

## British Horology

 Times
# John Davis of Windsor A Very Long Way From Home 

By Rich Newman (IL)

T
he tag said Dutch Cow-tail, but as I discovered, it's sometimes difficult to see everything when a clock is in a box and on the ground one chilly April morning in Ohio, but that's just where this story starts, at the parking lot boot sale (tailgate) before the opening of the 2014 NAWCC Southern Ohio Regional. Having just spent a small fortune to have hands custom cut and hand-fettled for an early bracket clock, the wonderfully made (single) hand immediately drew my attention and the deal was done. Except this was not a Cow-tail, or even Dutch, but an early English post-frame tall case movement. I immediately thought that this find would be interesting to research and I was certainly surprised when I looked up the name engraved on the dial, "John Davis in Windsor fecit" and realized that this was the maker of the famous chiming tower clock at Windsor Castle (Figure 4).

Windsor's Curfew Tower was completed in 1230, after three years of construction during the reign of Henry III, and is the largest of the three towers on the west side of the castle. Standing 100 feet tall with walls 13 feet thick, it is strategically positioned to overlook the River Thames and City of Eton. Like many of Windsor's structures, Curfew Tower has its share of historical wonders, including a fine dungeon and remnants


John Davis tall case clock, found in Ohio, showing fine engraving of tulips and flowing foliage with a Tudor rose at center, signed "John Davis in Windsor fecit." of a passageway that allowed defenders access to, and escape from, the castle during a siege. Its bell tower was originally part of the chapel belfry in the Mary Tudor Tower until 1478 when a massive 50 feet high by 21 feet square timber frame was constructed within Curfew Tower to house the bell cage, and it was moved. The clock was acquired second-hand from the Windsor Parish

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## British Horology Times

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## Next Meeting

Southern Ohio Regional (April 6-8)
"The Clockmakers" Collection at the Science Museum" Presentation by John Kirk

Further details can be found on the Events page of our website

## President's Message:

It is unfortunate that I was unable to attend our Chapter meeting in Lakeland, Florida due to family comitments. I wish to thank Richard Newman for ably chairing the meeting and to David Cooper for preparing a presentation on his restoration of a ca. 1650 Cruciform Watch. I also want to thank Ken Rockwell for donating an English silver pair cased watch for our raffle and Safwat Wahba for bringing the refreshments.

Richard's article on John Davis, a 17th Century Windsor clockmaker appears in this issue and is a thoroughly well researched and a singularly worthwhile read. The British Horology Times needs more articles. If you have an idea for a future article, we really need to hear from you. Even if you are leery about writing let us know. We can help with putting the idea into print and we need your ideas to keep this publication and our Chapter going.

If you have received a notice with this issue that your membership is due or past due please send your payment as soon as possible. We want to keep you on our membership lists and keep your subscription to the BHT uninterrupted.

Our next meeting is in Wilmington, Ohio at the Southern Ohio Regional. This is always a well attended meeting and I look forward to seeing you there. Member John Kirk will be presenting an illustrated program on the horological collection of the Science Museum in London. A key part of this is the collection of the Clockmakers' Guld which was formerly housed at the Guildhall in London. This is a fabulous collection of British horology dating back to the 1600 's. John's photographs and insights are not to be missed. BH is the co-host of this Regional and we also helped organize the opening presentation that will be given by Mark Frank, the inspiration and designer of an amazing astronomical skeleton clock that was just featured in the last Watch \& Clock Bulletin. His talk is titled "The Most Complicated Clock Constructed in our Lifetimes." We hope to see you there!

If you have suggestions for topics at our meetings or for articles for the BHT please let us know. Any association is only as strong as its members and we need to hear from you.

