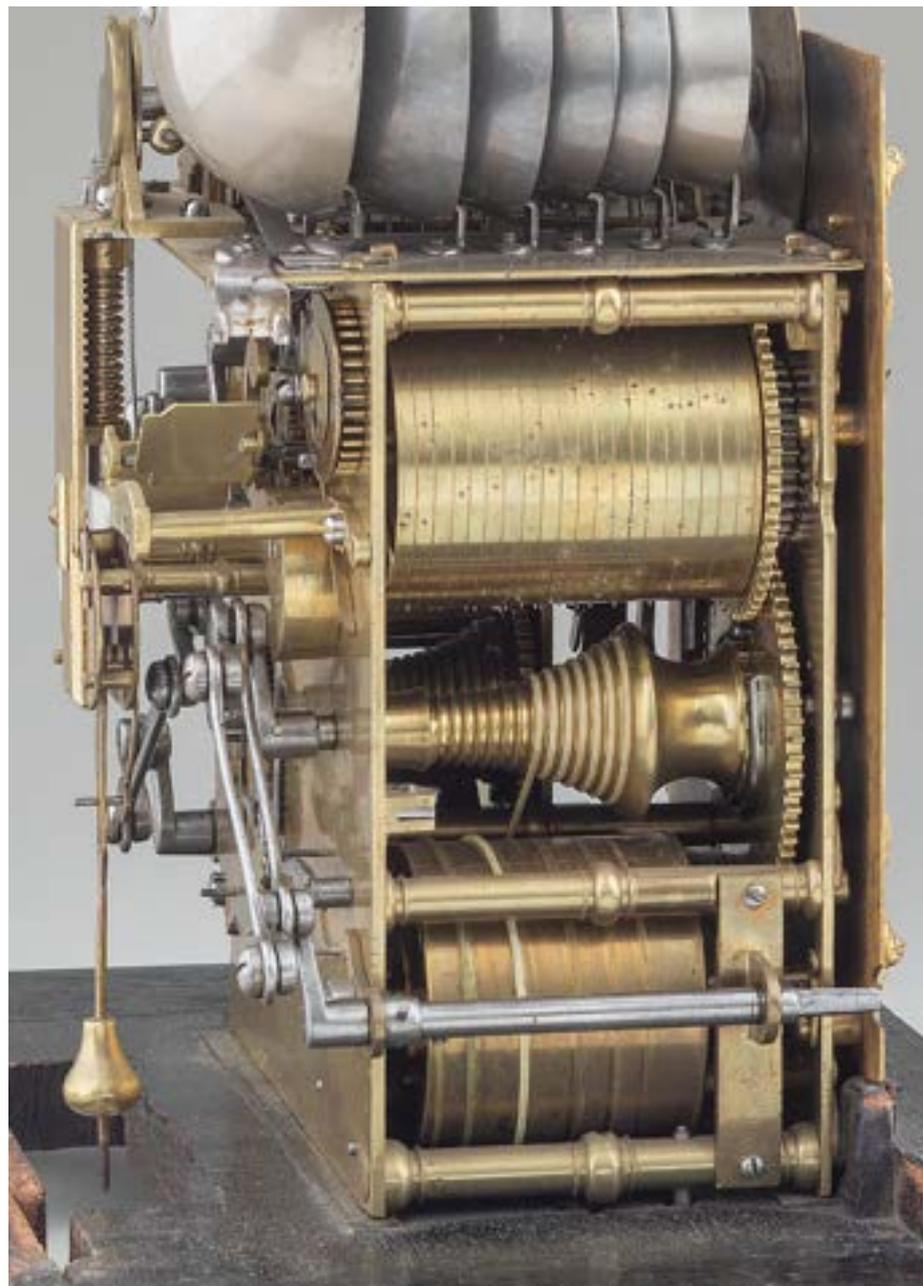
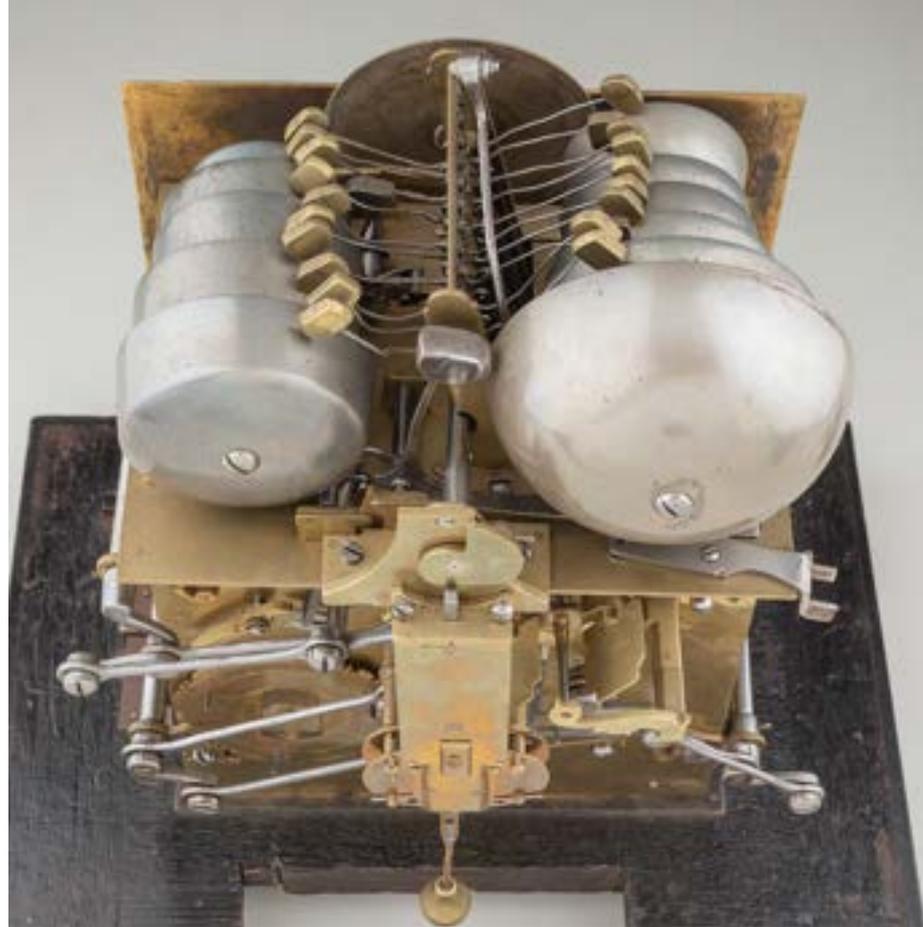


The Movement in more detail

The rise and fall consists of a long horizontal arbor squared through the dial for adjustment, with a disc divided into 100, with Arabic numerals at each fifth division. The back end of this pivots in a substantial cock, screwed to the top-plate, with a snail on the rear end. Below is another vertical plate, the bottom of which is fixed to the remnant roller-cage and arranged between, is a helical-spring-loaded arbor bearing upwards on the snail. The bottom end holds the suspension spring and rod, that slides through the crutch, thus lengthening or shortening the effective length of the pendulum.

The going train uses the customary four wheels, fusee and spring barrel, but they are contained in such a small area that considerable ingenuity has been employed to fit it all in, and necessitated the crown wheel and pinion being positioned at an angle, as found in Fromanteel's earliest 'Box' pendulum clocks. The rear verge and crown wheel pivots are in a block riveted to the back plate, which is of the earliest accepted design for pendulum clocks. The Striking and Quarter Train also employs the customary four wheels and pinions and must supply 150 blows during twelve hours; 78 for the hours and 72 for the ting-tang quarters. As there is insufficient space between the plates to contain the fly, this has been placed on cocks to the front plate. The musical train spring-barrel, fusee, main wheel and pin barrel occupy the left (IX) side of the plates from top to bottom and it was necessary to position the wheels outside of the back plate. The arbors of the hoop wheel and warning wheel extend for the full depth of the frames but the hoop wheel is positioned on a plane with the back plate, with a cut-out to accommodate it, and the warning wheel is positioned outside, and these are cocked. The fly is also cocked but runs outside of the backplate. The countwheel is mounted on a stud outside and driven by a pinion, squared on the back pivot of the pin barrel. The train is discharged by one of three pins in the striking and quarter locking plate through a system of levers and linkages. The pin barrel is ingenious and retained by a spring-loaded catch that can be withdrawn without dismantling the clock, suggesting that there were originally other barrels, which have since been lost.

The hammer and bell top-plate is held in position by four posts, which protrude through, with four latches to retain it, and each bell has its own individual stand. The hour and ting-tang hammers are positioned in pivot posts rivetted to the plate, ingeniously retained by end plates pinned to one of the posts and removable. The musical hammers are contained in a frame which is held down by two feet, a screw in each, the ends of which have been bent over in typical Fromanteel fashion to form steady pins. There are twenty hammers, ten working on each side of this frame.



John Wise, Warwick Circa 1665

An exceedingly rare and unusual Charles II Provincial sycamore and pearwood box table timepiece



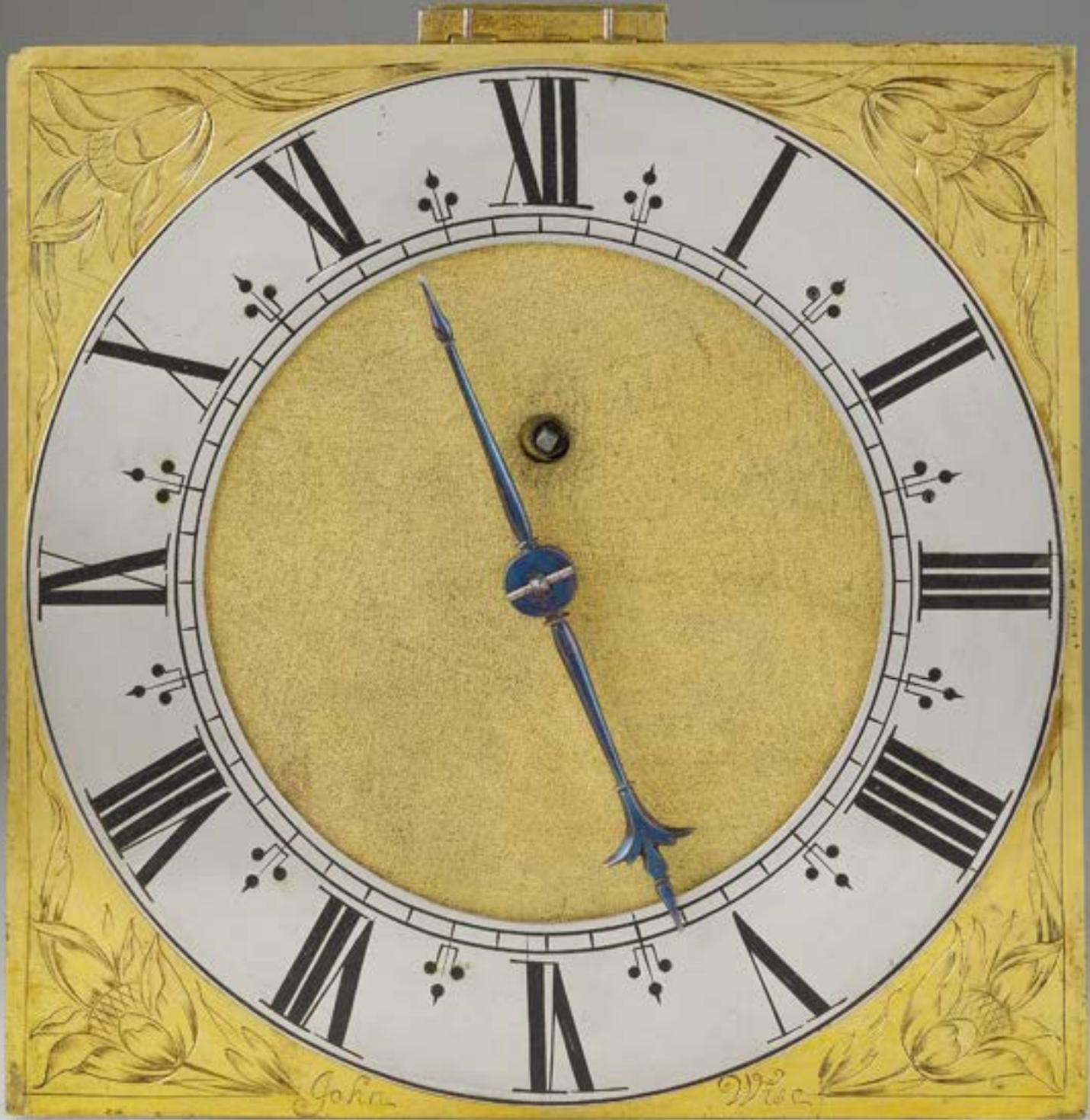
Height	8¾ inches (222 mm)
Case	The case of early box form with sycamore veneers and a solid pearwood box carcass with dovetailed corners, surmounted by a carrying handle of unusual tulip-sculpted and tear-drop centred design. The glazed front door lap-jointed and mitre-veneered in sycamore with a solid-pearwood mitred mask behind, and with a solid back door (with signs of earlier hinges). It is conceivable that the case was dual-purpose, to be alternatively hung on the wall, as the early Coster and Fromanteel box clocks. The surfaces have been stained to a walnut colour and it was possibly originally ebonised. The whole case stands on brass corner squares, with squat bun feet below.
Dial	The 6½ inch (165 mm) square gilt-brass dial with finely engraved tulip corners within an outer frame line, interrupted by the signature <i>John Wise</i> along the lower edge. The silvered brass chapter ring with quarter division ring and Roman hours with <i>fleur-de-lys</i> half-hour marks between. The finely matted centre with winding hole below XII and a well-sculpted counterpoised blued steel hour hand. The dial held to the movement by three pinned dial feet, and into the case by two bent-brass brackets.
Duration	2 days
Movement	The slightly tapered movement with tall slender plates, held by two further horizontal plates top-and-bottom, riveted to the back and slotted to the front and pin-fixed. Planted with an off-set spring barrel and central chain fusee, with separate hand arbor driven by indirect gearing to the backplate, and governed by a knife-edge verge and crown-wheel escapement with short bob pendulum. The backplate with two high-positioned banking pins, to limit the pendulum, and a holdfast below, with corresponding bevelled backplate corner in which to park the bob.
Escapement	Knife-edge verge with short bob pendulum
Provenance	1980s-90s, The Time Museum, Rockford, Illinois, USA; The Time Museum Collection, Rockford, Illinois, USA, inventory no.3762, until sold; Sotheby's New York, 19 June 2002, lot 162 for \$10,157; John C Taylor Collection, inventory no.91
Exhibited	1986, New York, American Section of the Antiquarian Horological Society, Tenth Anniversary Exhibition, exhibit no.24; 2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.18
Literature	<i>Horological Dialogues</i> , vol.2, American section of the Antiquarian Horological Society, New York 1986, pages 68-69; <i>Horological Masterworks</i> , Oxford, 2003, p.82-83

John Wise was born *circa* 1625 and apprenticed to Peter Closon, the famous lantern clockmaker, and was Freed in 1646. He appears to have worked in Warwick between 1653 and 1668, repairing St. Mary's church clock, where his children were baptised, including John junior in 1658, Joseph in 1661, Thomas in 1663 and Robert in 1666. Wise had returned to London by 1670, there taking ten apprentices, including all of his aforementioned sons. His death is believed to have occurred at some time between 1690 and 1693.

The carrying handle is of an unusual design, but not unprecedented to Wise's *oeuvre*; this tulip-shaped handle, with the teardrop centre deleted, can be found on an large Dutch striking ebony table clock, of Knibb's Phase I type, by John Wise of *circa* 1675 (private collection, Cornwall), as well as an early Tompion of similar style and date (illustrated in *Early English Clocks*, pl.458 & 602).







The dial corners are pleasingly engraved with naive foliage and early tulips, the early cursive signature is 'un-located', while the silvered chapter ring is slightly wider than most early pendulum clocks, all perhaps in confirmation of its provincial heritage. The fusee winds clockwise and has normal stop work; the great wheel arbor floats in the fusee and is extended through the back plate where it carries the pinion of report, which engages a twelve-hour wheel mounted on the hand arbor that passes through the movement to the dial; while the single blued steel hand is of an elegant sturdy early design, well finished and rounded. All of which assist with dating this clock to c.1665, and indicates that it was likely made during his time in Warwick, between 1653-1668.



The Samuel Knibb Cupola Clock

Circa 1665

A much celebrated, highly important and very fine Charles II ebony veneered gilt-brass and silver mounted Dutch striking table clock by Samuel Knibb, London

Case design attributed to John Webb (1611-1672)



Height	25½ inches (645 mm)
Case	The four-sided architectural case, to be viewed in the round, is ebony veneered onto an oak carcass, and divides into three parts. The cupola is attached to a removable board with an ebony veneered and moulded pedestal below the gilt-brass cylinder, fretted and with four silver mask mounts in between, all below the foliate cast gilt-brass cupola topped by a gilt-brass relief cast foliate urn. The further detachable pediment and frieze section, removed using two screws, also releasing the front door, and consisting of two pediments to the front and rear, with four corner finials on socle plinths, both tympana have typical gilt-brass cartouche mounts. The main body of the case has ebony tapered three-quarter columns to each corner, which are embellished with multi-piece Corinthian gilt-metal capitals and Scotia bases. The detachable front door is pin-hinged to the left column with a typical gilt ribbon-tied swag mount to the top rail. The pin-hinged rear door is inset flush below a similar swag mount, while the glazed sides have smaller conforming swags above. Both doors are opened using a spring lock release system operated from the pediment by pushrods within the right side window. The main section with a conforming moulded step-base, resting on the ebony veneered rectangular fixed base section with four gilt-brass adjustable bun feet, screwed into the underside of each corner.
Dial	The 8¼ inch (209 mm) square gilt-brass dial plate is very finely matted with two bevelled and shuttered winding holes with a conforming square calendar aperture above VI, and a circular central reserve engraved with a Tudor rose. The narrow solid-silver faced brass-backed chapter ring, engraved with Roman hour numerals and bold <i>fleur-de-lys</i> half-hour marks between, the outer engraved for every Arabic minute, <i>0-59</i> , outside the division ring. The hour and minute hands are beautifully sculpted, pierced and bevelled in blued steel. Each corner is applied with a beautifully cast silver winged cherub spandrel, dot-marked in Fromanteel's format. The dial plate has fire-gilding applied sparingly to the visible areas only, and is secured to the movement via the four dial feet and attached using typical arched brass latches. The division and engraving of this clock could conceivably have been one of the last jobs executed by Henry Sutton (fl.1624-1665), with whom it has been sometimes cited that Samuel Knibb was sharing a workshop in Threadneedle St. from c.1662, until Sutton's untimely death during the <i>Great Plague</i> in late 1665 (Robert Moray letter of 10 October 1665, to Henry Oldenburg, ' <i>wee all here [in Oxford] are much troubled with the loss of poor Thomson & Sutton</i> ').
Duration	8 days
Movement	The unique Dutch-striking movement has brass rectangular plates, showing traces of the original fire-gilding. The frontplate divided in two, for each train and held together by eight slender baluster pillars, all individually latched. The wheel trains each have a large spring barrel and typical Fromanteel-shaped fusees with gut lines. The going train has a knife-edge verge escapement with single footed backcock and short, silvered bob, pendulum. The bolt-and-shutter maintaining power is activated via a long push-rod activated lever to the outside of the case, at the base of the cupola. The strike train is operated, via linkages, up to the bell and hammer extension plates mounted on the horizontal top-plate above, fixed by four latches in the Fromanteel manner. The hour train is governed by a countwheel with divisions enabling Dutch-striking on the larger hour, and smaller half-hour, bells. The plain backplate is boldly engraved <i>Samuel Knibb Londini Fecit</i> in flowing cursive script below centre in an arc.
Escapement	Knife-edge verge with short bob pendulum
Strike Type	Dutch, hour and half-hour, countwheel striking on two bells within the cupola

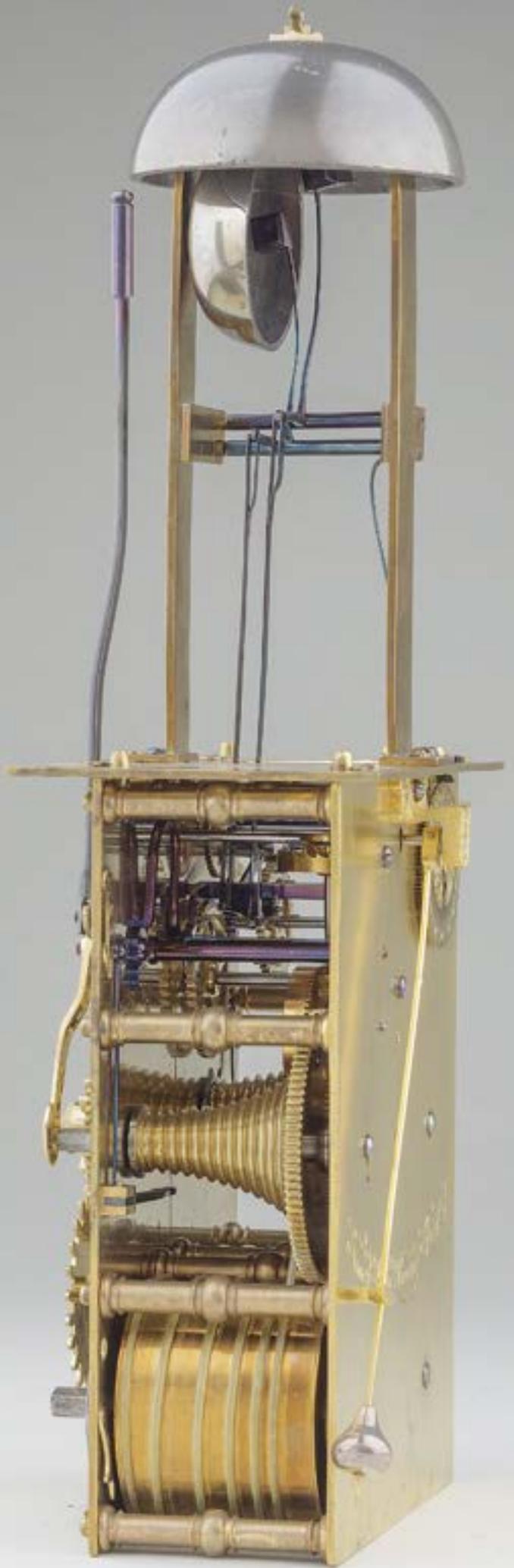
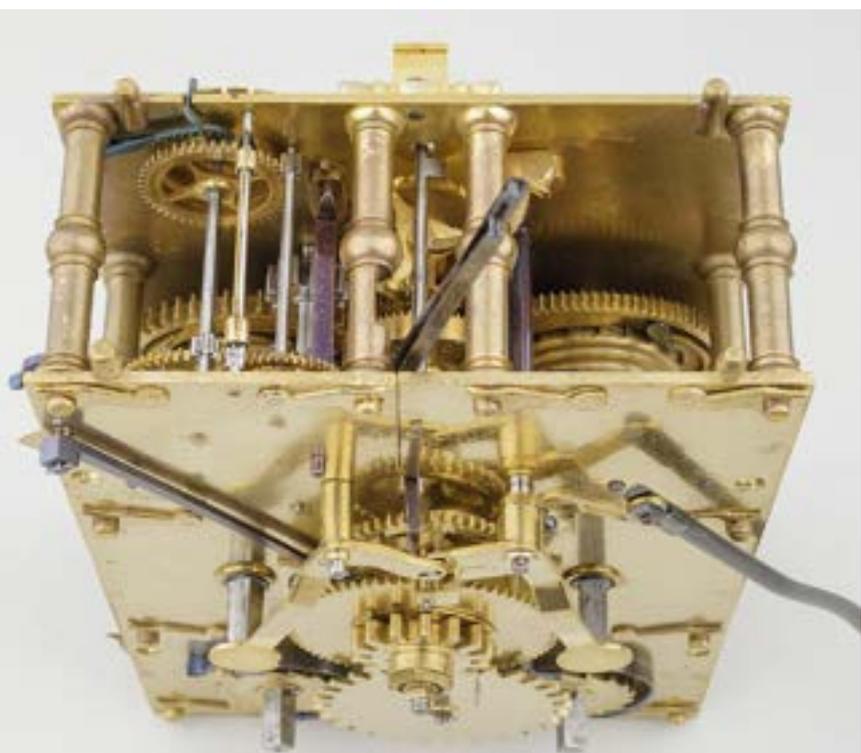




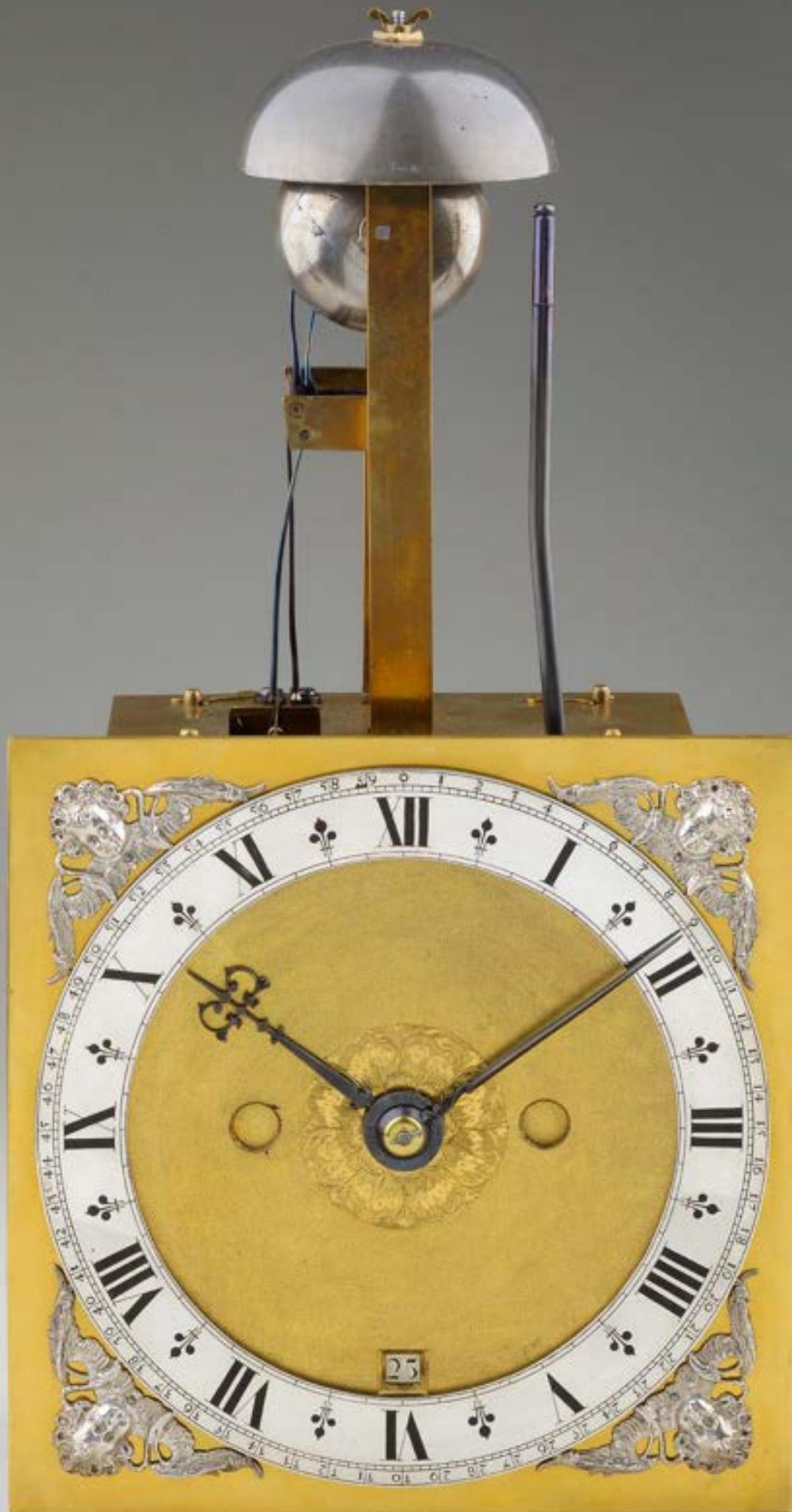
Provenance	<p>Most probably acquired from the maker c.1665 by Chaloner III Chute (d. 1685), thence by descent;</p> <p>The Chute family at The Vyne, nr. Basingstoke, Hants, until early 20th century [repair mark of A. Porter, Basingstoke, 1901 on movement];</p> <p>Mr Mullne, Cape Town, South Africa, 1962, sold to RA Lee;</p> <p>Peter Gwynn collection, UK;</p> <p>The John C Taylor Collection, inventory no.43</p>
Exhibited	<p>1964, Science Museum, Collector's Pieces Clocks And Watches, AHS Tenth Anniversary Exhibition, exhibit no.24;</p> <p>1969, The First Twelve Years of the English Pendulum Clock, Loan Exhibition no.13;</p> <p>2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.17;</p> <p>2004, Palais Het Loo, Holland, Huygens' Legacy, exhibit no. 30;</p> <p>2018, London, Innovation & Collaboration, exhibit no.49</p>
Literature	<p><i>Antiquarian Horology</i>, Sept 1963, Malcolm Gardner book advert for 'The Knibb Family Clockmakers', p.103 (illus.);</p> <p><i>Collector's Pieces Clocks And Watches</i>, 1964, exhibition catalogue, p.11, illus. p.63;</p> <p>RA Lee, <i>The Knibb Family Clockmakers</i>, 1964, p.53, 73, 102, 118 & 147;</p> <p><i>Antiquarian Horology</i>, June 1964, RA Lee, 'The Knibb Family Clockmakers', p.202-9;</p> <p><i>Antique Collector</i>, April 1965, PG Dawson, 'The Cupola Clock', p.71-75;</p> <p>RA Lee, <i>The First Twelve Years of the English Pendulum Clock</i>, 1969, no.13, pl.35-40;</p> <p><i>Antiquarian Horology</i>, June 1969, M Hurst, 'The First Twelve Years of the Pendulum Clock', p.151-3;</p> <p><i>Horological Masterworks</i>, Oxford, 2003, p.74-9;</p> <p><i>Antiquarian Horology</i>, Sept 2003, King & Taylor, 'Samuel Knibb's Cupola Clock, Modern Techniques and Restoration Decisions' p.499-501;</p> <p><i>Huygens' Legacy</i>, Holland, 2004, p.82-85;</p> <p>Garnier & Hollis, <i>Innovation & Collaboration</i>, 2018, p.213 & 216-217</p>

This highly important clock is one of two existing to this design and specification, the other by Ahasuerus Fromanteel (*Innovation & Collaboration*, exhibit no.49). Both appear to have been first owned by the Chute family: this example for their country seat, The Vyne in Hampshire (now National Trust); the other for their London residence, that was advertised as stolen from *Mr. Chute's house* at the upper end of Bedford Row, near Grays Inn, in *The Post Man* of 29 June 1700, and described therein as *an Ebony Case of about a foot square, made in the form of a house, with a brass urn at the top of each corner, and a Cupola with a cupid upon the top of it of brass gilt*.

It has long been accepted that Samuel Knibb likely had a hand in both examples and together, these matching clock cases with their apparent shared provenance was the catalyst for research by the horological and architectural historian, Richard Garnier, into the source of Fromanteel's architectural case designs, and his research was revealed at the Innovation & Collaboration exhibition in 2018. As described in the advertisement of 1700, both cases are *in the form of a house* and are in fact truly architectural. Their unique characteristics allowed for a specific attribution to the architect, John Webb (1611-1672), while the survival of over 200 of Webb's original drawings and designs provided the requisite comparative detail. Furthermore, associations between the leading historic characters in this story, appear to advocate that conclusion; Chaloner Chute I (c.1595-1659) had commissioned Webb to design the classical Palladian portico that was added to the front elevation of The Vyne in 1654 (see page 68).









Possible precedence

The two cupola clocks were designed with four-sided, architectural *tempietto* cases with three-quarter columns at each angle, for display in the centre of a room. With their similarities in appearance the two Cupola clocks form an obvious pairing, they both follow Fromanteel lines of design and construction and appear to re-affirm a possible association between Ahasuerus Fromanteel and Samuel Knibb. The two clocks' similarities suggest manufacture within a very short period, but the disparities indicate they are unlikely to have been made absolutely concurrently.

The Fromanteel comparative images (here and overleaf in black and white) appear to show a sequential progression; the use of a horizontal top-plate at this time suggests Fromanteel influence (see the Musical Fromanteel, exhibit no.7, p.44), and with their apparent links its use on the Samuel Knibb is not surprising, but the lack of it on the Fromanteel, suggests a level of planning and forethought in this clock, not apparent in the other. The Fromanteel case is in two parts requiring dismantling of the entire top to view and access the movement, but the Samuel Knibb divides into three, with the cupola on a removable board that provides much easier access. The locking mechanisms also differ; the Fromanteel



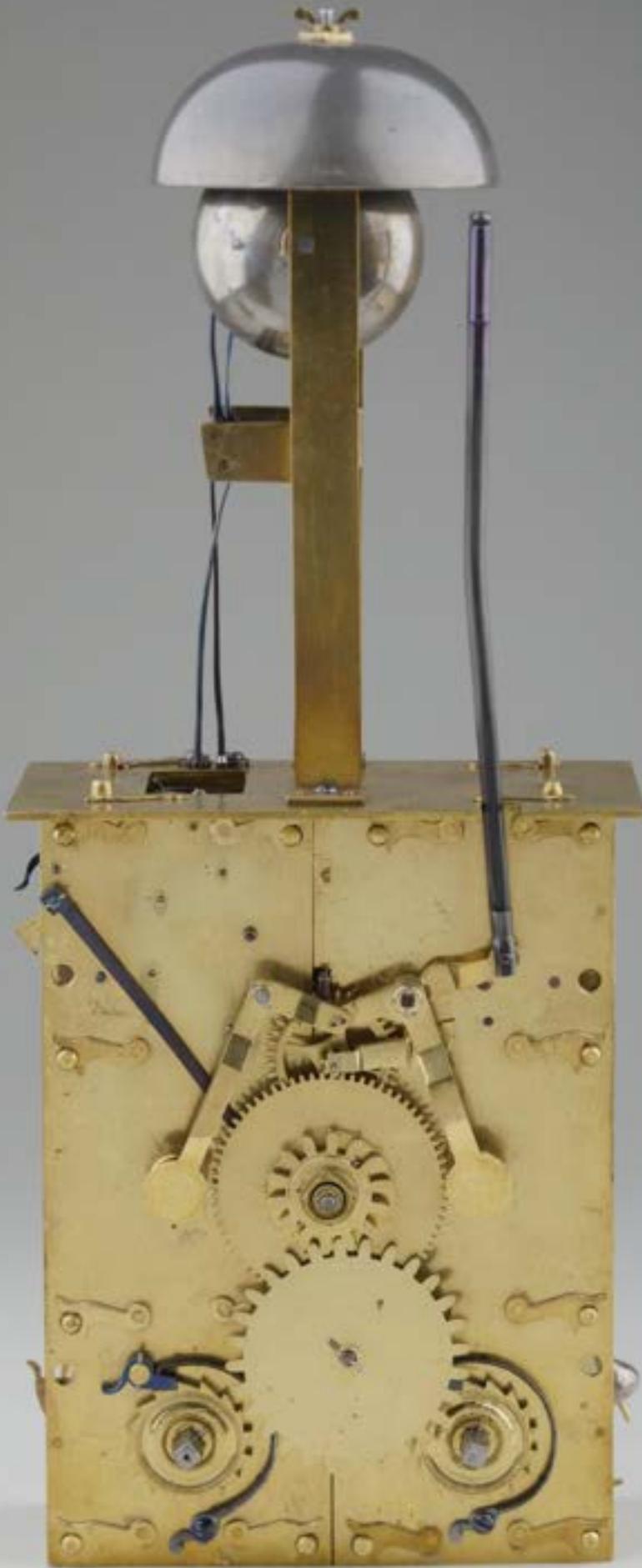
has a typical turn-key square, while the Knibb utilises innovative push-rods to release the doors. Together, the movement and case developments found in this clock would indicate an advancement, and these refinements suggest that the Knibb cupola clock is more likely to have evolved from the other, sequentially perhaps; making it highly likely that Knibb was involved in the production of the Fromanteel clock too.

Meanwhile, the reconstructed provenance of the clocks seemingly indicates that they were both owned by the Chute family: the Fromanteel clock being advertised in 1700 as stolen from their London townhouse at Bedford Row; the Knibb may have been at their country house, The Vyne, near Basingstoke, as implied by its repair marks. The commissioning of each might have been by two successive generations of the family: Chaloner Chute the younger (d.1666) perhaps ordering the first clock from Fromanteel just before the Great Fire and his own death; and the order for the second clock, by his son Chaloner III (d.1685), perhaps going direct to Samuel Knibb, as Fromanteel had then quit London, ultimately for Amsterdam. This succession of events agrees both with RT Gwynn's deduction of provenance for both clocks, and with RA Lee, M Hurst and DW Parke's separate pre-existing suggestions that Samuel Knibb was the possible maker of both clocks.

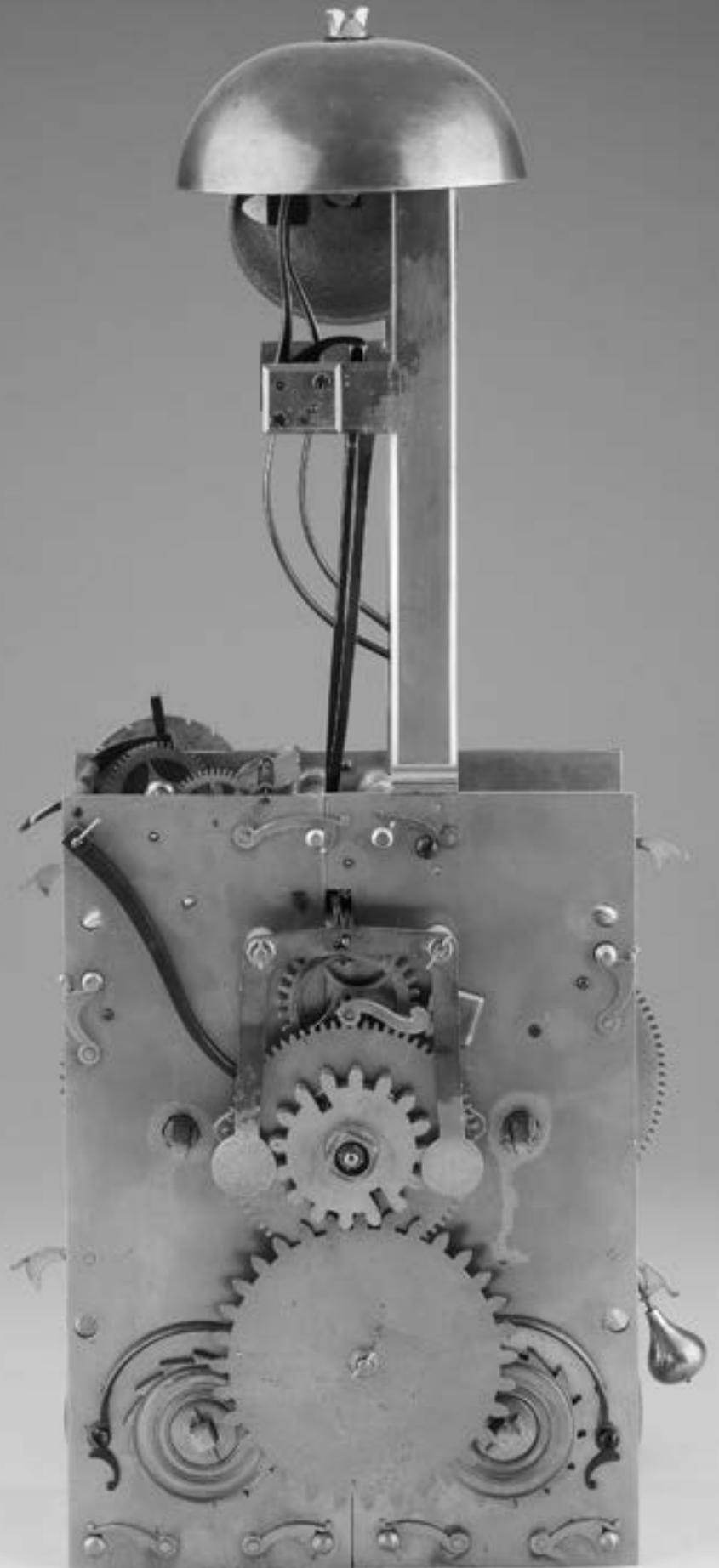


An alternative precedence

While the design attribution to Webb, and the shared provenance, seems assured, with his experience in development and manufacturing, Dr Taylor has put forward an alternative view on precedence, where this clock might have been made first, perhaps in c.1664. Directly after this, makers in London had to contend with two devastating disasters, the Great Plague (1665-1666) and the Great Fire (1666). The main supply chains for their brass and steel were disrupted, many workers had nowhere to live, and an economic slump was taking place. Meanwhile, the Chute family had probably left London during the Plague for their country house, The Vyne, near Basingstoke, in this instance perhaps taking their prized Samuel Knibb clock with them.



When the family returned, perhaps they purposefully left the Knibb at The Vyne, having already ordered a second clock for their London home. Fromanteel, with his larger set-up, needed the work and could perhaps, see cost savings in utilising one of his standard movements. As the countwheel and fly worked above the top of the plates, he added screwed extension plates; after all, the extra top plate in Samuel's design was expensive, but performs no mechanical function and is not seen. Arguably, the second order could therefore have been given to Ahasuerus Fromanteel simply on cost grounds, but before he departed for East Anglia in 1665 because of the plague. This alternative view leaves the question as to who made the first clock, still open for debate.



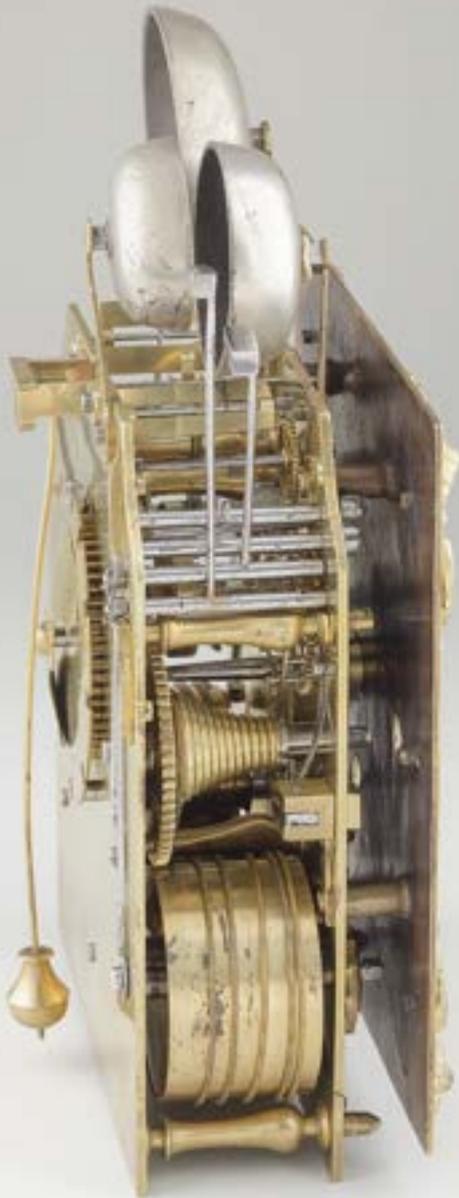
As explored by Garnier in *Innovation & Collaboration*, 2018, these architectural cases are attributed to the design of the Jonesean Palladian architect John Webb (1611-1672) who, significantly, was employed in 1654 by Chaloner Chute the elder at The Vyne to add the first classical portico to any English domestic house. Webb had just previously worked at Chevening House, Kent, for Chute's second wife's stepson, Lord Dacre, while his son Chaloner Chute the younger (the possible purchaser of the Fromanteel clock) married Dacre's daughter. Standing in the midst of repeated links to Webb's architectural practice, the Chute family in three succeeding generations may have employed him, first to alter their country seat, and in the two succeeding generations seemingly commissioning a pair of expensive clocks. The cases, although slightly different in size, are outwardly very similar and appear to have been designed by the same architect, perhaps even built from the same plans. Their tempietto-like form, while in praise of the advances in natural philosophy (science) the clocks represent, plus a sign of the owner's advanced taste, also possibly refer back to the portico added by their forebear a decade or so previously at The Vyne.





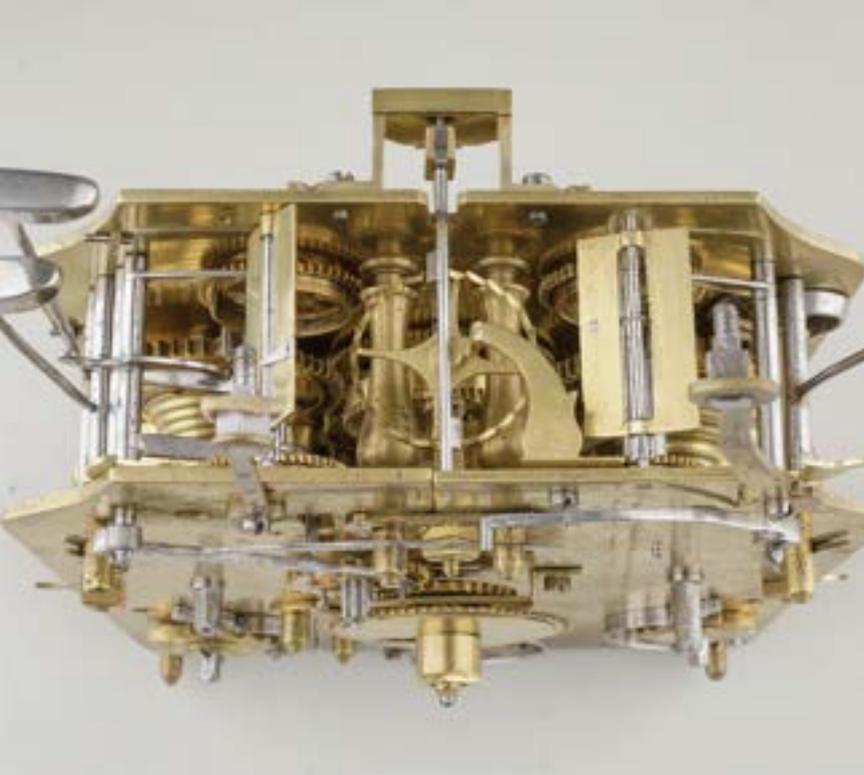
Edward Stanton, London Circa 1666

A very rare Charles II ebony architectural full-quarter striking table clock on a turntable base



Height	18¾ inches (478 mm)
Case	The case of architectural form with ebony veneers and mouldings onto an oak carcass, the full depth architectural pediment, set on either slope with matching raised rectangular panels above a plain frieze and projecting beyond the sides and front of the case below. The front door unadorned but appearing to be originally conceived to have three-quarter columns, the sides glazed and with similar allowance for quarter columns to the rear uprights. The fully veneered plain flat back with two sound holes behind the pediment, above the veneered solid door. All resting on the main plinth thumb moulding, and mounted on a square-edged ebony turntable base with ebony bun feet.
Dial	The 8 inch (205 mm) square gilt-brass dial with gilt-brass winged cherub's-head spandrels to the corners and signed along the bottom edge <i>Edward Stanton Londini Fecit</i> . The slender silvered chapter ring with inner quarter divisions, Roman hours and half-hour marks, the outer Arabic minutes engraved every 5, within the minute division ring with fine blued steel pierced and shaped hands. The polished centre with engraved Tudor rose and pierced by three winding holes. The dial is held to the movement by four latched feet.
Duration	3½ days
Movement	The substantial bottle-shape plated movement with split frontplate held by eight slender inverted vase-shaped pillars, riveted to the backplate and latched to the double divided frontplate, planted with three trains of four-wheels with shallow fusees and spring barrels; the hour strike train winding anti-clockwise and the going and quarter trains clockwise. The going train with knife-edge verge escapement and short bob pendulum, the quarter train governed by a pinned countwheel to the front and ting-tang striking at each of the four quarters on the two smaller vertically mounted bells. On the hour, after striking the fourth quarter, an extended pin on the quarter countwheel activates a trip lever, releasing the hour train to strike on the largest bell above, governed by the large countwheel on the backplate. The movement secured by swing clips holding the bottom corners of the backplate.
Escapement	Knife-edge verge with short bob pendulum
Strike Type	Countwheel hour and ting-tang full quarter striking
Provenance	RT Gwynn Collection UK, until sold; John C Taylor Collection, inventory no.45
Exhibited	2003, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.16; 2004, Holland, Palais Het Loo, Huygens' Legacy, exhibit no.29; 2018, London, Innovation & Collaboration, exhibit no.45
Literature	Dawson, Drover & Parkes, <i>Early English Clocks</i> , 1982, p.157-158, pl.205 and 206; <i>RT Gwynn Catalogue</i> , private, 1990, inventory C13; <i>Horological Masterworks</i> , Oxford, 2003, p.70-73; <i>Huygens' Legacy</i> , Holland, 2004, p.80-81; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.206-207
Comparative Literature	Lee, <i>The First Twelve Years of the English Pendulum Clock</i> , 1969, exhibit no.35; Hurst, 'The First Twelve Years of the English Pendulum Clock', <i>Antiquarian Horology</i> , June 1969, p.155, fig. 15 & 16; Loomes, <i>The Early Clockmakers of Great Britain</i> , 1981, pl.X (illus.)



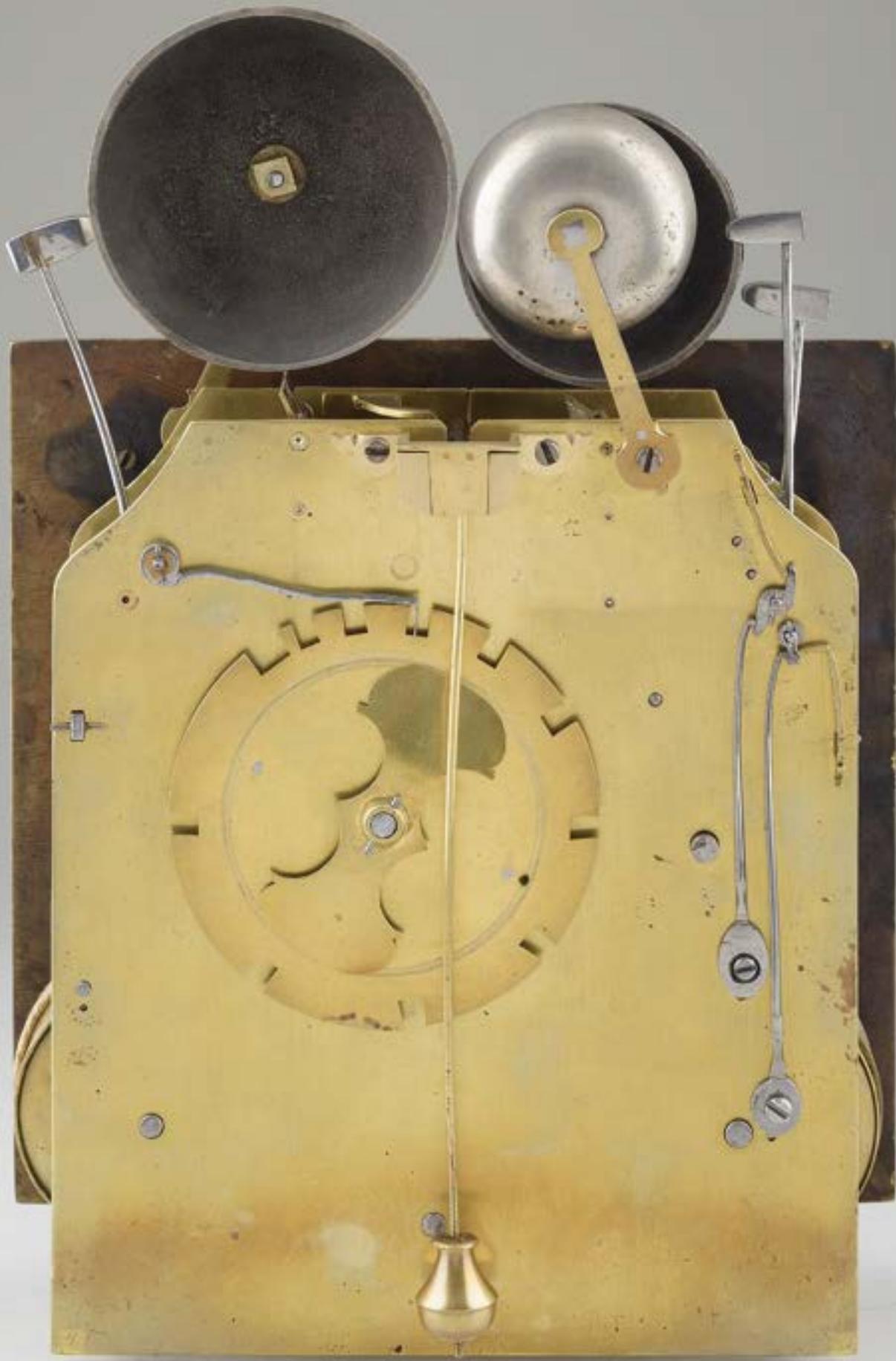


Edward Stanton of Leadenhall Street, was apprenticed in 1655 to Nathaniel Allen (or Francis Brown), receiving his Freedom of the Clockmakers' in 1662, becoming Warden in 1693 and Master in 1697. He continued to attend the Company until 1715, when it is assumed that he died.

There are only four early spring clocks known signed by him, perhaps suggesting the majority of his work at that time was for other makers, rather than sold under his own name. Nonetheless, three of the known clocks by Stanton are three-train, quarter striking clocks. In addition to the present clock, the other two three-train clocks are those in the Lord Harris collection (Lee, 'First Twelve Years,' 1969, exhibit no.35) and one formerly in the Wetherfield collection, (present whereabouts unknown). The fourth is a re-cased night clock, formerly in the Tom Scott collection (Garnier & Carter, *The Golden Age*, 2015, p.392-3).

Dawson Drover and Parkes number Stanton amongst the English makers of traditional bent who were slow to abandon the methods of clock construction carried over from the old-fashioned methods of Renaissance horizontal table clockmaking. However this example is testimony that Stanton did not follow such practices slavishly, the $3\frac{1}{2}$ day duration movement has shaped-top plates with inverted vase-shaped pillars riveted into the backplate and pinned through the frontplate and is full-quarter striking, all indicating a very fine, early and rare pendulum spring clock.









John Fromanteel, London

Circa 1667

A large and rare Charles II ebonised English architectural striking night spring clock with alterations and repairs



Height	3 foot 6½ inches (1080 mm)
Case	The restored Italianate Baroque tabernacle architectural case of ebony and ebonised fruitwood veneer onto an oak carcass. The scroll-sided pediment top with a cushion above, with replaced ball finials flanking and a concave cover above with an urn finial. All supported by a gallery with gilt-brass balusters above the frieze, inset with gilt foliate mounts to the front and sides. The break-front outset by two step-based tapering half-columns with gilt-brass multi-piece Corinthian capitals and applied decoration to the bases, the sides each with two further half-columns similarly decorated. The front with a rectangular dial door hinged behind the front columns, all above the conforming breakfront base, the frieze inset with a key drawer, all standing on an ebony-veneered rectangular step base moulding with squat cushion 'feet' to each corner. The later oil lamp is mounted on a shelf on the tin-backed rear door, directly under the internal tin chimney.
Dial	The restored 11 inch (279 mm) by 12 inch (305 mm) dial with four latched feet and painted with a country scene of detail of a Survey Party working in the country, using their early instruments including plane table, backstaff, armillary sphere and universal equinoctual ring. The upper section painted as a clouded sky with a central arched hour-sector, the static outer with 60 small single-hole minutes, small-star half-quarter holes and large-star pierced quarter markers, the replaced revolving centre disc, now with a clouded sky and winged cherubs, and set alternately with two diametrically opposed apertures, each revealing a pierced Arabic hour number and alternating between even and odd hours, while the hour aperture in view also indicates the minutes past the hour by its position in relation to the fixed outer pierced-sector in the main dial. All indicated at night when lit internally by an oil-burner. In 1899 in <i>Old Clocks and their makers</i> , 1st Edition, Britten pictured this clock, and the dial had a small later central silvered hour chapter with hands, below the sector, and it was front wound, the rotating sector disc had also been replaced, to show signs of the zodiac.
Duration	8 days
Movement	The substantial 8 by 9½ inch rectangular 'landscape' movement with five finned baluster pillars, latched to the frontplate. Both trains with fusees and gut lines, rear wound, with external spring-barrel clicks and springs mounted to the backplate. The restored going train with knife-edge verge escapement and short bob pendulum, now with a typical 'Fromanteel' single footed backcock. The strike train is governed by an external countwheel, mounted high in the train direct on the backplate, striking the hours on a large replacement bell mounted horizontally above the plates, via a restored external vertical hammer arbor, cocked and mounted on the backplate, which is signed in an unusual, decorated oval <i>Johannes Fromanteel Londini Fecit</i> on the otherwise plain backplate. The movement plates rest directly on the restored seat-board.
Escapement	Knife-edge tic-tac (restored) with short bob pendulum
Strike Type	Countwheel hour striking (restored)
Provenance	By 1889, Webster collection (with Zodiacal signs and added hour and minute hands); By 1922, HA Bleichert collection (after reconversion back to Night Clock by Rowley); <i>Antiquarian Horology</i> , December 1964, Classified Advertisement, p.283; Sotheby's London 27 October 1969, lot 202, for £2200, to G Daniels; Sotheby's London, 16 October 1972, lot 19, for £1100, to HG Best; Galbraith offered for sale in 1995, and sold by C Moss (via Bobinet) in 1999; John C Taylor Collection, inventory no.30



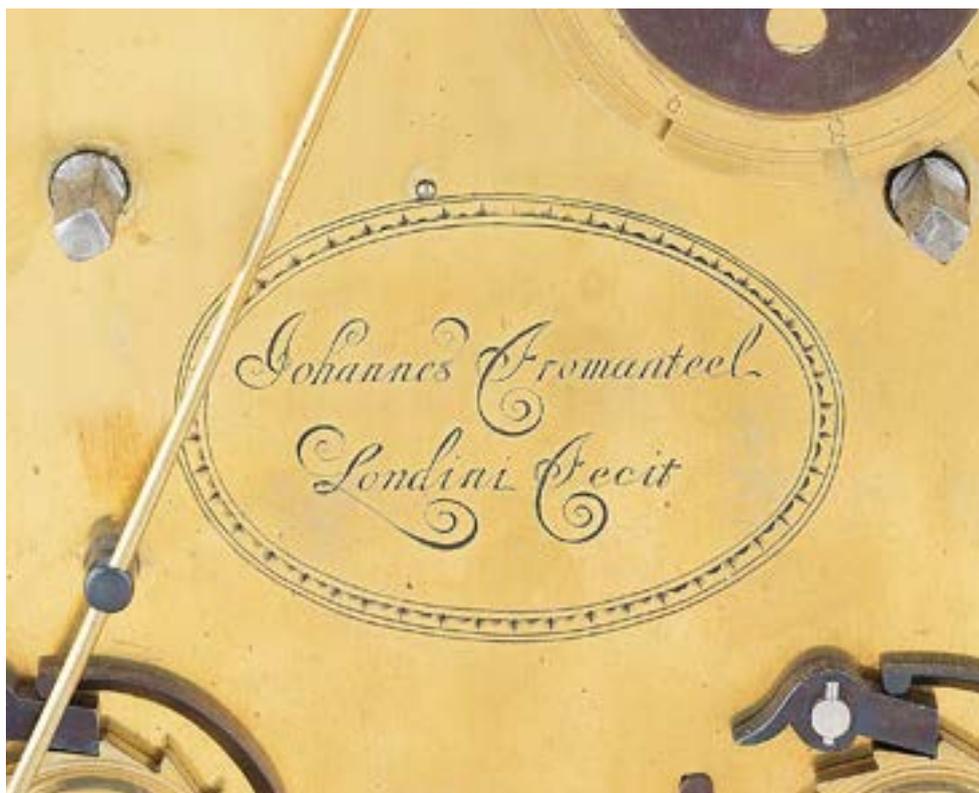




Literature	Britten, <i>Old Clocks and their makers</i> , 1st Edition, 1899, p.196, fig.201; Britten, <i>Old Clocks and their makers</i> , 3rd Edition, 1911, p.302, fig.440, p.227 & 311; Britten, <i>Old Clocks and their makers</i> , 5th Edition, 1922, p.315, fig.464, p.228 & 327
Comments	It seems that in Victorian times the rotating numbers of this clock were replaced by signs of the zodiac to fit Evelyn's description of the king's clock (see below). At some stage the clock had also been converted to forward winding affecting much of its under-dial work as well as the dial. Messrs A. & H. Rowley undertook a proportion of the restoration required to the movement and dial in the early 1900s, but final touches to these have also been sympathetically re-done in recent times. Meanwhile, the case too shows signs of Victorian work and enhancement, and the engraved oval around the signature was apparently enhanced in the 1990s, just prior to arriving in this collection.

On 1st November 1660, John Evelyn, wrote in his Diary: *went with some of my relations to Court to show them his Majty cabinet and closet of rarities... here I saw amongst the clocks one that showed the rising and setting of the sun in Ye Zodig, the sunn represented by a face and raies of gold upon an azure skie, observing Ye diurnal and annual motion rising and setting behind, and landscape of hills, the work of our famous Fromantel.*

John Fromanteel (1638-d.c.1682) was born in London, the eldest son of Ahasuerus Fromanteel and his wife Maria (nee de Bruijne from Colchester). He was apprenticed to his father in April 1652, and then transferred to his Uncle, Thomas Loomes, Ahasuerus' Brother in Law, until being made Free in July 1663. In September 1657, John was sent by his father Ahasuerus to assist Salomon Coster in The Hague in making the first domestic spring pendulum clocks for Christiaan Huygens, under the now famous contract, and remaining there for 9 months. On his return to London, John appears to have started work in his own right in his father's workshop in St Saviour's, Southwark. He is known for many innovative longcase and spring table clocks and this Night Clock is a very rare, albeit restored, example.







Whilst popular on the continent, especially in Italy, English wandering-hour night clocks are extremely rare. All known English examples date from soon after the Great Fire and with an inherent danger of catching alight, the demand appears to have been relatively small and perhaps many were destroyed; certainly orphan night clock movements survive in larger numbers than the original wooden cases. Having said that, only twelve English spring night clocks are known, while there are four longcase examples currently recorded, but only three of these retain their original cases. In 2018, another spring night clock by John Fromanteel, commissioned by Archbishop Ignacio Spínola y Guzmán and also in an Italianate Baroque tabernacle architectural case, was exhibited at Innovation & Collaboration in London (exhibit no.58, illustrated on p.236-7).

In 1655, Pope Alexander VII had ordered Cardinal Farnese to provide a clock that would show the hours at night in silence, and thus the first wandering-hour night dial was conceived in Italy.

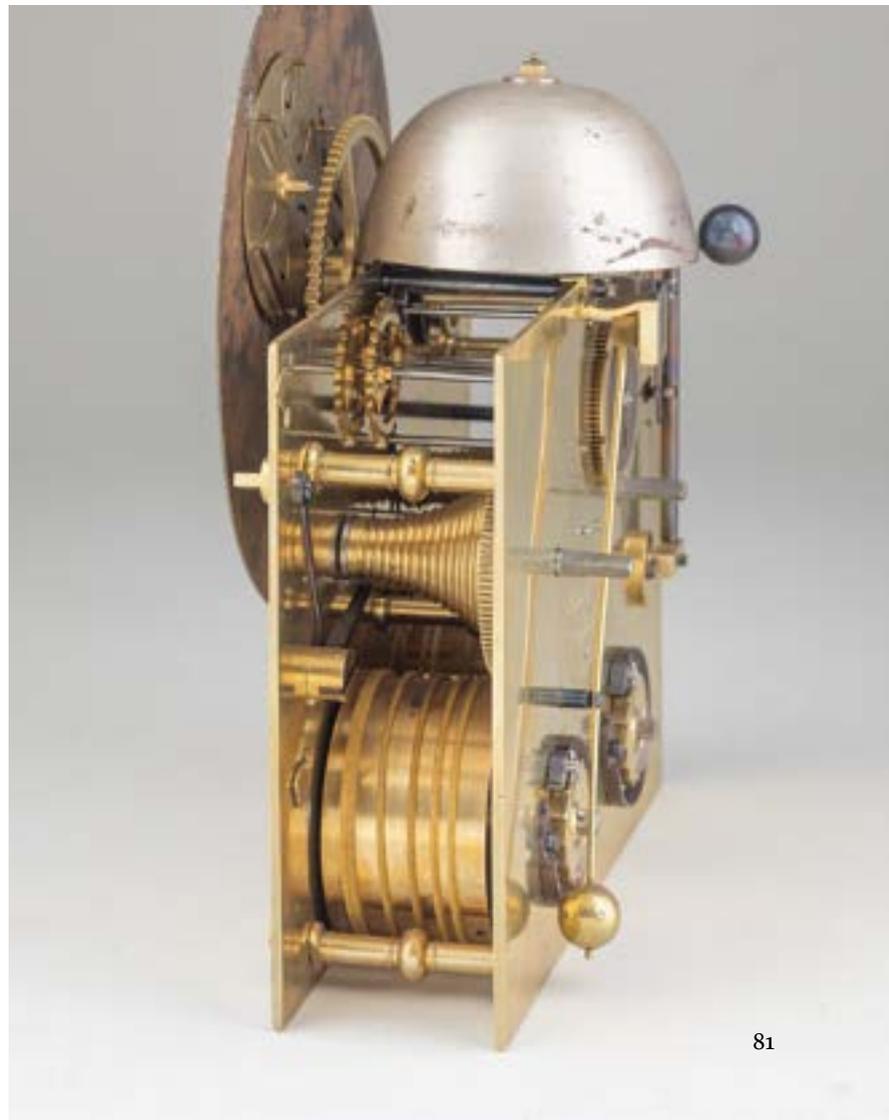
In his diary on 24th June 1664, Samuel Pepys noted: *After dinner to White Hall and there met with Mr. Pierce and he showed me the Queen's bed-chamber with a clock by her bedside wherein a lamp burns that tells her the time of the night at any time.* This is the first contemporary evidence of a night clock in England and Pepys's particular inclusion suggests that it was a novel innovation, indeed Catherine of Breganza's



clock may have been an imported example, which provided the impetus for English clockmakers to follow suit. In any event, the widespread introduction of repeat work from the late 1670s soon made night clocks redundant.

English night clocks utilise two divergent systems that reflect the differing innovative approach emanating from the two main early schools of English pendulum clockmaking; the Fromanteel school favouring the 'twin-disc' system while the East school generally used the 'flag-on-chain' system. Makers known to have supplied night clocks include the most illustrious: Fromanteel and his associates, Knibb and Tompion; and East and his associates, Hilderson, Jones, Seignior and Stanton.

The mechanism of this night clock unsurprisingly uses the twin-disc system, favoured by the Fromanteel school, and it operates with a three-layered assembly giving a succession of hours in the sky disc passing across the track of the hour sector, the minutes in this instance indicated by holes rather than numerals. The sky disc has diametrically opposite circular apertures, with a pair of twin-discs for the hours, the numbers split sequentially between the two. These numeral discs, having tracked across the hour sector displaying a particular hour, are then moved on as they pass a point behind the solid lower part of the dial plate, so that the next sequential number arrives at the start of the sector as the prior one leaves it.



Henry Higginson, London Circa 1668

A fine and rare Charles II ebony architectural striking table clock in unrestored condition



Height	17½ inches (435 mm)
Case	The elegant case of simplified architectural form in ebony and ebonised fruitwood veneers onto an oak carcass. The full depth architectural pediment, set on either slope with matching raised rectangular panels, screw-fixed and removable above the plain frieze, over the unadorned front door that has a fine raised glazing frame-moulding, the side glazed apertures with quarter-round inset mouldings. The flat back entirely veneered, and inset with a rear door with matching raised glazing frame-moulding, all atop the shallow cavetto/ovolo moulded main plinth, and resting on replacement block feet, formerly on a turntable base.
Dial	The 8¾ inch (213 mm) square brass dial retaining its original fire-gilding and very finely matted all over, except a narrow burnished edge-margin, and centred by an engraved Tudor rose, now applied with gilt-brass winged cherub's-head spandrels to the corners. The slender chapter ring with inner quarter division ring, Roman hour numerals and stylised <i>fleur-de-lys</i> half-hour marks, the outer Arabic minutes marked every 5, within the division ring. The hour and minute hands of early form, finely pierced and shaped in blue steel, with the winding holes placed at level centre and a chamfered date square above VI; the dial is secured to the movement via four dial feet (1 pinned, 3 latched), and to the case by two rear-mounted levers into slots behind the mask.
Duration	8 days
Movement	The rectangular movement plates retaining traces of their original gilding, with ten finned baluster pillars, riveted to the backplate and latched to the double-split frontplate, with fusees and barrels; the going train now with anchor escapement and corresponding backcock, originally verge with a short bob pendulum; the strike train governed by the original, small Arabic engraved, countwheel, mounted high on the backplate and engaging an internal slotted detent, striking the hours on a replaced bell. The backplate superbly engraved with open and closed flower heads and scrolling foliage and signed in an upward curve below centre <i>Henry Higginson Londini</i> in cursive script, all set within a line border. The movement held by swing clips holding the bottom corners of the backplate.
Escapement	Later anchor with lenticular pendulum
Strike Type	Outside hour countwheel, high on the backplate
Provenance	Edward Leigh Esq., 1969; Anthony Woodburn, 2000 and sold for £43,000; John C Taylor Collection, inventory no.55
Exhibited	1969, The First Twelve Years of the English Pendulum Clock, Loan Exhibition no.36
Literature	Lee, <i>The First Twelve Years of the English Pendulum Clock</i> , 1969, no.36, pl.58

Henry Higginson received his Freedom of the Clockmakers' Company in June 1662, and he is next recorded in 1675 as a watchmaker in Liverpool. His first wife, Martha, died there in 1676 and his second wife, Elizabeth, also pre-deceased him in 1679. Higginson himself died in Liverpool in 1694 and, considering his working life-span of over 30 years, very little more is known about his work, or has survived, apart from this rare early pendulum London clock.

Higginson's move to Liverpool, then in the county of Lancashire and a stone's throw from Prescot, places him in the early but significant circle of watchmakers, that was to become a part of that leading watch manufacturing centre from the 18th century onwards. The earliest records in the manor court roll of Prescot, date back to 1673 and 1680 and a Henry Darbishire is mentioned as a *clock-smith* in 1673; and a Thomas Darbishire in 1680 is designated *watchmaker*. Among the wills proved in the environs is that of Christopher Horrocks of Warrington, watchmaker, proved in



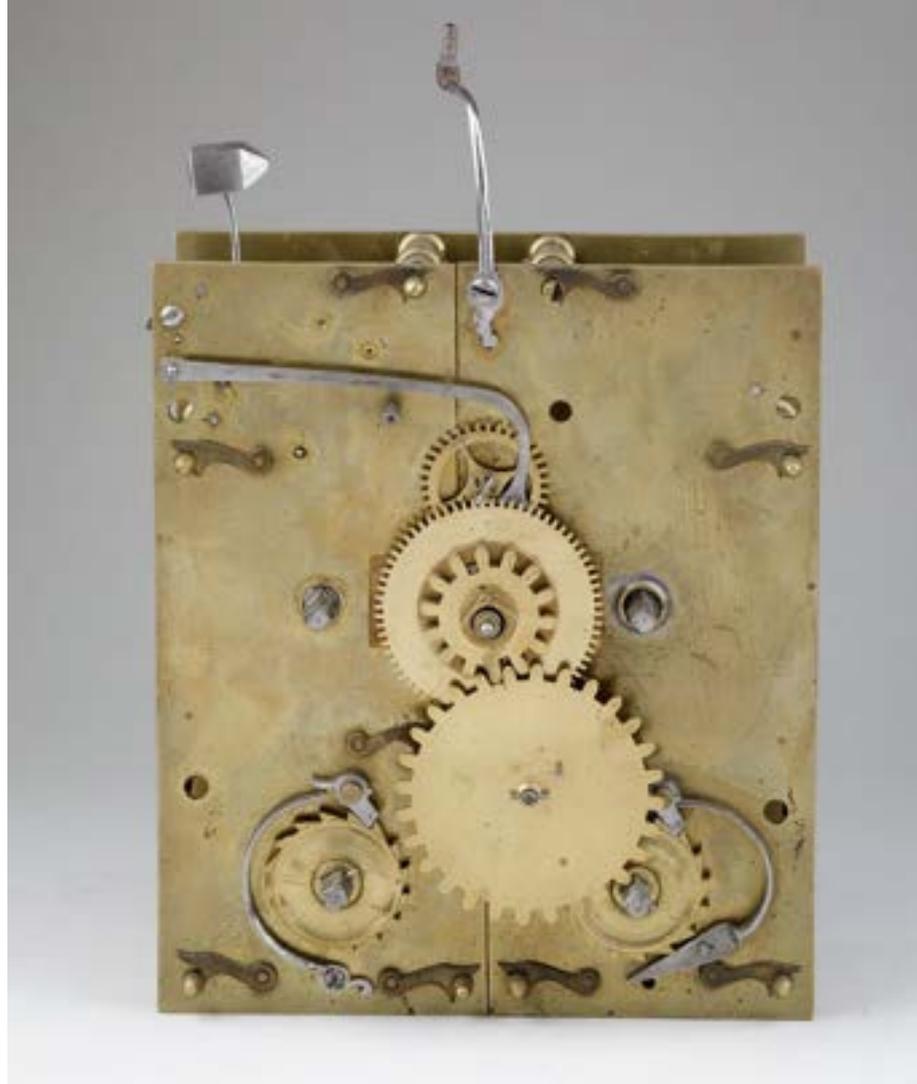


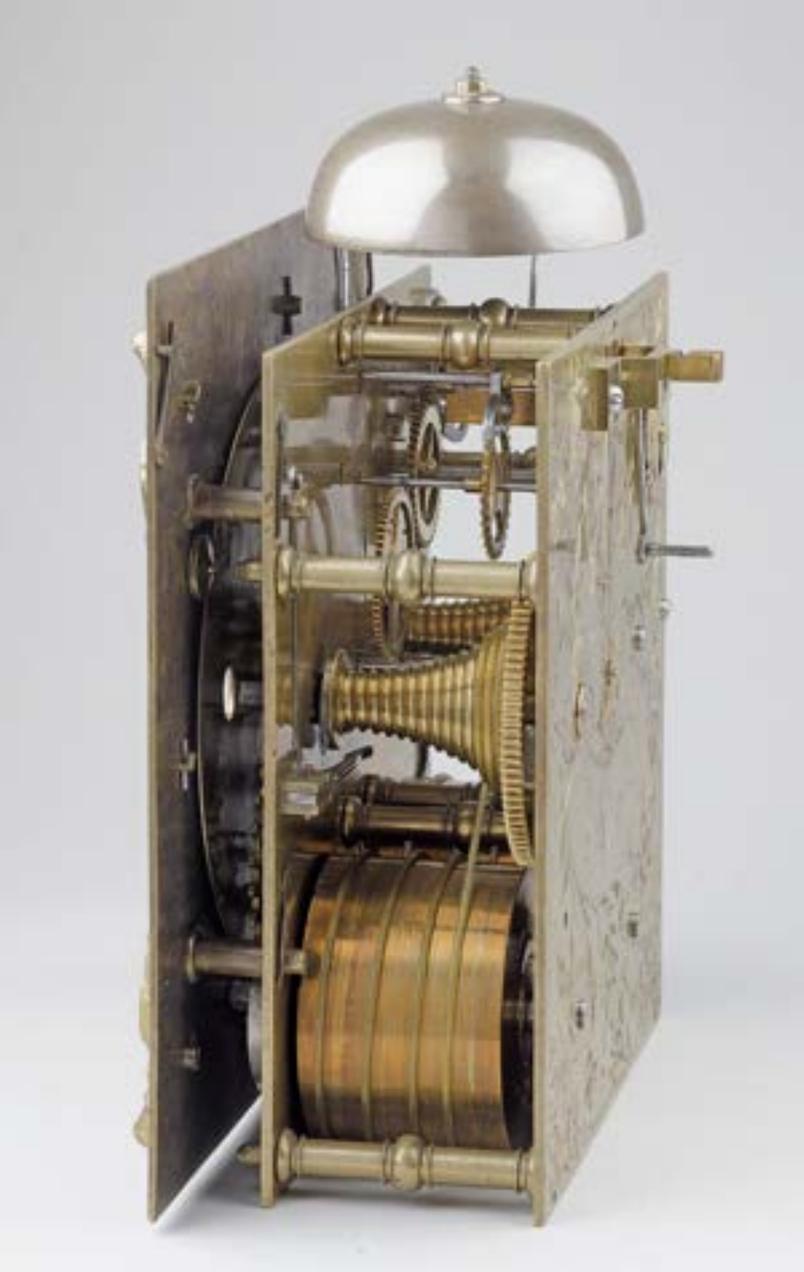


1663, while in Liverpool there were three watchmakers; our Henry Higginson, Peter Lewis and Charles Ratcliffe whose wills were proved in 1694, 1699 and 1700 respectively. James Hoult in *Watchmaking in Prescot in XVIII Century*, 1925, suggests that the executors of these wills may have designated as 'watchmakers' the men who had been makers of watch parts or within that trade, and it may be that the lack of surviving work by Higginson could be explained by his being a trade maker. Thus, appearing in and around Prescot in the earliest days were 'departmental' watch tool-makers, watch motion-makers, watch hand-makers, watch wheel-makers and watch finishers. While John Carte, writing circa 1700, described a *Curious Engine for Cutting the Teeth of the Wheel, far more precise than by hand, an Engine for equalling the Ballance wheel and an Engine for cutting the turnes of the Fusie, and an Instrument for the drawing of the steel pinion wiew... all of which ingenious inventions were conceived and made in Leverpool in Lancashire in England.*

In his 1976 article *The Rise of Liverpool 1665-1750*, Paul Clemens explains that at the beginning of the Restoration, Liverpool was a relatively insignificant seaport. The town's merchants traded with Ireland and France, exporting small quantities of haberdashery, coal, salt, brass, ironware and cloth, while importing grains, dairy products, tallow, yarn, and Bordeaux wines. But none of the 140 merchants engaged in Liverpool's overseas commerce participated in the lucrative trade that had developed between England and the Baltic, southern Europe, and the Atlantic colonies. The wine trade with Cadiz and Oporto, the importation of naval stores, iron, hemp, and flax from Sweden, Russia, and Germany, and the growth of sugar production in the West Indies and tobacco cultivation in the Chesapeake, all of which stimulated commerce at ports from London to Bristol, had, as late as 1665, left no mark on Britain's north western coast. However, during the last three decades of the 17th century, Liverpool emerged as one of England's leading ports. The port's commercial expansion began with its exploitation of the American and West Indian trade, and its merchant fleets subsequently carried salt, naval stores, wines, iron, and eventually slaves.

That Liverpool's trade development was a contributory factor to Higginson's move north must be considered possible but, whatever the initial circumstances, he arrived and was living there during its meteoric rise in trade and fortune, and by the late 17th century twelve watchmakers are recorded in the registers of St Nicholas Church, Liverpool: Joshua Cobham, Thomas Darbyshire, Henry Higginson, John Hoult, John Litherland, Joseph Pryor, John Storey, James and William Winstanley, James, John and Robert Whitfield.





As far as we are aware this is the only clock currently known signed by Henry Higginson. The movement of this clock has definite affinity with Fromanteel's work in the late 1660s; the split frontplate movement is of relatively light construction, and does not have such features as rear-pinned pillars and flanged barrels, as was the practice of Edward East and his followers. Equally, the case detail is akin to those being produced for the Fromanteel school, rather than East, with true architectural detailing, such as the cornice drip-moulding. In *The First Twelve Years*, Lee points out *Two particular points of interest arise in this clock which seemingly put it into a transitional period of circa 1668. The dial matting extends into the spandrel corners with the traditional cast winged cherub heads laid over the matting. Were these originally plain matted corners as in the East group of clocks and cast spandrels applied later to bring it up to date? The second point being the engraved backplate. Somewhat significantly the signature is segmentwise, as in the East group, but this group had not yet reached in date the fashion for engraved backplates. Was this clock engraved 5-10 years after it was made to bring it up to date as is suggested by the spandrel treatment?*

Applied spandrels over outer matting is not unprecedented, and would have been an easy and fashionable update, while the two holes suggest these may not be the first. However the backplate engraving, which is almost certainly early 1670s, seems more difficult to logically justify as a standard update. Perhaps it could be more easily explained as a final-finishing detail, particularly as the movement's expensive mercurial gilding was applied afterwards. However, this initial production of Higginson's can be dated to before 1670, so this might be more successfully interpreted as 'old stock' that for some reason, was held back unfinished? Since Lee's famous 1969 exhibition, a simplified architectural clock by Samuel Knibb has surfaced which might help to shed more light on this clock's production sequence, in that in all except those finishing details, the newly discovered Samuel Knibb is otherwise extremely similar in movement pattern and case detail. There also exists the case of a second Samuel Knibb example in the Clockmakers' collection (on loan to the Science Museum), that most unusually shares this clock's similarly removable pediment.

This could suggest that the watchmaker, Henry Higginson, perhaps ordered this clock from Samuel Knibb before he died in c.1670, which was then updated, as suggested by Lee. But perhaps a more logical and explainable hypothesis was that Higginson went to Joseph Knibb, who was newly arrived in London and who it is thought was holding his cousin's 'old stock'. This could explain how an expensive 'old-style' spring clock was held back, due to Samuel's demise, but it also partially encompasses Lee's theory; in that the Higginson was made in c.1668 but in this instance, 'final-finished' in the early 1670s, when spandrels and backplate engraving was coming into vogue. As Henry Higginson is recorded in Liverpool by 1675, and we know Joseph Knibb had moved to London by early 1671, this might suggest a final-finish date of c.1672/3, which is also in alignment with the Higginson's early style of fully engraved backplate.





Edward Fowll, London Circa 1671

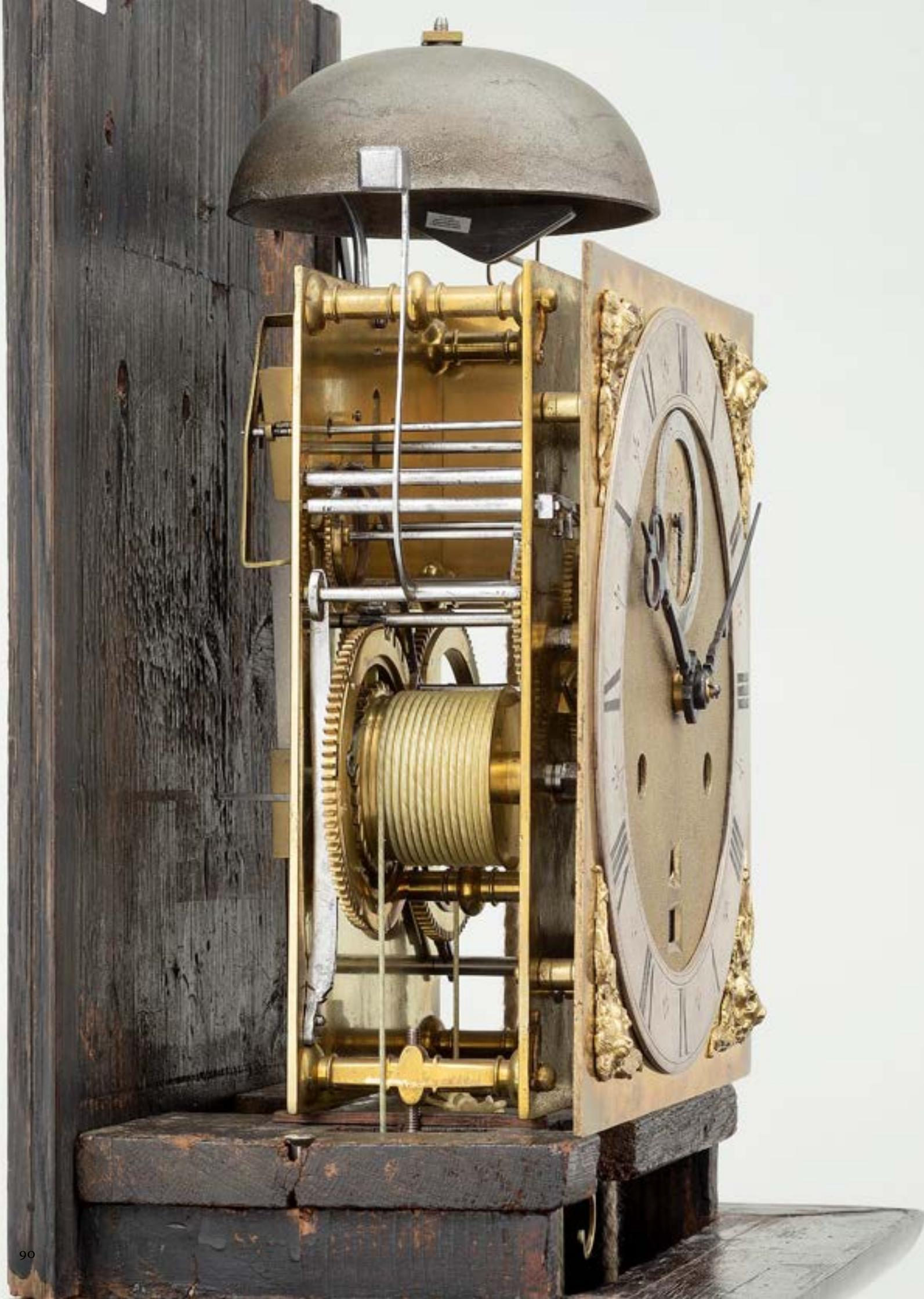
A rare and unusual Charles II ebonised architectural striking longcase clock with alarm



Height	6 foot 4 inches (1930 mm)
Case	The architectural case veneered in ebonised pearwood onto a pine carcass. The rising hood with gable-end pediment, above the cornice and frieze with central gilt-brass draped swag mount, all supported by Solomonic columns with integral ebonised capitals and bases, flanking the dial aperture, and matching quarter columns behind the glazed sides. The hood resting on a convex throat moulding, above the ebonised trunk door with three raised panels and a circular glazed pendulum lenticle, with surface mounted frame-mouldings and extending to the full width of the trunk. The cavetto/ovolo base mouldings above the plain rectangular plinth, standing on four ebonised bun feet.
Dial	The 9 inch (228 mm) square brass dial with winged cherub head spandrels to the corners, the narrow silvered brass chapter ring, with Roman hours and <i>fleur-de-llys</i> half-hour markers between, and unusually small Arabic five-minute numbers within the division ring, with early pierced and shaped hands in blued steel. The matted centre with shuttered winding holes and chamfered date and alarm setting apertures, both set or adjusted using pin holes, the silvered Arabic seconds ring below XII, signed within <i>Eduardus Fowll Londini Fecit</i> on a polished reserve. The dial held by four feet, latched to the movement frontplate.
Duration	8 days
Movement	The substantial movement plates have six knopped and finned pillars, all latched on the front plate, and planted with two four-wheel trains; the going with anchor escapement set fairly low in the plates, the bolt-and-shutter maintaining power with an unusually long bolt working on the underside of the centre wheel via a shepherd's crook lever below the dial; the strike train governed by an inside countwheel mounted on the great wheel, which is an early example of this feature, the fly is outside the plates and runs under a bridge screwed to the backplate. The crownwheel rope-driven alarm mechanism is mounted on a separate plate, screwed to the two upper pillars on the right (III) side of the plates.
Escapement	Anchor with one-second pendulum
Strike Type	Inside countwheel hour strike with alarm
Provenance	Wolley & Wallis, 14 October 1981, lot 376; Sotheby's, 24 May 2000, lot 239 for £93,500; John C Taylor Collection, inventory no.36
Exhibited	1964, Science Museum, Collector's Pieces Clocks And Watches, AHS Tenth Anniversary Exhibition, exhibit no.5; 2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.22 2018, London, Innovation & Collaboration, exhibit no.64
Literature	<i>Collector's Pieces Clocks And Watches</i> , 1964, exhibition catalogue, p.6; <i>Horological Masterworks</i> , 2003, p.98-101; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.248

Edward Fowll (also Fowle and Fowell) was born in c.1644, the son of Stephen Fowll, a weaver *late of Whitechapel*. He was apprenticed through the Merchant Taylors' Company in April 1657 to Jacob (or James) Smythurst of the Shambles, until Freed in February 1665. Fowll worked as a clockmaker in Whitechapel and in June 1667 took as apprentice in Merchant Taylors', John Longland, who was made Free in 1674. Fowll became a Free Brother in Clockmakers' in April 1670, and took as apprentice through them in 1674, Ezekiel Andrews, but he was not freed. Edward Fowll is not heard of after 1674, and Loomes suggests he may perhaps have gone to East Indies with his apprentice, Ezekiel Andrews, who died there.





The large plated frame movement of this clock is of very high quality and is latched throughout, with an early use of a countwheel mounted onto the greatwheel, but it also displays Fowl's individualistic style. The maintaining-power arbor is mounted close to the bottom side of the plates resulting in an unusually long bolt working on the underside of the centre wheel, the escapement is set low in the plates which has left the top part of the plates vacant. The alarm disc, behind the aperture in the dial, runs on a stud set in the front plate midway between the centre arbor and date aperture and has a wheel behind it, which meshes with a similar size wheel running on the hour wheel pipe. This wheel has a pin that, in running off a step on the minute wheel, activates the pivoted lever, which at the appointed time, unlocks a pin on the rim of the alarm crown wheel and sets off the alarm. The dial signature is also unusual, but particularly pleasing, being set within the seconds ring. Equally, although the case is of typical overall form, the full-width trunk door overlaying the sides, might indicate that it was produced by a cabinetmaker who was not making clock cases on an everyday basis.







Joseph Knibb, London Circa 1674

A very fine and rare Charles II Dutch striking ebony veneered Phase I table clock



Height	16¼ inches (412 mm) to top of the handle
Case	The archetypal Knibb Phase I case, ebony veneered onto an oak carcass, and surmounted by Knibb's early gilt-brass faceted cranked handle with folded flat-section pommels, to the plain cushion moulded dome top with early winged cherub dome mount to the front, flanked by four turned brass ball finials, above the quintessential Knibb flat-topped upper cornice moulding. The top rail of the front door is inset with a pierced ebony sound fret, flanked by Knibb's early foliate scroll escutcheons, the left pieced for a key. The side apertures are glazed, all above the typical moulded base and standing, correctly, on long-neck brass bun feet.
Dial	The 8¼ inch (209 mm) square, mercury fire-gilded, brass dial, signed <i>Joseph Knibb Londini Fecit</i> along the lower edge, between the gilded and chased winged cherub corner spandrels, which are of Knibbs' early design. The narrow silvered Roman hour chapter ring with <i>fleur-de-lys</i> half-hour marks and Arabic minutes within the division ring. The very fine matting with two winding holes and inset with a date square above VI, classic early Knibb, sculpted blued steel hands. Fixed into the case with typical dial turns and with four latched dial feet to the movement.
Duration	8 days
Movement	The substantial movement held by six latched finned baluster pillars, with twin gut line fusees and spring barrels. The going train with restored tic-tac escapement and short bob pendulum. The strike train with an internal countwheel governing the hour and half-hour strike via a double-sided pinwheel, with hammer linkages to; the hour hammer struck on the larger bell; and the half-hour hammer struck on the smaller bell. The backplate retains its original fire-gilding and the engraving, inspired and possibly executed by Wenceslaus Hollar (1607-1677, see following), has two crossed stems of foliage, each issuing open and closed flower heads, above the large typical early signature <i>Joseph Knibb Londini Fecit</i> in fine cursive script in an arc, curving over a stylised leaping 'royal' sturgeon.
Escapement	Knife-edge tic-tac with short bob pendulum
Strike Type	Dutch, hour and half-hour, inside countwheel striking with double-sided pinwheel
Provenance	Sotheby's, 11 Mar. 2002, lot 183, sold for £71,456; The John C Taylor Collection, inventory no.86
Exhibited	2004, Palais Het Loo Holland, Huygens' Legacy, exhibit no.46; 2018, London, Innovation & Collaboration, exhibit no.102
Literature	<i>Huygen's Legacy</i> , 2004, p.172-175; Garnier & Hollis, <i>Innovation and collaboration</i> , 2018, p.256-257

In medieval Europe, sturgeon meat and roe (caviar) was one of the most prestigious delicacies, and at least half a dozen contemporary recipes survive for turning veal into imitation sturgeon for the wealthy. Sturgeon were so rare in England that they were reserved as a 'royal fish' and when taken became the personal property of the monarch, recognised by statute in 1324 that is still in place today.

Sturgeon are anadromous fish, living in the sea but returning to spawn in the same fresh water river in which they were born. The strict statute meant that sturgeon were often left, allowing for the return of mature migratory fish; commonly growing beyond six foot, to as long as 14 foot, which could weigh in at more than 800 pounds. Over the 18th and 19th centuries, around 400 sturgeon were reported in British rivers, including the Thames.





Joseph Knibb's Phase I spring clocks were the first made to his own specific design and were all probably produced within eight years of him setting up his business in London in circa 1670: perhaps between c.1672 (see inventory no.32 from this collection) and c.1678. All share a very similar case style, but they are often mechanically quite different, displaying Knibb's renowned array of strike variations, in this instance Dutch striking. By the latter part of the 1670s, Knibb started to evolve his spring clocks making them smaller; the first Phase II example was dated 1677 (also in this collection, inventory no.145), and marked a shift away from this earlier style. Fewer than 20 Phase I table clocks are currently recorded and, like this superb example, the majority are ebony veneered onto an oak carcass, but unlike his later Phase II and III designs, these clocks also retain bun feet. Meanwhile, the original fire-gilding to the present backplate is particularly beautiful, but also a costly and early attribute, although the first of Knibb's Phase II spring clocks retain this expensive feature, by the late 1670s, and the introduction of his Phase III clocks, Knibb had essentially dispensed with it.