Hoping to see you in Wilmington,

Bob

Church for 6 s 8 d , and installed the same year. Only a few years later in 1490 , Thomas Conygrave was paid $£ 4$ 13s 4d to make a new clock for the tower, which he floated down the Thames from Westminster and had installed. Evidently, the second-hand purchase from the Windsor Parish Church didn't work out very well or perhaps it was always intended to be temporary. Two hundred years later, Congrave's clock was worn out and an Act passed on May 23, 1689 states: "Agreed that since the old clock is quite worn out, that John Davis make a new one for the Colledg, and when finished that Sir Christopher Wren be desired to sett the price" (Windsor Castle College of St George Chapel Archives \& Chapter Library). The Castle clock is inscribed "JOHN DAVIS WINDSOR 1689." The three-train movement is approximately 5 feet long, 2 feet wide and 2 feet, 8 inches in height (Figure 1). The frame is constructed of flat iron and all the wheels are brass. A. J. Nixseaman wrote that few brass construction turret clocks were made in the 17th century, although another was once located at Ickwell Bury, Northill, dated 1683 (Nixseaman p. 1305). Figures 2-4 depicts Davis' tower clock as it has looked since 1863, when restoration work and updating was performed that dramatically changed the appearance of Curfew Tower to its current-day majestic structure. I understand that the climb to see the clock, with steep and narrow steps, is an adventure unto itself and one I look forward to do someday. Although 325 years old, the famous clock is still running with its original parts (only the escape wheel has been replaced), and eight bells that play St. David's psalm followed by a series


Figure 1: Windsor Castle's three-train turret clock; the time train is in the center. Inscribed "JOHN DAVIS WINDSOR 1689" (courtesy of Country Life). of bell peals known as "The King's Change" every three hours, in addition to striking the hours (Jagger, p.28).


Figure 2: Curfew Tower showing musical clock made by John Davis in 1689 (author's photograph).


Figure 3: Close-up of the tower clock dial (author's photograph). The movement is shown in Figure 1.


Figure 4: Windsor Castle with tower clock location highlighted with red line (photo courtesy Terry Bennett, www.terrybennett.me.uk).

While the Davis name is well known in Windsor history, there is surprisingly little information published about this accomplished clockmaking family. Most of the genealogy information that follows comes from an article by the late historian Peter Ashworth (Ashworth, p. 3). John Davis, maker of the Windsor Castle clock and the tall case movement discussed later in this article, was born in 1653 and died in 1713. His working dates were 1678 to 1705 and perhaps a bit later. His father, William, is a legendary figure in Windsor history; he was King Charles I blacksmith at Windsor Castle where he continued under Oliver Cromwell's rule, but, being a loyalist, refused to accept any compensation.

The distinguished English architect, Sir Christopher Wren, became head of the Office of Works for the King in 1669 , however I could not find any information about his relationship with John Davis. As documented, Wren apparently determined the fee for the Windsor Castle tower clock commission and one might therefore suspect that he had a hand in selecting Davis, but I could not find anything more about it in my research. Clearly John Davis, a country craftsman, was quite skilled to be awarded the honor of making a clock for the Crown, a commission normally reserved for the best makers in England. It is interesting to note that twelve years before, in 1677, the celebrated Joseph Knibb made a turret clock for the State entrance at Windsor Castle but that clock was sadly lost when it was replaced by Vulliamy in 1829 (Jagger, p. 28).

I suspect Davis was well acquainted with high quality work based upon his (assumed) access to Royal clocks at Windsor Castle, and relative convenient proximity to London via the River Thames "highway" or the over-land stagecoach that was completed in 1673. His Windsor location may have factored; where Davis trained as a clockmaker is unknown and he may have been self-taught, but smithing expertise no doubt came from his accomplished father. He had four apprentices; one was his son, John Davis (II), who was working with him at age 15 in 1705. Davis II (1690-1762) followed in his father's footsteps becoming clockmaker to King George II, and having a prolific and diverse career providing domestic and tower clocks throughout the region, including the Greenwich Hospital Chapel in London, and fabricating locks and iron work fittings for Eton College. Apparently his (Davis II) earliest surviving tower clock is dated 1735 and located in Slough, which is about 20 miles west of London. One of Davis' lantern clocks is also pictured in George White's book, English Lantern Clocks, signed "Jno Davis Windsor," described as a "standard sized lantern clock, second quarter of the 18th century" (White, p. 299). Continuing with tradition, his son, John Davis (III), was born in 1748 and also became a well-respected maker of domestic and tower clocks, and locks, receiving a Royal Warrant as "Locksmith in Ordinary to His Majesty's Palace of Windsor Castle" in 1776. I think I'll stop the genealogy here but descendants continued to serve the Crown at Windsor Castle well into the 19th century.