Wenceslaus Hollar (1607-1677) was born in Prague on 13 July 1607, and died in London on the 28 March 1677. His family was ruined by the capture of Prague in the Thirty Years War, and, although originally destined for the law, Hollar was determined to become an artist.

By 1627 he was in Frankfurt, working for the etcher and engraver Matthäus Merian, later moving to Strasbourg, and then to Cologne in

1633. It was there that he attracted the attention of the famous English art collector Thomas Howard, 14th Earl of Arundel (1585-1646), then on an embassy to the imperial court. Hollar travelled with the Earl to Vienna and Prague finally arriving in England in 1637. Though he lived in the Earl's household, he also worked for various publishers. For one bookseller he produced a view of Greenwich, nearly a yard long, but only received thirty shillings for the work, being paid just four pence an hour, his time measured apparently by an hourglass.

The Civil War caused Lord Arundel to leave England in 1642, so Hollar worked for the Duke of York, and took lodgings at Larkhall, near Stockwell. He served in a royalist regiment during the Civil War and was taken prisoner at the siege Basing House in 1643, Hollar was imprisoned with another engraver, William Faithorne, as well as the architect Inigo Jones and, perhaps critical to our horological story, his pupil John Webb, the designer of Ahasuerus Fromanteel's first architectural clock cases. This placed Hollar within 'Fromanteel's circle' and furthermore, Hollar's main English patron was the grandfather of Henry Howard, 6th Duke of Norfolk and Earl of Arundel (1628-1684), who commissioned the Norfolk Fromanteel (inventory no.41), the earliest recorded complete longcase clock.

On release Hollar initially rejoined Lord Arundel in Antwerp, where he stayed for eight years producing some of his finest work. In 1652 he returned to London and shared lodgings for a time with his former prison mate, Faithorne, near Temple Bar. He illustrated several books and also worked for Elias Ashmole, whose cabinet of curiosities formed the basis of the Ashmolean Museum in Oxford. Hollar's fortunes did not fundamentally improve and his employers, probably by this time including Fromanteel and Samuel Knibb, continued to pay low prices for his excellent work. The Restoration did not improve his position, and in the great plague he lost his son, a promising young artist. After the Great Fire of 1666 he produced his famous Views of London.

In 1668 the king sent Hollar to English Tangier (1661-1684) to draw the town and its forts. On his return to England, he etched the battle scene in which the ship he came back on, the Mary Rose, successfully fought against seven Algerian pirate men-of-war. He also produced the large plate of Edinburgh (dated 1670) that is widely regarded as one of the greatest of his works. From this time on, he appears to have started his employment on horological backplates for Samuel Knibb's nephew, Joseph; these are some of the first fully engraved backplates and Hollar's style is recognisable on almost every Phase I spring clock known. It may be significant that Hollar's death in 1677 also coincided with Knibb's shift away from larger Phase I spring clocks to the smaller Phase II and III examples, which no longer show his influence.

Hollar died in extreme poverty, his last recorded words being a request to the bailiffs that they would not carry away the bed on which he was dying. Hollar was one of the finest master etchers of the 17th Century and worked on a wide variety of subjects producing some 2,740 plates including views, portraits, ships, religious subjects, heraldic subjects, landscapes, and still lifes in a hundred different forms.





The Tic-tac Escapement

The tic-tac is a type of recoil escapement found on early clocks less than a decade after the introduction of the pendulum from a variety of makers, but it is perhaps most well known on clocks by the Knibb family, as shown on the current example. When the anchor escapement was introduced, with its consequential improvements in timekeeping, it was natural that clockmakers would want to apply a similar escapement to their spring clocks. Because of their high value at this time, owners would frequently move them from room to room and the wide arc of the verge pendulum was tolerant to this. A heavy anchor escapement would have been prone to damage on the pendulum suspension and, as a consequence of the narrow arc of swing, required setting up on a perfectly level surface.

It seems the tic-tac was an early attempt to overcome these difficulties and ape the improved timekeeping of the anchor escapement. The pallet arbor is normally supported at the back by a knife-edge and the escape wheel is mounted vertically with the pallets embracing just two teeth. This produces the required wide arc of pendulum swing to be able to move the clock around, but the safety margin of extra swing is greatly reduced. While the verge will operate in spite of considerable wear, the tic-tac needs to be in good condition. The greater part of the impulse is delivered on exit and, when slightly worn, the escape teeth will often foul on the entry pallet and stop the movement altogether, this may have caused problems for the early clockmakers and is likely the reason for its limited use.

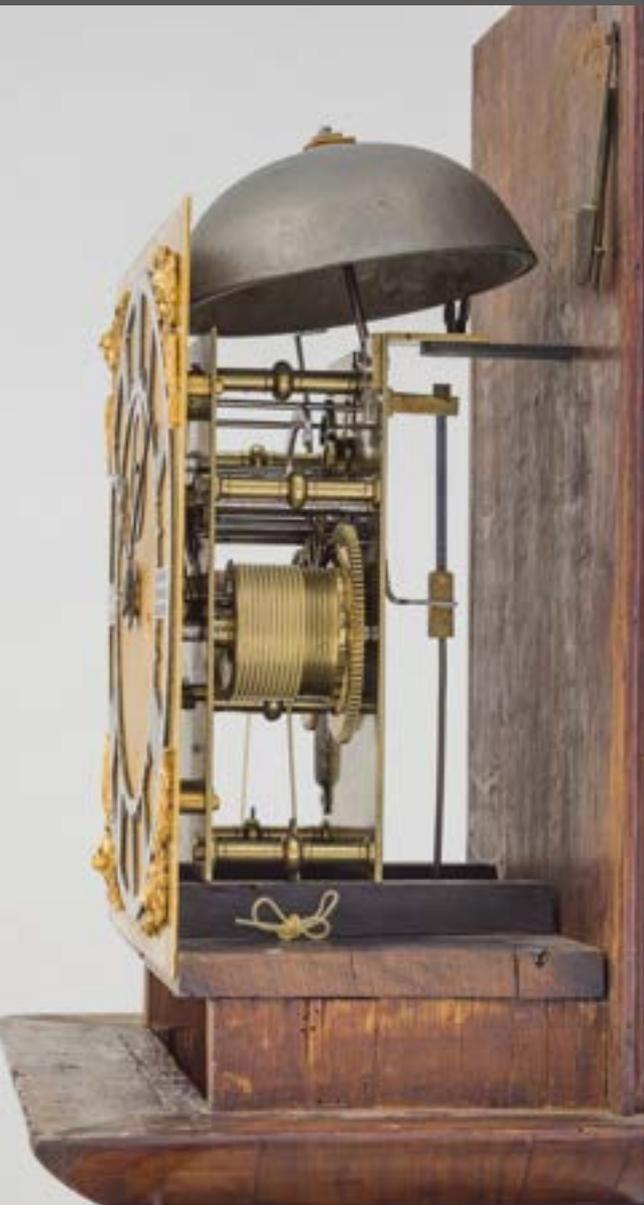




Henry Jones, London

Circa 1675

A good Charles II olivewood oyster veneered and parquetry inlaid eight-day striking longcase clock with skeletonised chapter ring

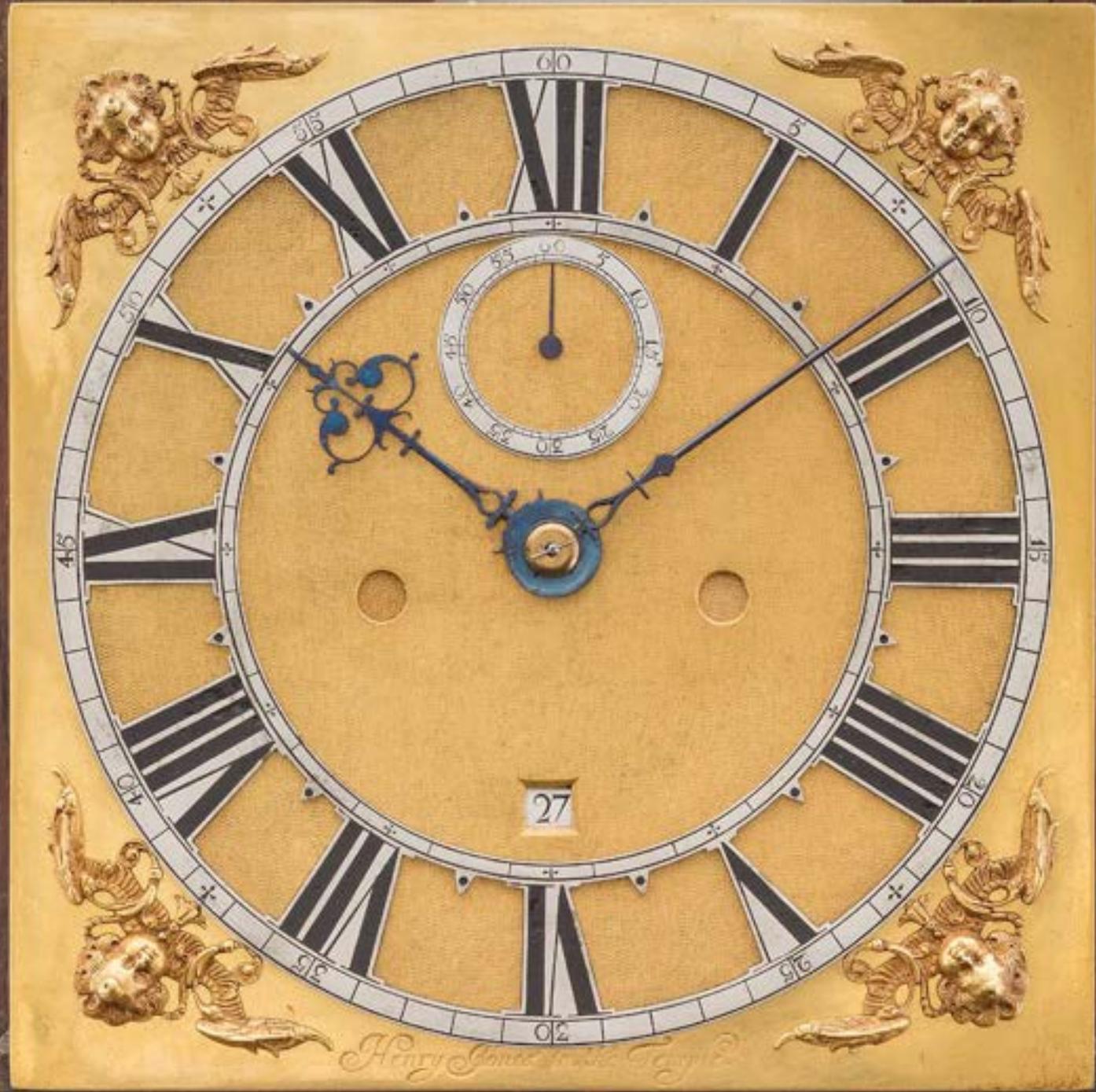


Height	6 feet 9¼ inches
Case	The case veneered in olivewood oysters with boxwood and olivewood fan paterae onto an oak carcass. The rising hood with Solomonian columns and finely carved contemporary cresting, the parquetry inlaid trunk door with half paterae to the top and bottom and centred by a whole patera with a circular glazed lenticle below, the base with a conforming parquetry patera and similar quarter fans to the corners. The seatboard with blocks and taper pins to guide the movement pillars and a horizontal backboard bracket to secure it.
Dial	The 10 inch square gilt-brass dial with four latched dial feet, signed along the lower edge <i>Henry Jones in the Temple</i> between the gilt winged cherub corner spandrels. The hands finely pierced and shaped in blued steel. The matted centre with skeletonised chapter ring with Roman hours, dot half-hour markers and Arabic minutes every 5, within the division ring, the subsidiary seconds ring and chamfered square date aperture, above VI.
Duration	8 days
Movement	The two-train hour striking 8-day movement with 6 latched baluster pillars, the base pillars lowered onto seatboard taper pins with an L-shaped brass bracket screwed to the corresponding case bracket. The going train with bolt-and-shutter maintaining power, anchor escapement and seconds pendulum, the hour strike train governed by an outside countwheel mounted direct onto the greatwheel arbor.
Escapement	Anchor with one-second pendulum
Strike Type	Countwheel hour strike
Provenance	Anthony Woodburn, 2001, sold for £100,000; The John C Taylor Collection, inventory no.67
Exhibited	2004, <i>Huygens' Legacy</i> , Paleis Het Loo, Holland, exhibit no.54; 2018, London, <i>Innovation & Collaboration</i> , exhibit no.74
Literature	Stuart Kelley, 'Henry Jones – Clockmaker of London, part II of VI', <i>Antiquarian Horology</i> , September 2003, illus. p.532, fig.27; <i>Huygens' Legacy, The Golden Age of the Pendulum Clock</i> , 2004, p.148-9; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.270-4

Henry Jones (c.1642-1695) was one of the most pre-eminent early clockmakers, he was born in Boldre, Hampshire and originally apprenticed to Benjamin Hill in 1654, but quickly turned over to the esteemed royal clockmaker, Edward East (1602-1696). He became a Freeman of the Clockmakers Company in 1663, but continued to work for East until c.1672/3, when he started to work independently at the Inner Temple. During his thirty year working life he took on fourteen apprentices and made a number of clocks for Charles II, one costing the then vast sum of £150. Jones was made Assistant of the Clockmakers' Company in 1676 and became Master in 1691. It is clear that good relations continued with his former master, Edward East, and in 1692, East and Jones together placed £100 in trust with the Clockmakers' to pay five Freemen, or their widows, twenty shillings per annum.



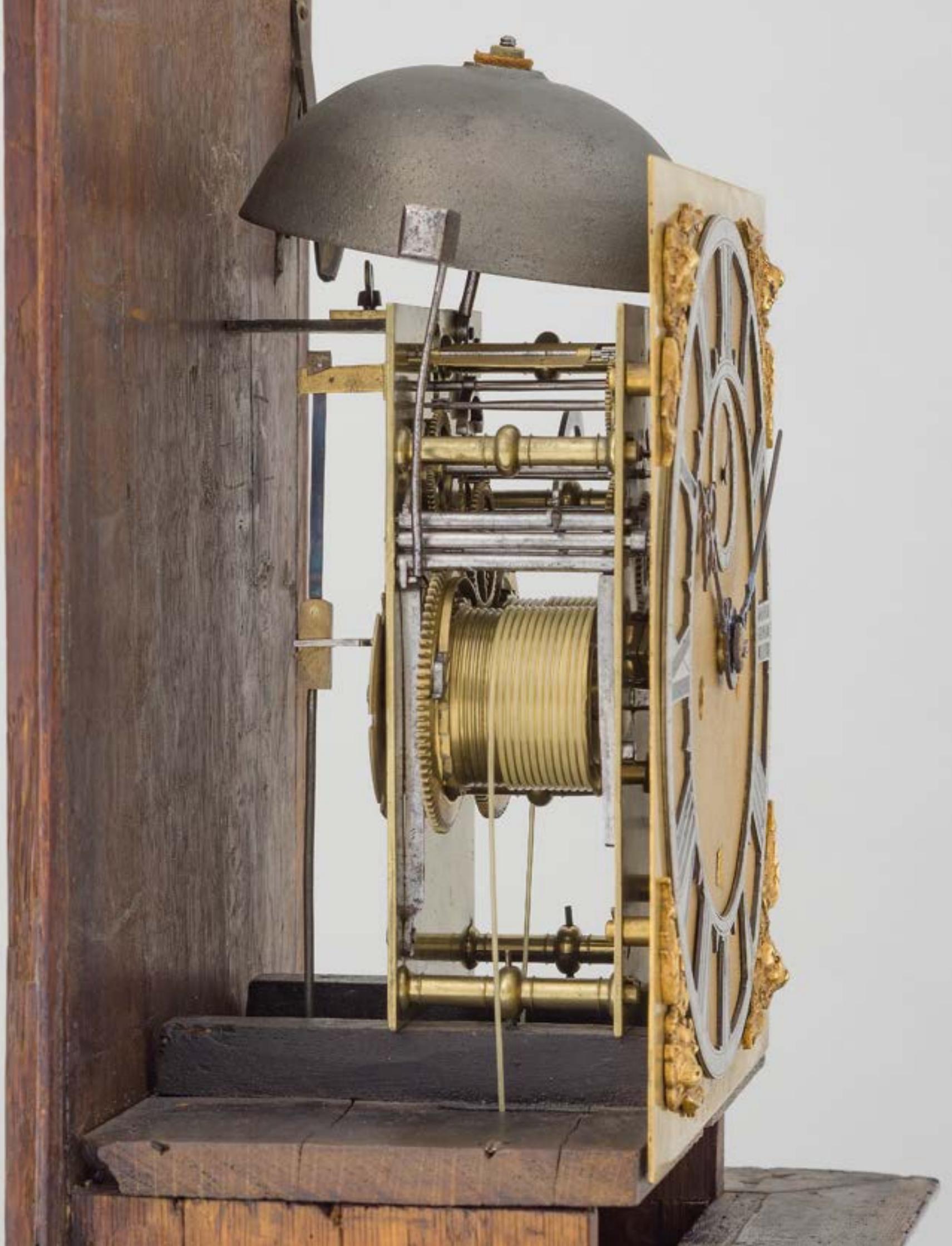




By the time this longcase was made, Jones was an experienced and capable maker, he had produced a very fine but small series of extraordinary flat-topped table clocks that, by the 1680s, would develop into his own distinctive style of table clock - one of the few makers whose designs are immediately distinguishable as their own (an accolade he shared with Knibb and Tompion). His early wealthy patrons included Heneage Finch (1621-1682), a barrister of the Inner Temple who would become Lord Chancellor and was later created 1st Earl of Nottingham. He ordered a superb walnut architectural longcase (also in this collection, inventory no.119) and his near-London seat was unusually large; it would later be forcibly purchased from his son by William III, and renamed Kensington Palace.

Skeletonised chapter rings and the consequential requirement for close-edged dial matting was both difficult and time consuming, it was usually only tackled by the finest London clockmakers, and even then, it was reserved for their best productions. This very fine and undoubtedly expensive oyster and parquetry case complements the beautiful dial and confirms its original high cost.







Joseph Knibb, London Circa 1675

A fine and rare Charles II miniature
walnut veneered striking hooded
wall clock



Height	11 inches (280 mm)
Case	The small rising hood veneered in walnut onto an oak carcass, with a shallow arch block-moulded cornice containing a lunette recessed walnut blind fret, the side apertures with pierced walnut sound frets. The supporting wall-hung bracket similarly constructed in oak, with a moulding to the edge of the seat-board, supported by well-carved decorative solid walnut corbels, with veneer to the front visible area between.
Dial	The 4¼ inch (107 mm) square brass dial with outer inscribed line interrupted along the base, and signed <i>Joseph Knibb, London</i> with finely engraved tulip and stem corners. The silvered Roman chapter ring with <i>fleur-de-lys</i> half-hour marks outside the quarter division ring, and a sculpted blued steel hour hand. The centre further engraved with tulips and foliage issuing from an urn below, with a circular arcaded petal design to the centre.
Duration	30 hour
Movement	The posted frame movement with four four miniature Knibb-pattern turned and finned pillars with his distinctive conical finials and ball feet to hold the top and bottom plates, the trains mounted on three internal vertical plates with rope and pulley drive; the front going train with knife-edge verge escapement and short bob pendulum; the rear strike train governed by countwheel secured to the rear vertical brass plate and striking on a 20th century bell above.
Escapement	Knife-edge verge with short bob pendulum
Strike Type	Countwheel hour
Provenance	Anthony Woodburn, sold 2003 for £65,000; The John C Taylor Collection, inventory no.113
Exhibited	2018, London, Innovation & Collaboration, exhibit no.65
Literature	Britten, <i>Early Clocks and Watches and their Makers</i> , 4th ed., 1919, p.218, fig.179; Britten, <i>Early Clocks and Watches and their Makers</i> , 5th ed., 1922, p.491, fig.179; Anthony Woodburn, <i>Fine Antique Clocks</i> , 2003-4, p 28; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.249.

Small wooden cased 30-hour wall clocks were an alternative to the traditional lantern clock and are often thought of as having been located 'below stairs', however this rare example is early, miniature and housed in a very good walnut case with a finely carved bracket and so, despite being a one-handed and 30-hour, it would have cost a deal more than the alternative, an un-cased lantern clock, and as such it seems more likely this clock would have been on display in a more public area of a wealthy customer's house.

This fine hooded wall case is of very similar form to other recorded examples by Joseph Knibb whilst still in Oxford, such as the two illustrated in *Early English Clocks*, p.489, pl.488-9, and the second of these was also illustrated in *The Knibb Family Clockmakers*, pl.58. The first is an ordinarily 'free-standing' miniature lantern clock that has been then housed, probably to order, in a walnut case of this type. The case and dial of the second Oxford example are both of very similar form to the present clock, however the all-over engraving and 'vegetable' spandrels are of a notably earlier style. Thus the engraving of this clock is more likely to have been executed after Joseph's move to London, perhaps c.1675, but equally the similarities with the other two cited, suggests it could have been an Oxford workshop production supplied for sale in London, in the collaborative manner between the two brothers that is well documented.







RA Lee in *The Knibb Family Clockmakers* mentions that Knibb hooded wall clocks *were not produced in any great quantity... not above ten*, but since then a small number have re-emerged, perhaps taking that figure to between 12 or 14 examples. Included in that, the brothers also produced these wall clocks with vertical plated movements that are most often later in date, and a two-handed example signed *John Knibb Oxon*, produced some ten years afterwards is also in this collection, inventory no.49, with a conventional matted centre to the dial, but still with engraved spandrels. Overall, the present scarce clock is in a fine state of preservation, the only apparent restoration being the replacement bell.



The Symonds Knibb

Circa 1678

An exceptional and extremely rare Charles II ebony veneered and silver-mounted Phase II Grande Sonnerie striking table clock with tic-tac escapement by Joseph Knibb, London



Height	13¼ inches high (345 mm)
Case	The archetypal Phase II case, ebony veneered onto an oak carcass, with a cushion domed top with fine quality chased silver acanthus repoussé mounts to the sides and front, surmounted by a silver arcaded foliate-tied handle with turned pommels and upturned-leaf base plates. The flat-top main cornice moulding over the square front door with typical opposed silver winged cherub head scroll escutcheons, the left pin-hinged and swivelling to reveal the key-hole, and the top rail inset with an ebony pierced sound fret. The side apertures with further ebony pierced sound frets, and the inset glazed back door framed with half-round mouldings. All resting on the conforming plinth moulding, typically and correctly, without feet.
Dial	The 7 inch (178 mm) square brass dial covered with black velvet and applied with a delicate solid silver chapter ring with Roman hours, <i>fleur-de-lys</i> half-hour markers and Arabic minutes, every 5 within the division ring. The silver hour hand delicately pierced and chamfered, the silver minute hand is tipped with a blued steel and silver pierced pointer. The centre of the dial is set with a finely pierced and engraved signature roundel, with tulips and foliage and signed in an arc <i>Joseph Knibb London</i> . The three winding holes with silver beaded ferrules, as has the date square below XII, and the corners are applied with Knibb's earlier pattern of cast and chased silver winged cherub spandrels. The dial is fixed to the movement by four latched dial feet, and to the case by two typical screw-turns to the back, at III and IX, into the carcass behind the mask.
Duration	8 days
Movement	The delicate three-train fusee movement with nine typical finned baluster pillars, latched to the triple divided front plate for individual train assembly, with triple gut line fusees and spring barrels, the knife edge tic-tac escapement with short bob pendulum. The left hand (IX) train striking the quarters and hour (on the hour only), governed by an outside numbered countwheel, striking the quarters and the hour, all on the smaller bell above. After striking the quarters an internal lever trips the right hand (III) train, governed by a further countwheel numbered for every hour, releasing the hours to be struck on the larger 'porkpie' bell above. The fire-gilded backplate with a line border, symmetrically engraved with tulips and open flowers, scrolling foliage, typically signed in an arc <i>Joseph Knibb Londini Fecit</i> above a concentric patera around the centre barrel arbor (to match the centre of each countwheel) with emanating flowers and crossed leaves directly below.
Escapement	Knife edge tic-tac with short bob pendulum
Strike Type	Grande Sonnerie striking via internally linked outside countwheels
Provenance	Sotheby's, 26 March 1964, lot 65; Sotheby's, 26 May 1982, lot 9, sold to RA Lee for £82,500; Private collection USA, until sold in 2001, direct to; John C Taylor Collection, inventory no.70
Exhibited	2003, BADA Fair, Oxford Horological Masterworks preview; 2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.29; 2004, Holland, Het Loo, Huygens' Legacy, exhibit no.53; 2018, London, Innovation & Collaboration, exhibit no.96
Literature	Symonds, <i>Furniture Making in 17th and 18th Century England</i> , 1955, p.217-219, 233-234; Lee, <i>Knibb Family Clockmakers</i> , 1964, p.83, 109 and 124, pl.77, 109, 130 & 131; <i>Antiquarian Horology</i> , Sept. 1964, Lee, 'Knibb Family Clockmakers', p.236, fig. 31; Dawson, Drover and Parkes, <i>Early English Clocks</i> , 1982, p.317, col. pl.17; <i>Antiquarian Horology</i> , Autumn 1989, Winterton, 'English Grande Sonnerie Clocks', 1989, p.309; <i>Horological Masterworks</i> , Oxford, 2003, p.138- 141; <i>Huygens' Legacy, The Golden Age of the Pendulum Clock</i> , Holland, 2004, p.146-7; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.300-301





Joseph Knibb's clocks display an elegant simplicity of structure and, as is often mentioned, his cases and dials have a gracefulness rarely achieved by other makers. Indeed, he is one of only a few makers whose individual style can be instantly identified, and throughout the 1670s and 1680s we can see a clear evolution in his designs, which enabled RA Lee to categorise his table clocks in phases I, II, III and IV.

These phases were not absolutely sequential; of course the Phase I clocks, which are usually larger in size and have feet, come first and, as the fashion was moving towards smaller and more 'portable' clocks, in the late 1670s the Phase III clocks were then introduced. The Phase II clocks were produced over a time that bridges both his later Phase I and his Phase III productions, they are of a similar 'feet less' and smaller form to his Phase III clocks and thus are distinguished by their velvet dials and silver mounts, and they are rightly considered some of the most elegant and strikingly beautiful English clocks ever produced.

The final Phase IV spring clocks became current in the late 1690s, and had 'conventional' double-return top mouldings with elaborate carrying handles, losing their immediately identifiable 'Knibb' form. Produced mostly by John in Oxford, after Joseph's move back to the country in 1697, this change echoed current fashions but, arguably, it also reflected the brothers' commercial decline after over 20 years 'at the top' in London.

This is a superb early example of Knibb's celebrated Phase II series, and like almost all of Knibb's complex clocks, it has had elements reinstated, but these appear true to Knibb and the Grande Sonnerie system is absolutely ingenious, designed as it is within the constraints of normal countwheel governance, but here Knibb has worked to even out the power required for each of the two strike trains. This arrangement strikes the quarters and hours every quarter and the hours only on the hour; the left hand train (IX side) strikes the hour and quarters (150 blows every 12

hours on the smaller bell) and after each of the three quarters are struck; the other train (III side) is internally tripped, taking over striking the past hours (234 blows every 12 hours on the larger bell).

This example is one of only nine recorded Phase II clocks by Joseph Knibb. The first appears to have been commissioned by Charles II and is dated 1677. Thus the King probably started an expensive trend that Knibb was happy to continue to capitalise on. As these were likely his most expensive productions, the Phase II clocks that followed would only have been made to order for his wealthiest customers, but only the three earliest examples have expensive fire-gilding to their backplates, a practice that Knibb had generally dispensed with by c.1680. The current clock is no.2 on the following date-ordered list:

1. Roman striking, tic-tac escapement, royal and dated 1677, George Daniels Collection sold Sotheby's, 6 November 2012, lot 130, for £1,273,250 (now in this collection, inventory no.146);
2. Grande Sonnerie, tic-tac escapement (the current example), circa 1678, RA Lee, *The Knibb Family Clockmakers*, 1964, plate 77;
3. Grande Sonnerie, tic-tac escapement, circa 1678-79, Sotheby's 16th Oct 1972, lot 46, The Hamburg Collection;
4. Striking with pull quarter repeat, circa 1680, RA Lee, *The Knibb Family Clockmakers*, 1964, plate 78;
5. Full Grande Sonnerie, circa 1680-85, CH St.J Hornby Collection, c.1900; private collection USA;
6. Roman striking, circa 1680-85, RA Lee, *The Knibb Family Clockmakers*, 1964, plate 79;
7. Full Grande Sonnerie, circa 1680-85, *Horological Masterworks*, No. 32, John C Taylor Collection (exhibit 21, p.138 in this catalogue);
8. Striking with pull quarter repeat, circa 1680-85, *Exceptional English Clockwork*, no.12;
9. Striking with pull quarter repeat, circa 1685, Christie's 21 November 1990, lot 91.



5. *The St. John Hornby Knibb, c.1680-85*



8. *The Roberts Knibb, c.1680-85*





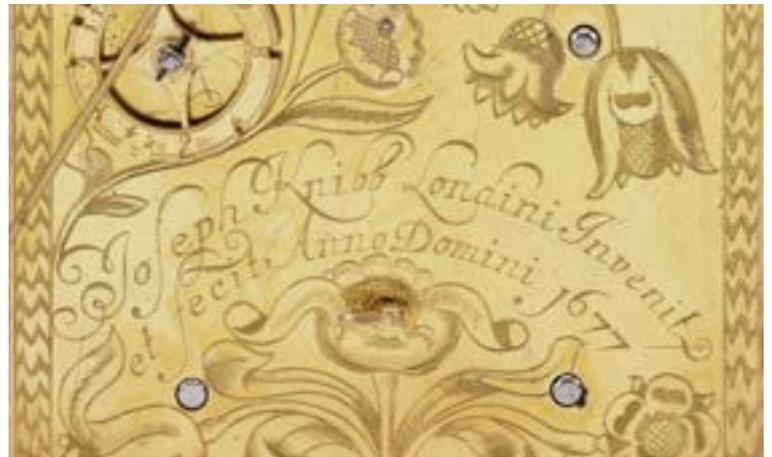
The Silver Tompion, c.1677



The Daniels Knibb, dated 1677

It is interesting that, concurrent with the production of Knibb's first Phase II ebony, silver and velvet clock, Tompion was also making his first commission for Charles II, which was referred to by Robert Hooke in his diary entry of 24th June 1677, as *the Kings striking clock with swash teeth*. The only reasonable contender to fulfil Hooke's description appears to be Tompion's first two-train Grande Sonnerie clock, the Silver Tompion, which is presented in exactly the same manner – ebony and silver-mounted with a velvet-covered dial.

That there was an element of competition between these two up-and-coming makers during 1677 is both logical and unsurprising; they were becoming celebrated in the circles that mattered and while both had already made important scientific commissions, prior to this Tompion had not actually secured a commission directly for the king. As Knibb went on to produce this now celebrated series of Phase II clocks, we tend to associate



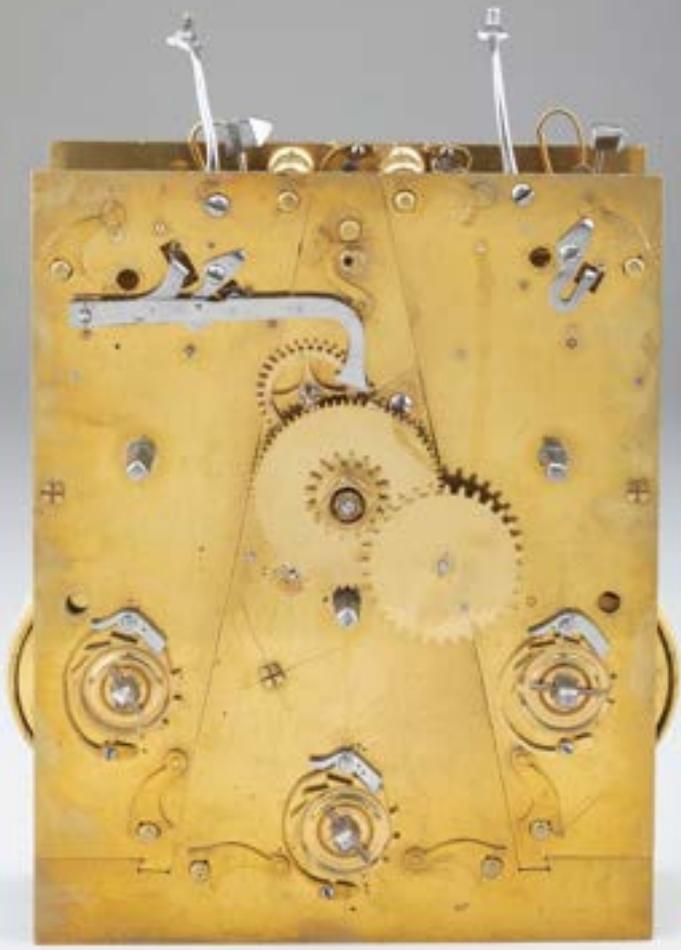
The Daniels Knibb backplate, dated 1677

this sort of dial application in London with him. However, Tompion had already presented his two Greenwich regulator dials in a similar manner in 1676, but unlike Knibb, the Silver Tompion seems to have been the first and last time that Tompion presented a domestic clock in this manner.

Was it significant that Tompion chose to finish his clock in exactly the same manner as Knibb's important royal commission of the same date? Perhaps partially, and it does seem to inextricably tie the two clocks together, but it was usual practice for the customer to specify finish and so it appears the king probably ordered the same for both. There is no doubt that the king's approval did much to enhance reputation and influence patronage from elsewhere and, if these two clocks were ordered in the spirit of competition by the king, one would have to conclude that Tompion's Grande Sonnerie striking silver clock initially won out over Knibb's Roman notation example.

However, this clock shares exactly the same Grande Sonnerie strike and finish with the Silver Tompion, and if one accepts the rivalry process but takes it one step further; is it possible that the second Phase II example (the current 'Symonds' clock) might actually have been made in response, to equal Tompion's clock, as a subsequent competitive answer by Joseph Knibb for Charles II?







John Fromanteel, London

Circa 1675

An interesting Charles II olivewood and boxwood strung month-going striking longcase clock with rise and fall regulation dial



Height	6 feet (1895mm)
Case	The period but restored and associated case veneered in olivewood oysters with walnut and ebonised fruitwood mouldings and boxwood stringing, onto an oak carcass. The hood restored back to rising, the main cornice moulding above an olivewood cushion-moulded frieze, supported by matching ebonised Solomonic columns (partially restored) with integral turned capitals and bases, flanking the olivewood dial aperture, and with conforming quarter-columns to the hood extensions at the rear. The hood supported by a shallow convex throat moulding above the long rectangular trunk door with ebonised moulded frame, olivewood oyster veneers and geometric boxwood line inlays, with ebonised framed glazed pendulum lenticle, the sides with matching oysters. The ebonised and cross-grain cavetto/ovolo base moulding, crowning a re-built plinth with conforming olivewood veneers and boxwood stringing, and standing on four restored bun feet.
Dial	The 9¼ inch (247mm) square gilt-brass dial with winged cherubs head corner spandrels and signed along the lower edge <i>Johannes Fromanteel, Londini</i> . The narrow silvered brass chapter ring with internal quarter division ring inside Roman hours and stylised <i>fleur-de-lys</i> half-hour marks with Arabic minutes every 5 inside the outer division ring. The finely matted centre with subsidiary silvered seconds ring, low-set shuttered winding holes, date square above VI and well pierced and sculpted blued steel hands, the dial fixed with four latched dial feet.
Duration	8 days
Movement	The tall movement with five slender knopped and ringed pillars latched to the frontplate and planted with reverse-wound five-wheel trains; the going train with bolt-and-shutter maintaining power, anchor escapement and pallet access slot in the backplate, the pendulum suspended from a steel lever regulated by an engraved and calibrated Arabic dial positioned to the III side between the movement plates; the strike train governed by a high position countwheel on the backplate, striking on the bell above. The movement steadied on taper-pins onto the replacement seatboard.
Escapement	Anchor with calibrated one-second pendulum (formerly 1¼ seconds)
Strike Type	Countwheel hour, high on the backplate
Provenance	Sotheby's New York, Important English Furniture, 23 Jan. 1988, lot 43a; Christie's, Important Clocks, 6 July 2001, lot 68, sold for £48,225; The John C Taylor Collection, inventory no.68
Exhibited	2004, Palais Het Loo, Holland, Huygens' Legacy, exhibit no.55; 2018, London, Innovation & Collaboration, exhibit no.77
Literature	<i>Huygens' Legacy, The Golden Age of the Pendulum Clock</i> , Holland, 2004, p.150-3; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.276-277

This fine movement and dial have been associated with this period, but restored, olivewood case for at least 40 years and possibly longer. It was perhaps during this marriage that the escapement was altered from a 1¼ seconds pendulum, as indicated by the seconds dial that is divided in four for every five seconds, to fit into the case that has a lenticle for the present one-second pendulum, which is unusually calibrated to the lower bob-sliding block.



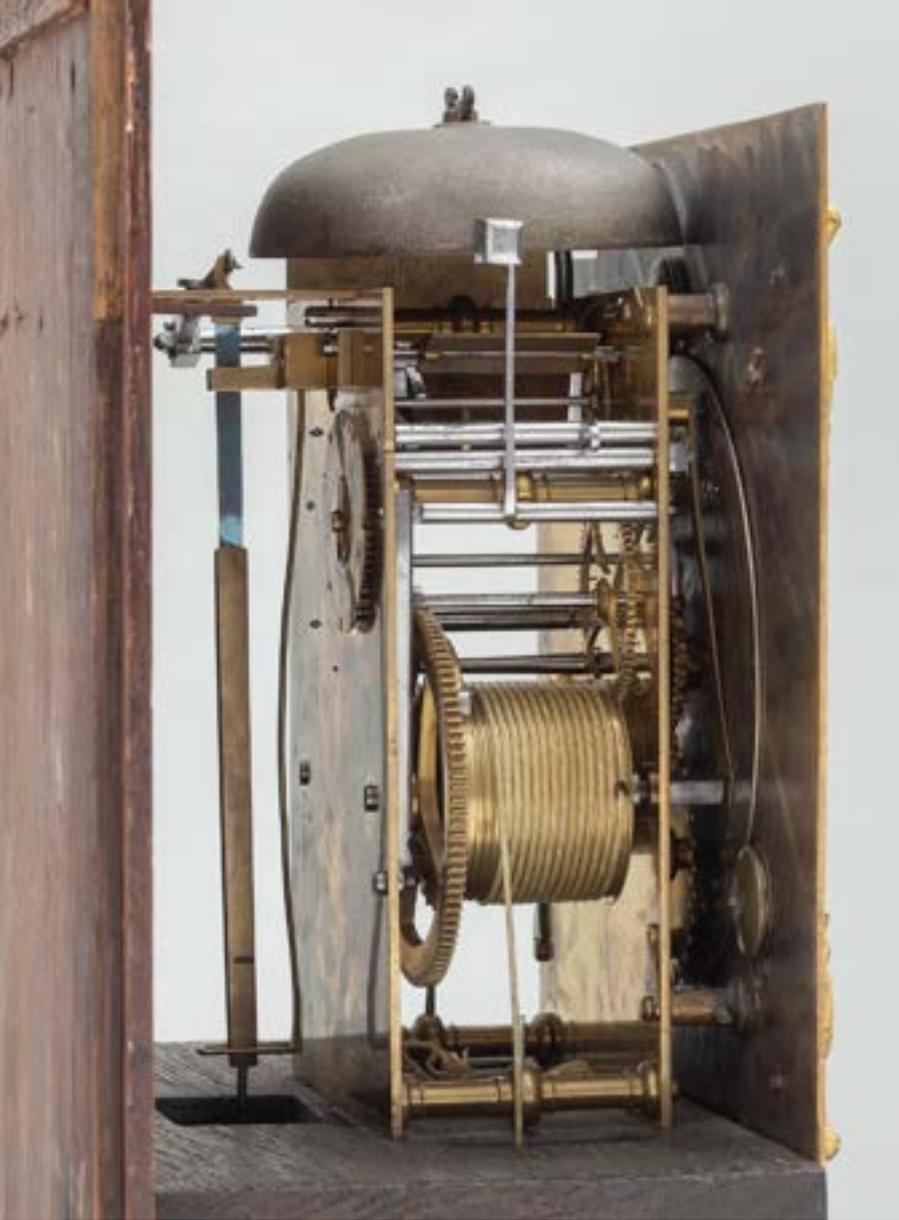


This is one of two clocks with a similar remote pendulum regulation dial that were exhibited in London in 2018, at Innovation & Collaboration, suggesting a possible link between the two. The other example is a spring clock by William Clement, exhibit no.59. In both cases, the spring-suspended pendulums are adjusted via an engraved calibrated dial mounted to the top right-hand side of the movement plates, and both regulation dials share 'j'-type engraving, with conventional 1s to their main dial chapter rings.

The Clement is adjusted via a rack and pinion on the backplate, but in this clock the pendulum length is controlled via a pivoted arbor to a suspension lever. These regulation dials are accessible only when the hood is raised, but adjustments can be made without stopping the clock.

There are at least two further examples recorded, another by William Clement and one by Robert Seignior.





The Daniels Grande Sonnerie Knibb

Circa 1680

A very fine Charles II ebony veneered Phase III gilt-brass mounted double six-hour Grande Sonnerie striking table clock by Joseph Knibb, London

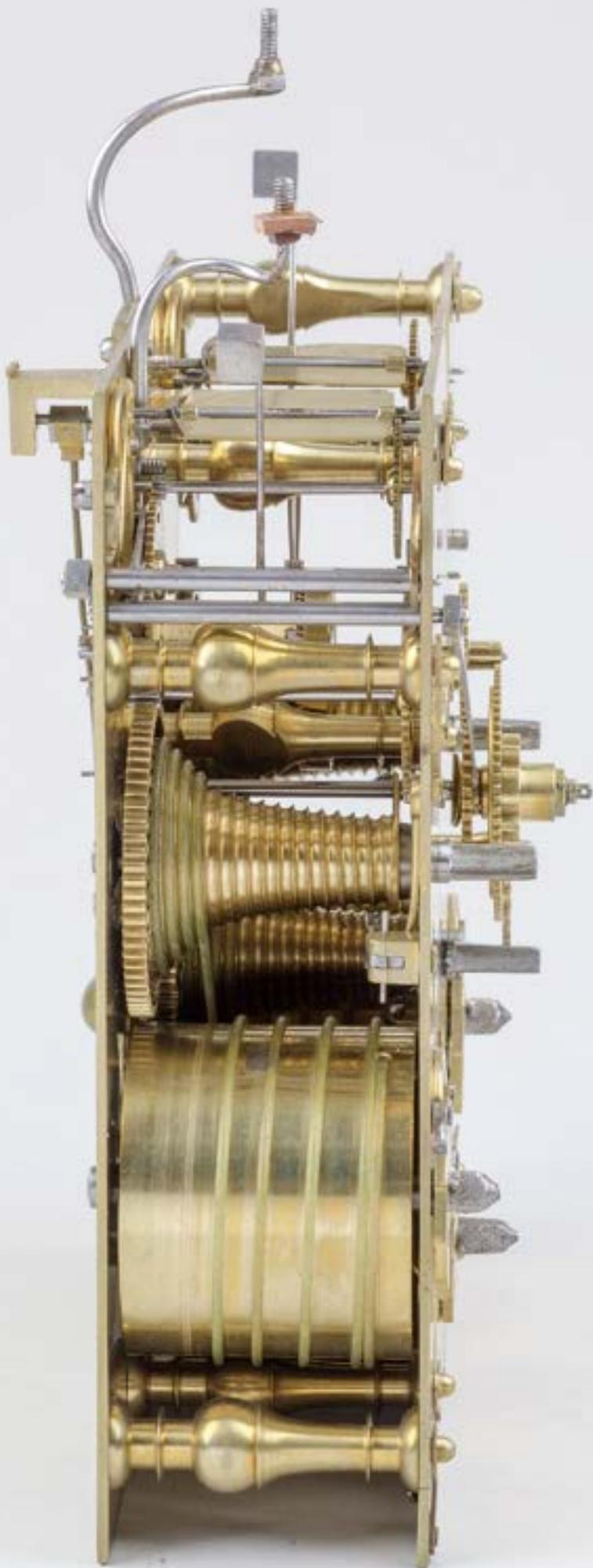


Height	13¼ inches high (345 mm)
Case	The archetypal Phase III case, ebony veneered onto an oak carcass, the cushion domed top with fine quality gilt-brass foliate mounts to the sides and front, surmounted by a gilt-brass foliate-tied handle with turned pommels and base plates, and flanked by four gilt-brass urn finials. The flat-top main cornice moulding over the square front door with typical opposed winged cherub head escutcheons, the left pierced with key-hole for the lock and the top rail inset with a gilt-brass foliate and mask sound fret, the sides with glazed apertures, and the inset glazed back door framed with half-round mouldings. The typical plinth moulding supported by four later turned gilt-brass bun feet.
Dial	The 7¼ inch square fire-gilded brass dial, attached to the frontplate by four latched dial feet. The delicate skeletonised silvered chapter with inner quarter division ring, pierced Roman hour numerals and 'spear' half-hour markers, the outer ring divided for minutes and each Arabic minute individually numbered outside, with well pierced and sculpted Knibb-pattern blued steel hands. The particularly fine and skilfully matted centre with three winding holes and chamfered date aperture below XII, with Knibb's early cherub head corner spandrels and signed along the lower edge, <i>Joseph Knibb London</i> . Held in the case by two typical dial turns behind III and IX.
Duration	8 days
Movement	The delicate three-train fusee movement with ten typical vase-shaped baluster pillars, latched to the triple divided front plate for individual train assembly, with triple gut line fusees and spring barrels. The knife-edge verge escapement with short bob pendulum. The quarter train striking on the smaller bell above and governed by a small numbered countwheel to the backplate with four lifting pins that trip, via a posted lever, the large double six-hour numbered countwheel, releasing the hour train to strike on the larger bell above. The backplate with a line border, symmetrically engraved with tulips and open flowers, scrolling foliage, typically signed in an arc <i>Joseph Knibb Londini Fecit</i> with crossed stems and leaves directly below.
Escapement	Knife-edge verge with short bob pendulum
Strike Type	Double six-hour Grande Sonnerie striking via linked outside countwheels
Provenance	Sotheby's, 28 April 1988, Lot 290 to George Daniels, watchmaker (1926-2011); Sotheby's, <i>The George Daniel's Horological Collection</i> , 6 November 2012, lot 136, sold for £349,000; John C Taylor Collection, inventory no.146
Exhibited	2018, London, Innovation & Collaboration, exhibit no.96
Literature	Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.324-325

The scarce double six-hour Grande Sonnerie striking system is a power saving arrangement first used in continental Europe and later adopted by Joseph Knibb. The hour count wheel is cut for two runs of six-hours in the twelve hour period, resulting in a maximum of 42 blows to the hour bell as opposed to 78 blows on a twelve hour system in any twenty four hour period.