Back to the first John Davis (1653-1713), very few of his domestic clocks survive. A picture of a fine lantern clock, listed as circa 1675, is reproduced in Figure 5 as pictured from a 1954 issue of Country Life Magazine, when it was displayed at a Windsor Guildhall Exhibition. The clock is signed "John Davis at Windsor" on the dial and has an alarm and anchor escapement. I also found reference to two walnut marquetry tall case examples; one is highlighted in Tom Robinson's book, The Longcase Clock, and pictured on the second color plate (Robinson, p. 19, 75), circa 1685, with an eight, day, $1 \frac{1}{4}$ seconds, plated movement with maintaining power, 10 -inch matted dial with cherub spandrels, and a walnut veneered pine case decorated with fine and
early floral marquetry. The second, a later example, was sold by Sotheby's in 2004 and listed as circa 1700 with a 12 -inch brass dial. Kenneth Ullyett also mentions a lantern clock signed "Jno. Davis, Windsor" and a walnut longcase clock from the early 18th century but I suspect that the lantern clock may be the work of his son and the longcase maybe a clock already noted (Ullyett, p. 61). Then there is the tall case clock found in Ohio, an unrecorded example of his work.

Christian Huygens application of a pendulum for clocks was introduced in England by Ahasuerus Fromanteel in 1658 and applied to both plated and post-frame movements (also known as posted-frame, birdcage or bedpost movements) that were previously regulated with balance wheels. Both movement designs were used in lantern and longcase clocks in the 17th century, although adoption varied regionally. The Ohio-found clock has a one day duration post-frame movement, likely similar to the movement in his lantern clock (shown in Figure 5), with short pendulum, continuous rope with single weight (the continuous rope or chain, also invented by Huygens) that was popular in southeastern England. It is pictured in Figures 6-8 as found, with many years of dust, in remarkable original condition. Unfortunately, the case, likely of oak, is long gone although it is also possible that it never had a case. Thirty hour examples made by Joseph Windmills from the same timeframe are not cased and may have been intended to simply sit on a bracket or within a hooded wall case, or tall case, that the owner could purchase later. The brass all-engraved dial is stunning. It features a
Tudor rose in the center with tulips and flowing foliage originating from a vase below. The corners, engraved and without applied spandrels, are an early design element. The dial is just under 10 inches square and the chapter ring measures $17 / 8$ inches wide and shows quarter divisions with trident half hour markers (Figure 6). The exceptional single hand with long tail and oval center is characteristic of a mid- $17^{\text {th }}$ century


Figure 5: (left) Lantern clock signed "John Davis at Windsor" as displayed at the Windsor Guildhall Exhibition in 1954, listed as circa 1675 (courtesy of Country Life). Figure 6: (right) close-up of the Ohio-found tall case clock dial and Exceptional single silvered long hand with wonderful tulip detail on the tail (also see photo on page 1) design. Interestingly, the hand is silvered to match the chapter ring, a most unusual feature. Notice that the chapter ring appears to be identical to his lantern clock shown in Figure 5. The tall case clock likely dates to the late 1680 's, a bit later than the 1675 date attributed to the lantern clock. Both clocks appear to have been engraved by the same hand, though the signature wording is slightly different; the lantern clock example is signed "John Davis at Windsor," while the tall case (post-frame) clock and the previously mentioned clock pictured in Robinson's book is signed "John Davis in Windsor fecit" (fecit is Latin for "made it"). The movement is 6 inches wide, 6 inches deep, $6 \frac{1}{2}$ inches high, and about 13 inches in total height including the bell and feet. The clock is complete with its original verge escapement, which was never converted to anchor as happened to so many of England's early clocks (Figure 8). The clock exhibits many features found in both lantern and tall case movements made during the early years of the last quarter of the 17 th century, including
the full engraved dial with tulip theme, single hand with long tail, knife-edge verge escapement, short pendulum with pear shaped bob, turned and tapered brass posts with ball feet, decorative hammer spring, and tapered arbors. The only collet is on the contrate wheel, a simple round design.