This is a superb example of Knibb's ubiquitous Phase III pattern case, but with complex linked countwheel striking, first pioneered by him in c.1672 (see his early Phase I example from this collection, inventory no.32). While Joseph Knibb's Phase III clocks changed little over the 1680s, closer inspection provides us with clues that this example was most likely made in the early 1680s; the dial signature *Joseph Knibb London* is now no longer Latinised and Knibb is using his later winged cherub head spandrels, but the backplate remains in his earlier open tulip style,





signed in an arc *Joseph Knibb Londini Fecit* and with distinctly early crossed stems below. Knibb's backplates had generally changed to more profuse foliage by the end of the decade, often with the central signature in a reserve on two lines. Meanwhile, this dial has a top-of-the-range skeletonised chapter ring that is extremely aesthetically pleasing, giving a feeling of lightness, but requiring skilful close-edge matting that, in this instance, is particularly fine and difficult to achieve.

With the exception of a small number of his later (post c.1680) Phase III spring clocks, the majority of Knibb's complicated striking arrangements were ingeniously designed within the constraints of countwheel governance, often, as in this instance, to reduce the number of blows required on the bells and save power within the strike trains. Each method allowed for either longer duration and/or more complicated strike combinations on conventional clocks.

Knibb used double six-hour striking specifically on Grande Sonnerie clocks to save on power in the strike train, because the hour is struck at every quarter as well as on the hour. The first six hours are struck normally, but the strike reverts to 1 blow at VII o'clock, through to 6 blows at XII o'clock. The double-six Grande Sonnerie method requires a total of 288 blows every 12 hours: 120 blows from the quarter train and 168 blows from the hour train. As seen in the backplate illustration, the double-six Grande Sonnerie hour countwheel is divided: 1, 1, 1, 1, 2, 2, 2, 2 etc., through to 6, 6, 6, 6, but twice, to make 12 hours.

At this time, more than any other maker, Knibb's customers would have been impressed with the combination of strike options he offered. Whereas just a short time before those customers had been confined, with a few exceptions, to inaccurate clocks going for only short periods and striking only on the hour, they could now buy clocks of longer duration and/or a choice of striking work, including Dutch, Roman and quarter striking, as well as double-six and full Grande Sonnerie clocks.





George Daniels CBE DSc FBHI FSA AHCI (1926-2011) was an English watchmaker who, during his lifetime, was considered and celebrated as one of the finest in the world. He built complete watches by hand, including the cases and dials, but it was his invention of the *Co-Axial Escapement* in 1974, which theoretically removed the need for lubrication, for which he is most celebrated, and it represented the greatest advancement in mechanical escapement design since the invention of the lever escapement by Thomas Mudge in 1754.

Daniels was born in Sunderland in 1926, his mother was unmarried when she became pregnant and fled from London, only when they then returned did his mother wed his father. In 1944, Daniels started his National Service in the army, he already had an interest in watches and did repairs for his colleagues. On leaving in 1947, he used his £50 gratuity to buy tools and started to work as a watch repairer, studying at night classes and graduating as a member of the British Horological Institute, later gaining Fellowship (FBHI).



After a decade of working privately, Daniels opened his first watch repair shop in London in 1960. He became particularly interested in the works of the notable French watchmaker Abraham-Louis Breguet (1747-1823), becoming the world's leading expert and soon started advising on his work, eventually penning *The Art of Breguet* in 1975. When he opened his shop, Daniels met and befriended the wealthy and influential collector, Sam Clutton, who introduced him to the upper echelons of horology and convinced him that he had a future in expensive handcrafted luxury watches. In 1969, Daniels constructed his first pocket watch for Clutton for £2,000, and when Clutton showed the piece to fellow collectors, it created enormous interest and immediate further orders, five years later, Daniels bought Clutton's watch back for £8,000.

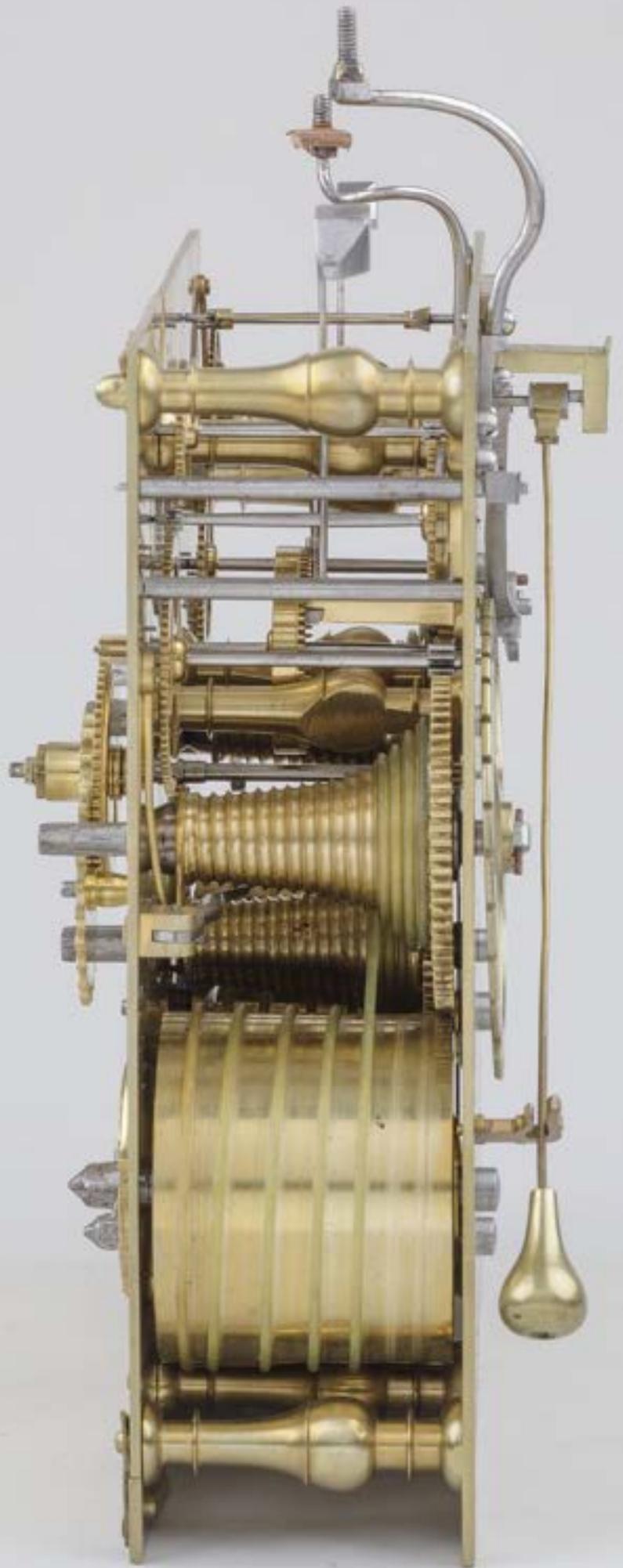
Throughout his making career, Daniels made signature timepieces for personally selected customers, saying *I never made watches for people if I didn't care for them*. The watches took more than 2,500 hours to make, and his hallmark was to give them clear and clean dials, much influenced by his admiration for Breguet, with subsidiary dials interwoven with the main chapter ring. During the quartz crisis of the 1970s, George Daniels accepted a commission from the American industrialist and collector, Seth G. Atwood, who had just founded The Time Museum in Illinois. The assignment was to create a timepiece that would fundamentally improve the performance of mechanical watches. By 1974, after much experimentation, Daniels had designed and made his new type of *Co-Axial Escapement*; the watch was first unveiled in 1976 as the *Atwood Daniels*, but the escapement took until 1980 to be patented.

The extraordinary low friction design avoided the need for the escapement to be oiled, which caused problems with accuracy as it thickened and degraded over time. Using radial friction instead of sliding friction, lubricants are theoretically unnecessary, but in practice, a small amount of lubrication is used on the impulse and locking surfaces of the pallets. Daniels' *Co-Axial Escapement* has since been described by some as the most important development in horology in the past 250 years. and has been used by Omega in most of their collections since 1999, with the exception of the Speedmaster Moonwatch, until the release of the calibre 3861 in 2021.

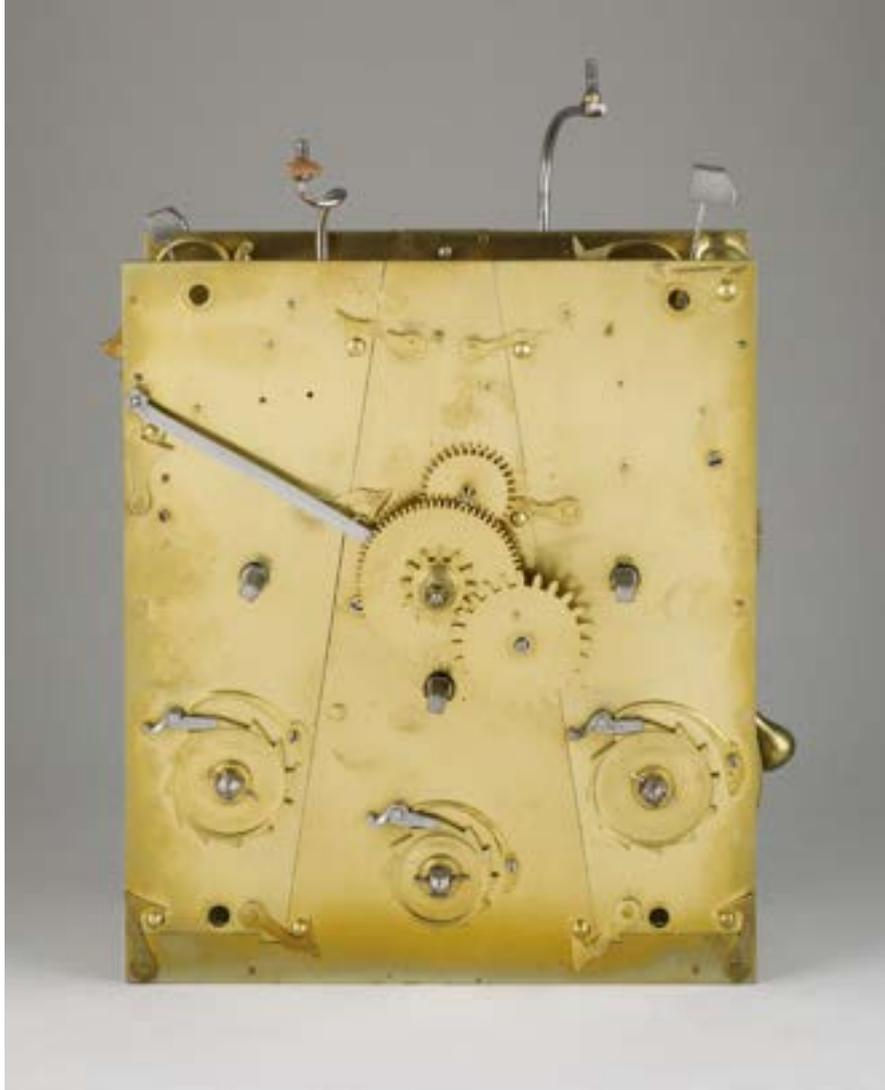
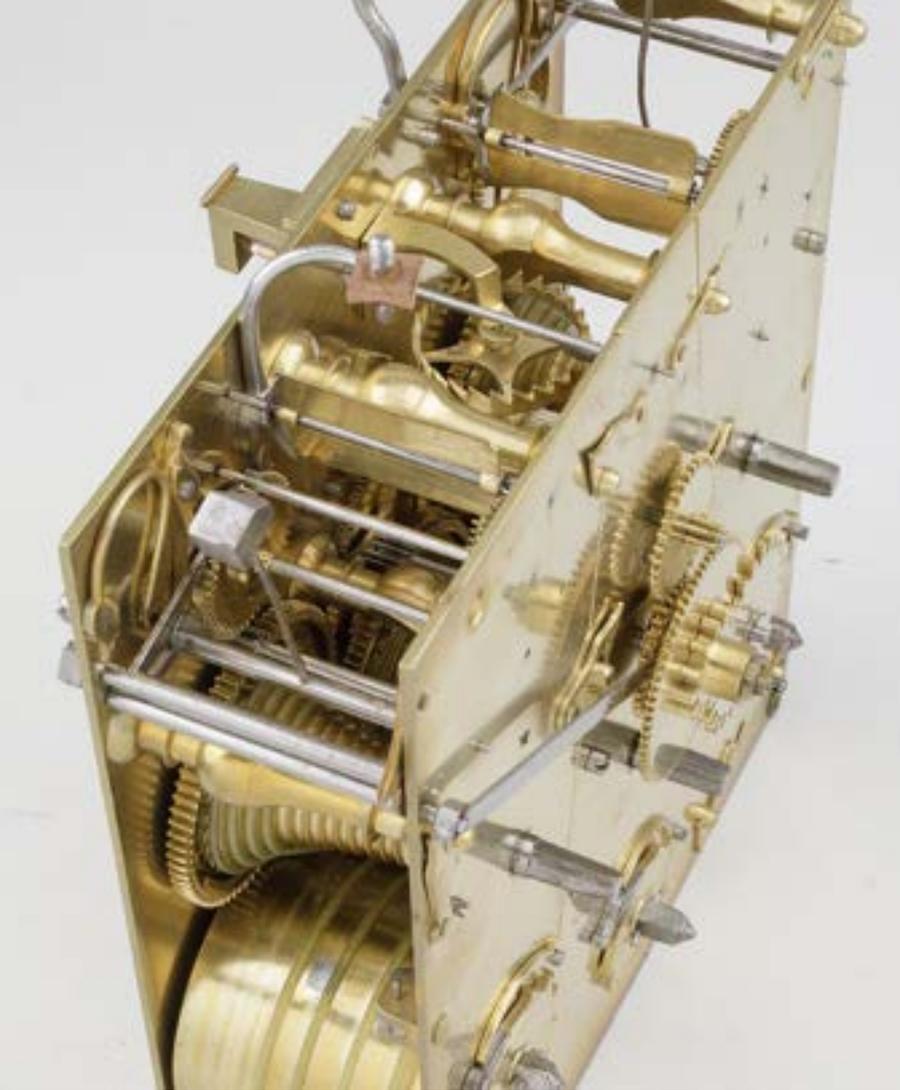
Although the horological industry was first introduced to the concept in 1976, Daniels' escapement was met with scepticism in the then notoriously conservative Swiss watch industry. Although Patek Philippe famously and unsuccessfully experimented with it, initially, in Daniels own words *it was not made correctly to my design*. Thus, it was not until the 1980s that Swatch Group chairman Nicolas Hayek adopted the concept, eventually using it in his upmarket Omega brand. The company unveiled, to great acclaim, its first automatic watch using Daniels' coaxial escapement at the 1999 Basel Watch and Jewellery Fair.

All Daniels own watches were made by hand under one roof and without assistance. George Daniels was the first watchmaker to achieve sufficient mastery of 32 of the 34 skills and techniques requisite in creating a watch entirely alone and by hand. This is now recognised as *'The Daniels Method'* and every component was made from raw materials in his Isle of Man studio without the use of repetitive or automatic tools. Thus, no two watches are identical and each is accepted as a work of art, furthermore, this exacting approach meant that he only completed 27 watches during his career.

A passionate horologist throughout his career, George Daniels success allowed him to indulge his interest in the finest examples by the greatest clockmakers of their day, and his love of aesthetics combined with complexity is exemplified by this superb double-six Grande Sonnerie table clock by Joseph Knibb.







The Guy Boney Knibb Circa 1680

An exceedingly fine Charles II olivewood oyster and marquetry panelled three-train quarter struck longcase clock with original cresting, by John Knibb, Oxford



Height	6 feet 9 inches (2057 mm)
Case	The case veneered in olivewood and olivewood oysters with contrasting ebony mouldings and inlaid with floral marquetry panels on a cariniana carcass. The rising hood has a fine original carved and gilded floral scroll cresting with central gilt-arcaded pedestal capped by three gilt-wood finials. The ebonised cornice above a sound-fret frieze, and supported by matching ebonised three-quarter Solomonic columns with integral turned capitals and bases, flanking the dial aperture and matching quarter columns behind the glazed side apertures. The dial aperture with small ebony mouldings, decorated with a gold pattern, reflecting similar gilt patterning on the lower ebony cornice moulding above. All resting on convex throat mouldings, above the long trunk door framed by D-end ebonised mouldings, with floral and green stained bone foliate quadrants in the corners and a break arch marquetry panel of flowers and foliage in a vase above the complementary lower octagonal panel. The olivewood base with a conforming octagonal floral panel and matching corners. The whole case resting on ebonised bun feet.
Dial	The 9½ inch square fire-gilded brass dial, with winged cherub head corner spandrels within a line border, interrupted by the signature <i>Johannes Knibb Oxon fecit</i> along the lower edge. The narrow silvered chapter with inner quarter division ring and Roman hours with <i>fleur-de-lys</i> half-hour marks between, the Arabic minutes numbered every 5 within the minute division ring. The finely matted and gilded dial centre with a large slender seconds ring below XII, with every 5 seconds in Arabic numerals outside the divisions, the faceted calendar aperture above VI and three shuttered winding holes, with well pierced and sculpted blued steel 'Oxford' hands. The dial fixed with four latched dial feet.
Duration	8 days
Movement	The substantial rectangular movement plates held by ten fine knopped pillars, latched to the triple-split frontplate, each split section planted with the individual four-wheel trains; the central going with bolt-and-shutter maintaining power to the anchor escapement, with corresponding pallet cut-out in the backplate, the pallet-arbor with brass crutch, and cocked for the pendulum suspension; the hour strike train on the left (IX) side governed by a solid outside countwheel to the barrel arbor and striking on the large bell above; the quarter train on the right (III) side governed by a small external countwheel to strike the three quarters on the smaller bell above.
Escapement	Anchor with one-second pendulum
Strike Type	Countwheel quarters and hours
Provenance	Ronald A Lee 1955; Briggs of Maidenhead 1959, taken to Grosvenor House Antiques Fair, where first seen by Guy Boney as a schoolboy; Phillips, 12 March 1996, lot no.195, sold to Anthony Woodburn; The Guy Boney collection, until sold in 2002 for £191,000; The John C Taylor Collection, inventory no.101
Exhibited	2003, Horological Masterworks, Oxford Museum for the History of Science, and the Walker Gallery, Liverpool, exhibit no.31 2004, Palais Het Loo, Holland, Huygens' Legacy, exhibit no.60 2018, London, Innovation & Collaboration, exhibit no.92
Literature	<i>Five Centuries of British Timekeeping</i> , 1955, p.26, RA Lee advert; Bentley, <i>The Plain Man's guide to Antique Clocks</i> , 1963, p.56, pl.VI; RA Lee, <i>The Knibb Family Clockmakers</i> , 1964, pl.21 & 44; Bentley, 'That Famous Pendulum Maker, Knibb', <i>Antique Collector</i> , Jun 1969, p.93 (illus.); Dawson, Drover and Parkes, <i>Early English Clocks</i> , 1982, p.252-3, pl.339 <i>Horological Masterworks</i> , Oxford, 2003, p.146-149; <i>Huygens' Legacy</i> , Holland, 2004, p.164-165; Bowett, <i>Woods in British Furniture Making 1400-1900</i> , 2012, p.54 (illus.) Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.312-315



Judge Guy Boney QC (Retd.) was born in 1945 and, quite apart from his illustrious career at the Bar and Bench, he has always had a passionate interest in horology, and is one of our longest-standing customers, purchasing his first watch from us while a 14 year old schoolboy at Winchester College. Guy first saw this Knibb that same year, when his father took him to the Grosvenor House Antiques Fair, where this wonderful longcase was being exhibited by Biggs of Maidenhead. Afterwards, his father asked him *if you could own just one object, what would*

it be? Without hesitation he replied, hopefully, *the Knibb grandfather clock*. Guy kept hold of his 1959 Grosvenor House catalogue and continued to quietly crave after the Knibb. After nearly 40 years, he finally had the opportunity to acquire it, his long-suffering wife allowed him to re-mortgage their house to feed his by now mature horological-habit and buy it. Some years later, to keep the bank manager happy and his wife content, he reluctantly sold the clock to Dr Taylor, and re-acquired the deeds to the family home.



This well-documented clock is one of the finest and most complete Knibb longcase that we have handled during our 75 years in business. By John and signed for Oxford, it is in an extraordinary state of preservation, unusually retaining its original cresting, it is also reassuringly constructed on a cariniana wood carcass, for which a small proportion of the Knibb brothers' cases are so famed. Although technically provincial, this superb and well-known longcase has been consistently dated at c.1680. However, the overall bearing, case proportions and dial style arguably hint at a clock from the latter 1670s: the signature is in Latin in early cursive script, an interrupted single line frames the dial, the chapter ring is narrow, the spandrels are early, while the 'Oxford' hands are likewise of the Knibb brothers' earlier form. Furthermore, with direct links to, and cooperation with, his brother Joseph's business in London, John Knibb's output was not behind the times, but rathermore concurrent with the latest modes in use by his contemporaries in the capital.

The Knibb family's ingenuity for complex countwheel striking is epitomised on this three-train quarter striking example. More than any other makers, Joseph and John offered an intriguing array of different strike options within their clocks; most were introduced prior to the general uptake of rack-and-snail striking and were governed by countwheels. They approached their clock construction with a view to simplicity and lightness of touch, so that their clocks have a delicacy and fineness of construction that served to reduce inertia and friction. The duration of the movement dictates where the hour countwheel is planted but it is always on an arbor making a full rotation every twelve hours. On 8-day clocks such as this, it is usually attached directly to the winding barrel arbor, while on their longer duration clocks it will usually be on the second or pinwheel arbor.

The Knibb's countwheel strike systems can be subdivided into those using a single countwheel and strike train and those using two interconnected countwheels on two separate (hour and quarter) strike trains, as follows:

Single countwheel strike train:

1. Hour striking
2. Roman striking
3. Dutch striking, hour and half-hour
4. Hour and quarter striking

Two countwheels with two strike trains:

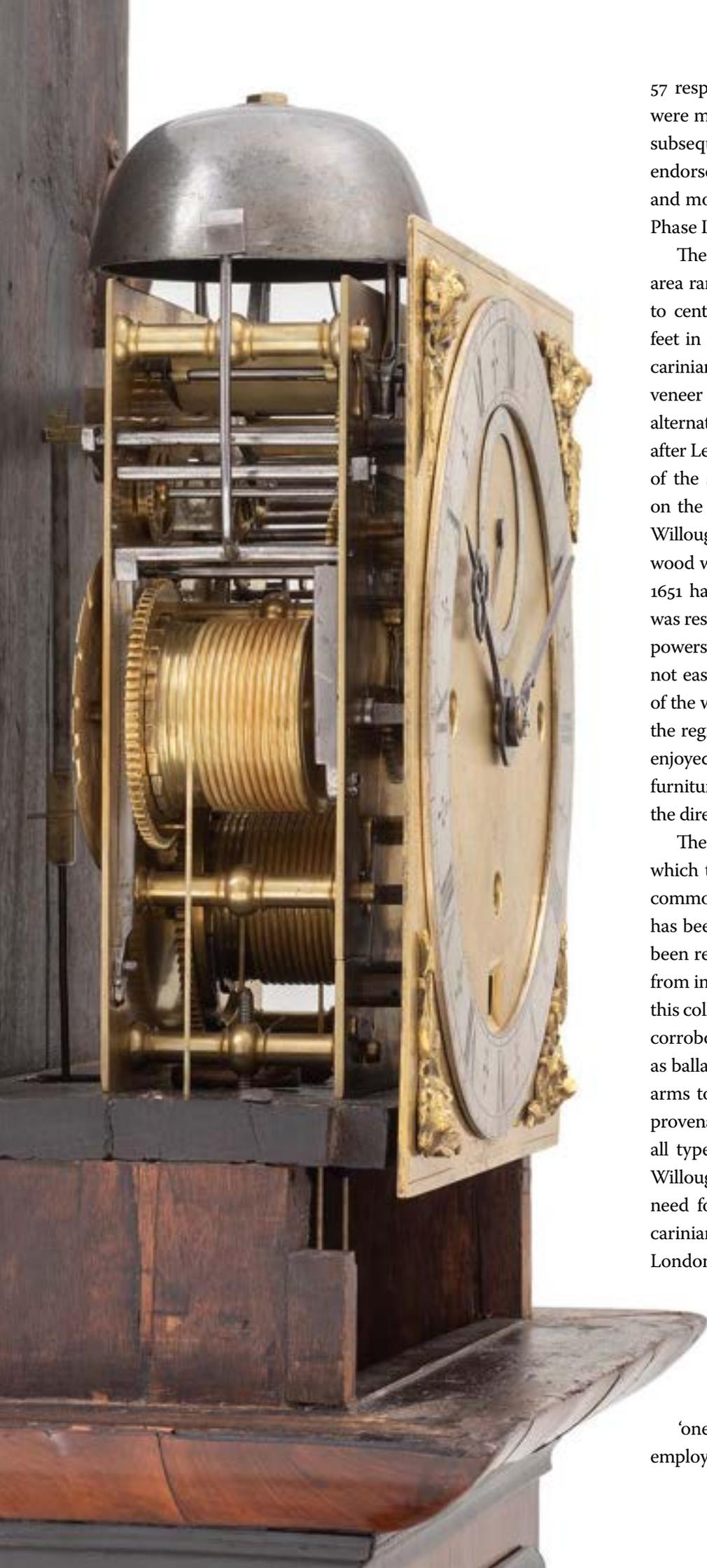
5. Hour and quarter striking (as seen here in this example)
6. Petite Sonnerie striking
7. Double-six Grande Sonnerie striking
8. Full Grande Sonnerie striking

The use of Cariniana wood in English clock cases (c.1665-c.1685)

RA Lee was the first to document the use of cariniana for carcass wood in English clocks (*The Knibb Family, Clockmakers*, 1964) and it is not apparently used in any other contemporary furniture. There are less than 15 clock cases currently known, the majority of which are associated with the Knibb family (Joseph, John and Peter) and made between c.1675 and c.1685, when supply of timber presumably ran out. All of the Knibb examples are longcase clocks, with the exception of a walnut-veneered Phase I spring timepiece of c.1675, which was perhaps their first cariniana carcassed clock.

However, the earliest two recorded clock cases known to use cariniana were made prior to Joseph Knibb's arrival in London in c.1670/1: an ebony-veneered table clock by Simon Bartram of c.1659 (but probably not finished until c.1665), and a walnut-veneered longcase by Hilkieah Bedford of c.1670 (both from this collection inventory nos. 84 and





57 respectively). Its limited usage might suggest these two cases were made by the same cabinetmaker, who Joseph Knibb perhaps subsequently adopted after his arrival in London. In possible endorsement of this, the Bartram case utilises a flat-topped cornice and moulded base that would later become archetypal on Knibb's Phase I, II and III spring clock cases (see exhibit nos. 14, 17 and 21).

There are ten or more species of *cariniana* indigenous to an area ranging from the Venezuelan coast, through Colombia, down to central Brazil. The trees reach up to 125 feet in height and 4 feet in diameter and, from a practical point of view, the benefit of *cariniana* lies in its generally straight and open grain, making it a dull veneer surface wood but a very stable base carcass, and a perfect alternative to locally grown oak or pine. The Bartram came to light after Lee's 1964 book, and its early date places it within the timespan of the short-lived colony of Willoughbyland (1651-1667). Situated on the Suriname river on the Caribbean coast of South America, Willoughbyland was the only English colony in which *cariniana* wood was indigenous. To set this in context, the Navigation Act of 1651 had ensured that all trade between England and its colonies was restricted to English or colonial shipping, while other European powers imposed similar rules to their own colonies - so that it was not easy for London craftsmen to obtain raw materials from parts of the world not within England's direct control. Other woods from the region, most notably exotic snakewood (*piratinera guianensis*), enjoyed a similarly brief usage amongst contemporary London furniture makers, before the Dutch conquest in 1667 put an end to the direct import of these woods altogether.

The rather select usage and relatively brief timespan during which the wood was employed (c.1665-c.1685) not only hints at a common casemaker, but also to a limited supply of the timber. It has been said that in 'most cases' the wood shows signs of having been re-used, proposing that the supply of timber may have come from imported packing cases, but inspection of the six examples in this collection (one table clock, and five longcases) does not seem to corroborate that theory. Lee suggested that trunks of trees came in as ballast in semi-laden ships returning from delivering troops and arms to the West Indies. However, if an original Willoughbyland provenance is considered, there were bountiful quantities of all types of valuable goods being exported from the region (see Willoughbyland overleaf, p.136), which might have negated the need for ballast. Alternatively, perhaps a single load of plentiful *cariniana* was logged, processed and sent to test the market in London, the relatively small number of planks would have taken up little space in between the valuable cargo. Arguably, a testing of the market might have taken place relatively early in the colony's foundation and, without a decorative use, the wood may not have garnered much interest.

Possibly a few years later this cabinetmaker purchased the 'one-off' shipment at a preferential rate, which he then first employed in the table clock case for Bartram, perhaps in c.1665.



Willoughbyland (An English Colony, 1651-1667)

Today, there are few places as obscure and exotic as Suriname, 9/10ths of its territory is still covered by primary rainforest, where new species are regularly discovered. Until 2020 the president was Desi Bouterse, a convicted cocaine smuggler who stood trial for multiple murders during his 10 years in office. Meanwhile in the capital, Paramaribo, they speak 20 languages and maintain numerous Marxist parties. Curiously, all of this began as an English colony that only lasted 16 years. In 2015, Matthew Parker published *Willoughbyland: England's Lost Colony*, a fascinating account of the curious and little-known fiefdom founded by Francis, 5th Baron Willoughby of Parham (1614-1666) in 1651.

In 1596, Sir Walter Raleigh published a glowing prospectus of the region, complete with a *diamond mountain* and *headless men*. Nevertheless, by the mid 17th century, almost every English attempt to settle on the *Wild Coast* had failed. The English civil war however, soon changed attitudes, and with the country in ruins, people once again started to look abroad for space and freedom. Leading the way was Francis Willoughby, who had had his estates confiscated by parliament. In 1651, he was appointed Governor of Royalist Barbados and that year Willoughby *possessed* Suriname, specifically as a bolthole. With the Royalist cause soon defeated in England, he decamped there and sank his remaining fortune into ships and defences for the settlement.

By the end of 1652, Willoughby's estates in England were restored and he returned home. He didn't go back to the colony for another ten years, but in his absence the settlement thrived, and plantations soon covered both banks of the Suriname River. More colonists arrived, and the numbers grew from 600 in 1654 to 4,000 eight years later. Everyone was welcome, *Brethren* (radicals), Royalists or Jews, there was *no discernible leadership* and society became weirdly democratic. As one diarist noted, it was a *peculiar kind of government*, but it was also successful and, by 1664, Willoughbyland was declared England's most *hopeful* colony.

By the standards of the 1660s, the colony was a variant of *Paradise* and the profits were huge, not only did Willoughbyland produce the finest sugar, it also exported cotton, woods, dyes, tobacco, honey, wax, *noble aromatics*, *rich gums*, *balsoms* and *many Physickall drugs*. As for the indigenous women, it was said they were *well-favoured*, *generally lascivious* and *fat of body*, however, the commonest ailment was the *French Pox* (syphilis). Malaria was also rife, while many settlers drank themselves to death, but it was the introduction of slaves that brought about its rapid decline. Until the early 1660s, much of the workforce was English, with biddable local Amerindians, but slavery received royal sanction in 1663 and, by 1667, there were as many slaves as settlers. Willoughbyland was transformed, becoming

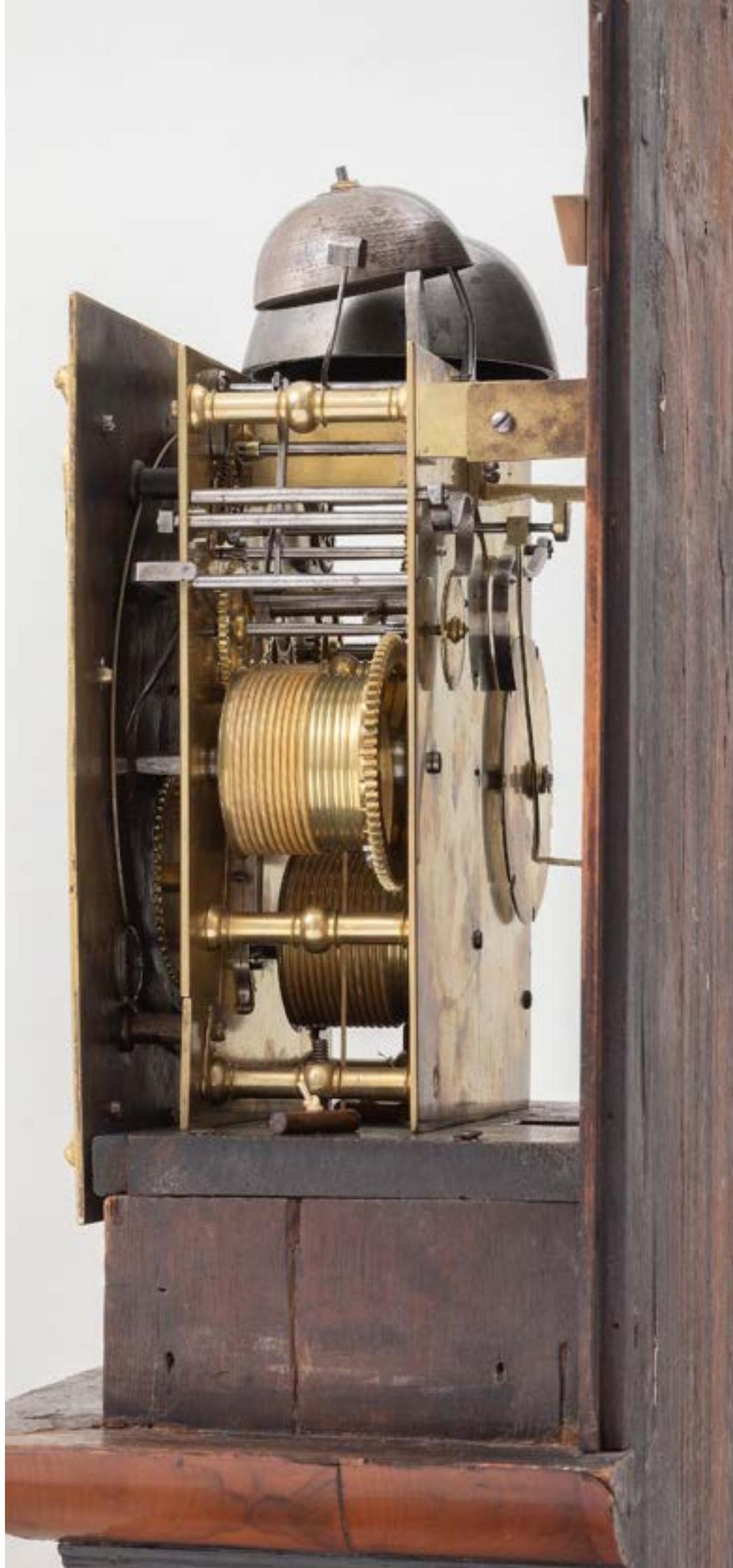


Map of 'the colony of Surrinam in Guiana', drawn in the last year of English occupation, 1677

a place of cruelty, decadence and fear. One Londoner, John Allin, committed the crime of suicide, and his naked corpse was dragged through the streets, cut up, barbecued, and put out on stakes.

By the time Willoughby returned in 1664, his colony was rich, but sinister and moribund. In 1666, he was drowned on a military expedition and then, in 1667, the Dutch invaded. The family were furious at losing their valuable colony to a load of *brewers and cheesemongers*, sending Willoughby's brother to capture it back, but it was too late, and a treaty was signed. As the colony broke up, the English burnt down their mills and during the chaos many slaves escaped, vanishing into the forest. Their descendants, known as *maroons*, are still there, living African lives and using an old slave language called *talkie-talkie*. For centuries they were the nucleus of revolt and, as recently as 1988, they were at the heart of a civil war in the interior.

Under the Treaty of Breda of 1667, the English agreed to give up Willoughbyland to the Dutch in return for a cold and inhospitable slab of North America, around and including what is now known as New York.



The Nicholls Knibb

Circa 1685

An exceedingly scarce Charles II ebony veneered and silver-mounted Phase II full Grande Sonnerie striking table clock by Joseph Knibb, London



Height	12 inches high (305 mm)
Case	The archetypal Phase II case, ebony veneered onto an oak carcass, with a plain cushion domed top, surmounted by a silver foliate-tied handle with turned pommels and base plates. The flat-top main cornice moulding over the square front door with typical opposed solid silver winged cherub head scroll escutcheons, the left pin-hinged and swivelling to reveal the key-hole, and the top rail inset with an ebony pierced sound fret. The glazed side apertures with further ebony pierced sound frets above, and the inset glazed back door framed with half-round mouldings. All resting on the conforming plinth moulding, typically and correctly, without feet.
Dial	The 6¾ inch (172 mm) square brass dial covered with (replaced) black velvet and applied with a delicate silvered chapter ring with Roman hours, <i>fleur-de-lys</i> half-hour markers and Arabic minutes, every 5, within the division ring. Signed <i>Joseph Knibb Londini Fecit</i> around VI. The typical silver hour hand delicately pierced, shaped and chamfered, the matching minute hand also in solid silver. The centre of the dial with three winding holes, each with plain silver ferrule edging, as has the date square below XII, and the corners are applied with Knibb's later-developed pattern of cast and chased silver winged cherub spandrels. The dial is fixed to the movement by four latched dial feet, and to the case by two typical screw-turns to the rear of III and IX, into the carcass behind the mask.
Duration	8 days
Movement	The delicate three-train fusee movement with ten archetypal vase-shaped baluster pillars, latched to the triple-divided frontplate for individual train assembly, with triple gut line fusees and spring barrels, the knife edge verge escapement (restored) with short bob pendulum. The left hand (IX) train striking all four quarters on the smaller bell above and governed by a small numbered countwheel to the backplate with four lifting pins that trip, via a tilting posted lever, the right hand (III) hour train, governed by a further restored countwheel numbered for every hour, releasing the hours to be struck on the larger bell above. The backplate with a line border, symmetrically engraved with tulips and scrolling foliage, typically signed in an arc <i>Joseph Knibb Londini Fecit</i> with further flowers and scrolls emanating from the centre directly below.
Escapement	Knife edge verge with short bob pendulum
Strike Type	Full Grande Sonnerie striking via linked outside countwheels
Provenance	From 1920s, Private collection USA (Lee's notes) until 1995, when acquired by; Asprey's, and sold by Charles Lee in 1996 for £88,000; John C Taylor Collection, inventory no.17
Exhibited	2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.32
Literature	Nicholls, <i>English Bracket and Mantel Clocks</i> , 1982, fig.2 and 3; <i>Horological Masterworks</i> , Oxford, 2003, p. 150-153

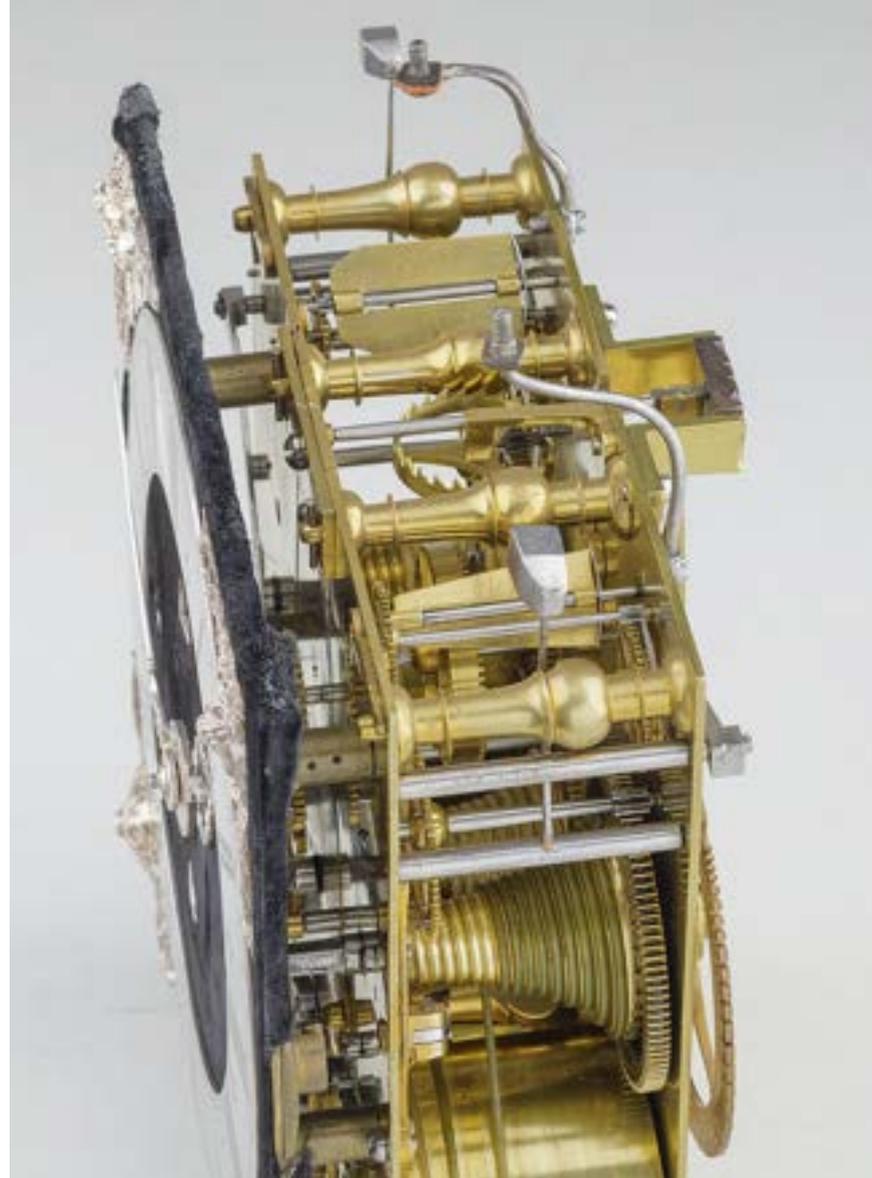






This scarce and important spring clock is one of only nine known from Joseph Knibb's famous series of Phase II form (ebony, velvet and silver) and furthermore, it is one of only four recorded Grande Sonnerie striking examples (see list on page 112, under exhibit 17). The first was Roman striking, commissioned by Charles II and is dated 1677 (also in this collection, inventory no.145). As was usual at that time, the king is likely to have chosen the outward specification; ebony-veneered and adorned in silver, with a velvet-backed dial. Thus, the monarch probably started an expensive trend that Knibb was happy to capitalise on. As these were probably his most expensive productions, the Phase II clocks that followed, including the current example, would likely only have been made to order for his wealthiest customers. Meanwhile, the existence of a similarly decorated spring clock, The Silver Tompion, which was also apparently commissioned by the king at the same time, 1677 (see page 114), seems to confirm the direct rivalry of these two important clockmakers, as well as their commercial ascendancy, at this time.

Although it is not known from whom Asprey's acquired this clock in the 1990s, Charles Lee's notes indicate that the clock was imported direct from the USA, where it had *...not been available since the '20s*. Interestingly, the owners had provided photographs of the clock still in its unrestored condition to Andrew Nicholls, for his 1982 publication *English Bracket and Mantel Clocks*. These images provide vital and reassuring background, indicating that the clock retains all the original silver elements showing now, but without the current velvet. The case had its solid-silver escutcheons, handle, pommels, and base plates. Meanwhile, although the dial had lost its

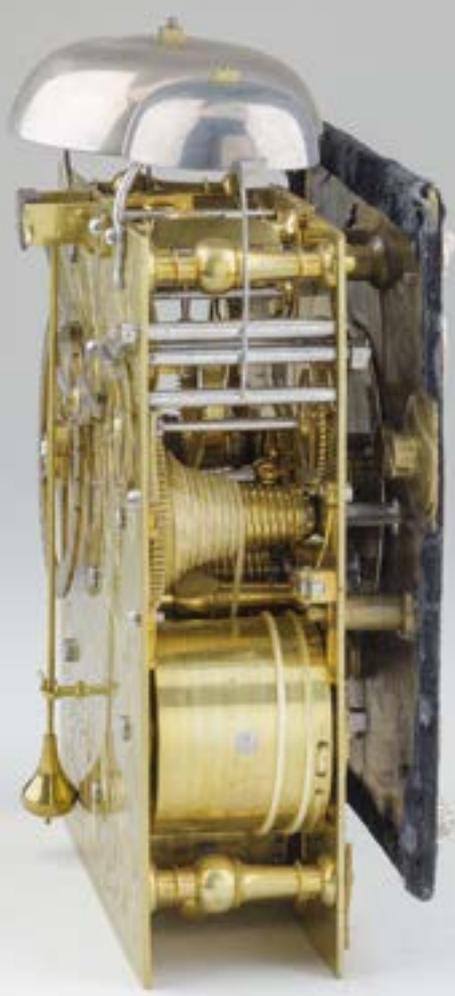
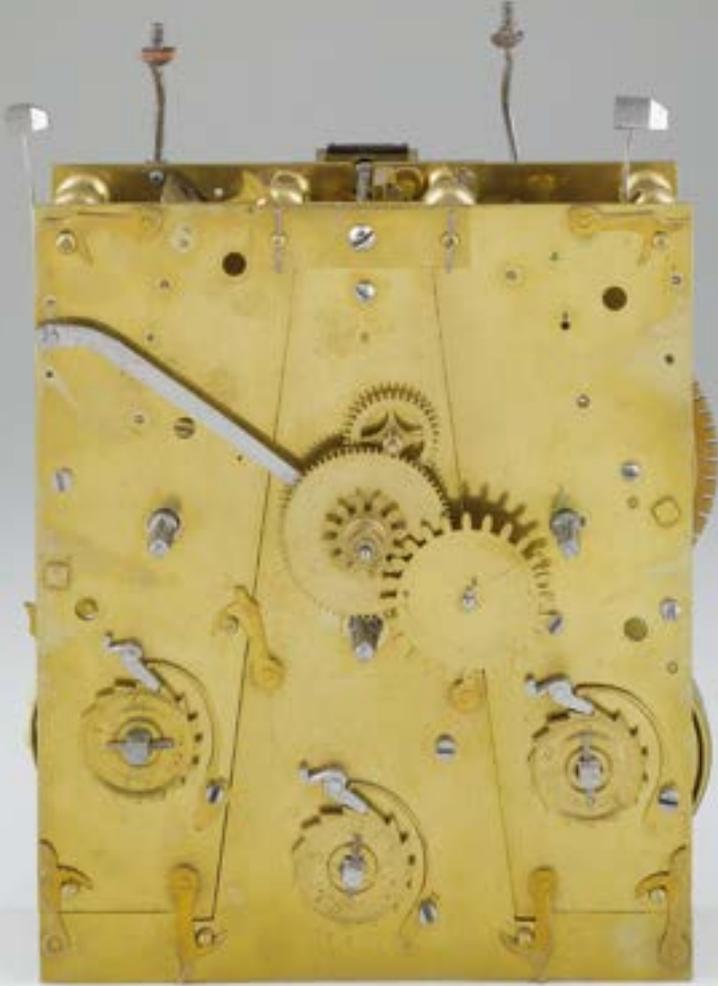


S. Joseph Knibb, London
 (OC 1074-2112)
 Table clock in ebony-veneered
 case, with the absence of
 feet. Designed oval
 movement, typical of Knibb.
 Decorative feet over side
 window. A circular feet is
 missing from over the dial.
 The shallow, domed top
 probably had metal mounts
 originally. The dial engraving
 is of a later style. This clock
 originally had a velvet-
 covered dial plate. This
 requires the use of silver
 hands and numerals, the
 modified numerals to writing
 Latin and calendar apparatus
 and the unusual position of
 the signature on the chapter
 ring. It was named for
 Knibb's brass dial to be
 signed on the dial glass below
 'J. Knibb. 1677' (12 1/2 in.)
 c. 1680.

velvet covering, it retained its original chapter ring, signed *Joseph Knibb Londini Fecit* that on Phase III examples would otherwise be on the dialplate, as well as the solid-silver hands and spandrels. At some time before the 1920s, the velvet must have degraded to a point that it was considered 'untidy', this was then removed, leaving a plain planished dial front, which was then engraved with incongruous decoration, in its place. Apparently, the plain silver aperture ferules used to edge the velvet, were considered pleasing enough, as these too can be seen left in place. It is not clear whether Lee organised to correctly replace the velvet dial-covering in the mid 1990s, but his correspondence indicates a new hour countwheel was made together with a new backcock, for the existing verge escapement that was shown in the 1982 images.

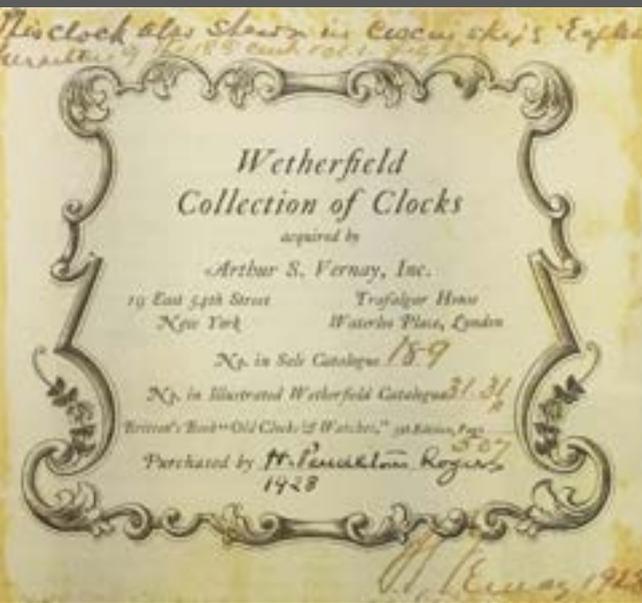
As noted by Nicholls, it seems likely that this clock originally had a set of front and side dome mounts. Furthermore, due to the high cost of silver and in common with other Phase II examples, it is probable that rather than being cast, these would likely have been repoussé: where soft silver-sheet was individually hand-beaten and formed in reverse onto pitch, once 'dimensional' they were then turned-over, pierced and highlighted with burnishing and chasing. Although the labour required to make them was much higher, they were produced from much lighter weight silver-sheet, the high material cost of silver at this time, outweighing the relatively low cost of labour.





Joseph Knibb, London Circa 1685

A rare walnut oyster, marquetry and parquetry panelled, month-going longcase clock with skeletonised chapter ring, previously in the Wetherfield collection



Height	6 feet 4¾ inches (1950 mm)
Case	The case veneered in walnut oysters with parquetry and a floral marquetry panel on an oak carcass. Cross-grain walnut main mouldings to the hood, the frieze with pierced walnut fret to the front, above the walnut Solomonic reflective columns, with integral turned capitals and bases, flanking the dial aperture and with quarter columns behind. The trunk with convex throat mouldings, above the trunk door framed by D-end cross-grain mouldings and inset with fan parquetry corners of ebony and boxwood above two conforming wavy edge roundels and an oval marquetry panel of a bird in an urn of flowers with green stained foliage, with a further parquetry star and corners below the large circular glazed pendulum lenticle, all set within a walnut oyster ground. The conforming walnut base with a parquetry roundel, the skirting later. <i>Wetherfield Collection</i> 1928 label pasted inside the trunk door.
Dial	The 10 inch square gilt-brass dial, winged cherub and scroll corner spandrels with engraved foliage between and signed along the lower edge <i>Joseph Knibb, London</i> , the silvered brass skeletonized chapter ring with every Arabic minute numbered outside the Roman chapter with simple dot half-hour marks, the finely matted centre inset with a square date aperture below XII, with well pierced and sculpted blued steel hands, the dial fixed with four latched dial feet.
Duration	One month
Movement	The typical Knibb movement with six fine knopped pillars, latched to the frontplate. The going train with anchor escapement and pallet cut-out in the backplate, the pallet-arbor cocked and the pendulum suspension with fine adjustment butterfly-nut above, the strike train with an outside countwheel governing the hour strike. Both trains with five wheels, and reverse wound, for month duration.
Escapement	Anchor with one-second pendulum
Strike Type	Countwheel hour
Provenance	The Wetherfield Collection no.31, sale catalogue no.189; 1928, purchased by H. Pendleton Rogers; Bonhams, 14 December 2011, lot 115, sold for £143,400; The John C Taylor Collection, inventory no.143
Exhibited	2018, London, Innovation & Collaboration, exhibit no.76
Literature	Cescinsky, <i>English Furniture of the 18th Century</i> , 1911, Vol.1, fig.272; Britten's, <i>Old Clocks and Watches</i> , 1956. 5 th Edition, p.507 illus.; WE Hurcomb, <i>The Wetherfield collection of 222 clocks</i> , 1928, p.45 illus.; Bruton, <i>The Wetherfield Collection of Clocks</i> , 1981, plate 82; Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.275
Comparative Literature	RA Lee, <i>The Knibb Family Clockmakers</i> , 1964, Plates 20 and 23; Dawson, Drover and Parkes, <i>Early English Clocks</i> , 1982, plate 340

This well known clock has been recorded, published and illustrated in various books for over 100 years. Very aesthetically pleasing, skeletonised chapter rings and the requirement for close-edged dial matting was both difficult and time consuming, as a result it was reserved for the best productions of a clockmaker's output. Although subject to some restoration over the years, this fine and undoubtedly expensive oyster, marquetry and parquetry case complements both the dial and its long duration, confirming this clock was priced at the top end of Knibb's output.













Henry Jones, London

Circa 1685

An interesting James II figured walnut and marquetry panelled Dutch striking and quarter chiming longcase clock

Height	6 feet 10 inches (2082 mm)
Case	The case veneered in walnut on an oak carcass with floral marquetry panels. The cross-grain walnut main mouldings to the hood, the frieze with pierced walnut fret to the front, above the walnut Solomononic reflective columns, with integral turned capitals and bases, flanking a fine floral marquetry dial aperture. The trunk with convex throat mouldings and matching marquetry to its front, above the trunk door framed by cross-grain mouldings and inset with D-end floral marquetry panels with a circular glazed brass pendulum lenticle between, the base with a conforming marquetry panel on restored squat bun feet.
Dial	The brass dial, 12 inches square, with 4 pinned dial feet, the silvered brass Roman chapter ring signed <i>Henry Jones, London</i> around VI with fleur-de-lys half hour marks and Arabic minutes outside their division ring, the matted centre with subsidiary seconds ring, chamfered and engraved date aperture, large gilt winged cherub corner spandrels, the hands finely pierced and shaped in blued steel.
Duration	8 days
Movement	The very substantial three-train hour striking 8-day movement with 6 latched baluster pillars, the going train with anchor escapement and seconds pendulum, the Dutch striking hour train on 2 bells and governed by an outside countwheel mounted direct onto the greatwheel arbor, the quarter train with internal countwheel chiming on a nest of 5 further bells.
Escapement	Anchor with one-second pendulum
Strike Type	Countwheel Dutch striking and quarter chiming
Provenance	Bonhams, 17 June 2003, lot 100, sold for £28,269; The John C Taylor Collection, inventory no.118.
Comparative Literature	Stuart Kelley, 'Henry Jones – Clockmaker of London, part II of VI', <i>Antiquarian Horology</i> , September 2003

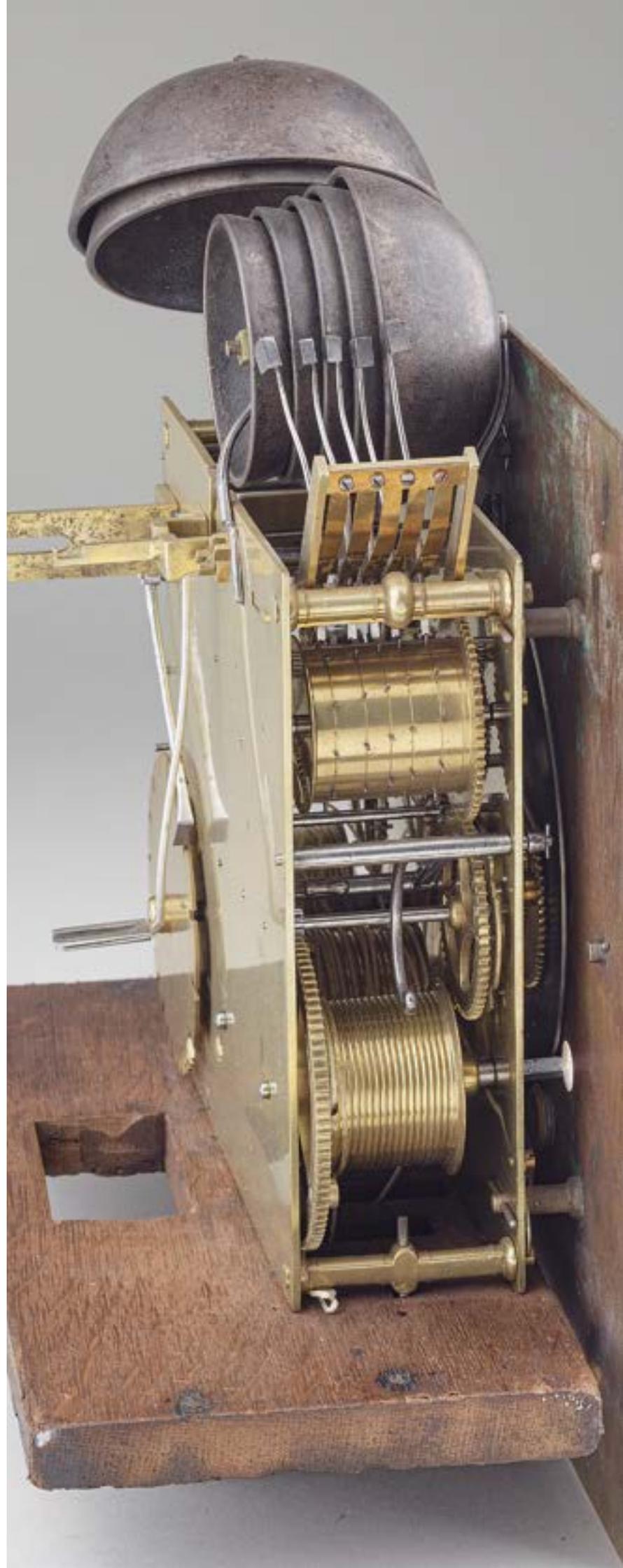
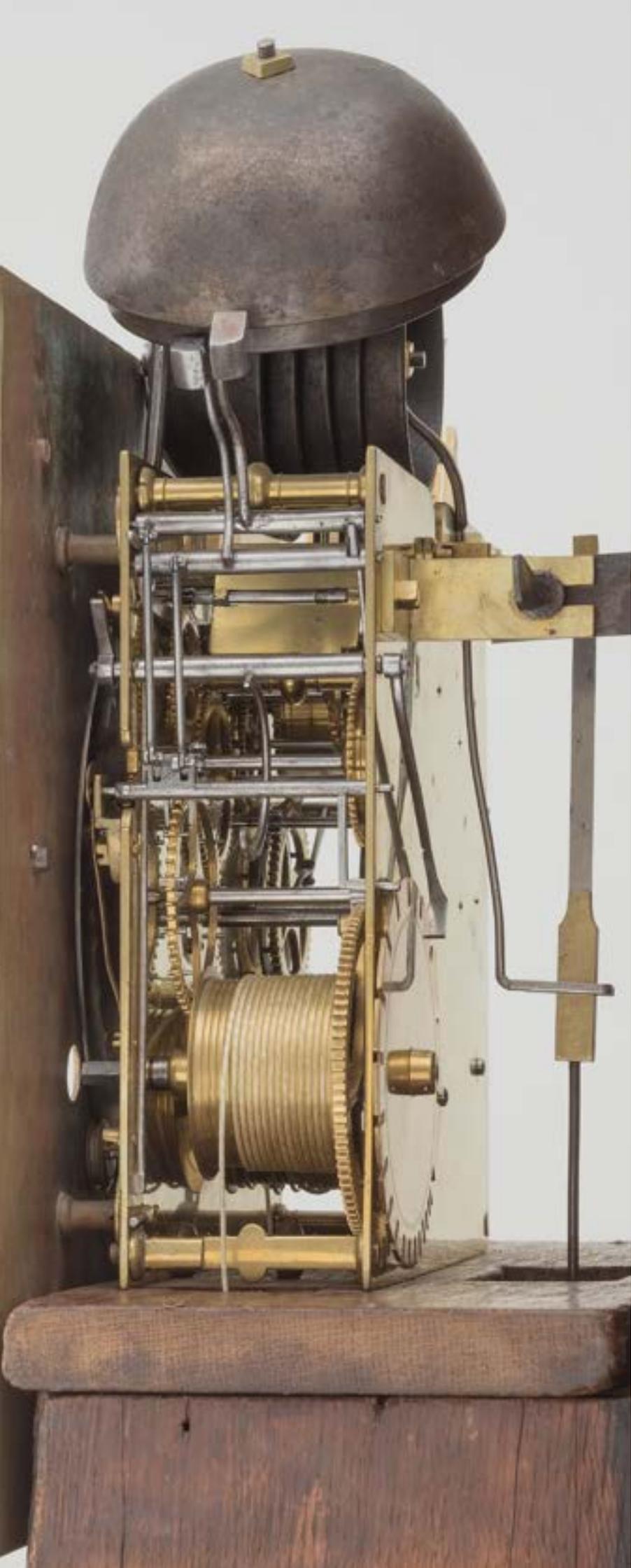
This combination of strike work is exceedingly rare on an English clock, utilising countwheel governance in the two strike trains; Dutch striking the hours using an outside countwheel on the large hour bell, the half-hours on a correspondingly smaller bell; but also quarter chiming, governed by an internal countwheel to the quarter train, on a graduated nest of five further bells.

Interestingly for a 1680s movement, the pillars are fixed to the backplate with raised-rivets, harking back to an earlier form and more usually seen on clocks of the 1660s. While the complex and massive movement necessitated a large 12-inch dial, which is unusual for this date, and its great weight apparently caused problems with the seatboard, which necessitated a good replacement.









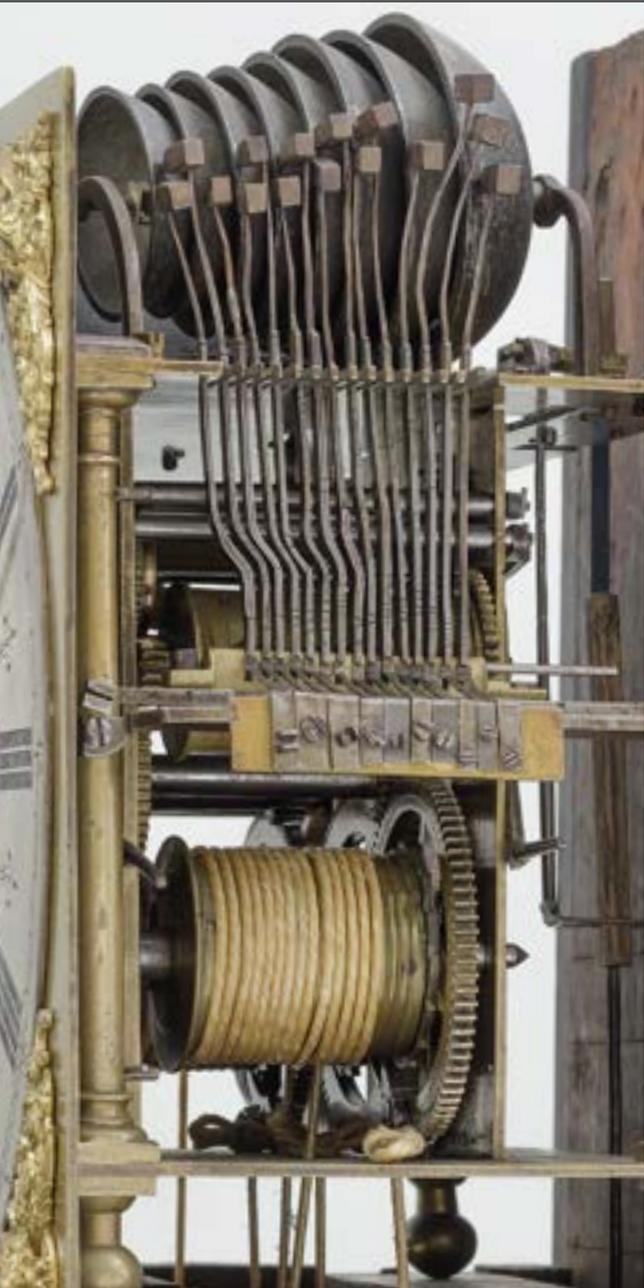




John Watts, Stamford

Circa 1690

A rare and important provincial William & Mary walnut marquetry posted-frame musical longcase clock with original cresting



Height	7 feet 5 inches (2260 mm)
Case	The provincial walnut veneered case, inset by floral marquetry panels with walnut cross-grain mouldings, onto an oak carcass. The rising hood surmounted by a walnut carved cresting of reclining cherubs holding a crown above a gilded scallop shell and floral swags. The walnut cornice above a cushion-moulded frieze, supported by conforming walnut Solomonic columns with integral turned capitals and unusual baluster bases, flanking the marquetry dial aperture, the hood sides with access doors to the movement. The convex throat mouldings above the scroll marquetry trunk frame, inset by trunk door with three D-end marquetry panels of flowers issuing from urns and scroll-work, centred by a gilt-framed oval glazed pendulum lenticle. The walnut cavetto/ovolo base moulding above a contra-conforming inlaid edge plinth, inset with a further floral marquetry panel with matching scroll-work, and resting on four long-necked bun feet.
Dial	The 12 inch (305 mm) square brass dial with large winged cherub and scroll corner spandrels, the silvered brass chapter ring with Roman hours and fancy <i>fleur-de-lys</i> half-hour marks and signed <i>John Watts Stamford</i> flanking VI, the Arabic minutes numbered every 5 with dot half-quarter marks, all set outside the minute division ring. The matted centre with a seconds ring, partially inset into the chapter below XII, and a shaped and decorated date aperture above a ringed winding hole with two further winding holes in the chapter at VIII and III. The blued steel hands well pierced and sculpted, and the dial held by four feet pinned through the front posts of the movement.
Duration	One month
Movement	The massive posted frame movement with four large turned and ringed pillars, the top and bottom plates held by ball feet below and steel chamfered nuts above. The trains planted side-by-side, and each planted in vertical twin train plates; the hour striking train on the left (IX side), going train in the centre and music train to the right (III side). The hours governed by a countwheel with three pins to set off the music train at 4, 8 and 12 o'clock. Two angled steel levers pivoted to the front and back vertical plates of the music train, move the music pin-barrel to change to a second tune. The countwheel governed pinned music barrel, operating 15 numbered hammers steadied by guides, and playing on 12 bells. The going train with anchor escapement and unusual screw-adjustment to the laterally slot-sliding pendulum suspension block for setting the clock in beat.
Escapement	Anchor with beat adjustable suspension and one-second pendulum
Strike Type	Countwheel hour and music every four hours
Provenance	By repute, possibly made for Burghley House, Stamford; Christie's, 4 July 1990, lot 79; Anthony Woodburn, 2000, and sold for £50,000; The John C Taylor Collection, inventory no.35
Exhibited	2006, Oxford, <i>Time & Place: English Country Clocks 1600-1840</i> , exhibit no.17
Literature	Ord-Hume, <i>The Musical Clock: Musical & Automation Clocks & Watches</i> , 1995, p.68-69, plate 1V/14 <i>Time & Place: English Country Clocks 1600-1840</i> , 2006, p.52-55.

This clock is of outstanding importance to the history of Lincolnshire clockmaking, in particular to Stamford. It is a supremely rare example of an English 17th century musical clock, even more so in provincial terms, and it is significant that the leading authority on the subject, Arthur Orde-Hulme, used this clock as his only illustration of a 17th century musical longcase clock, describing it as *outstanding*, while in the Christie's catalogue of July 1990, a putative Burghley House provenance is suggested.







John Watts was the most significant clockmaker in Stamford from 1682-1719. His date and location of his birth has not yet been absolutely ascertained, and Brian Loomé's notes much confusion as to his background prior to purchasing his Freedom of the town of Stamford by payment of £3 6s 8d in 1682, at which time he was described, as a '*whitesmith and dealer in pistols and firearms*'. However, Loomé's notes a surviving lantern clock of c.1680 signed '*John Watts of Apethorpe fecit*' that apparently reveals his location prior to Stamford, and it may be significant that he went on to make the church clock there in 1704. Whatever the actual circumstances, following his Freedom of Stamford he took Boniface Bywater as an apprentice for seven years until 1696 (Bywater also became a well-known clockmaker in the area and a clock survives by him in St. Mary's church, Stamford). Later, a second John Watts (possibly his son) was apprenticed to John Watts senior, gaining his Freedom of Stamford in 1704. Watts continued working in Stamford until shortly before his death, then moving to Boston, Lincolnshire, where he is believed to have worked briefly until he died early in 1720. His inventory of 10th March 1719/20 mentions '*In the shop two clocks and three cases - £6. 10s.od.*', indicating he was still making and repairing clocks. The shop tools were valued at 18 shillings, his book debts £1, and he also had three old muskets, apparently confirming that he was also a dealer in, or repairer of, firearms. His total worldly wealth amounted to £12, 13s 6d, but he may have already dispersed much of his wealth to his children.

The construction of this musical clock is both unusual and of great fascination; for a clock such as this, Watts might have simply ordered a trade-produced piece from a London source, but this clock shows every sign of being made locally and not bought in. While the marquetry case appears to be typical of the period, there are characteristics such as the inlay work and the large overhang of the hood section over the trunk, which indicate that that work was also by a local cabinetmaker. The movement is uncharacteristic of London work, following very much the lantern clock and posted-frame construction favoured by provincial makers at this time, and such construction shows it to be truly the work of John Watts, and not simply an imported London piece. A most unusual aspect of the design of the clock is also the beat adjustment for the pendulum. In order for a clock of this type to function correctly, it needs to be 'in beat' so that the locking and unlocking of the escape wheel by the oscillating pallets is done evenly as the pendulum swings from one side to the other. This is normally achieved by bending the crutch-piece to the required position in relation to the pendulum. This type of beat adjustment is more commonly found in precision clocks of a much later date, but this is another indication of an innovative provincial clock made by a very talented local clockmaker.

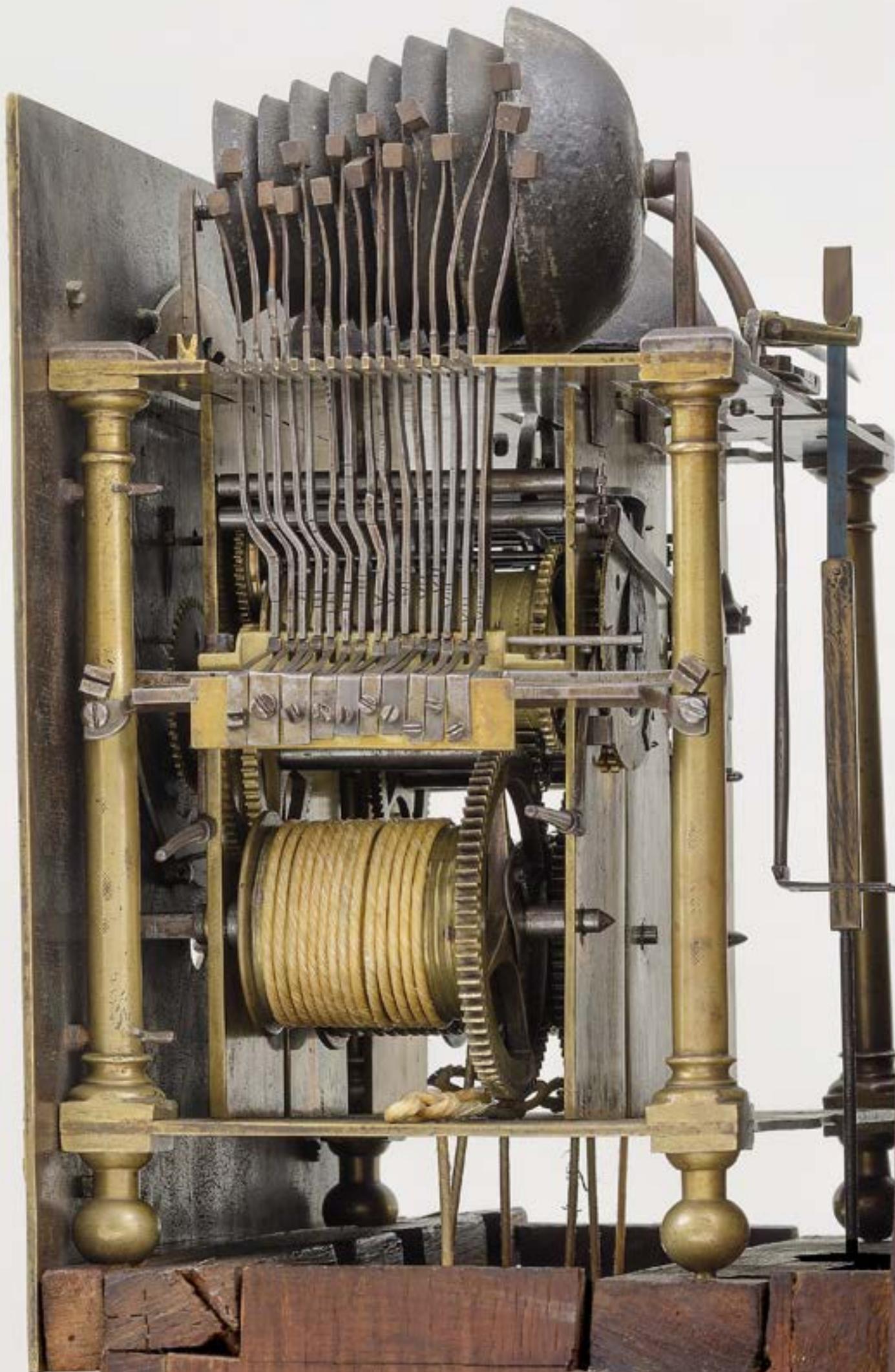


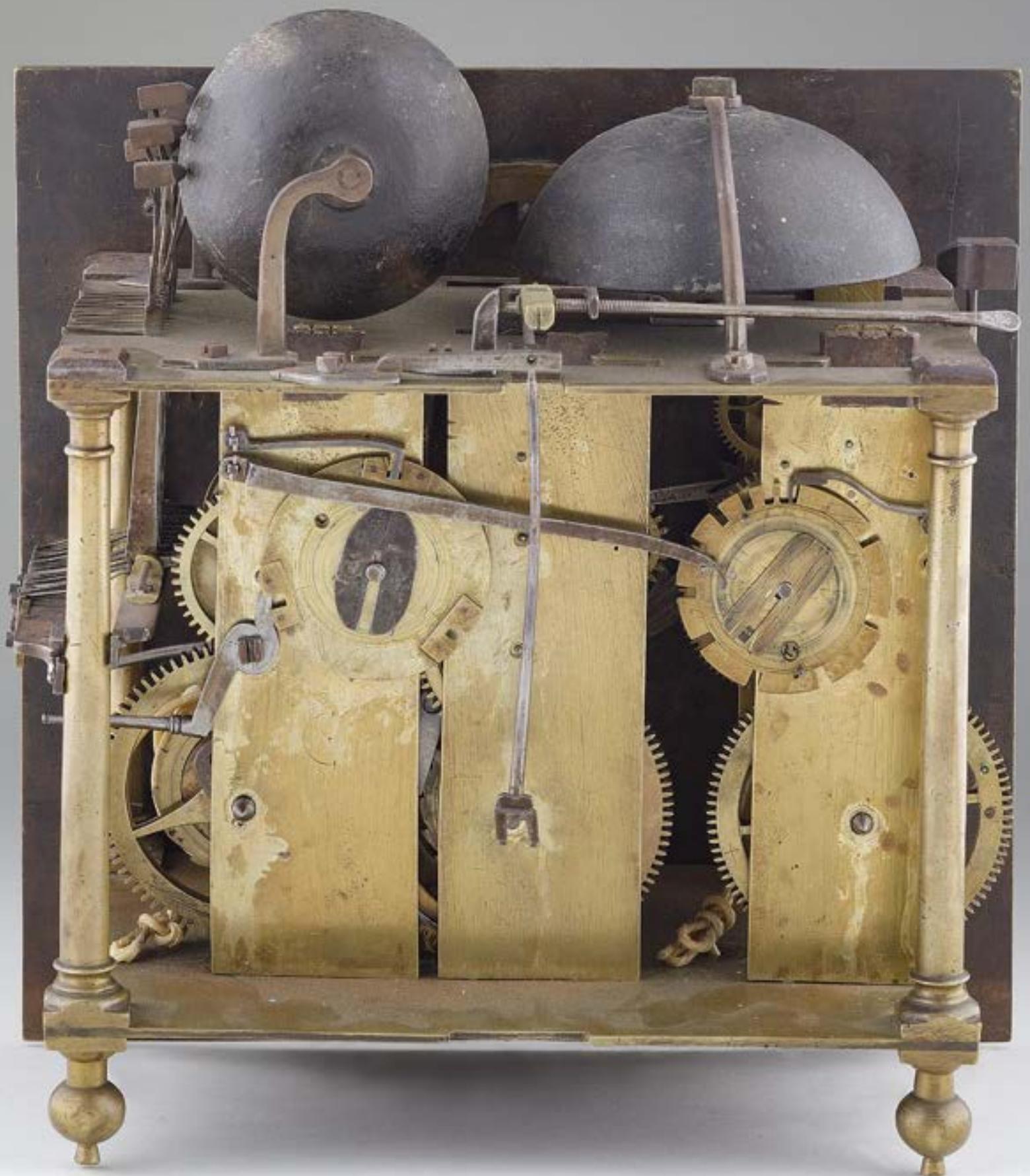


Musical clocks in England have their origins in the late 16th century, particularly in the work of immigrant Flemish clockmakers, and one of the earliest surviving examples being the weight-driven musical chamber clock made by Nicholas Vallin in 1598 and now in the British Museum collections, another example survives in the form of a musical lantern clock playing at every third hour and made by Davis Mell of London. However, apart from a small group of musical lantern clocks, the English musical clock, judging from the sparsity of surviving examples, did not gain general popularity amongst English clockmakers until the second quarter of the 18th century. This particular clock is therefore a rare and important example of a musical longcase clock from the end of the 17th century and one of only two surviving examples from that period. The second comparable clock is signed by James Delaunce of Frome and dates from about 1695, housed in a case with an unlikely swan neck top-decoration, it too has a movement of posted frame construction but is only of 30-hour duration playing music four times in twelve hours, the present whereabouts of this second clock are unknown.

As well as being a significant example in relation to the development of English musical clocks, another important aspect exists in it being a rare surviving piece by the important Stamford maker John Watts. He made a number of turret clocks for local village churches in the Stamford area and many, though not all, of these were signed IW followed by the date of making; at Empingham (on loan to Stamford Museum) dated 1686; Clipsham dated 1688; Kings Cliffe (attributed); Nassington dated 1695; Apethorpe dated 1704; and All Saints church, Stamford dated 1705. There is also a reference to John Watts installing a new escapement in the clock in Peterborough Cathedral in 1687. A small number of other domestic clocks are recorded by John Watts, and in particular a lacquered longcase of c.1695 can still be found in the Mayor's parlour at Stamford Town Hall.

There are also un-researched aspects of this clock. Firstly, the assertions that the clock was formerly associated with Burghley House, Stamford, which needs further examination; certainly, we know Watts made a turret clock for Burghley House in 1707, costing £26. 13s, making it most likely that he would have carried out work at the house beforehand, while it is also known his apprentice, Boniface Bywater, maintained connections with Burghley afterwards. Secondly, the music itself could also prove interesting and a most important document for those researching late 17th century popular music.







Daniel Quare, London

Circa 1695

An important and rare William III ebony veneered and gilt-brass mounted full Grande Sonnerie striking and trip repeating table clock



Height	17¾ inches (451 mm)
Case	The archetypal Quare case veneered in ebony onto an oak carcass. The cushion-domed top with intricate gilt-brass mask and foliate scroll mounts to the front and sides, surmounted by a gilt double-S scroll, centrally ring-turn decorated, knopped handle, typical to Quare. The main ebony cornice moulding above the dial door with applied intricate gilt-brass sound fret to the top rail, the side rails mounted with gilt escutcheons, the case sides with matching applied intricate gilt-brass sound frets over rectangular glazed apertures. The glazed back door with D-frame edge mouldings above the main plinth moulding, all standing on four gilt-brass ringed bun feet.
Dial	The 8 by 9 inch (205 by 229 mm) rectangular gilt-brass, with four subsidiaries to the corners and gilt foliate-scroll repoussé mounts between, the centre revealing <i>Quare, London</i> to the top and bottom. The upper subsidiaries for pendulum regulation and <i>Strike/Silent</i> , the lower for pendulum lock and <i>Repeat/Not Repeat</i> . The silvered chapter ring with Roman hours and fancy sword-hilt half-hour markers, signed <i>D. Quare, London</i> flanking VI, the Arabic minutes every 5 with the minute division ring. The matted centre with calendar aperture above VI and mock-pendulum aperture all decorated with Quare's familiar ring turns. The three winding holes ring-turned and the blued-steel hands well pierced and sculpted.
Duration	8 days
Movement	The very substantial rectangular plates held by six typical Quare decoratively ringed baluster pillars pinned to the frontplate, with triple fusees and barrels; the going train with pivoted verge escapement and pendulum suspended from the rise and fall bar above and locked by twin levers below; the left (IX) side hour strike train governed by a rack and snail and striking on the large horizontal bell; the right (III) side quarter train governed by a rack and snail, with six hammers and springs bridging the plates to sound on six graduated vertical bells above. The backplate, attributed to Graver 195, with a line scored border and symmetrical, entwining, foliate scrolls with garlands of fruit, and signed <i>Dan. Quare London</i> in a central wheatear-bordered oval. The movement held by four blued steel brackets to the case.
Escapement	Pivoted verge with adjustable, suspended and remote locking pendulum
Strike Type	Full Grande Sonnerie striking with trip repeat
Provenance	H. S. Wharton Esq.; Sotheby's, 6 October 1973, lot 265, for £6,209; Sotheby's, 29 May 1974, lot 265, for £6,600; Private collection, until 2003, with Anthony Woodburn and sold for £200,000; The John C Taylor Collection, inventory no.120
Exhibited	2004, Palais Het Loo, Holland, Huygens' Legacy, exhibit no.81
Literature	<i>Huygens' Legacy</i> , 2004, p.148-151

Quare's Grande Sonnerie clocks are so scarce that, surprisingly, we can only find three substantiated examples recorded: this clock (the only one with remote pendulum locking); an architectural turtleshell table clock of c.1704 (private collection USA); and Lord Harris of Belmont's longcase no.145 of c.1715, (Robinson, *The Longcase Clock*, p.140, col. pl. 10).

By 1695, Quare was reputationally in ascendancy, he had just patented his portable barometers and had surpassed Knibb as Tompion's main rival in the top echelons of the London clock trade. In every aspect, the current example is archetypal of Quare's best commissioned work (see p.172). It is of exceptional quality, and represents the most complicated strike facility available, combined with remote controls operating entirely through the dial, as first introduced by Tompion on his renowned series of 2-train Grande Sonnerie clocks (such as The Sussex Tompion in this collection, inventory no.27).









Daniel Quare (1647/8-1724) is thought to have been born in Somerset, but it is not recorded where he learnt his trade. Described as a *Great Clockmaker* he was admitted to the Clockmakers' Company as a Freeman on 3rd April 1671, the same year as Joseph Knibb and Thomas Tompion. Quare was considerably younger and his rise was slower; whereas Knibb and Tompion were commercial rivals almost from the outset, Quare became Tompion's great rival from the mid 1680s, and by the 1690s Knibb's business was in decline. Quare served the Company as Assistant from 1698 and was elected Junior Warden in 1705, rising to Master in 1708. Quare was a Quaker and, although eased by the Toleration Act of 1689, his beliefs often brought him into conflict with the authorities.

Nothing is known of his whereabouts until 1675/6, when he had premises in St. Martin-le-Grand, and by 1681 he was established at Lombard Street. By 1686 he moved to *'The Dial'* in Exchange Alley, a small thoroughfare much favoured by the horological trade, where he took over the premises of Robert Seignior, changing the sign to *'The King's Arms'*, and his business truly started to flourish.

In 1687 Edward Barlow (Booth) sought a patent for the *sole making and managing of all pulling repeating pockett Clocks and Watches*, but with backing from the Clockmakers', Quare was encouraged to successfully challenge the application. James II favoured Quare's design as it had just one push-piece whereas Barlow's had two, and in any case it was pointed out that ... *the same [are] being now made by several clockmakers*. Tompion is reputed to have made the watch submitted by Barlow and yet he told Constantyn Huygens, the Dutch statesman and scientist, that he *had never seen Barlow, the priest who had invented repeating watches*.

In 1691/2 Quare supplied William III with a repeating watch costing £69 17s 6d, and at Hampton Court a fine 10-foot year-going walnut solar/mean-time longcase clock still stands in the king's bedroom. He is also known to have supplied a small dual balance or pendulum controlled travelling clock (at Windsor) and three barometers (two of which are at Hampton Court). On 4th December 1694, Huygens wrote in his diary that he... *was in Kensington. The King called me again as he came out of his Cabinet, saying: "Zuylichem, Zuylichem"* [Huygens was Lord of Zuylichem] *and showed me a barometer which the Quaker Quare had made for him, and it was such that it could be carried from one place to another*. By 2nd August 1695, Daniel Quare had been granted a 14-year patent for his portable pillar barometers... *the first ever given for a barometer...* and described as ...*a portable weather glass or barometer, which may be removed or carried to any place though turned upside down without spilling one drop of quicksilver or letting any air into the tube*.

It was not until *circa* 1704 that he began to number his clocks in series, which continued after he died and exceeded 300 items, but his business may have retailed twice that number, while the



Ivory bust of Daniel Quare, by his son in law, Silvanus Bevan FRS (1691-1765)

last clock recorded signed by Quare without Horseman is no.162. His business in portable barometers flourished from *circa* 1695 until *circa* 1718, and it seems likely the numbering of these began at a similar time, and that series reached at least 148.

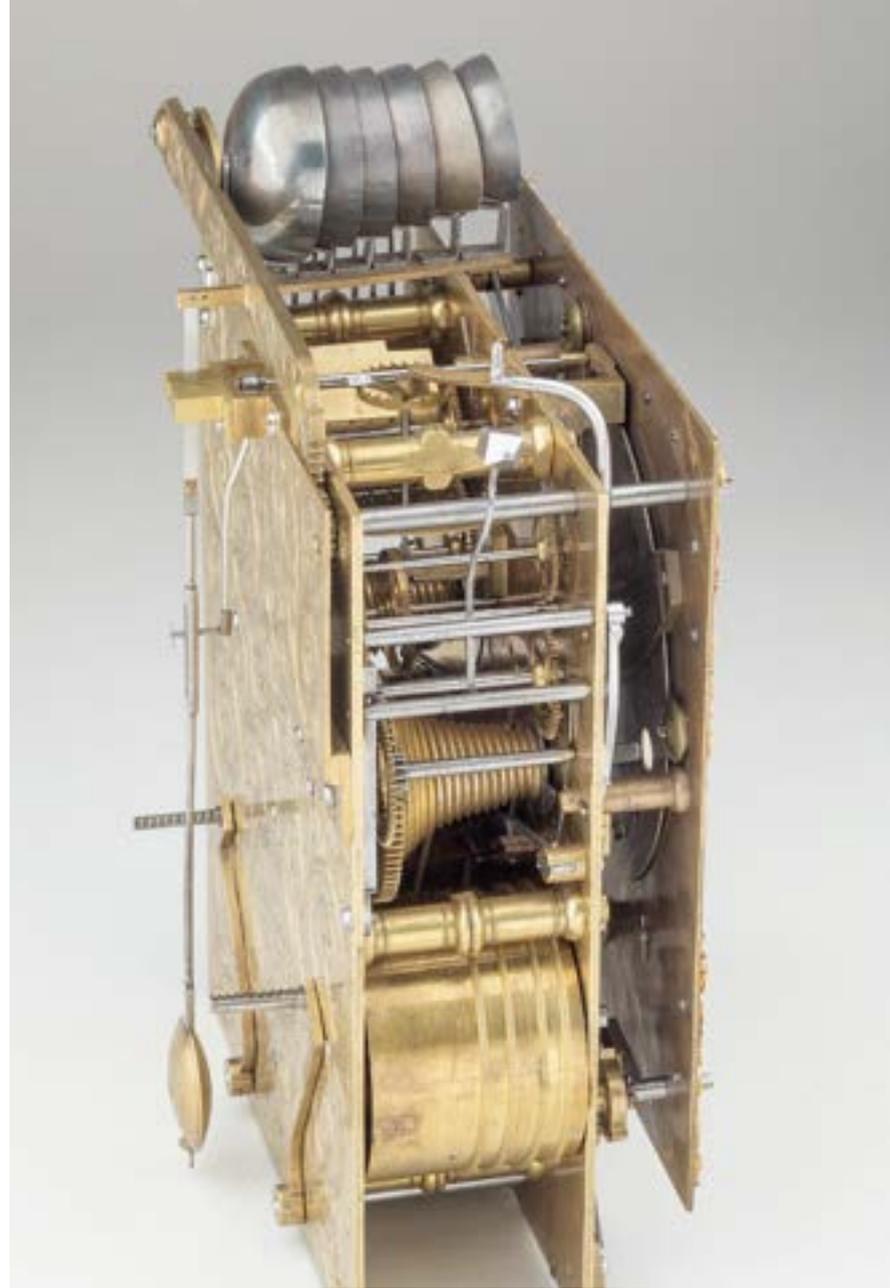
In papers held at Friends House, Quare wrote of his meetings with the newly crowned king, George I... *Having had the Experience of my work for many years before he came to the Crown, sent for me... at his Palace, and then offered to make me his Clock and Watchmaker in Ordinary, but I made some hisitation of accepting it, for that I thought I must swear*. The king was aware of his religious beliefs and Quare goes on to hint at a position without official title ...*However about a week after I having Business in the King's Closet, the King... bid me tell him, That he would order a Patent and Pension for me to be his Clock and Watch-maker, during life*. Whatever the exact relationship, the King told him that he could call to see him at any time and, accordingly ...*The Yeoman of the Guard lets me frequently go up without any body for leave, as otherwise he would tho' persons of quality*. His religion did not hinder his advancement and he also noted that in forty years he had served *men of the Greatest Rank of most other nations in Europe, as well as this Nation*.

An interesting reference concerning Quare's eyesight, presumably in these latter years but not datable, comes from a letter about Archibald Campbell, 3rd Duke of Argyll (see exhibit 33, p.226), saying that *I once saw him come into Quare's shop, while I was discoursing with the Master of it, about a small Improvement in Watches, not in the Movement Part, but in the*

striking ... but Quare could not take it well, having just then lost his Sight. [Ipswich Journal, 3:4:1756].

In 1712, his former apprentice Stephen Horseman had married Quare's niece, Mary Savage, and in circa 1717/18, Quare took Horseman into partnership. He took a total of fifteen apprentices and in 1717, in *Philosophical Transactions*, one of these, Joseph Williamson (see exhibit 35, p.234), wrote: *Having been informed lately of a French book in which the Author speaks of making Clocks to agree with the Sun's apparent Motion; and supposeth it was a thing never thought of by any before himself.. he rebuffs, asserting his authorship on an earlier clock... found in the late King Charles the second of Spain's cabinet, about the year 1699 or 1700... supplied by... Mr. Daniel Quare... and... This I [Williamson] am well satisfied is a clock of my own making.*

Daniel Quare died aged 75 on 21st March 1724, and was buried in the Quakers' Cemetery at Bunhill Fields, Finsbury - *Last week dy'd Mr. Daniel Quare, watchmaker in Exchange Alley, who was famous both here and at foreign courts for the great improvements he made in that art, and we hear he is succeeded in his shop and trade by his partner, Mr. Horseman.* [Daily Post, 26th March 1724].



Using the partnership name, Horseman continued the business until he was declared bankrupt (*London Gazette*, 28th November 1730) but, curiously, it was over two years before the stock was advertised for sale, on 19th April 1733, in the *Daily Post*: *To be sold by auction for the benefit of the creditors of Quare and Horseman all the clocks, watches, movements, mathematical instruments and sun dials consisting of great variety that were taken by Statute of Bankruptcy in the dwelling house of the late celebrated Mr Quare.*

Daniel Quare's reputation continued long after his death, and association with his name was clearly a powerful marketing tool; twenty-five years later, clocks by the Grignions were signed ... *from the late Mr. Quare.* Later still, and in the colonies, John Adams wrote a letter to the *Boston Gazette*, dated 27 January 1766 about the fundamentals of human life ... *A clock also has a constitution ... this is the proper business of Quare, Tomlinson [Tompion] and Graham, to execute the workmanship like artists, and come as near to perfection...* Over 40 years had passed, but Quare was still held up as being one of the foremost makers of the time. Adams was later to be 1st Vice-President, 1789-1797, and 2nd President of the United States, 1797-1801.