Figure 7: (left) Tall case movement with decorative line designs on the hammer spring and stop highlighted. Notice the outside count wheel on back. Likely original wooden pulley and lead counter weight shown can be seen in the foreground.
Figure 8: (right) Close-up of knife-edge verge escapement and escape (crown) wheel.

Wheel counts of Davis clock shown above

| 4 Wheel Time Train: | Teeth | Pinion | Strike Train: | Teeth | Pinion |
| :--- | :---: | :---: | :--- | :---: | :---: |
| Great Wheel | 72 | 12 | Pin Wheel | 78 | 8 |
| $2^{\text {nd }}$ Wheel | 60 | 8 | Hoop Wheel | 60 | 6 |
| Contrate Wheel | 48 | 6 | Warning Wheel | 48 | 6 |
| Escape (crown) Wheel | 17 | 6 | Fly Pinion | -- | 6 |
| Hour Wheel | 48 |  | Count Wheel (Pins =13) | 48 |  |

It is not surprising that a clock of this age has had several old repairs. Figures $9-10$ show replaced teeth on the dial wheel (with attached 12 pointed star wheel behind to trip the hour striking), that rests in place between a hole on the movement's front crossbar and the dial center. It is easy to imagine this heavy wheel dropping onto the floor when carelessly removing the dial and damaged teeth would not hold up for very long against the stress of the great wheel pinion.


Figures 9-10: Front and back views of the dial wheel showing replaced teeth. Notice the scribe lines on the photo to the right that marked out the 12-pointed star for the strike trip.

While I would normally be anxious to have the clock serviced and see it run, I have learned to appreciate advice received many years ago that warned that a clock can be restored any day of the week but it's often impossible to put it back. Finding a 325 -year-old clock in its original configuration that hasn't been tinkered with in the last hundred years is so uncommon that I think a gentle brushing to remove surface dust is the extent of work that should be done to this clock.

However, I did want to display the clock and therefore decided to make a case. This was my first attempt at case making which earned an honorable mention at the 2015 National Craft Completion. After researching early English provincial clock case styles, I sketched a design that was aesthetically appropriate for a 17th century post-frame movement yet allowed easy removal of the movement for study or servicing. The case was made entirely of $3 / 4$ inch oak and held together with wood blocks and pegs. The only other materials used were a pair of antique hinges and a piece of old wavy glass cut to size. Lastly, I decided to fabricate the door clasp and brads from a scrap silver watch case bezel to match the silver hand. All good fun!

If readers have more information about John Davis or the history of this clock please contact BHT. I can't help think that scholarly research on this important yet relatively unknown clockmaker
 is out there somewhere. By my count, only 4 or 5 of his domestic clocks survive, all in private hands, and that may help explain the little information that exists. Although no doubt generations of historians and antiquarian horologists have admired his famous chiming clock at Windsor Castle. I'm pleased to raise awareness in this article and thank Brian Loomes and John Robey for their insights and valued reference books that helped me better appreciate craftsmanship taking place in the 17th century during the "golden age" of English Clockmaking. Lastly, a word of caution that dating post-frame movement clocks can be challenging because they were made for several hundred years and contemporary reproductions are known.

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