Daniel Quare, London

Circa 1695

A very rare William III floral marquetry veneered six-month going longcase timepiece



Height	6 foot 10¼ inches
Case	The case veneered in walnut, inlaid with all-over marquetry to the leading surface, onto an oak carcass. The forward sliding hood surmounted by a walnut caddy top flanked by two giltwood ball finials over a double blind-fret frieze and walnut cornice moulding. The dial aperture supported by conforming walnut Solomonick columns with integral capitals and bases to the marquetry fronted hood, with matching side quarter-columns beyond the glazed side apertures. The dial accessed by an upward sliding glazed sash window, lifting the ogee moulding between the finials. The trunk with marquetry-fronted convex throat mouldings above an acanthus banded frame, the trunk door with all-over floral and arabesque marquetry trunk door on an ebonised ground with pendulum lenticle, the sides veneered in plain walnut with boxwood and ebony line inlaid frames. The cross-grain walnut base mouldings, over the matching marquetry panelled plinth raised on turned walnut bun feet.
Dial	The 12 inch (305 mm) square brass dial with four pinned dial feet, the corners with four large foliate and winged cherub spandrels, the silvered brass chapter ring with Roman hours and fancy sword-hilt half-hour markers, and signed <i>Daniel Quare, London</i> around VI, the Arabic minutes, engraved every 5, within the division ring. The finely matted plain centre with elegant delicately pierced and shaped, blued steel hands, the minute hand counter-balanced. The winding aperture pierced through the chapter ring at VI.
Duration	6 months
Movement	The tall rectangular movement plates held by six finned baluster pillars pinned to the frontplate, the high count six-wheel going train planted centrally with a recoil anchor escapement and one-second pendulum. The substantial barrel is wound clockwise and has a large finely cut greatwheel, engaging with high numbered pinions and two intermediate wheels, providing ample capacity for the six-month duration. The fifth and escape wheels, together with the pallets, have shorter arbors with their front pinions mounted onto a sub-plate, allowing for extra delicacy and requiring the minimum of power to run. The hour wheel runs directly on the canon wheel pipe without a bridge, its smooth operation assisted by the delicately counterpoised minute hand.
Escapement	Anchor with one-second pendulum
Provenance	Private collection UK, until sold 1992 by Galbraith for £110,000; The John C Taylor Collection, inventory no.4
Exhibited	1964, The Antiquarian Horological Society 10 th Anniversary Exhibition at the Science Museum London, exhibit no.10; 2003, Horological Masterworks, Oxford Museum for the History of Science and the Walker Art Gallery, Liverpool, exhibit no.43
Literature	<i>Antiquarian Horological Society 10th Anniversary Exhibition</i> , catalogue 1964, Exhibit no.10 (illus.) <i>Country Life</i> , 4 June 1964, Clutton, 'Masterpieces of The Clockmaker's Art' (illus.) Dawson, Drover & Parkes, <i>Early English Clocks</i> , 1982, p.215 & 217, pl.290 & 390. <i>Horological Masterworks</i> , 2003, p.194-195.

Daniel Quare was the most prolific maker of long duration clocks of his generation, this appears to be one of his earliest and is an archetypal example of Quare's finest commissioned work. Running for six months at a single winding, the surviving original large brass-cased weight required the inside of the trunk door to be hollowed out in a slight arc for clearance.







The use here of an apparently unique upward-sliding 'sash' window in the hood was undoubtedly for practical reasons, giving ease of access without a hinged door, which itself would only become commonplace later. However, the inspiration for such a novel approach at this date is likely to have come from the relatively recent introduction of sash windows in contemporary buildings of the time, where their use was still confined to the finest and most expensive houses.

While it is not known for certain who invented sash windows, or precisely when, general consensus amongst architectural historians is that they originated in France during the first half of 17th century, and from there spread to England in circa 1670, where weights and pulleys were first applied, and these were only within the price reach of the richest in society.

Some of the earliest surviving examples of sash windows in England are at Ham House in Richmond. These date from the 1670s and display many early design features, like pane placing and astragal bar styling, which would subsequently become such prominent and archetypal features of Queen Anne and Georgian era architecture.







Details of Daniel Quare's early life are rather obscure - it is thought he was born in Somerset circa 1647/48, but it is not known to whom he was apprenticed or where he learned his trade. Described as a *Great [turret] Clockmaker* he was admitted to the Clockmakers' Company as a Freeman on 3rd April 1671, the same year as Joseph Knibb and Thomas Tompion. He served the Company as Assistant from 1698 and was elected Junior Warden in 1705, rising to Master in 1708.

Quare produced some of the finest clocks, watches and instruments made in London in the late 17th and early 18th Centuries, but his rise to prominence was not immediate. While he successfully challenged Barlow's watch repeating patent in 1687, it was not until 1690s that Quare's clock output took on a truly identifiable individual form and at this time, it becomes apparent that he had slowly taken over Joseph Knibb's position as Tompion's principal rival in the trade. This reflected his ascendancy in reputation and business, most notable perhaps was his successful patent application in 1695 for portable barometers, that undoubtedly enhanced his reputation and boosted his business considerably.

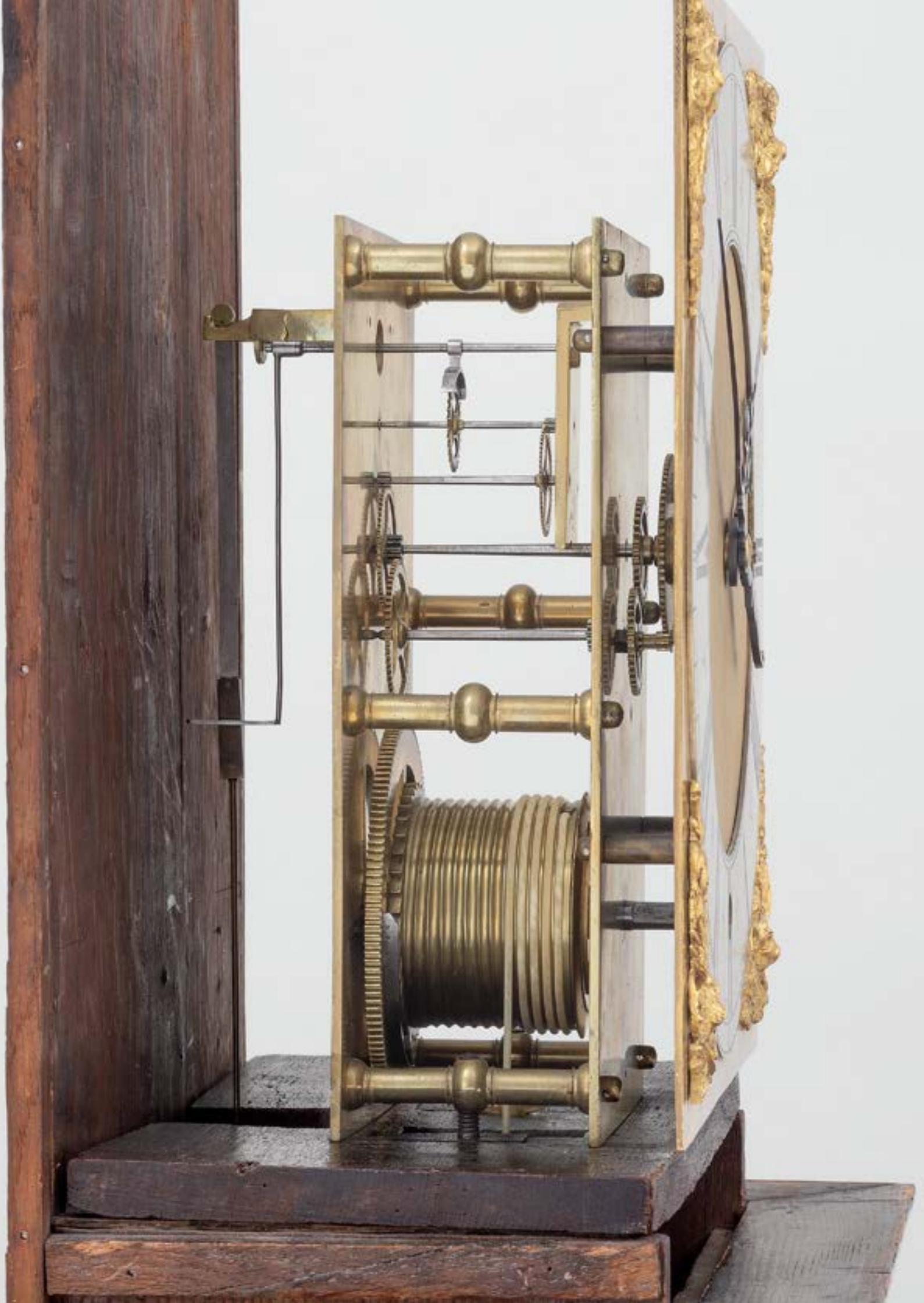
It should be noted that Quare took a completely different approach from Tompion in retailing his clocks. While Tompion stopped buying in unspecified movements and consolidated his workshop practices in the 1680s, Quare continued to provide as wide a stock as possible for all customers throughout his career. This approach, doubtless for commercial reasons, necessitated clocks of all qualities offered side by side. A brief overview indicates how he had several grades of stock, which can be broadly categorised as follows:

1. Commissioned clocks. These were either designed and made within Quare's workshops, or by outworkers elsewhere with the requisite skills, in either scenario being finished to his high specification. These represent some of the foremost clocks of the era, often in palace grade cases with specifically designed metal mounts, including two superb Grande Sonnerie table clocks (previous exhibit no.25, p.164), equation clocks, long duration clocks (such as the current example) and the mean and sidereal double-dialed longcases, and a solar time table clock, besides the sought-after small and miniature clocks following Tompion's style.

2. Standard workshop production. These are Quare's standard domestic clocks that were generally made in his workshops. They are of extremely high quality and include month-going longcases as well as quarter repeating table clocks. Quare's own workshop-made productions are relatively easy to identify, having his own pattern of



Daniel Quare London







repeating systems, as well as very particular styling of component parts. But while hoping not to confuse matters, it must be borne in mind that he also supplied other businesses.

3. Bought-in stock. Generally these clocks are perfectly presentable examples of standard London table clocks – often supplied to Quare complete, including cases – but to a lower standard than his own workshop-made domestic clocks. These were mostly repeating table clocks and almost identical examples can be found signed by Windmills, Gretton and others.

Daniel Quare died on 21st March 1724, aged 75, and was buried in the Quakers' Cemetery at Bunhill Fields, Finsbury. His will was proved on 26th March 1724, and on the same day, The Daily Post announced: *Last week dy'd Mr. Daniel Quare, watchmaker in Exchange Alley, who was famous both here and at foreign courts for the great improvements he made in that art, and we hear he is succeeded in his shop and trade by his partner, Mr. Horseman.*

Daniel Quare's reputation continued long after his death and association with his name was still a powerful marketing tool. Twenty-five years later, clocks by the Grignions can be found signed ... *from the late Mr. Quare*. Later still and in the colonies, responding as 'Clarendon' to the 'Pym' letters in the London Evening Post of 1765, John Adams wrote his third letter to the Boston Gazette, dated 27 January 1766 about the fundamentals of human life... *A clock also has a constitution... this is the proper business of Quare, Tomlinson [Tompion] and Graham, to execute the workmanship like artists, and come as near to perfection...* Over 40 years had past, but Quare was still held up as being one of the foremost makers of the time. Adams was later to be 1st Vice-President, 1789-1797, and 2nd President of the United States, 1797-1801, and by the time of his death in 1826, Quare had been dead and buried for over 100 years.



The Wrest Park Finials

Circa 1700

An exceedingly fine and rare pair of William III cast-lead urn finials, attributed to John van Nost the Elder, and commissioned by Anthony Grey, 11th Earl of Kent



Dr Taylor has expressed his preference that these finials and exhibit 28, The Kent Tompion Sundial, stay together

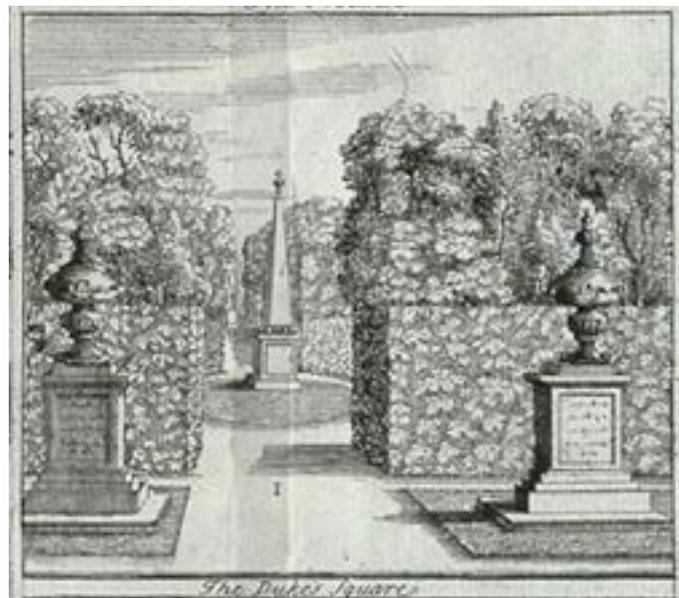


Height	9 feet high overall (2740 mm)
Leadwork	The matching pair of finials in two-part lidded urn form of circular cross-section, attributed to the sculptor, John van Nost the Elder (c.1655-c.1711). The multi-piece conjoined elements all superbly detailed and cast in lead, with a separate top-lid. The tops composed of crisp flames above gadrooned balusters, with long-necked, waisted, fluted and splayed lower sections, each resting on a main urn of large convex bulbous form, applied with four finely cast and chased winged cherub heads to the cardinal points, and affixed to a step-graduated circular baluster foot; made up of an inverted gadrooned convex, over a further waisted and fluted splayed bottom section.
Stonework	The matching pair of later limestone three-part rectangular pedestals, each with a solid step moulded top with an ovolo nosing over a beaded concave throat, resting on the main square-section base with fielded panel sides, and supported on a solid ovolo/cavetto top-moulded skirting.
Provenance	Originally made for Anthony Grey (1645-1702), 11th Earl of Kent, for his gardens at Wrest Park, Bedfordshire; Henry Grey (1671-1740), 12th Earl of Kent, created 1st Duke of Kent in 1710, thence by descent to his granddaughter; Jemima Yorke (1723-1797), 2nd Marchioness Grey and Countess of Hardwicke, 4th Baroness Lucas to her daughter; Amabel Hume-Campbell, 1st Countess de Grey, 5th Baroness Lucas (1751-1833) to her nephew; Thomas de Grey, 2nd Earl de Grey, 3rd Baron Grantham, 6th Baron Lucas (1781- 1859) to his daughter; Lady Ann Florence de Grey, Countess Cowper, 7th Baroness Lucas (1751-1833) to her son; Francis Thomas de Grey Cowper, 7th Earl Cowper, 8th Baron Lucas (1834-1905) to his nephew; Auberon Thomas Herbert, 9th Baron Lucas and 5th Lord Dingwall (1876-1916), to his sister; Nan Ino Cooper, 10th Baroness Lucas (1880-1958), who sold Wrest Park after the death of her brother in 1917 to; JG Murray Esq. who eventually removed much of the garden statuary, including these finials, and thence by descent until sold at; Summer's Place Auctions, Billingshurst, 19 May 2009, lot 27, for £68,225; John C. Taylor Collection, inventory no.2501
Literature	John Rocque, <i>A Plan & View of the Buildings & Garden at Rest [Wrest] in Bedfordshire</i> , 1737, the finials illustrated flanking the entrance to 'The Duke's Square' garden; Rupert Gunnis, <i>Dictionary of British Sculptors 1660-1851</i> , revised edition, 1964, p. 279-82; Nicloa Smith, <i>Wrest Park</i> , English Heritage, London, 1995; <i>The Journal of Garden History</i> , 2012, Linda Halpern, 'The Duke of Kent's garden at Wrest Park'

This very fine and impressive pair of English lead finials with their bold and intricately modelled winged cherub heads, stylistically date to the late 17th, or very early 18th, century. Originating from Wrest Park gardens in Bedfordshire, they are attributed to John van Nost the Elder (c.1655-c.1711), and were probably commissioned by Anthony Grey, 11th Earl of Kent, prior to his death in 1702.

Their larger components were probably made by sand-casting, while the smaller, more detailed elements were created using the lost-wax process, or *cire-perdue*, which achieves a crispness of detail seldom found on later works. In this instance, the winged cherub heads and flame terminals are Nost's crowning achievements; each Putto's chubby face is wonderfully 'expressive' and flanked by delicate feathered wings, while each flame tendril is 'alive' and separately accentuated. The following exhibit 28, The Kent Tompion sundial, has an identical provenance to these finials, but it also shares the seemingly secure attribution for John van Nost the Elder as the maker of the sundial pedestal (explained on p.194).





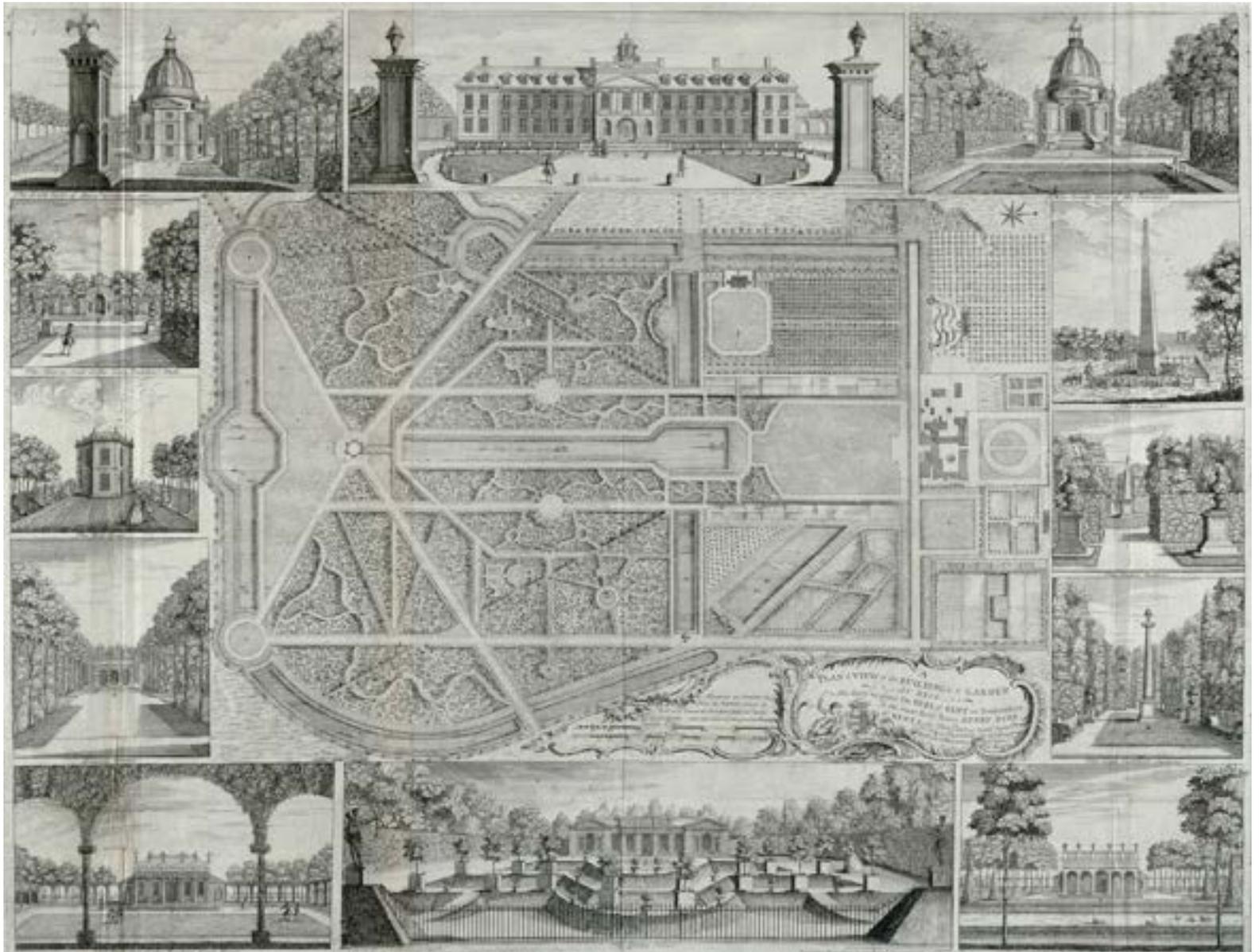
The gardens at Wrest Park were begun by Anthony Grey, 11th Earl of Kent, and expanded and continued by his son, Henry Grey, 1st Duke of Kent (so created 1710). Their roots lay in Dutch gardens of the 1690's and were intended to convey the Grey family's political support for William and Mary and the Glorious Revolution. Over the years, a number of buildings and features were erected as focal points to the divided areas, including temples, houses, a green house, and the celebrated pavilion by Thomas Archer (see opposite).

Wrest was one of only four estates that appeared in multiple views in Kip and Kniff's *Britannia Illustrata*, 1708 (for the views see p.192 and 197). Among contemporary documents that demonstrate Wrest's high reputation is the record of a garden tour in 1735, in which the gardens were described as *undoubtedly some of ye finest in England*. Wrest had already been singled out for praise in 1718 in the *Ichnographica Rustica* of Stephen Switzer, and Mackay included it in his *Journey through England* in 1724 calling it *A very magnificent, noble Seat, with large Parks, Avenues and fine Gardens*.

It is not currently known where this monumental pair of finials were initially situated, but by c.1730, both finials were on inscribed stone pedestals dedicated to Henry Grey's children; his eldest, Anthony Grey, Earl of Harrold, who died from choking on an ear of barley in 1723; and his favourite daughter, Lady Amabel Campbell, who died in 1727. The finials are clearly illustrated in *A Plan & View of the Buildings & Garden at Rest [Wrest] in Bedfordshire* by John Rocque, and dated 1737, where they are shown on the dedicated pedestals flanking the entrance to

The Duke's Square garden. John Rocque (c.1704-1762) was a surveyor and mapmaker, as well as an engraver. He was involved in gardening as a young man, and lived with his brother Bartholomew, who was himself a landscape gardener. Rocque produced a series of engraved plans of the gardens at Wrest Park (1735 and 1737), Chiswick House (1736) Claremont House (1738), Charles Hamilton's naturalistic landscape garden at Painshill Park (1744), Wanstead House (1745) and Wilton House (1746).

The Grey family resided at Wrest Park from the 13th century and, as can be seen by the given provenance, from 1702 the house passed down together with the Lucas barony (of Crudwell) that had special remainder through the female line. In 1917, Nan Ino Cooper, 10th Baroness Lucas, sold Wrest Park after her brother, the 9th Baron Lucas, had been shot down and killed in action serving with the Royal Flying Corps. The Murray family purchased the house and various items were removed from the gardens before Wrest Park was acquired for the Nation in 1946, including the current finials, and it was their descendant who later consigned them to auction in 2009.



'A Plan & View of the Buildings & Garden at Rest in Bedfordshire', John Rocque, dated 1737

The use of lead statuary blossomed in England during late 17th and 18th centuries and, as with other trades, the skilled artisans congregated in a particular area of London; in the case of statuary, their workshops were gathered around Hyde Park Corner, producing extraordinary statues, chimneypieces and other ornaments for the homes and gardens of the wealthy gentry and landed nobility. The English adoption of French and Dutch garden styles, with their emphasis on parterres and terraces, created a need for large quantities of statuary to ornament these newly laid-out gardens. Prior to this, statuary for the garden was often sculpted laboriously from stone or marble, while casting in lead meant that the same piece could be repeated, and the finished product transported more safely. During the late 17th century, the best London artisans were immigrants from the Continent, particularly the Low Countries, and were schooled in sculptural arts and techniques. Amongst the most accomplished was Arnold Quellin, and his studio assistant, John Van Nost the Elder, who soon became the greatest of this period's statuary artists and lead workers.

However, the advent of the English landscape movement in the latter part of the 18th century, and its abolition of formal gardens in favour of naturalistic pastoral settings, ornamentation



Thomas Rowlandson, 'A Statuary's Yard', early 19th century

in general was largely abandoned and the demand for statuary fell away. As lead is both valuable and infinitely recyclable, much of the finest English lead statuary was melted down, sometimes for munitions in time of conflict. By the Victorian times, lead had been enjoying something of a renaissance and garden designers such as Gertrude Jekyll (1843-1932) developed a passion for the patina of lead, particularly when set against lush green foliage ... *there can scarcely be a doubt that the happiest material for our garden sculpture and ornament is lead.*



John van Nost the Elder (c.1655-c.1711) was a native of Mechelen in the Flemish region of what is now Belgium. He is first recorded in England in around 1679, working as studio assistant to his fellow Flemish sculptor, Arnold Quellin (1653-1686), at Windsor Castle under the architect, Hugh May (1621-1684). After Quellin's death in 1686, van Nost married his widow Frances, the youngest daughter of the Antwerp landscape painter Jan Siberechts (1627-1703). By 1687, John van Nost had established his own sculptural workshops, located in Portugal Street, on the site of what is now 105 Piccadilly, near to Hyde Park Corner. There he manufactured *Marble and Leaden figures Busto's and noble Vases Marble chimneypieces and curious Marble tables*. He is now most famous and renowned for his lead garden statuary, such as the



current examples made for the 11th Earl of Kent (his bookplate shown left).

The increasing popularity among the gentry for the *Grand Tour*, exposed them to classical statuary and contemporary sculpture evident in Italy and France. It was similar statuary they wanted for their new gardens, and Van Nost obliged by supplying lead versions of

these great works. He made the well-documented figures for Thomas Coke (1674-1727) of Melbourne Hall in Derbyshire, and these included Andromeda, Perseus, a grouping of Amorini, and perhaps one of the most elaborate lead pieces ever made, the celebrated *Four Seasons Vase*, which was apparently presented to Coke by Queen Anne in 1705. Nost also produced stone sculpture for Hampton Court, Castle Howard, Buckingham House (now Palace) and Chatsworth, and provided marble tables for the Duke of Devonshire. He collaborated with *the father of English clock-making*, Thomas Tompion FRS (1639-1713), supplying his three surviving sundial pedestals, all carved in Portland stone (see the following exhibit 28, page 188).

John van Nost the Elder apparently died in late 1711, and *A CATALOGUE OF Mr. Van NOST's COLLECTION* was produced and *Sold by AUCTION...* on 17 April 1712 *at his late Dwelling House in Hyde-Park-Road (near the Queen's Mead-house)... this Collection is the most Valuable that ever was Exposed to Sale in this Kingdom.*

After his death his cousin, John van Nost II, continued the business and supplying statuary to the 1st Duke of Kent for Wrest gardens, eventually dying in 1729. His son, John van Nost the Younger (d.1780), also continued to work as a sculptor and is noted for his work in Ireland, but John van Nost the Elder is generally considered to be the most important and talented of this artistic dynasty, as testified by this magnificent pair of lead finials.



The Kent Tompion Sundial

Circa 1705

from Wrest Park, Bedfordshire

An exceedingly important Queen Anne bronze horizontal sundial by Thomas Tompion, London, on a carved stone plinth attributed to John van Nost the Elder, commissioned by the 12th Earl, later 1st Duke of Kent



Henry Grey, 1st Duke of Kent, by Charles Jervas

Dr Taylor has expressed his preference that this sundial and exhibit 27, The Wrest Park Finials, stay together



Dimensions	Sundial: 21 inches (535 mm) diameter, plinth: 51 inches (1296 mm) high, overall height: 59 inches (1500 mm)
Dial	<p>The large bronze circular horizontal sundial signed <i>T. Tompion London</i> made for, and bearing the Arms of, Henry Grey, as 12th Earl of Kent. When positioned correctly, the dial reads from the North, looking South, the cast baseplate tapering in that direction, and thus apparently constructed for use in two locations, and further inscribed '<i>Latt of ye upper plain 50d 26m</i>' and '<i>Latt of ye under plain 52d 8m</i>,' the latter for Wrest Park in Bedfordshire.</p> <p>The triangular, cast open-work gnomon with truncated pyramidal feet, the pierced decoration incorporating the reflective monogram <i>HK</i> surmounted by an earl's coronet for Henry Grey, 12th Earl of Kent, with elaborate cast and engraved leaf forms above and below.</p> <p>The dialplate with the arms of Grey, with supporters, device and earl's coronet, engraved below the south end of the gnomon with the latitude explanations along the edge on either side, and flanked by the hour scale, divided to half-quarters, the scale centre with Roman hours, lozenge quarter-hour marks and decorative <i>fleur-de-Lys</i> half-hour markers laid out clockwise; from IIII to XII for the morning on the West side and; XII to VIII for the afternoon on the East side, the reading further assisted by transversal lines out to the minute division ring around the outer edge, graduated to single minutes and marked with internal Arabic numerals every 10 minutes.</p> <p>The central body of the dial is occupied by <i>A TABLE of Equation of Natural Days SHEWING How much a Clock or Watch ought to be Faster or Slower than a Sun Dial, any Day of the Year</i>,' with the tabulated equation of time, showing adjustment from true-solar to mean-solar time, in minutes and seconds, every day of the year; from <i>January to June</i> on the East side of the gnomon and; <i>July to December</i> on the West.</p> <p>Below the table are the instructions for its use: '<i>Set the Clock or Watch faster or slower than the Sun according to the Table for any Day of the Month, and if they go true, then Difference from the Sun any Day afterward will be the same with ye Table</i>'.</p>
Base	<p>The very fine octagonal section baluster shaped Portland stone pedestal attributed to the sculptor, John van Nost the Elder (c.1655-c.1711), in three joined elements; the top with circular moulded nosing, faceted below and stepping down to the long concave neck above the octagonal convex main baluster section, with the monogram <i>HK</i> under an earl's coronet (for Henry Grey, 12th Earl of Kent) sculpted on four faces corresponding with the cardinal points on the dial; all supported on a further octagonal step-graduated, concave to convex, moulded stone foot.</p>
Provenance	<p>Originally made for Henry Grey, 12th Earl of Kent, 2nd Baron Lucas (1671-1740), and created Marquess of Kent, Earl of Harold and Viscount Goderich in 1706, and 1st Duke of Kent in 1710. The sundial and base made for his gardens at Wrest Park, Bedfordshire, thence by descent to his granddaughter;</p> <p>Jemima Yorke, 2nd Marchioness Grey and Countess of Hardwicke, 4th Baroness Lucas (1723-1797) to her daughter;</p> <p>Amabel Hume-Campbell, 1st Countess de Grey, 5th Baroness Lucas (1751-1833) to her nephew;</p> <p>Thomas de Grey, 2nd Earl de Grey, 3rd Baron Grantham, 6th Baron Lucas (1781-1859) to his daughter;</p> <p>Lady Ann Florence de Grey, Countess Cowper, 7th Baroness Lucas (1751-1833) to her son;</p> <p>Francis Thomas de Grey Cowper, 7th Earl Cowper, 8th Baron Lucas (1834-1905) to his nephew;</p> <p>Auberon Thomas Herbert, 9th Baron Lucas and 5th Lord Dingwall (1876-1916), to his sister;</p> <p>Nan Ino Cooper, 10th Baroness Lucas (1880-1958), who sold Wrest Park after the death of her brother in 1917 to;</p> <p>J G Murray Esq. who eventually removed much of the garden statuary, including this sundial, and thence by descent until sold;</p> <p>Sotheby's, London, 15th June, 2004, lot 46;</p> <p>John C Taylor Collection, inventory no.126</p>





Literature RW Symonds, *Thomas Tompion, his life and work*, 1951;
 Rupert Gunnis, *Dictionary of British Sculptors 1660-1851*,
 revised edition, 1964, 279-82;
 Nicloa Smith, *Wrest Park*, English Heritage, London, 1995;
 John Davis, 'The Equation of Time as shown on Sundials',
 Bulletin of the British Sundial Society, xvi, 2003, p.135-44;
 Jeremy Evans, *Thomas Tompion at the Dial and Three
 Crowns*, 2006, listed p.108;
The Journal of Garden History, 2012, Linda Halpern, 'The
 Duke of Kent's garden at Wrest Park';
 Evans, Carter & Wright, *Thomas Tompion 300 Years*, 2013,
 p.557-558, listed p.634;
 Garnier & Hollis, *Innovation & Collaboration*, 2018, p.370-371

Only five Tompion garden sundials are known to survive: two in the Royal Collection (RCIN 11959 and 95190) made as a pair for William III in 1699, for the Privy gardens at Hampton Court Palace; this example, The Kent Tompion sundial, c.1705 from Wrest Park, Bedfordshire; The Pump Room Tompion sundial in Bath, c.1709; and The Pelham Tompion sundial, c.1710 (also from this collection, inventory no.109).

This is not only the largest of the known sundials by Tompion, but it is the only example known with a gnomon pierced and engraved for the original owner (see opposite), and the last surviving sundial left in private hands complete with its original, commissioned, Portland stone base. It is also the only example bespoke for two latitudes, operating correctly on the current original pedestal at Wrest Park in Bedfordshire, calibrated for 'Latt of ye under plain 52d 8m'. The tapered bronze plate appears to allow for a secondary pedestal whose top compensated for that taper, for use on 'Latt of ye upper plain 50d 26m'; an East/West parallel that dissects Southern England, from Torquay on the Devon coast through the northern outskirts of modern Plymouth to just north of Newquay on the Cornish coast. In 1702, the 12th earl inherited the Lucas barony through his mother with lands near Topsham in Devon, and the current sundial might suggest that he had plans to develop this, or another estate, that never came to fruition.

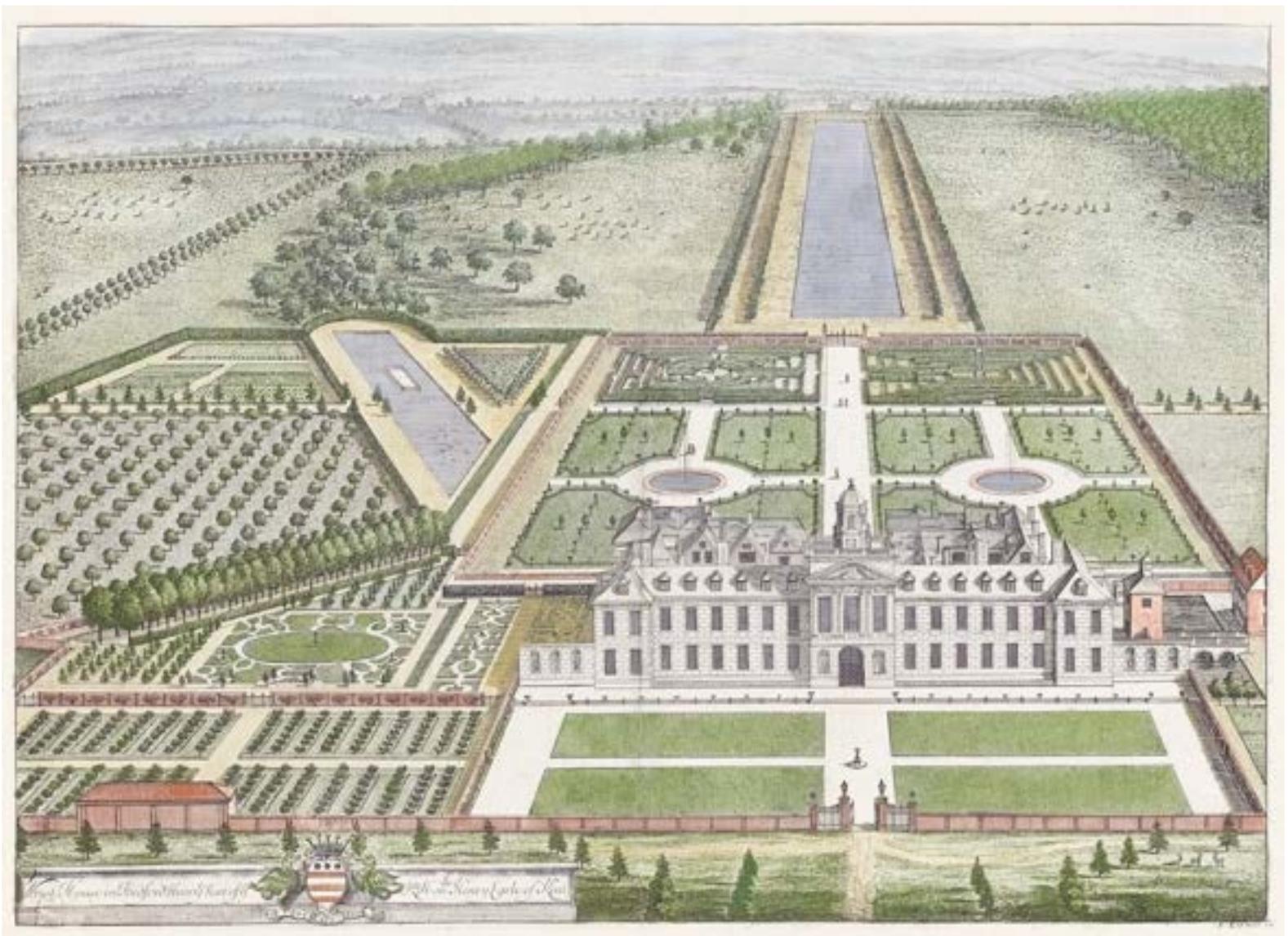
It seems likely that this dual location feature was more of a novelty attraction than a cost saving; we know that Tompion charged £16 in 1707 to Thomas Coke (1674-1727) for a large brass horizontal dial, for his seat at Melbourne in Derbyshire, but that dial is lost. However, its modest price and lack of 'equation' description, suggests Coke's dial was a simpler affair without an expensive engraved table. In the same bill was watch no.274, and table clock no.430, so perhaps the sundial was to accompany the (now re-cased) Tompion year-going longcase movement, still in the house at Melbourne. Certainly, the dual location taper alone on this example would have cost a deal more. We are also aware that van Nost was charging Coke between £30-£45 for sculptural figures, and thus the original value of the two elements combined is unlikely to have exceeded £75; a sum that the earl could easily have afforded again for a secondary seat.

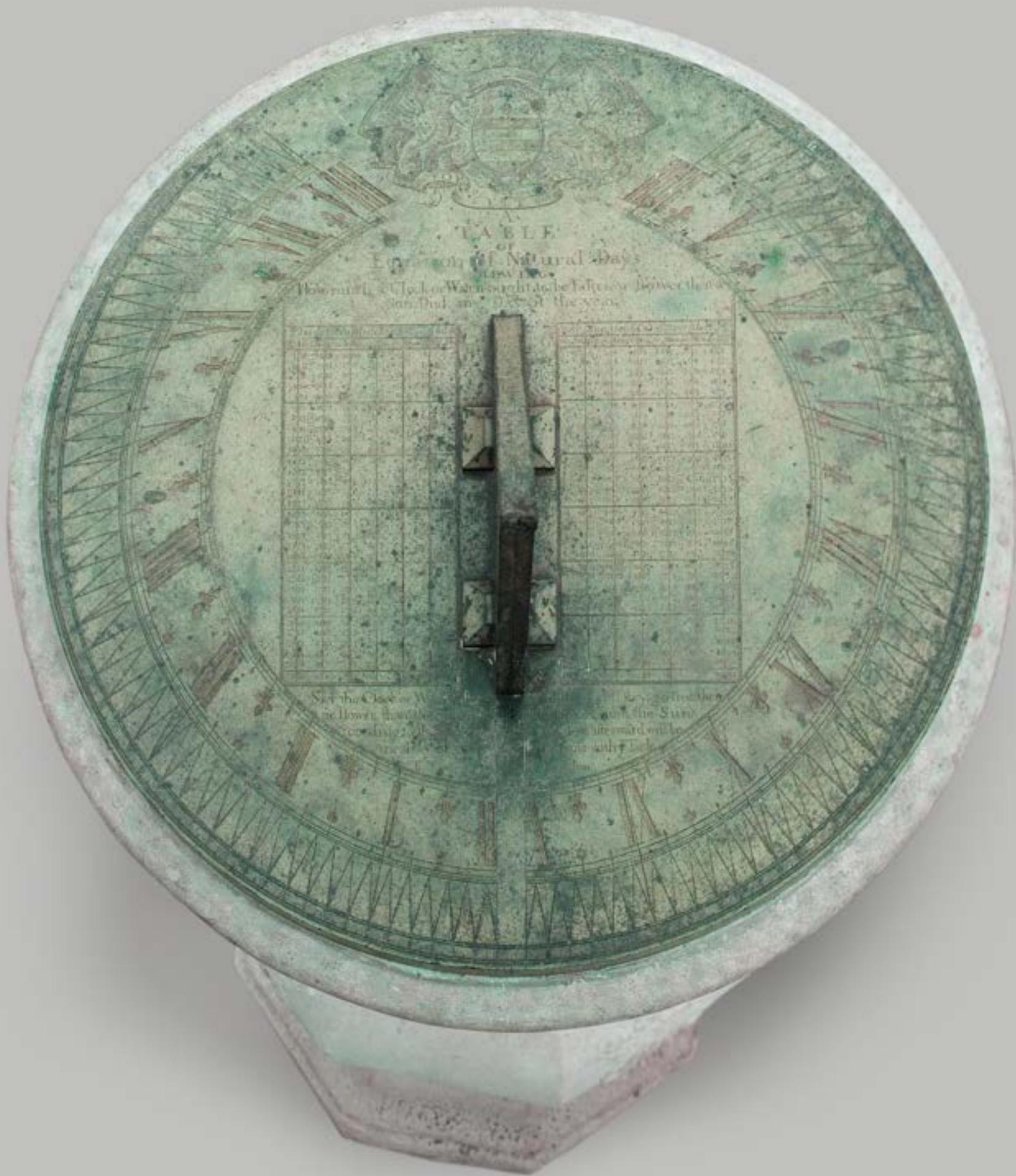


Thomas Tompion (1639-1713) started numbering his regular output of clocks in c.1681/2 (*Thomas Tompion 300 Years*, p.148-152), which gives us an insight into the development of his productions. Tompion took Edward Banger into partnership in c.1701 and the items produced switched, over time, to a dual signature. However, the partnership came to an abrupt end in c.1707/8 with Banger being dismissed for reasons unknown, and afterwards there appears to have been a concerted effort to revert to Tompion's signature alone, the valuable batch-made stock, such as partnership signed longcase dials, were overlaid with new solo signature plaques. In apparent emphasis of this, some items that returned to the workshop for repair had Banger's name physically removed and overlaid with updated signature plaques.

As indicated by his arms, cyphers and earl's coronets, this sundial was originally bespoke for Henry Grey, while he was 12th earl of Kent; he succeeded his father to the earldom in 1702, was elevated to marquess in 1706, and created duke in 1710. That this dial is signed for Tompion alone, might ordinarily imply that it was produced outside his partnership with Banger (c.1701-c.1707), however the use of an earl's, rather than a higher status marquess's

coronet, apparently narrows the date of production to within the partnership: between Henry Grey's succession in 1702 and elevation in 1706. At this time, Leonard Knyff painted two views of Wrest House and the park, which Jan Kip engraved, on the closer view there is a sundial clearly depicted (Kip and Knyff, *Britannia Illustrata*, 1708, plate 18, below), and although Henry Wynne had produced a sundial dated 1682 for Grey's father, the 11th Earl (1645-1702), it seems probable that his own, new and fashionable Tompion sundial, on van Nost's base adorned with his own earl's cyphers, was the one placed, and illustrated, front and centre.







In 1704, Col. William Parsons, who had known links to engraving in the horological trade, published *A New Book of Cyphers... wherein the whole Alphabet... is variously changed, inter-woven, and reversed*. Both designs of HK cypher, used in the gnomon and sculpted on four facets of the pedestal, could be argued as having derived from Parson's design on p.25, no.199, but adapted and simplified. Meanwhile, the equation table engraved at the centre of the dial is laid out in similar manner to the square Pelham Tompion sundial c.1710 (also in this collection, inventory no.109), but as that dial is considerably smaller, values were provided only for every two days. At 21 inches diameter, the present sundial is the largest recorded, giving greater reading accuracy, while its equation table offers a full month set.

John van Nost the Elder (c.1655-c.1711) was a native of Mechelen in the Flemish region of what is now Belgium. He is first recorded in England in around 1679, working as assistant to his fellow Flemish sculptor, Arnold Quellin (1653-1686), at Windsor Castle under the architect, Hugh May (1621-1684). After Quellin's death in 1686, van Nost married his widow Frances, the youngest daughter of the Antwerp landscape painter Jan Siberechts (1627-1703). By 1687 John van Nost had established his own sculptural workshops, located in Portugal Street, on the site of what is now 105 Piccadilly, near to Hyde Park Corner. There he manufactured *Marble and Leaden figures Busto's and noble Vases Marble chimneypieces and curious Marble tables*. John van Nost is perhaps most famous for his lead garden statuary, notably the figures made for Melbourne Hall in Derbyshire that generally cost between £20-30, but he also supplied fireplaces within the house. He produced stone sculpture for Hampton Court,

Castle Howard, Buckingham Palace and Chatsworth, and also provided marble tables for the Duke of Devonshire. He additionally undertook impressive funerary monuments in marble, such as that to the Duke and Duchess of Queensberry at Durisdeer (Dumfries and Galloway).

John van Nost apparently died in late 1711 and *A CATALOGUE OF Mr. Van NOST's COLLECTION* was produced and *Sold by AUCTION... on 17 April 1712 at his late Dwelling House in Hyde-Park-Road (near the Queen's Mead-house... this Collection is the most Valuable that ever was Exposed to Sale in this Kingdom*. After his death his cousin, John van Nost II, continued the business, eventually dying in 1729 and his son, John van Nost the younger (d.1780), also continued to work as a sculptor and is particularly noted for his work in Ireland, but John van Nost the Elder is generally considered to be the most important of the artistic dynasty.

The pedestal of the present sundial is almost identical in outline form with the pair made for William III for the Privy Gardens at Hampton Court Palace. Although without the additional foliate decoration that those examples carry it may reasonably be attributed to the same hand. The pair of Hampton Court pedestals carry the cypher of William III and are known to have been made by John van Nost the Elder, and like the present example, both were made for sundials by Thomas Tompion. The king first stayed in his new rooms at Hampton Court in October 1699, and it is likely that the garden statuary for his Privy Garden just outside was installed in November 1699, as the king's new apartments and gardens were being completed. This seemingly confirmed by a letter from Capt. William Winde to Lady Mary Bridgeman on the 2nd November 1699, who states *Madam, Mr. Tompion, and Mr Nostte [John van Nost], being gon to Hampton Court it was not possible to send yr Ladyp and exacte account of yr Ladyps Commands*. John van Nost is known to have worked on other items for Wrest Park, supplying at least one surviving pair of monumental lead urns for the gardens in c.1700 to the 11th earl (see previous exhibit no.27, p.182). Given this association of van Nost with the Grey family, the close similarity in form of the three pedestals and that the monograms they carry being placed in exactly the same position on each of them and, finally, that they are all associated with Tompion sundials, an attribution of the Wrest Park pedestal to John van Nost the Elder seems assured.

In seeming confirmation of this, as well as the two Hampton Court Palace sundials for William III, Tompion and van Nost are known to have shared other customers for whom they likely collaborated; a bill survives from Tompion to the Rt. Hon. Thomas Coke (1674-1727) of Melbourne Hall in Derbyshire, stating that he supplied a *Gold Rept Watch No 274 striking ye quarters*



William III's 1699 Tompion dial with John van Nost pedestal, made for the Privy Gardens at Hampton Court, now at Kew

against ye Finger &c £70 and a Spring Clock Stand and Out Case No 430 £30, but critically the bill also includes a large brass horizontal dial, £16, supplied on 2nd December 1707. This was the exact time that van Nost was completing statuary for Melbourne Hall gardens, which he had been engaged upon since 1700, and included the famous *Four Seasons Vase* that was apparently presented to Thomas Coke by Queen Anne in 1705. The Coke Tompion sundial is now lost, but with the extensive known work by van Nost, recorded both inside Melbourne Hall as well as its gardens, mean that it was most likely that that sundial too had a van Nost pedestal bespoke for it in London and supplied to Melbourne Hall at the same time.



The gardens at Wrest Park are one of the grandest of the latter 17th and early 18th centuries, showing Dutch influence in some of its key features, as well as political content celebrating William III. During the 1680s and 1690s, the 11th Earl of Kent embarked on major reconstruction of the garden included a large walled garden with basins and fountains, two wildernesses, a terrace walk, fruit trees espaliered against the brick walls, large iron gates and piers decorated with wyverns from the family coat of arms. After a Grand Tour to the Netherlands, Germany and Italy, Henry Grey became the 12th Earl and inherited the estate in 1702. He continued to expand the garden, adding significant new areas to include this sundial, but also focusing his attention on canals and avenues of trees. Documentary evidence indicates that his tree planting was influenced by his experience of Dutch gardens. In 1708, Wrest was one of only four estates that appeared in multiple views in *Britannia Illustrata*, by Kip and Kniff (see opposite, plate 19).

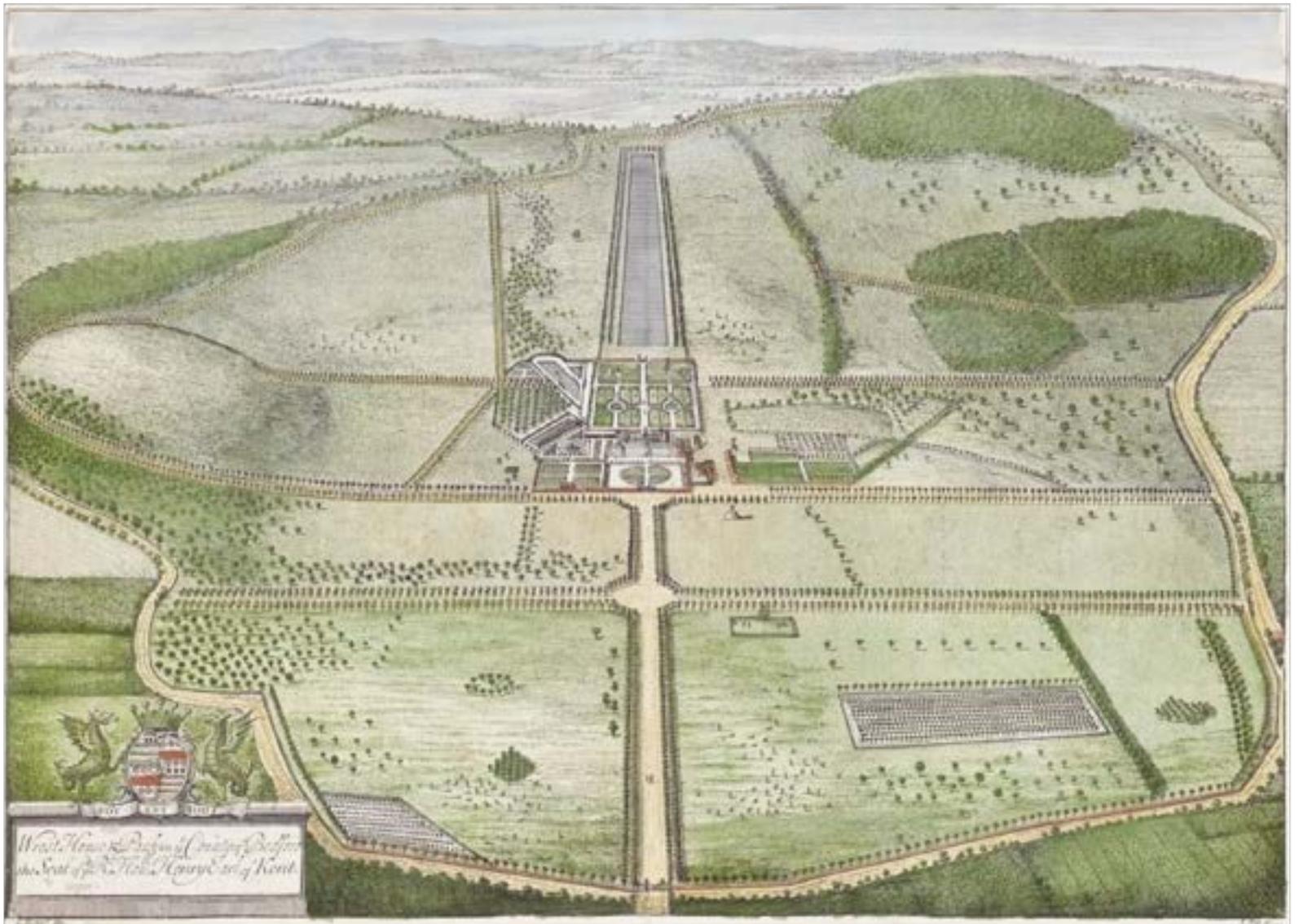
A number of garden buildings followed, including the grandiose Pavilion by Thomas Archer between 1709 and 1711 (see p.185), and during the 1710s, there were a number of ambitious

garden projects, including a basin in which stood a statue of Neptune held up by wyverns. This unusual format indicates that the Neptune Basin was a statement of allegiance to Whig politics and the Glorious Revolution, since Neptune was commonly associated with William III. There is also a statue of William III at Wrest with an inscription to the King's '*glorious and immortal memory*' that celebrates the same allegiance. A second marriage in 1729 to Sophia Bentinck, daughter of the Duke of Portland, reinforced the Duke of Kent's connection with William's circle and Dutch gardening. The power of Dutch influence at Wrest is the result of a combination of factors, the Duke's Grand Tour, his rapidly developing status, his position at Court and his second marriage all contributed to a set of circumstances in which his garden was both a public statement of status and allegiance and a private project motivated by a genuine passion for gardening. Among contemporary documents that demonstrate Wrest's high reputation is the record of a garden tour in 1735, in which the gardens were described as *undoubtedly some of ye finest in England*. Wrest had already been singled out for praise in 1718 in the *Ichnographica Rustica* of Stephen Switzer, and John Mackay included it in his *Journey through England* in 1724 calling it *A very magnificent, noble Seat, with large Parks, Avenues and fine Gardens*.

In 1737, Wrest was one of the earliest great gardens to be published in a large garden plan by John Rocque (shown on p.185), but by then the sundial appears to have been moved, and was left out of the illustrations.

The Grey family resided at Wrest Park from the Middle Ages until the 20th century and, as can be seen by the given provenance, from 1702 the house passed down together with the Lucas barony (of Crudwell) that had special remainder through the female line. In 1917, Nan Ino Cooper, 10th Baroness Lucas, sold Wrest Park after her brother, the 9th Baron Lucas, had been shot down and killed in action serving with the Royal Flying Corps. The Murray family purchased the house, and before Wrest Park was acquired for the Nation in 1946, various items were removed from the gardens, including the Kent Tompion sundial with its van Nost pedestal, Their descendant later consigned it to Sotheby's in 2004.

A LIST OF TOMPION SUNDIALS:	DATE	SHAPE	TABLE	SIZE	PEDESTAL	REFERENCE
Hampton Court – 1 of a pair with below	1699	Circular	Equation	20½"	John van Nost the Elder	Royal Coll. inv. 11959
Hampton Court – 2 of a pair with above	1699	Circular	Equation	20½"	John van Nost the Elder	Royal Coll. inv. 95190
Wrest Park, Bedfordshire, The Kent Dial – with two latitudes: 52° 8', <i>Latt of ye under plain</i> for Wrest Park; 50° 26', <i>Latt of ye upper plain</i> for Cornwall or Devon.	c.1705	Circular	Equation	21"	John van Nost the Elder	This sundial JCT Pt.III, Exhib.28
Melbourne Hall, Derbyshire – Documentary evidence only, bill to Rt. Hon. Thomas Coke, dated 1707 Dec 2.	1707	'Brass horizontal'	None?	'Large'	Van Nost(?), working at Melbourne 1700-11	British Library Add.Ms. 69976 f.155
Pump Room, Bath	c.1709	Octagonal	None	13"?	Modern pedestal	HJ 3:1960, p.166
Halland House, East Sussex, The Pelham Dial	c.1710	Square	Equation	12"	No pedestal	JCT Pt.I Exhib.29



Christopher Gould, London

Circa 1705

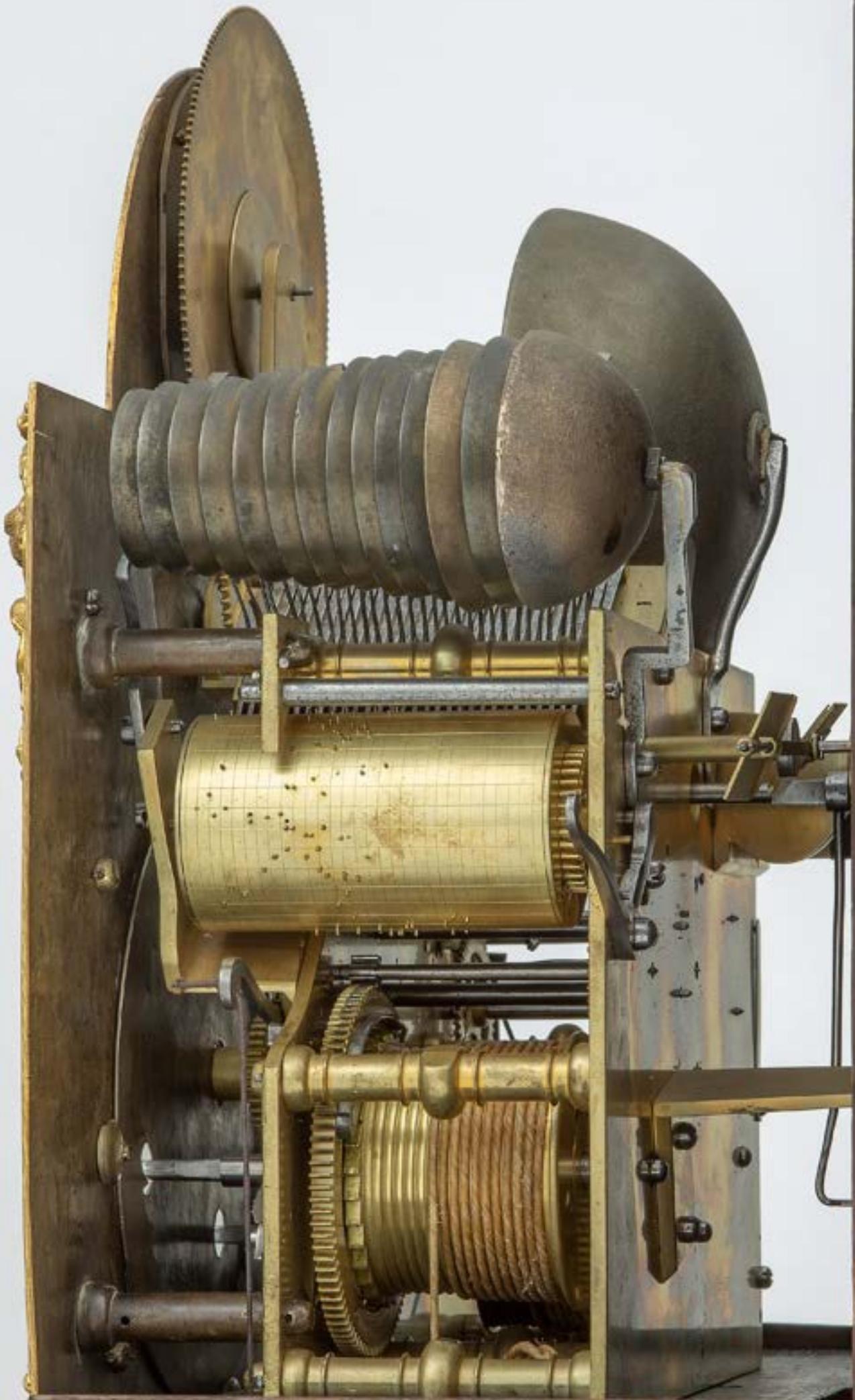
A magnificent Queen Anne burr-walnut veneered musical longcase clock with moonphase and tidal indication



Height	8 foot 10¼ inches (2697 mm)
Case	The case with burr walnut veneers, inlaid with inset cross-banding in Princes-wood and tulipwood outlined by boxwood and ebony stringing, onto an oak carcass. The forward sliding hood with four-sided caddy top, and 'Regal' flat front-and-back bell upstand, surmounted by a pedestal with brass urn and flame finial and flanked by four matching inset pedestals and finials. The cross-grain break-arch cornice moulding above a conforming frieze with fine pierced wood sound frets, supported by brass-capped Doric three-quarter columns flanking the inset hood door, with matching quarter columns to the rear hood uprights, the sides with fretted access doors. The hood resting on concave throat mouldings, above the rectangular trunk door with spectacular veneers, Princes-wood cross-banding over cross-grain moulded outer-frame. The trunk door surround and sides all with matching inlays, the concave veneered base moulding, crowning the similarly cross-banded and veneered plinth, raised on a matching single skirting. The inside of the trunk door pasted with an original equation-of-time table, printed for Christopher Gould and dated 1701.
Dial	The 13 x 17 inch (331 x 430 mm) break-arch lacquer-gilt brass dial with decoration attributed to Tompion's engraver, G.195. The subsidiary in the break-arch indicating the moon's phases, via a penny moon, together with a lunar calendar, 1 to 29½, and double 12-hour tidal ring, flanked by foliate scroll engraving, typical of G.195. The silvered chapter ring with inner quarter divisions, Roman hours and fancy <i>fleur-de-llys</i> half-hour marks, signed <i>Chr Gould Londini fecit</i> around VI, the outer division ring with Arabic minutes and cross half-quarter markings, with finely pierced and sculpted blued steel hands. Elaborate winged cherub and foliate spandrels with engraved foliate decoration between and <i>STRIKE/SILENT</i> lever at IX. The matted centre with foliate engraved central reserve, ringed winding holes, seconds ring and wheatear engraved date aperture. The dial held by with four pinned dial feet.
Duration	8 days
Movement	The massive three-train rectangular movement, extended to the music side, with eight finned baluster pillars, pinned to the frontplate, the going train with anchor escapement and one seconds pendulum. The music train with inter-changeable pin-barrel, playing 14 graduated bells with 28 hammers on the hour every hour, giving a choice of two tunes; <i>Lily Bolero</i> and <i>Cold and Raw</i> , the music selected using a steel lever accessed through the hood side door. The hour train governed by a rack and snail striking on the large vertically mounted bell above. The hour strike and music set off at will via a trip repeat cord, and silenced via a lever through the dial at IX. The brass flat-section pendulum with lenticular bob, calibrated rating nut and three brass cased weights.
Escapement	Anchor with one seconds pendulum
Strike Type	Music every hour followed by hour strike, with trip repeat via a pull cord
Provenance	Anthony Woodburn, 1998, and sold for £90,000; The John C Taylor Collection, inventory no.24
Exhibited	1998, Grosvenor House Antiques Fair, with Anthony Woodburn 2004, Palais Het Loo Holland, Huygens' Legacy, exhibit no.85 2018, London, Innovation & Collaboration, exhibit no.115
Literature	<i>Huygens' Legacy</i> , 2004, p.250-251 (illus) Garnier & Hollis, <i>Innovation & Collaboration</i> , 2018, p.372-373 (illus)

This complex and magnificently cased clock by Christopher Gould is exemplary in many ways; the musical movement is extraordinary for the early 18th century; while the superb case is an early example with a broken arch and about as impressive as one can find at this, or any, period.





Christopher Gould (active from 1682-d.1718)

It is not known when, where or to whom Gould was born, but a clue may be given by an apprentice he took later, Charles Gould in 1701, who may have been a relation and was from Middlemarsh in Dorset, the son of a blacksmith. Gould's first entry into the Clockmakers' was as a Free brother in 1682, presumably by redemption, and named as a Great (Turret) clockmaker which, like his possible relation, hints at a smithing background. Gould's known signed work is of invariably of high quality, as is testified by this complex and magnificent example and another in this collection, inventory no.73.

By 1701, Gould was working *near the north east corner of the Royal exchange*, he was made Beadle in 1713 and from that time he received regular Clockmakers' charity (pension) until he died in 1718, when his wife was chosen as pensioner in his place. Loomes states that it *seems strange that such a prolific and competent worker should have been such a poor man*, but this may have been the result of a long term illness, perhaps similar to his contemporary and close neighbour in Exchange Alley, Daniel Quare, for whom he may well have worked and whose eyesight suffered in his latter years. A correspondent in the *Ipswich Journal* of March 1756, wrote that he was once in *Quare's shop, while I was discoursing with the Master of it, about a small Improvement in Watches, not in the Movement Part, but in the striking ... but Quare could not take it well, having just then lost his Sight*. In contrast to Gould, Quare had accumulated both wealth and a widespread reputation, and his affliction may have been a primary reason for taking on a business partner in c1717/18, which enabled his business to continue and prosper while he was alive, in spite of his condition. It is perhaps interesting to note that, without Quare's business acumen and despite continuing to use his name, his partner Stephen Horseman went bankrupt within a few years of Quare's death. Although Gould's work is reasonably prolific and of unusually high quality, it appears he was not as capable a businessman as he was a clockmaker. The making of this magnificent commissioned musical longcase would have cost Gould a small fortune and it can be a very fine line between profit and loss, particularly to craftsmen with a perfectionist bent that Gould clearly had, but whatever the circumstances here, by 1713 Gould had been unable to accumulate enough wealth to sustain himself and his wife in his latter years.





The high cost and inherent risk of making such a complex and high grade clock on spec, means it could only have been borne as a specially ordered commission and very clearly, no expense was spared by Gould's patron. If one can translate today's experiences, rich clients would more often have enjoyed the security of patronizing the better known clockmakers of the day, and as it is highly unlikely that Gould would have been able to show his client an example such as this 'in stock,' one might speculate as to whether this was one and the same customer who had faith in Gould and ordered the magnificent Grande Sonnerie Mulberry longcase from him a few years before, in c.1698 (see inventory no. 73 in this collection)? Or perhaps this was for someone who had seen that example, and understood exactly what Gould was capable of?

It was Anthony Woodburn that first recognised similarities in construction, moulding shapes and brass castings that lead him to conclude *it was undoubtedly made by Tompion's cabinetmaker*, and while at first sight the break-arch cornice appears anomalous to Tompion's *oeuvre*, it is not unprecedented; Tompion had first tackled a break-arch dial and case over 10 years before for William III, on his year-going equation longcase, now found in Buckingham Palace (RCIN 57800).

The form, carcass construction and mouldings of this case are directly comparable to Tompion's longcase format, certainly close enough for Woodburn to draw his conclusion, and it is logical that when fulfilling this undoubtedly valuable commission, Gould would not have taken any chances, and gone direct to an experienced clock casemakers' workshop. In fact by this date, we are aware that Gould had already made use of this particular casemaker of Tompion's at least once before, as testified by the aforementioned Mulberry Grande Sonnerie longcase (inventory no.73), which is directly based on Tompion's Type 3 standard format, and has also been attributed to this casemaker.

It has already been established that Tompion ordered his cases in similarity to his own workshop practices (*Thomas Tompion 300 years, A Study of Tompion's Domestic Clocks*, 2013), whereby standard carcasses were 'at the ready' for completion with finishes 'to order' that were multitudinous, from veneers to caddy shapes – but, to save time and money, all were fundamentally based on the same carcass construction. On close inspection, the fundamental construction of this hood is within the tolerances of Tompion-type carcassing, but with an arch assembled bespoke for this movement and dial, while the case finish also displays identical scratch-mould tooling and castings for the longcases being produced for Tompion.

Even the mouldings that seem at first atypical, such as the laid on bolection moulding to the glazed door aperture, can be directly compared to those used on the so called Record Tompion, now at Colonial Williamsburg, USA. Meanwhile the carcass of the added superstructure is of pine, similar to Tompion's cases, but not necessarily found as standard in other cases of the period, whose were often integral to the hood, using oak, furthermore the 'Regal'

flat front-and-back bell upstand is almost unique to Tompion's 'special' cases of this period. The main moulding application in comparison to Tompion's numbered series, can thus be used here to assist in dating this clock; in c.1699 Tompion introduced veneered concave mouldings to both his throat and base plinths which were then continued until his death in 1713. On the understanding that a casemaker would be unlikely to change his methodology and tooling for a single case order, one can reasonably safely conclude that this case was likely manufactured by Tompion's casemaker after 1700 and, in seeming confirmation, Gould printed an equation table in 1701 that is pasted inside this trunk door. As a single engraved copper plate could be used in batch production, the resulting stockpile of printed sheets might then be applied over succeeding years, and thus the 1701 date only indicates the start date of the batch manufacture. The break-arch format started to become commonplace in c.1710, however the nature of this example, with deep shoulders and a full semi-circle, indicate an early application, and taken altogether, indications are that this clock was likely made *circa* 1705.



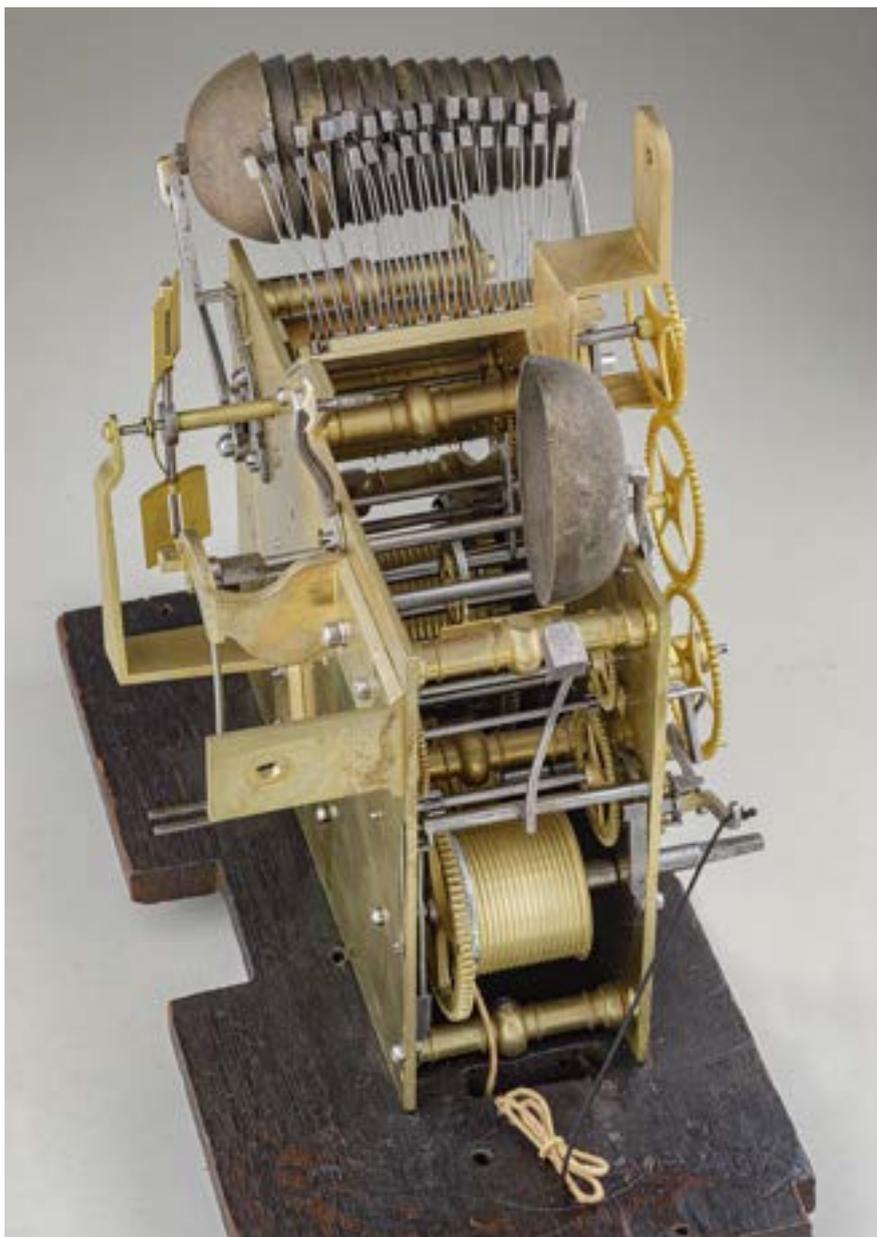
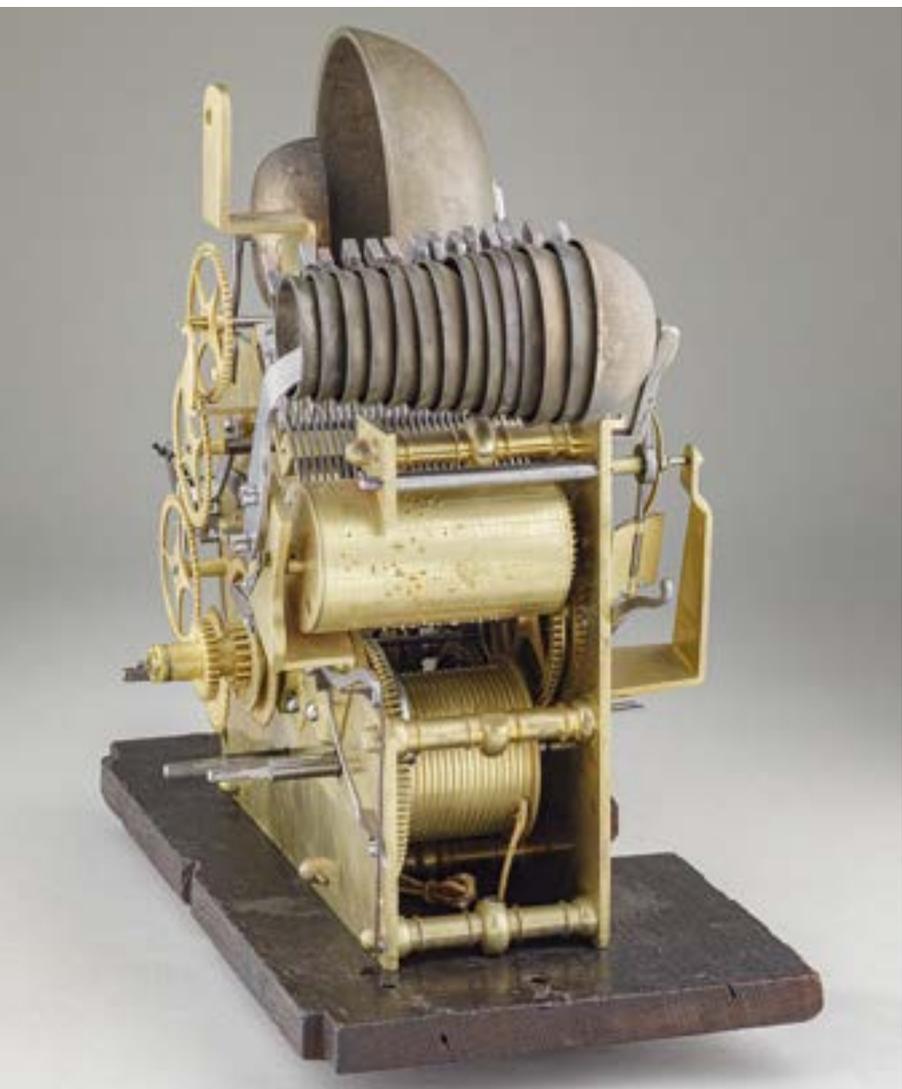
The final veneer and banding choice would also have been the customer's own, and the particular choice here by Gould's customer of Princes wood cross-banding, strung by ebony and boxwood, is not familiar in Tompion's *oeuvre*, but it is very similar to the aforementioned Mulberry Grande Sonnerie longcase by Gould from this collection (inventory no. 73), and any experienced casemaker would undoubtedly have had a stunning array of different exotic inlays, at different price points, from which to choose. Prior to oxidization and mellowing over 300 years, the colour combination found here would originally have been absolutely stunning, the outstanding burr walnut veneers would have been a more contrasted shade of light and dark, while the bright purplish-red Princes wood cross-banding would also have been more distinct, particularly framed as it is by the bright white and black of the boxwood and ebony stringing.





1 2 3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

00
55 5 10 15 20 25 30 35 40 45 50 55
0 5 10 15 20 25 30 35 40 45 50 55
25
Chr. Gould
Londini Facit



The Poyntz Tompion, No.457 Circa 1707

A very fine and rare Queen Anne miniature Phase 2 ebony and gilt-brass mounted striking table clock with pull-quarter repeat by Thomas Tompion & Edward Banger, London

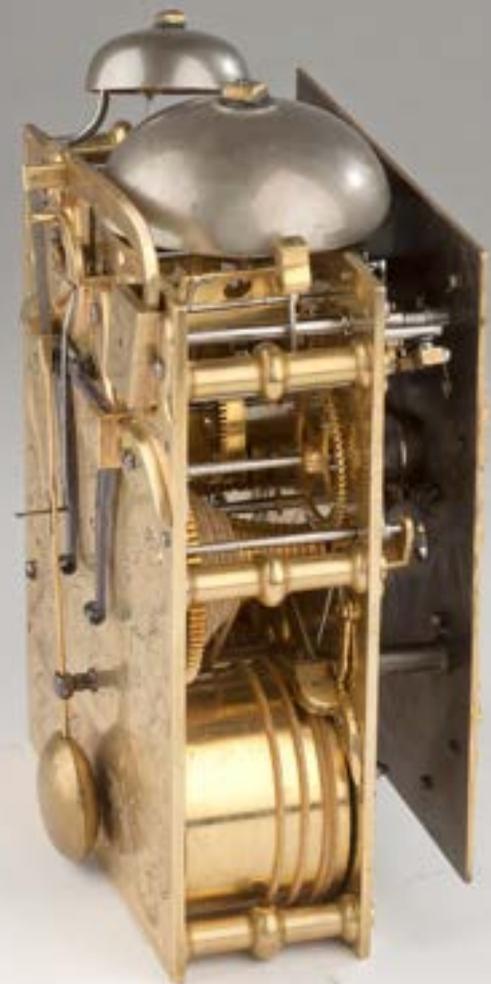


*The Reverend NCS Poyntz, Vicar
of Dorchester Abbey, Oxfordshire*



Height	10¼ inches (261 mm)
Case	The well-proportioned miniature Phase 2 case with ebony veneers and mouldings onto an oak carcass. The cushion-moulded top is surmounted by a well cast thistle-bud handle with rosette terminals. The front door is applied with Tompion's gilt-brass foliate cast sound fret to the top rail, while the uprights are applied with typical foliate-cartouche escutcheons, the sides inset with matching gilt-brass frets above the glazed apertures, and a D-moulded glazed door to the rear. The front door sill is clearly punch-numbered 457 twice, below the mask that is inset with a further pierced-wood sound fret. The front and rear door retain their original locks and hinges and the whole case is raised on conforming ebony mouldings and typical block feet.
Dial	The 4¾ x 5¼ inch gilt-brass dial by Graver 195, is signed <i>Tho Tompion & Edw Banger London</i> within foliate engraving and flanked by subsidiary dials for strike/silent and pendulum regulation. The silvered chapter ring has Roman hours with sword-hilt half-hour marks between, the Arabic minutes with cross half-quarter markers. The finely matted centre has a mock pendulum aperture with the original finely pierced and sculpted blued steel hands, with mask-and-foliate spandrels in the lower dial quadrant with double screws in Tompion's manner, the foliate upper quadrant spandrels abutting the subsidiary rings. The three dial feet are typically latched to the inside of the front plate.
Duration	8 days
Movement	The substantial miniature movement held by seven latched finned baluster pillars, with spring barrels, twin fusees and gut lines. The going train with pivoted verge escapement and brass rod lenticular pendulum spring-suspended from a pivoted curved brass regulation bar with pinion adjustment atop the plates, all with foliate engraved cocks. The strike train governed by rack-and-snail sounding the hours on the larger bell, the quarters struck on the smaller bell using Tompion's own fail-safe system, with double-cocked interlocking blued steel levers, pulled from either side of the case. The backplate, by Graver 195, has very fine quality foliate engraving centred by a Martian trophy above the signature cartouche signed <i>Tho Tompion & Edw Banger London</i> , the cartouche is further flanked by two bare-breasted seraphim. The base of the backplate is clearly numbered 457 just beneath the scored line border. The movement is secured in the case in Tompion's usual manner with two steel bolts through the baseboard into the bottom pillars and by two foliate engraved backplate brackets.
Escapement	Pivoted verge with spring-suspended pendulum
Strike Type	Hour strike with Tompion's own pull-quarter repeat
Provenance	The Reverend NCS Poyntz, of Dorchester Abbey, Oxon; Sotheby's, London, 11 July 1941, lot 88, sold to Malcolm Gardner (dealer); Private collection USA, until sold 2014; John C Taylor Collection, inventory no.80
Exhibited	1948, Goldsmiths & Silversmiths Company, Antique Dealers' Fair, London
Literature	Symonds, <i>A book of English clocks</i> , 1947, plates 45a & 47; Symonds, <i>Thomas Tompion his life and work</i> , 1951, p.206, fig.198; Evans, <i>Thomas Tompion Evans, Dial & Three Crowns</i> , 2006, listed, p.80; Evans, Carter and Wright, <i>Thomas Tompion 300 Years</i> , 2013, p.364-365, listed p.606; Garnier & Carter, <i>Golden Age of English Horology</i> , 2016, Tompion's miniature and mid-sized series of domestic table clocks, p.144-149





Tompion's miniature series of domestic table clocks

The early 1690s were a particularly busy and fruitful time for Thomas Tompion's workshops, he had upgraded his designs of domestic clocks and he was also working on a number of Royal commissions. These included the year-going spring-driven Mostyn Tompion and the silver-cased balance/pendulum-control campaign clock, both for William III, as well as no.222, the smallest of his wooden cased table clocks, probably commissioned for Queen Mary. It may be that the commissioning of no.222 encouraged Tompion to offer smaller sizes of standard table clocks incorporating his superb pull quarter repeat system but, whatever the reason, from c.1693 Tompion first began to produce miniature versions of his striking and repeating table clocks.

This was not the first time that Tompion had successfully tackled clocks of smaller dimensions, testimony being the beautiful harlequin pair of table clocks of c.1683, no.21 (Fitzwilliam Museum, obj. M.3-1965), and the Lonsdale Tompion no.23, although he housed these extraordinary timepieces in gilt-brass and blued-steel cases. A year or so later Tompion then produced two standard wooden cased Phase 1 timepieces in miniature, nos.47 and 51.

All of Tompion's miniature striking table clocks were made between c.1693 and c.1710, and were all housed in Phase 2 cases. Of his miniatures the lowest serial numbered movement is 215, but he did not fit his usual repeat system and the type of spandrel used suggests that that clock remained unfinished until after c.1696, by which date a new smaller pattern of 'ornate cherub head' spandrel had been commissioned.

A LIST OF KNOWN TOMPION MINIATURE STRIKING CLOCKS:					
Sig. No.	Date	Case	Dial	Movement	Reference
TT 215	c.1693 fin. c.1696	20th century case (later)	Ph. 2 rect. dial. G.155. Subs, pend reg. (inner div.) Ornate cherub head spandrels	G.155. No repeat	Sotheby's, 9.10.1980, lot 292
Case no.215	c.1696	Ebony Ph. 2 (orig.) Thistle bud scroll handle Foliate drop escutcheons			Gardiner Houlgate, 4.6.2015, lot 1594
TT 225	c.1693	Ebony Ph. 2. Thistle bud scroll handle. Bellflower escutcheons.	Ph. 2 rect. dial. G.155 Subs, pend reg. (inner div.) Foliate mask spandrels	G.155 Cock and post levers	Sotheby's, 4.10.1990, lot 155
TT 226	c.1694	Ebony Ph. 2. Thistle bud scroll handle Bellflower escutcheons	Ph. 2 rect. dial. G.155 Subs, pend reg. (inner div.) Foliate mask spandrels	G.155 Cock and post levers	Sotheby's, 30.9.1992 lot 91
TT 270	c.1696	Ebony Ph. 2. Thistle bud scroll handle Bellflower escutcheons.	Ph. 2 rect. dial. G.195 Subs, pend reg. (inner div.) Ornate cherub head spandrels	G.195 Cock and post levers	Sotheby's, 22.3.1974 lot 43
TT 271	c.1696	Inlaid case (later). Thistle bud scroll handle (orig.) Bellflower escutcheons	Ph. 2 rect. dial. G.195. Date sq. Subs, pend reg. (inner div.) Ornate cherub head spandrels	G.195 Cock and post levers	AH, Dec. 1974; Christie's, 1.7.2008, lot 59
Case no.271	c.1696	Ebony Ph. 2 (orig.) Knopped handle			Bonhams 28.5.2002, lot 202
GG 272	c.1696 fin. after c.1713	Ebony Ph. 2. Thistle bud scroll handle Bellflower escutcheons	Ph. 2 rect. dial. G.195 Subs, pend reg. (inner div.) Ornate cherub head spandrels	G.195 Cock and post levers	AH, Dec. 1974
TT 285	c.1696	Ebony Ph. 2 Thistle bud scroll handle Foliate scroll fret Bellflower escutcheons	Ph. 2 rect. dial. G.195 Subs, pend reg. (inner div.) Ornate cherub head spandrels	G.195 Cock and post levers	Sotheby's, 29.4.1968, lot 62
T&B 414	c.1704	Ebony Ph. 2 Thistle bud scroll handle Foliate scroll fret Foliate drop escutcheons	Ph. 2 rect. dial. G.195 Subs, pend reg. (outer div.) Ornate cherub head spandrels	G.195 Double cocked levers Recess to base	Christie's, 13.12.2000, lot 105
T&B 457	c.1707	Ebony Ph. 2 Thistle bud scroll handle Foliate scroll fret Scroll escutcheons	Ph. 2 rect. dial. G.195 Subs, pend reg. (outer div.) Ornate cherub head spandrels	G.195 Double cocked levers Recess to base	Symonds, <i>Eng. Clocks</i> , 1947, pl.45a & 47
T&B 460	c.1707	Special Ebony Ph. 2. Thistle bud scroll handle Silver mounts, mouldings & feet	Ph. 2 rect. dial. G.195 Subs, pend reg. (outer div.) Ornate cherub head spandrels	G.195 Double cocked levers	Symonds, <i>Tompion</i> , 1951, fig.142-146
TT? 503	c.1710	Case missing	Dial missing	Backplate engr. removed & levers lost	Private



The Reverend NCS Poyntz (1846-1920) graduated from Pembroke College, Oxford and served a number of curacies before his appointment at the Abbey in 1886, a post he was to hold for 34 years. He was fortunate to have inherited the mantle of the Revd. William Macfarlane, who came to the Abbey in 1856 with a large private fortune which he used to restore the Abbey, fund a new church school and build a large new vicarage in the fashionable gothic style. By all accounts Nathaniel Poyntz inherited a very well tended and happy parish.

According to the Abbey's excellent records, Poyntz continued his predecessor's Oxford Tractarian beliefs which embraced high church ceremony. He held strong views as to how his church should be run and how his flock should behave, and he regarded himself as the parish's spiritual leader in all matters; from the quality of its cricket and football teams to parliamentary elections.

Curiously, when Tompion no.457 was sold in 1941 the Revd. Poyntz had been dead some 21 years. His father, Commander Newdigate Poyntz, had been a naval officer of no notable means, and quite how the Revd. Poyntz came by the Tompion is curious, possibly it was a present from a grateful parishioner. When it was finally sold in 1941 one can only assume that it was entered for sale by his only surviving son, Richard Stephen Pierrepont Poyntz, who subsequently died in 1956.

The recently restored Dorchester Abbey commissioned an excellent book in 2005; *Dorchester Abbey, Church and People 635-2005*, by Dr. Kate Tiller, which details the history of the Abbey and gives a fascinating insight into the lives of its past Bishops, Abbots and Vicars, with a number of pages devoted to Nathaniel Poyntz.



In line with Tompion's known practice, study of the recorded miniature movements by their features, forms possible batches within the series. If his batch production was around four, as in c.1696, this might suggest that more were made, or started, which are now missing (c.1693: 215, 225 & 226/ c.1696: 270, 271, 272 & 285/ c.1703: 414/ c.1707: 457, 460 & 503).

Apart from the necessity of having sets of smaller scale movement component castings made, Tompion also had to consider the implications of scaling down his dials and cases, both of which required new mounts and handles. The first miniature table clock Tompion completed was no.225 and, as Tompion had just made a new 'foliate mask' spandrel for use on the sub-miniature dial of no.222, this was also incorporated into the first two miniature dials of 225 and 226.

At the same time Tompion tackled the production of the new miniature cases. For these smaller clocks every element was scaled down beautifully and in proportion, so that it is quite difficult to ascertain their size when looking at an image or photograph. Tompion commissioned a new 'thistle bud scroll' handle, scaled to match, and this small handle was only used on the miniature cases.

From c.1696, on no.270, a new 'ornate cherub head' spandrel was commissioned for the miniature dials and this pattern was also used to complete the first of the series no.215. From then on Tompion used this spandrel on all his miniature, as well as mid-sized clocks.

As was Tompion's practice, having perfected the miniature movements, they were made to a pattern that hardly changed for the next 15 to 20 years. They were produced in batches, so each could be finished as and when required. In the second batch of clocks – 270, 271, 272 & 285 – the third clock was signed George Graham and appears to have been left stranded in stock and not taken off the shelf and finished until after Tompion's demise.

Over the whole period of their production, the miniature movements show the usual developments in production at the same time as they can be seen on his full sized examples - changes in engravers as well as engraving patterns, modifications to the repeat levers from a cock and post to double-cock and the introduction of recesses to the base of the plates.



The Sidereal Tompion Regulator

No. 483, Circa 1709

A unique and highly important Queen Anne Type 3 ebonised sidereal and mean solar time month-going longcase regulator by Thomas Tompion & Edward Banger



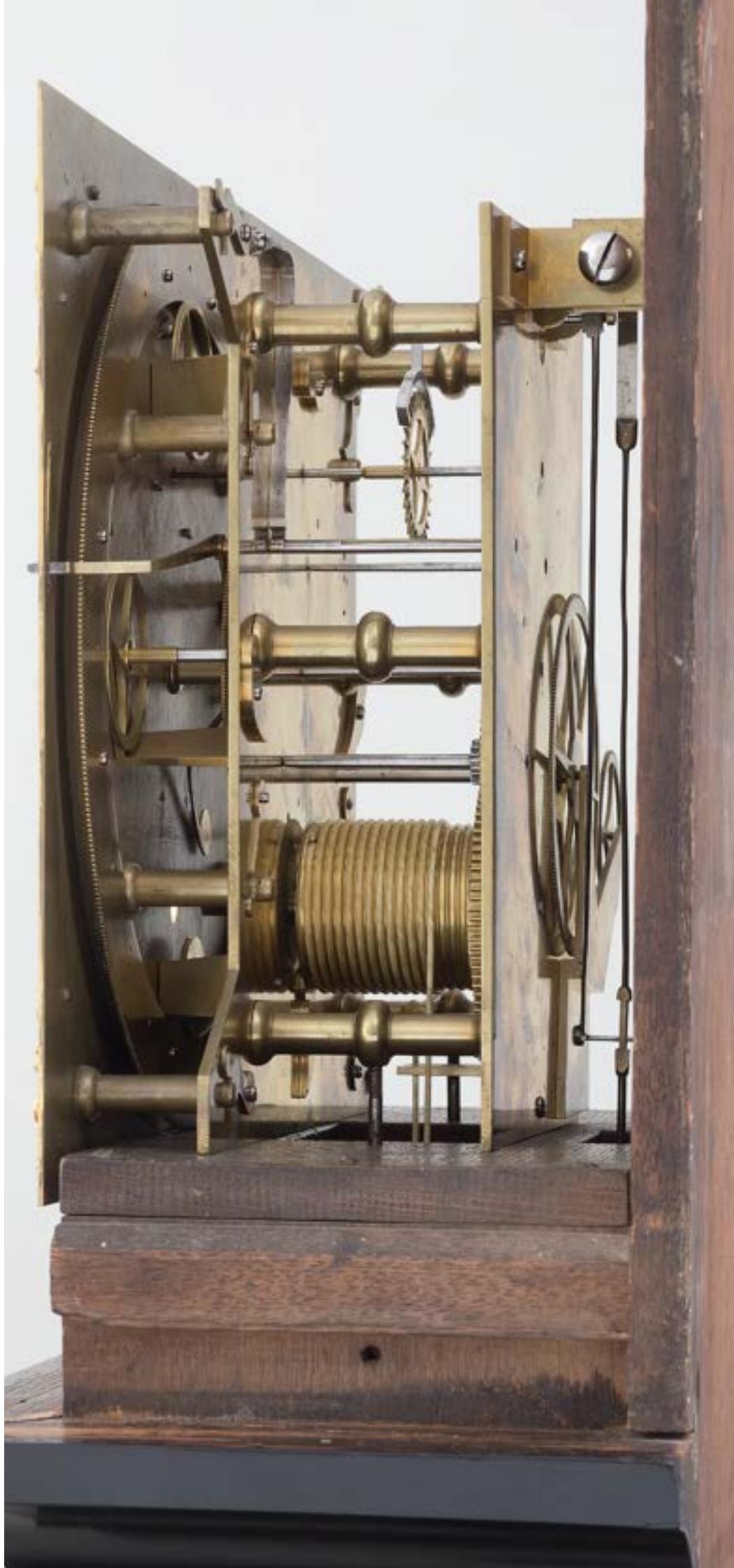
Prince George as Lord High Admiral
by Godfrey Kneller c.1704



Height	7 feet 5 inches (2267 mm)
Case	The ebonised Type 3 case with double-skirted plinth and raised rectangular moulded panel, rectangular trunk door with bellflower escutcheon, concave throat moulding, hood with brass-capped Doric columns supporting a caddy top surmounted by 3 brass ball finials. The interior with silvered calibrated beat scale fixed to the backboard, and an equation table for 'John Rainsford' on the trunk door.
Dial	11¼ inch square dial signed <i>Tho Tompion Edw Banger London</i> in a reserve in the finely matted centre beneath an applied silvered oval plaque signed <i>Tho Tompion London</i> , subsidiary seconds ring, concentric silvered chapter rings: the inner conventional ring giving mean solar time, the outer revolving twice a year allowing sidereal time to be read to one minute from the end of the extended hour hand, blued-steel minute and gilt recording hand, double-screwed Indian mask & scroll spandrels, shuttered winding hole with lever to right side.
Duration	One month
Movement	Of massive construction with delicate high-count train, the plates held by six latched baluster pillars, bolt-and-shutter maintaining power, single going train with deadbeat escapement, the outer ring rotating on four rollers with individual, tailed cocks. The drive to the outer ring received by differential gearing from the minute wheel arbor running through the backplate where held by a bifurcated back cock and fixed with a large diameter wheel meshing with another wheel having a steel arbor carried forward to the front terminating in a single start worm engaging with the sidereal ring, the backplate punch-numbered 483 at the base.
Escapement	Deadbeat (see notes following)
Provenance	Possibly commissioned by Prince George of Denmark (1653-1708), but never delivered and probably then acquired by Henry Compton, 1694-1724 of Minstead Manor, Hampshire, thence by descent to HF Compton of the same; Sold by his grandson, at Christie's, London, 16 December 1982, lot 185; Professor E Hall, and sold Christie's, 11 July 2003, lot 156, sold for £633,718; The John C Taylor Collection, inventory no.117.
Exhibited	1986, An exhibition of Precision Pendulum clocks at Derek Roberts; 2004, Huygens' Legacy, Paleis Het Loo, Holland, exhibit no.89; 2013, Time for Everyone Symposium, California Institute of Technology, Pasadena and NAWCC Columbia, USA
Literature	Neilson, 'Important Sidereal Regulator by Tompion & Banger', <i>Antiquarian Horology</i> , Spring 1977, p.214-216 illus; Roberts, <i>British Longcase Clocks</i> , 1998. p.110-112 illus; Roberts, <i>Precision Pendulum Clocks</i> , 2003, p.178-179 illus; <i>Huygens' Legacy, The Golden Age of the Pendulum Clock</i> , 2004, p.260-261 illus; J L Evans, <i>Thomas Tompion at the Dial and Three Crowns</i> , 2006, listed p.80; Evans, Carter & Wright, <i>Thomas Tompion 300 years</i> , 2013, illus. p.534-5; Garnier & Carter, <i>Golden Age of English Horology</i> , 2015, p.34-5, illus. p.37; <i>Antiquarian Horology</i> , Autumn 2003, p.497 illus.

This highly important and complex regulator is unique within Tompion's *oeuvre* and was undoubtedly a special commission. It was started before 1708 and, in common with almost all other ground-breaking horological innovations that Tompion produced between 1702 and 1708, it was feasibly ordered by his prolific patron, Prince George of Denmark, Duke of Cumberland and husband of Queen Anne (1665-1714), who died before it was completed. In 1703, the queen had famously refused payment of debts accumulated by the late king, William III (see p.216) and this time, it appears Tompion completed the clock in an unusually thrifty ebonised case, and sold it to cover his undoubtedly very considerable costs.







*Tho. Tompion
London*



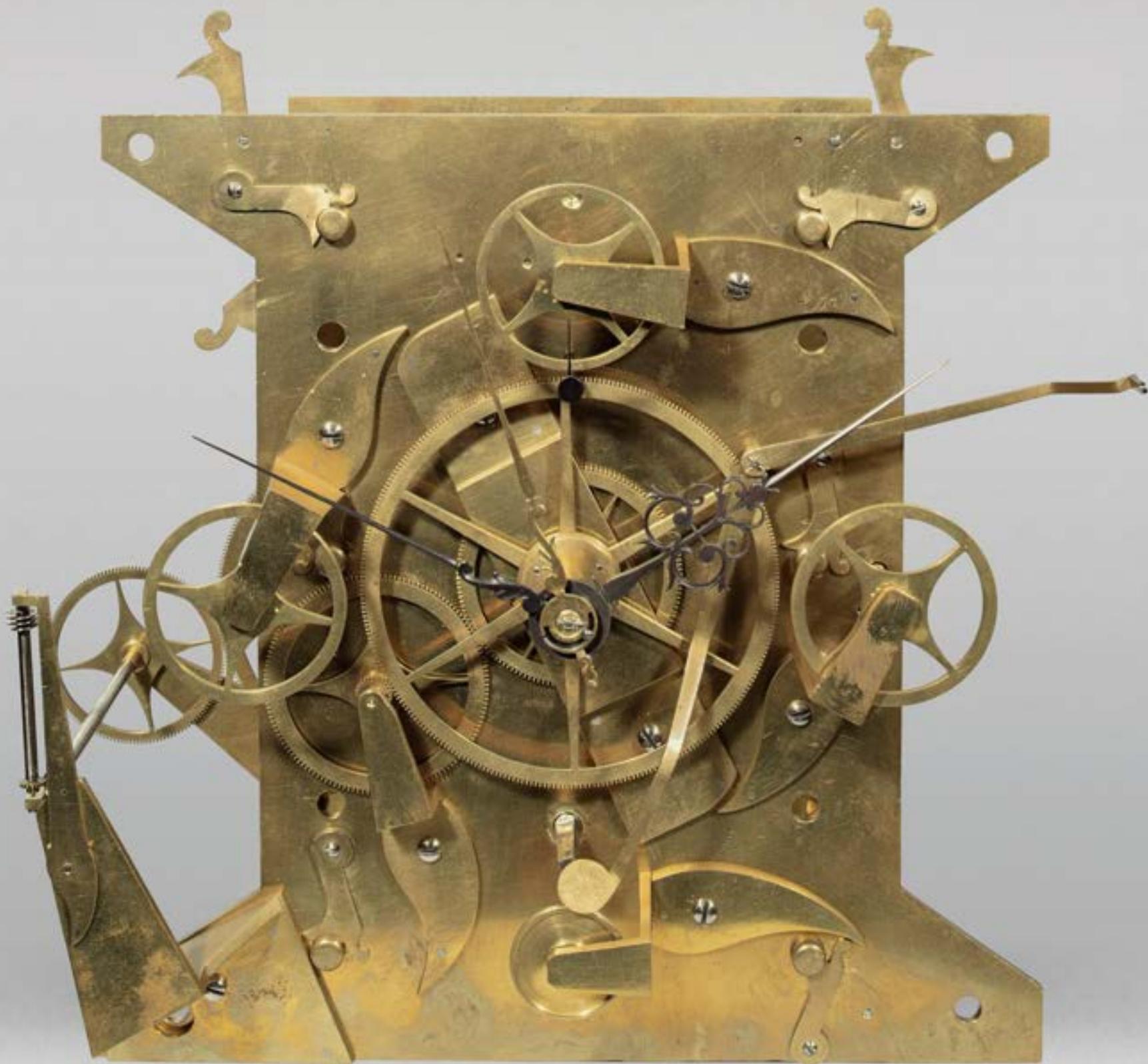
This special commission is the only known Tompion to show geared mean solar and sidereal time. That the pendulum should be regulated to mean solar time so that it is sidereal time that is read from the outer, rotating chapter-ring is proved by the fact that if the pendulum is regulated to sidereal time, after a year the sidereal year lacks a day.

In *The Golden Age of English Horology*, 2015, Garnier devotes a chapter to Queen Anne's husband, George of Denmark, as *Tompion's most ambitious patron*. Denmark was famously at odds with William III and the weight of evidence leans towards Denmark competitively commissioning (or re-commissioning) a large number of Tompion's most ambitious and highly complicated productions during this period, from 1702 when he gained access to the royal purse, until his death in 1708 (see putative list on p.220).

Garnier argues that the one of the last items in the Denmark group of Tompion commissions may be this, the mean and sidereal longcase regulator by Tompion and Banger, no.483. It re-emerged in the possession of the Compton family of Minstead Manor in Hampshire, a member of which sold the clock at auction in 1982. However, none of that family from the time the clock was made is particularly known for interest in scientific endeavour. Garnier notes that *As the only clock by Tompion to show a directly geared comparison of mean and sidereal time, and in the light of the present analysis of Prince George of Denmark's interest in complicated clocks related to his scientific interests, he stands out as a very likely candidate for having commissioned such a clock*, but it was not finished after his death in 1708 and, as Anne was famously less interested in horology, it was very unlikely to have been paid for; earlier Treasury papers from 19th May 1703 indicate *The Queen reads the petition of Thomas Tompion praying payment of 564l. 15s. od. due to him for clocks, watches &c. presented by the late King [William III] to the Duke of Florence. The Queen's reply is her Majesty has no occasion for his clocks and watches.*

There is plenty of evidence of clocks and watches being exchanged and resold by both Tompion and Graham, and whether this important clock was resold straight away is open to conjecture, but its expense would have made recouping the costs a priority, which the ebonised case apparently reflects, while the overlaid Tompion signature plate might indicate that it was finished and sold before 1713. What we do know is that Henry Compton was constructing his new house, Minstead Manor in Hampshire, and that it was finally completed in 1719. If the clock had returned to Graham, it is quite conceivable that Compton visited Graham in Fleet Street looking for a suitable longcase for his new house and, perhaps impressed by this fabulously complicated clock, bought it then.

It was sometimes thought that this clock was retro-fitted with its deadbeat escapement for Mr. Compton on his purchase of it, following Graham's recent perfection of his deadbeat. However, when Professor Hall owned this important clock, he had the composition of the wheelwork tested at the Research Laboratory for Archaeology and History of Art of Oxford University. The impurity composition of the deadbeat escape wheel was very similar to all the other parts of the Tompion examined, but it was also pointed out that analysis of a Graham, dated to 1722, was in three instances very similar to the Tompion composition. The conclusion was that while no positive deduction could be drawn, the possibility or even probability should be entertained that Graham incorporated the deadbeat in this clock during Tompion's lifetime.



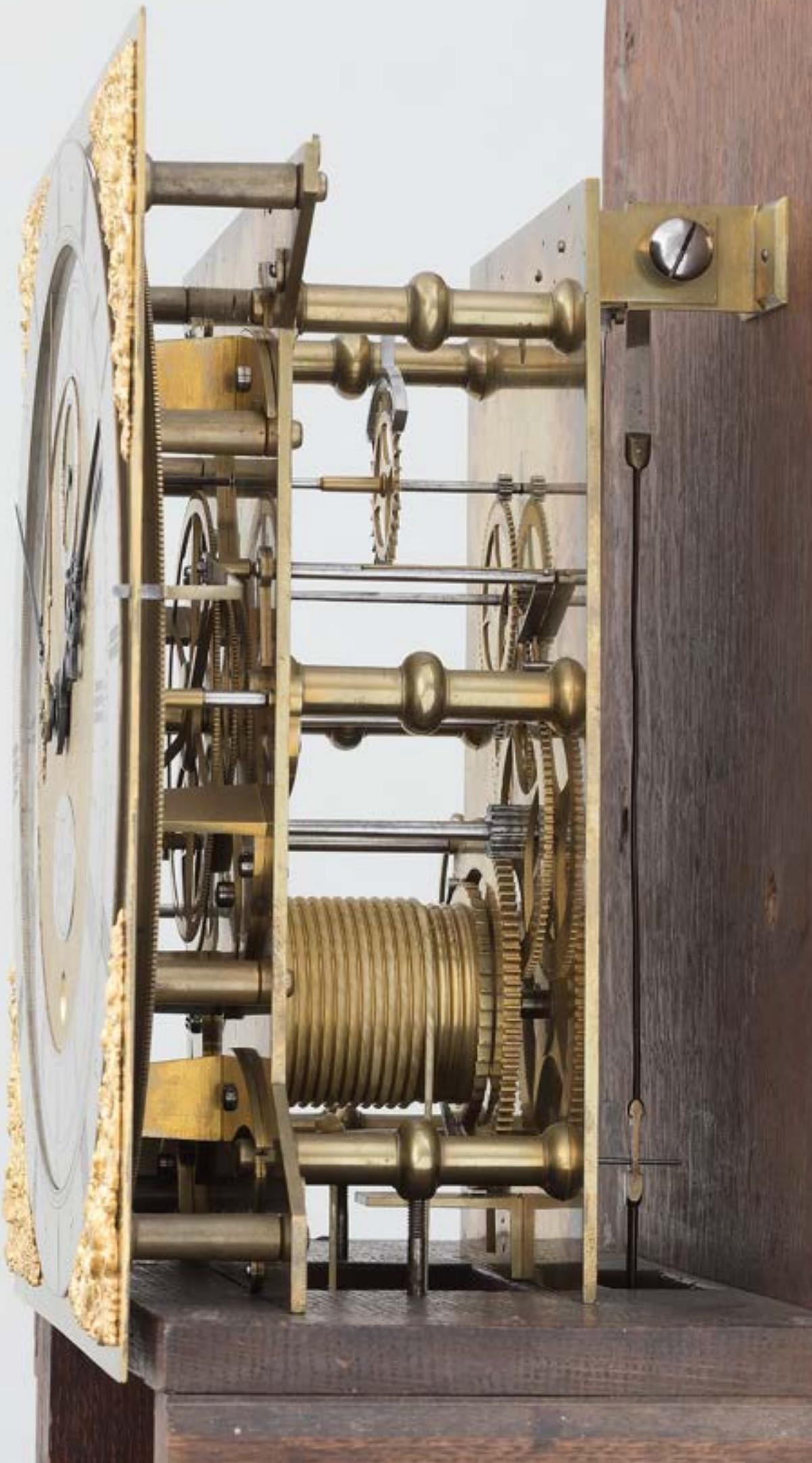






A putative list of Tompion commissions, ordered by Prince George of Denmark, Duke of Cumberland:

1. Tompion, no. 365: 'The Victoria' walnut month-going, striking longcase clock, *circa* 1701-2 (Private collection, USA);
2. Tompion, no. 369: 'The Monaco' ebony and silver-mounted, mid-size Ph.2, striking spring clock with quarter repeat, *circa* 1702 (Private collection);
3. Tompion, un-numbered: 'The Admiralty' year-going longcase, *circa* 1702-3, dial and case 19th century (Government Art Collection, Ministry of Defence, London);
4. Tompion & Banger, un-numbered: 'The Denmark' walnut and gilt-metal, year-going equation longcase clock with perpetual calendar, *circa* 1703 (Royal Collection, Buckingham Palace, RCIN 2754);
5. Tompion, no. 388: 'The von Plessen' ebony Ph.3 with arms, striking spring clock with quarter repeat, *circa* 1703 (Royal Collection, Windsor Castle, RCIN 30362);
6. Tompion, un-numbered: 'The Cumberland-Gifford' gilt-metal and silver, Grande Sonnerie, dual control, pendulum/balance miniature travelling clock with alarm, *circa* 1704-5 (British Museum, London, no.1986,0306.1);
7. Tompion & Banger, no.410: 'The Habsburg' ebony Ph.3 with arms, three-train, Grande Sonnerie spring clock, *circa* 1703-4 (Private collection);
8. Tompion & Banger, un-numbered: 'The Scott-Cumberland' three-train quarter striking, year-going, equation spring clock with perpetual calendar, *circa* 1705-8 (Private collection);
9. Tompion & Banger/Tompion no.417: 'The Hanover' turtleshell and gilt-metal Grande Sonnerie spring clock, *circa* 1704-8 (Private collection);
10. Tompion & Banger/Graham no.428: 'The Leap-Year' walnut and gilt-metal, equation and calendar, month-going longcase clock, *circa* 1705-7 (Private collection);
11. Tompion & Banger, no.436: 'The Conyngham' turtleshell and gilt-metal three-train Grande Sonnerie spring clock, *circa* 1706 (Fitzwilliam Museum, Cambridge inv. no. M.4-1965);
12. Tompion & Banger, no.460: 'The Barnard' ebony and silver-mounted, miniature Ph.2, striking spring clock with quarter repeat, original travel box, *circa* 1707 (The Science Museum, London, obj. no. 2019-199);
13. Tompion & Banger/Tompion no.483: 'The Sidereal', ebonised month-going, mean and sidereal longcase clock, *circa* 1707-9 (The current example, John C Taylor inventory no.117);
14. Tompion & Graham, un-numbered: ebony and silver-mounted orrery, completed *circa* 1710, and traditionally considered as made for Queen Anne, but more likely bespoke by George of Denmark before his death in 1708 (Museum of History of Science, Oxford, inv. no. 45104)



The Lee Simpson

Circa 1710

A fine Queen Anne miniature Phase 3 ebony striking spring clock with pull-quarter repeat, by Tompion workman Charles Simpson, together with its rare wainscot oak travelling case

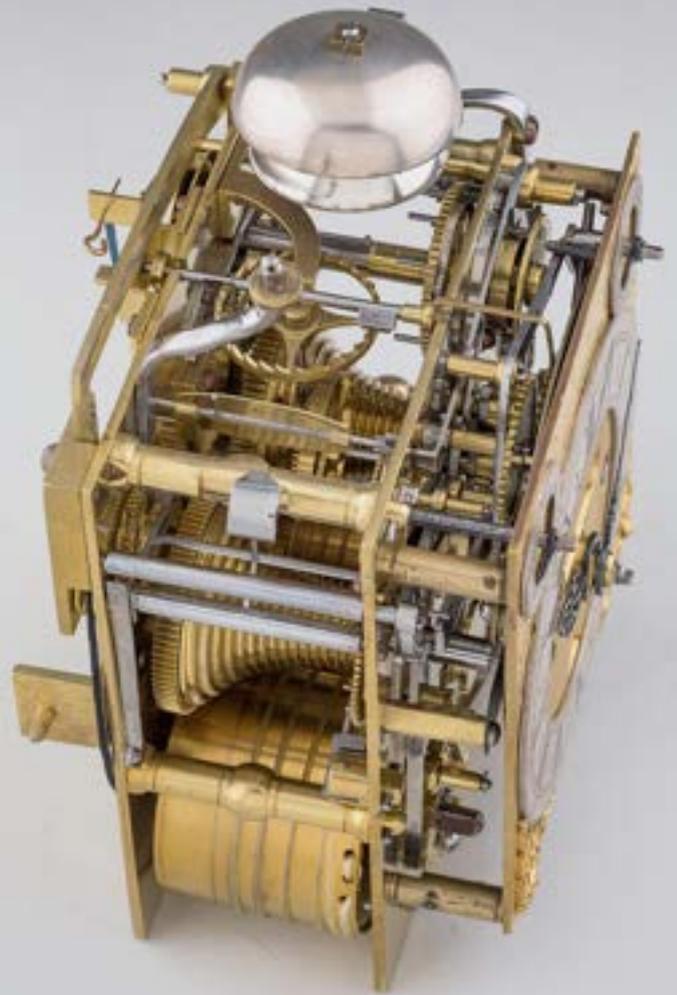
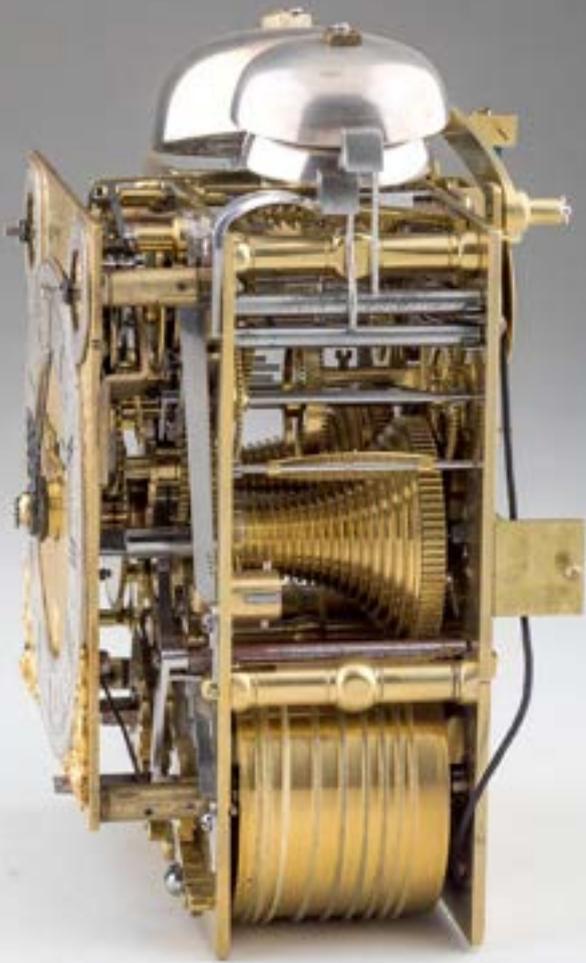


Height	8¾ inches
Case	The diminutive Phase 3 ebony veneered case with inverted bell top surmounted by a baluster handle. The Tompion/Graham-type raised aperture mouldings to the break arch glazed sides and front door, which is also inset with a wooden sound fret to the top rail and plain oval escutcheons, the conforming plinth base raised on square D-moulded wooden cushion feet.
Dial	3½ x 4 inch rectangular Phase 2 gilt-brass dial with finely matted centre, accommodating the mock pendulum and date apertures, the silvered brass chapter ring with Arabic minutes, Roman hours and fleur-de-lys half hour marks, pierced and shaped blued steel hands. The lower corners with applied gilt foliate mask spandrels, the upper dial engraved with foliate decoration, attributed to Tompion's engraver 515 (G515), encompassing the subsidiary dials, left for pendulum regulation, the centre signed in cursive script <i>Charles Simpson, London</i> and the right for strike/silent selection.
Duration	8 days
Movement	The small but substantial movement with pinned ring-turned baluster pillars, twin fusees and spring barrels, verge escapement with pendulum suspended from the regulation bar in Tompion's fashion, rack striking the hours on a large bell above, with pull-quarter repeat on two smaller bells via an engraved backplate-mounted pulley. The backplate itself, also attributed to G515, and beautifully engraved with a flaming urn, central bird, fruit within a strap cartouche and integral mask below, with scrolling foliage and typical flower heads to the fusee and barrel pivots all within a wheatear border.
Escapement	Pivoted verge
Strike Type	Hour striking with pull-quarter repeat
Travelling case	The wainscot oak case is of typical joinery construction, the main box with double opening doors to the front, each with two iron hinges, doors held in place when closed by the dovetailed and double-hinged lid, and secured by a fancy wrought iron lock with a strap keeper. Each side has a wrought iron lifting handle with shaped backplates, the interior lined with replacement green baize.
Provenance	Bonhams, 19th June 1981, lot 77, the travelling case apparently bought from the vendors afterwards; RA Lee personal collection; John Kendall, sold in 2005 for £185,000; John C Taylor Collection, inventory no.166.

This is the only clock currently recorded by Tompion and Graham's workman, Charles Simpson. Of very rare miniature size, it shows the hallmarks of their workshop with engraving executed by their engraver, G.515, while its travel case utilises Tompion and Graham's pattern of iron hinges, as well as the same lock plate and hasp as the only known miniature Tompion travel case, found with the c.1707 Barnard Tompion, no.460 of c.1707 (now in the Science Museum, London, object number 2019-199), and probably made in the same joiner's workshop.

Travel cases, or carrying boxes, are exceedingly rare survivals despite the fact that many or perhaps most earlier spring table clocks originally had them, used specifically for safe passage of expensive and highly prized timepieces between town and country residences. The doors can be opened, and the lid then closed, revealing the dial, perhaps for using the clock during overnight stays at coaching inns. Later in the century, when table clocks were far more commonplace, they were more likely to stay put in one residence.







The Ilay Glynne Ring-dial

Circa 1715

An exceptionally important and rare George I brass and silvered mechanical equinoctial standing ring-dial of large size by Richard Glynne, London, commissioned by the 1st Earl of Ilay, later 3rd Duke of Argyll (succeeded 1743)



Archibald Campbell, 3rd Duke of Argyll, 1st Earl of Ilay by Allan Ramsay, 1758



Dimensions	23 inches high, by 17 inches diameter
Description	Signed <i>Rich. Glynne Londini Fecit</i> on the circular base plate which is also engraved with an equation of time scale and is carried on three screw feet for levelling in conjunction with two spirit levels set across the plate at right angles. The centre of the base plate carries a large inset compass with a 32 point wind rose of which all the points are named with those for the cardinal and intermediate points distinguished by decorative foliate engraving on a blacked ground. Mounted above the compass on the central portion of the base, which may be rotated by a central rack-and-pinion, is the meridian ring carried on two baluster pillars. Mounted within the meridian ring, which has stiff oak leaf decoration on each edge, is a second ring, carrying two struts, the central pierced and engraved equinoctial plate engraved with an hour scale (I-XII twice), reading to one minute. Set in the same plane as this ring at the South (lower) end of the vertical plate is a rimmed plate engraved with a second 32-point compass rose surrounded by a degree scale. This plate may be adjusted in an East-West direction over a range of some 7 degrees to correct for magnetic declination. At the North (top) end is a glazed box containing a sidereal clock-dial (I-XII twice). This dial is fitted with two pierced hands and with a geared mechanism beneath the dial by means of which the whole plate may be rotated. Engraved on one side of the central vertical plate is a zodiacal calendar scale (0 degrees Aries = 10 ½ March) against which an index with sights in the vanes at the scale end may be set by means of a rack-and-pinion adjustment. Ilay's heraldic achievement of coat-of-arms, leopard supporters, coronet, and motto are engraved on a silvered cresting surmounting the dial, while the piercing of the central plate is worked with the reversed cypher AC (for Archibald Campbell), beneath an earl's coronet, readable from both sides.
Provenance	Originally made for Archibald Campbell (1682-1761), created 1st Earl of Ilay in 1706, succeeding as 3rd Duke of Argyll in 1743; Sotheby's, 16 December 1969, lot 37; The Time Museum, Rockford, Illinois, USA, inventory no.546; Sotheby's New York, 2 Dec. 1999, lot 6, sold for \$1,047,500; John C Taylor Collection, inventory no.75.
Exhibited	1980s-90s, The Time Museum, Rockford, Illinois, USA;

Richard Glynne (1681-1755) was apprenticed to the well-known instrument-maker Henry Wynne in the Clockmakers' Company in 1696 and became free in 1705. He was Steward of the Clockmakers' in 1725. He established himself next door to the Latin Coffee House in Ave Maria Lane, near St Paul's London, where the same year he presented himself as '*a very skilful and Accurate Mathematical Instrument-Maker*' for '*Azimuth Compasses...as also other things* in the first English edition of Guillet's, *The Gentleman's Dictionary* (London, 1705). Soon after gaining his Freedom in 1705 he married Anne Lea, daughter of the map and globe maker Philip Lea (d. 1700) and his mother-in-law, also Anne (d.1730), joined Glynne in partnership from at least 1712, to 1725. In December that year they issued proposals for the production of 36-inch diameter globes. By this time, Glynne was working from his partner's address at the Atlas and Hercules in Cheapside where he remained until c. 1718 from when he is found opposite Salisbury Court, Fleet Street, about 15 houses east of Graham's (previously Tompion's) shop on the corner of Water Lane on the opposite side of Fleet Street. In 1725 with Anne Lea he reissued Philip Lea's map of London, Westminster and Southwark but his main activity was *all sorts of Mathematical Instruments either for Land or Sea, according to the newest improvements* as he stated in an advertisement in 1726. A range of mathematical instruments – sectors, drawing instruments, sun-





dials, armillary spheres and armillary planetaria – are known by him, all of clean, uncluttered, appearance but finely and precisely engraved as in the current, most important example of his work. Glynne, who had taken five apprentices during his working career, ceased trading in 1730 when his stock was auctioned from the leading optician, Edward Scarlett's shop. He had, in effect made enough to retire at the early age of 48/9, and he died 25 years later in 1755.

An association between Glynne and the clockmaker Richard Street is evident from the two very similar clocks signed by one and the other, each with a hand of varying length read against an eccentrically shaped chapter ring and surmounted overall by a globe moonphase, (the Glynne, Ewbank's sale, 9 Dec 2009, lot 647; the Street, Sotheby's, 29 May 1982, lot 5.). Street being closely associated with Tompion, Glynne was clearly part of the circle of scientific and mathematical instrument makers that orbited around Tompion and then his successor, Graham.

To use this instrument, it is set by its compass to align its orientation with the earth's N/S axis, and levelled, the sight arm then being moved until the Sun's rays fall on the circle, so that Solar time can be read from the dial at the top of the instrument. Essentially, Glynne's present dial is his reprise of the model first previously made by John Rowley for Queen Anne's consort, Prince George of Denmark, before 1708 [see, Garnier & Carter, *The Golden Age of English Horology*, 2015, p.36 (illus)], and improved upon in Rowley's subsequent examples by the addition of a surmounting glazed cylindrical box containing the mechanism driving the hour and minute hands contained therein, as on Glynne's for the Earl of Ilay. Other examples of Rowley's developed type are in a private collection and at the Whipple Museum, Cambridge. Another example by Glynne, in silver, was made for the 2nd Duke of Devonshire, and is similarly with the patron's coat-of-arms and cypher, remaining at Chatsworth to this day. See also the Quare dual time clock, in this collection, possibly acquired by the 2nd Duke of Devonshire.

The arms and monogram are those of **Archibald Campbell (1682-1761), Earl of Ilay** (so created in 1706) who succeeded his older brother as the 3rd Duke of Argyll in 1743. He was initially called Lord Archibald Campbell, being the second son of the 1st Duke of Argyll. A Scottish nobleman, politician, lawyer, soldier, businessman, banker, and patron of the arts and sciences, he was educated at Eton and the Universities of Glasgow and Utrecht, at the last studying civil law. He next proceeded initially to a military career, fighting under first the Duke of Marlborough and later under his own brother, the 2nd duke, at the Battle of Sheriffmuir, defeating the forces of the Old Pretender, the leader of the 1715 Jacobite Rebellion.

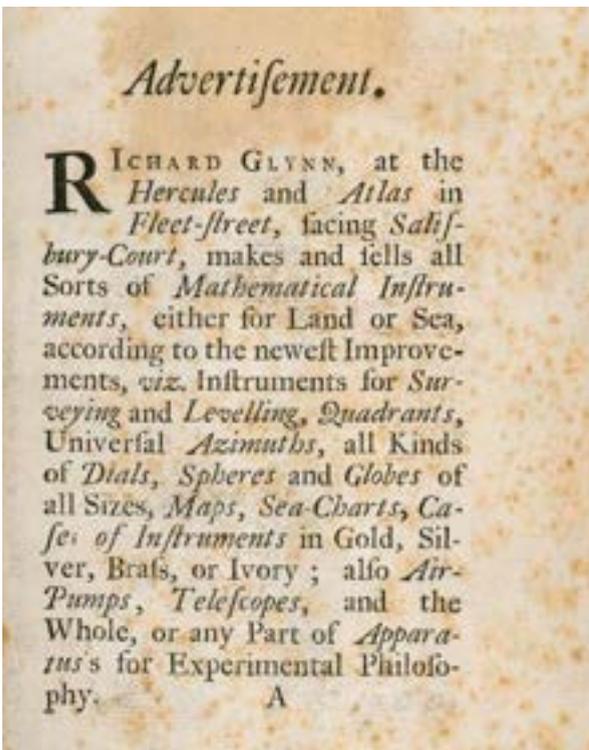
In recognition of his keen sponsorship of the Union of England and Scotland while a Commissioner for the Treaty of Union with Scotland, Archibald Campbell was in 1706 raised to the peerage as Earl of Ilay by Queen Anne, and following the 1708 Act of Union was elected a representative Scottish peer to the House of Lords at Westminster, which he remained for life. He became the most powerful man in Scotland and its political leader, being appointed Lord Privy Seal (Scotland) in 1721-33, followed by Lord Great Seal (Scotland) until his death. The British prime minister, Robert Walpole delegated to him control of royal patronage in Scotland, so much so that he earned the nickname '*King of Scotland*'.

In business Ilay was a promoter of the Equivalent Company in 1724 (which akin to the South Sea Company in England, proposed taking on the national





Lord Ilay on the Scottish £10 bank note



Glynn(e) advertisement of c.1715



Archibald Campbell, 3rd Duke of Argyll by Allan Ramsay, 1748

debt of Scotland, in the process needing to be rescued from bankruptcy), and also was a founder of the Equivalent's offshoot, the Royal Bank of Scotland in 1727, acting as its first governor until 1737. Hence his portrait has appeared on the bank's sterling banknotes.

Besides a townhouse in London, in 1722 Ilay acquired a country villa, Whitton Place, near Twickenham, west of London. Here he employed first the architect James Gibbs to design a greenhouse or orangery and possibly also the Gothic revival tower at the opposing end of a landscape canal. Ilay then in 1735 built a Palladian villa to the design of the architect Roger Morris, whom he also used from 1735 to design his Scottish clan seat at Inverary Castle. Meanwhile at Whitton he was filling the grounds with exotic trees, some of which were moved after his death to the queen's botanical garden at Kew, where some still survive.

His extensive and valuable library at Inverary and his collecting trees at Whitton (causing him to be called 'Treemonger' by Horace Walpole), bespeak of Ilay's interest in the sciences, today perhaps his most underrated field of endeavour, the effect perhaps of the way Ilay was never a 'joiner', shunning memberships and so was never elected FRS, otherwise deserved. He helped found the faculty of medicine at Edinburgh University. He assembled a significant cabinet of mathematical instruments and Roger Emerson's essay, 'The Scientific Interests of Archibald Campbell, 1st Earl of Ilay and 3rd Duke of Argyll (1682-1761)', in *Annals of Science*, vol. 59, 2002, Issue 1, p.21-56 (published online Nov. 2010) gives a comprehensive assessment of Ilay's scientific endeavour, the introductory abstract saying,

Amateur scientists were important in the science of the eighteenth century as patrons, investors in talent and new equipment, as the maintainers of gardens and libraries, and, occasionally, as men who could and did make discoveries or significant innovations. The article shows that the Earl of Ilay (later 3rd Duke of Argyll) was one of these men. He was also much more. Ilay's interests in science, because of his important political position in Scotland, touched not only his immediate friends but helped to reshape Scottish culture itself. This essay looks at his scientific interests, his political career, and his patronage to argue that the results of his long career in politics were to institutionalize a new set of modern values in most Scottish institutions.

In 1743 Ilay succeeded his elder brother as the 3rd Duke of Argyll, and where he had previously exercised power through political office and influence, he was now holder of Scotland's most prestigious dukedom. Nonetheless, the commissioning of such superb instruments as the present dial by Glynn is a reflection of both Ilay's personal interests and the 'soft power' exercised through the possession and use of such instruments.

Despite his success in business and politics, Campbell's married life was disastrous. He separated from Mary Whitfield soon after their wedding in 1712, and she died in 1723. However, he found happiness with his mistress Anne Williams (née Shireburn), and she gave him an illegitimate son, William, who took the Campbell name. On 15th April 1761, Archibald Campbell collapsed and died. The Argyll Estate and Scottish property went to his cousin and successor, John Campbell, but all his English properties were left to his mistress and their son. He left a year's wages to his servants, all apart from his cook, who he believed was overpaid. The title of Ilay died with him, and his body was transported by sea to Edinburgh, and then overland, for burial at Kilmun on the Holy Loch, south of Inverary Castle.



John Rowley, London Circa 1715

An exceptionally fine and large
George I brass equinoctial ring dial



Dimensions	15¼ inches (435mm.) diameter
Description	Signed <i>J Rowley London</i> on the outer meridian ring and similarly on the bridge, the meridian ring calibrated with a degree scale in four quadrants reading to 30 degrees from the equator, its reverse with a 'nautical ring' scale for measuring altitudes, the equinoctial ring engraved on its outer and inner faces with an hour scale reading to minutes (I-XII-II), the bridge engraved to one side with an ecliptic and declination scale, and to the other side with a month scale (0 degrees Aries = m 11 March). Around the meridian is a semi-circular ring in two parts joined by a screw passing through the raised eyes attached to the ring; to adjust it against the degree scale for latitude the screw is slackened, unclamping the two semi-circles, so that the suspension piece mount may be slid along. The cursor may be clamped in position by tightening two screws
Provenance	The Time Museum, Rockford, Illinois, USA, inventory no.2680; Sotheby's Olympia, 30 Oct. 2002, lot 23, sold for £32,077; John C Taylor Collection, no.106.
Exhibited	1990s, <i>The Time Museum</i> , Rockford, Illinois, USA
Literature	G Clifton, <i>Directory of British Scientific Instrument Makers, 1550-1851</i> , London, 1995, 238-9 JR Milburn, 'John Rowley's Ginnery Instruments', <i>Bulletin of the Scientific Instrument Society</i> , 32, 1992, p.3-5
Comments	This ring dial is of exceptional size for its type. It is considerably larger than the next smaller, a 14½in. ring dial by John Evans, Bishopsgate, London (Sotheby's Olympia, 20 Sept. 2001, lot 38), and is second in size only to an unsigned 18in ring dial (Sotheby's Olympia, 30 May 2002, lot 33)

John Rowley, the son of a sword-cutler of Lichfield, became free of the Broderers' Company in 1690/1. He was a pre-eminent scientific instrument maker of the early 18th century, who made instruments for Queen Anne's husband, Prince George of Denmark (1653-1708), and was appointed in 1715, Master of Mechanics to George I; he also supplied instruments to the Board of Ordnance. Zacharias von Uffenbach, having visited Rowley in 1710, remarked he was *considered one of the best mechanics in England*. He was also one of the first makers of orreries.





Joseph Williamson, London, Circa 1720

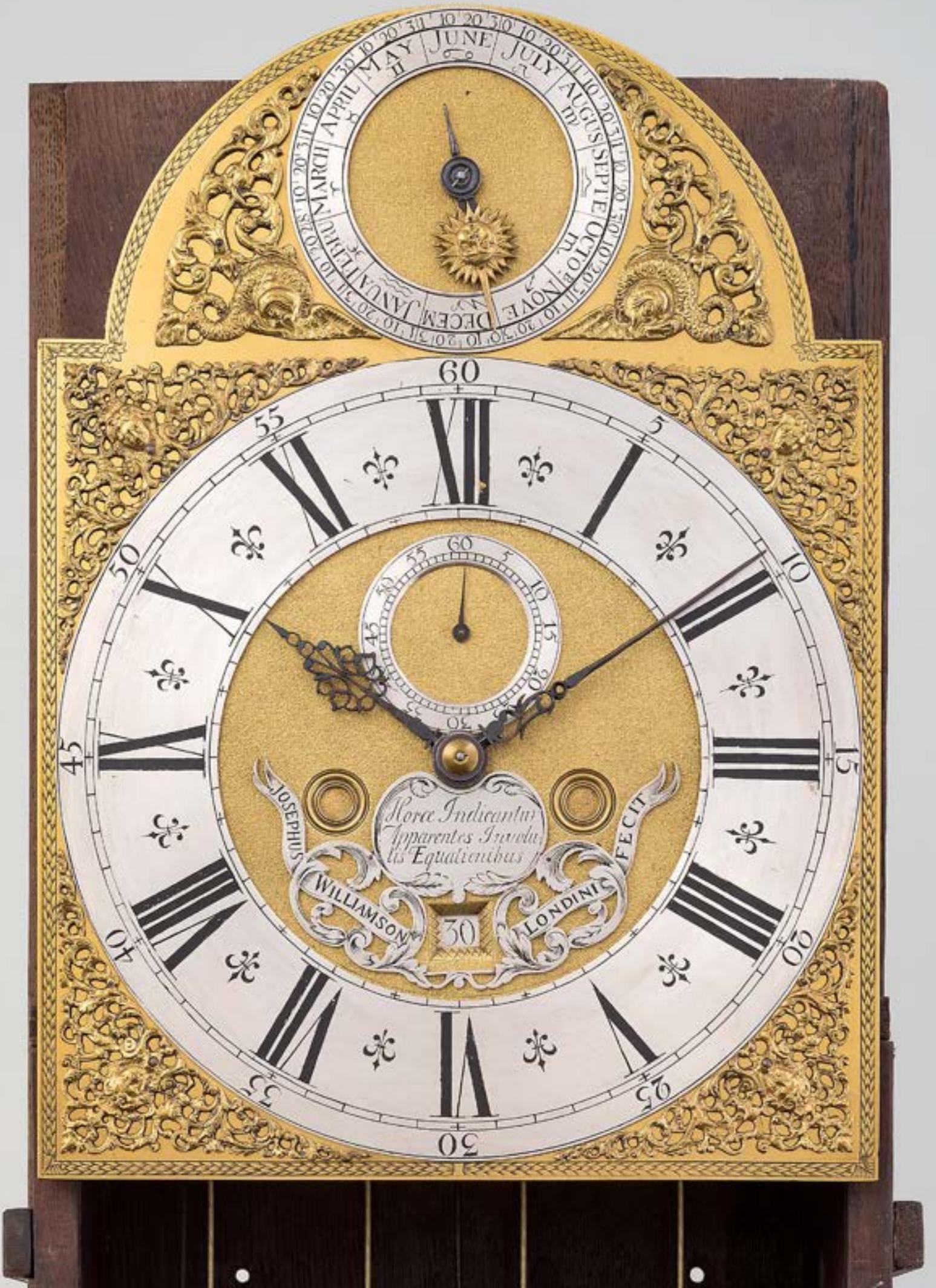
A rare George I walnut month-going Apparent or Solar time longcase clock

Height	8 feet 9 inches
Case	Veneered in burr walnut on an oak carcass, the hood with three giltwood finials to the caddy top, brass-capped Tuscan columns to the angles, and pierced wood friezes above and below the cornice. The concave throat moulding above a rectangular trunk door with book-matched veneers and cross-grain D-moulded surround, the base with conforming veneers, separated by a cross-grain triple convex moulding, standing on a double-skirted foot
Dial	Of breakarch form, the gilt brass plate with engraved wheatear border and signed <i>JOSEPHUS WILLIAMSON LONDINI FECIT</i> on an undulating ribbon within a pierced an engraved silvered mount also inscribed <i>Hora Indicantur Apparentes Involu/tis Equationibus</i> set on the matted centre above VI and framing a calendar aperture, a large-diameter seconds ring below XII, all within the silvered Roman and Arabic chapter ring with fleur-de-lys half-hour marks, gilt cast brass mask-and-scroll spandrels, and the arch set with a silvered year calendar ring with equation of time indicated by a blued-steel hand mounted with a gilt brass sunburst, flanked by dolphin-and-scroll spandrels
Duration	One month
Movement	The rectangular plates secured by five ring-turned baluster pillars pinned to the frontplate, reversed trains of month duration with external rack-and-snail hour strike on vertically-set bell above the plates, anchor escapement and with twin vertical arms screw-planted on the plates extending above the bell to hold an arbor, whose front-end wheel (with a cut-out for counterpoise) is driven by an endless-screw drive arbor rising from the underdial motionwork, the opposing end carrying the equation kidney against which the upper end of the cranked pendulum—suspension arm is held by the weight of the pendulum whose effective length adjusts according to the rotation of the kidney, so giving Solar time indication on the dial
Escapement	Anchor with self-adjusting effective pendulum length for Apparent, Solar time
Strike Type	Rack-and-snail hour strike

Joseph Williamson's clockmaking origins are obscure, there being no record for him of an apprenticeship in the Clockmakers' Company, although it is sometimes said he was apprenticed in 1683. He appears to have entered the Clockmakers' Company late, but advanced to Junior Warden in 1721, and Master in 1724 or 1725, dying in office that year. He certainly (on his own attestation) worked sometime for Daniel Quare *for whom I then wrought mostly*, partly making equation clocks, plus he claimed to have been the actual maker of all such clocks made in England up until 1719, having been the inventor of the kidney equation device. In 1719 his letter to the Royal Society, asserted *his Right to the curious and useful invention of making clocks to keep time with the Sun's Apparent Motion*. In these claims Williamson (notwithstanding the superlative quality of his equation clocks) was being disingenuous, for not only are the equation clocks signed by Tompion not by Williamson, the actual invention of the equation kidney to render the clock hands to register (varying) Solar time was due to Christiaan Huygens, who in 1695 (in his last surviving letter) wrote to his brother Constantijn (then William III's private secretary in London) outlining the kidney equation device. As a result, we can deduce that Quare sub-contracted his equation clocks to Williamson, who then proceeded to make such clocks also on his own account, such as in the present clock.







MOON PHASE INDICATOR
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MAY 10 20 30
APRIL 10 20 30
MARCH 10 20 30
FEBRUARY 10 20 30
JANUARY 10 20 30
DECEMBER 10 20 30
NOVEMBER 10 20 30
OCTOBER 10 20 30
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AUGUST 10 20 30
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*Hora Indican-
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lis Equalibus*

JOSEPHUS
WILLIAMSON
LONDINI
FECIT



John Bird, London

Circa 1745

A good George II brass and silvered brass inclining analemmatic dial



Dimensions	6½ by 5¼ inches
Description	Signed <i>J. Bird London</i> with central cut-out to the shaped base-plate standing on one fixed and two screw-adjusting feet, the hinged dial-plate of an ellipse, with a superimposed square, fixed via two trunnions at one end of the base-plate, and set for latitude against a curved, hinged strut divided for latitudes 40-60 degrees, reading to 30 degrees and passing through the opposite end of the dial-plate whose elliptical edge bears an hour scale (III-XII-VIII) reading to two minutes, there being a second, circular, hour scale (similarly divided) to the superimposed square, and within that an equation of time table, over which is mounted the spring-loaded, hinged gnomon of solid triangular form.
Provenance	The Time Museum, Rockford, Illinois, USA, inventory no.1899; Sotheby's, October 2002, lot 24, sold for £23,441; John C Taylor Collection, inventory no.107.
Exhibited	c.1985-1999, <i>The Time Museum</i> , Rockford, Illinois, USA
Literature	G Clinton, <i>Directory of British Scientific Instrument Makers, 1550-1851</i> , London, 1995, p.30 C D Hellman, 'John Bird, 1709-1776, mathematical instrument maker in the Strand', <i>Isis</i> , XVII, 1983, p.127-53

John Bird was born at Bishop Auckland, co, Durham, where (while engaged in the weaving trade) he learnt precision dividing, before moving to London in 1740. Initially, for some five years, he worked for other makers, including Sisson and George Graham, before establishing his own workshop. Best known for large, observing instruments and for precisely divided scales on a group of early sextants, he also made smaller instruments, such as the present instrument, but they are comparatively rare. His customer base was international, so that by his death his instruments were to be found in many of the major observatories of Europe.

Instruments such as this are not fitted with a magnetic compass as they are self-orientating: once correctly set for latitude and levelled, the dial is turned until the gnomon shadow indicate the same time on both hour scales. This is, naturally, local solar time, and the dial when so registering is orientated in the meridian, so operating as a combined time and direction indicator.





CARTER MARSH & CO.

Many moons ago...



*John C Taylor, Jim Hays, and Neil Armstrong
with The Musical Fromanteel, Exhibit no.7*



*John C Taylor and Neil Armstrong with the Fromanteel
and The Samuel Knibb Cupola clock, Exhibit no.9*

As watch and clock enthusiasts, we are forever banging-on about our passions and, despite my wife rolling her eyes with boredom, these conversations do occasionally lead to something interesting. One such occasion was in 2010, when a long-term American friend and customer, Jim Hays, asked us if we would mind if he brought his great buddy to see our workshops, he was interested in mechanics and timekeeping in particular... *it would be a pleasure*, I said, and put his visit in the diary.

When the day came, in walked Jim with a quietly spoken white-haired gentleman, and we were introduced... *meet Neil, he has more appreciation than most of engineering and mechanics*. It was not until an hour or so later that it struck me, he seemed vaguely familiar, but I thought nothing more of it until lunch, when I asked... *so Neil, what is it that you do?* He replied, somewhat vaguely... *a bit of this and that, they try to make me lecture these days, but I'm trying to retire from all that now*.

It was only when Neil left the table, that his good friend said in passing... *you remember the first man to walk on the moon? Well, that was Neil, but he doesn't like to discuss it because people start behaving strangely...* of course he was right, and throughout the rest of lunch, I desperately tried to disguise my admiration

by bizarrely and embarrassingly blathering-on about the weather, in a frenzied attempt to avoid any subject remotely connected to 'distant travel'.

Somewhat surprisingly, given my odd behaviour, the following day I received another call from Jim... *you know that extraordinary collector with amazing clocks that you mentioned? Neil was absolutely fascinated, I don't suppose you might be going to see him soon, maybe we could tag along?* A visit to the Isle of Man to see Dr Taylor was duly organised, and we did get to talk to Neil Armstrong about his extraordinary achievements - his praise was entirely reserved for the people around him, and it was impossible not to be struck by his exceptional, and remarkable, modesty.

You may well ask whether I brought up the subject of NASA's Speedmaster that he took with him to the moon (well almost, but let's not split hairs)? Of course I did, I really couldn't help myself, and there's a great untold story behind that too - but I was sworn to secrecy and, despite what my lovely wife believes, there is a limit to my banging-on.

Darrell.

Darrell Dipper



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