Edmund Howard (1710–1798): A Quaker clockmaker in Chelsea

James Nye*

A manuscript autobiography compiled in 1785, which has been widely used by historians but apparently escaped notice by horologists, provides us with a rich account of the life of a struggling Chelsea clockmaker, Edmund Howard—a maker virtually unrecorded in the horological literature. A Quaker, yet with few good words for his fellow Friends, Howard lived a long and fascinating life through the bulk of the eighteenth century. An online transcription of his 24,000 word autobiography is now available, alongside images of the manuscript—see tinyurl.com/edmundhoward—it makes for an extraordinary and worthwhile read. This article offers a distilled and horologically focussed narrative, relying in large part on the original text.

‘For Christ’s sake! Run!’

So Arthur Mallett screamed at his fellow fire watchers as he started running east on Cheyne Walk, while the five others ran north on Old Church Street. He stopped and knelt behind a fire alarm post but seconds later two vast explosions shook him ‘like a bag of bones’ and he was enveloped in dust. The other five were killed instantly. It was the night of 16 April 1941—‘the Wednesday’ when 685 planes dropped 890 tons of high explosive on London, and 4,200 incendiary canisters—only weeks before the Luftwaffe finally turned its attention to Russia. The sirens started at 21.05 that night, heralding the arrival of the enemy planes, which attacked London for nearly eight hours. In this specific case, the culprit will have been an HE111 or JU 88, probably targeting the power stations at Battersea or Lots Road—but missing.

Mallett shouted and ran for his life because walking towards Chelsea Old Church (Fig. 1) at about 01.20 he heard the thump of something falling next to him in the road, and, turning, saw a huge cylinder with a parachute collapsing around it—a big thing about seven feet long and as big as you could get your arms around—one probably a 1000kg Luftmine B, (Fig. 2), designed to cause maximum blast damage, and fitted with a clockwork 17-second fuze.2

---

2. Mine Disposal Handbook, Part IV, ‘German Underwater Ordnance’ (1 March 1945), pp. 2–3 and 73–80; the LMB used the clockwork Z. 34 fuze, detonating 17 seconds from impact, unless the mine fell in water and was submerged to at least 15 feet.

---

*The present chairman of the AHS, Dr James Nye has also been secretary of the AHS Electrical Horology Group since 1997. Comments welcome to chairman@ahsoc.org

A second mine landed moments later, immediately beside the church, and the two blasts brought the best part of a thousand tons of masonry crashing down, as the tower and main body of the church collapsed (Fig. 3). Only the Thomas More Chapel on the southeast corner survived. The bodies of the five fire watchers and several other residents were eventually recovered from under the wreckage of the church and surrounding houses.

There would be no rebirth for those lost that night, but the next sixteen years saw a remarkable campaign, ultimately successful, on the part of the local parish community, to ensure the rebuilding of the church, not as a modern replacement, nor as a pastiche, but a rebuilding with integrity, using traditional materials and techniques. Hence we still have Chelsea Old Church, where it has always been.

Stands (or falls?) the church clock…
Despite the destructive collapse of masonry in just a few seconds, it emerged later that a large proportion of the church’s monuments and other treasures could be recovered and patiently reassembled over time. A number of modern accounts discuss the faithful service of the old church clock. However, they specifically refer to its destruction in the fateful blast. But rumours of the clock’s demise are overstated.

A while back the editor handed me an envelope of seven photographs, labelled ‘AHS trip to Dents works, September 1957. Photos by R. H. Miles.’ The December 1957 journal carried a meeting report, but it was not illustrated. One of Miles’s images (Fig. 4) showed a striking wrought-iron cage clock, signed Edmund Howard, marked Chelsea, with a date of 1761. My friend Keith Scobie-Youngs could initially shed no light on the maker. A similar clock of later date passed through a saleroom a while back, but otherwise I could find no immediate trace of the clockmaker in question, beyond a reference in Baillie to Edmund Howard, London (Chelsea), a turret clockmaker and the working dates 1747–52. Standard digital search methods reveal Edmund Howard to be a relatively common name, and, for the age of the clock, the most widely recorded Edmund Howard in Chelsea is Sir Hans Sloane’s gardener and part-time steward. Not finding a clockmaker, I hunted deeper, and turned up advertisements in the

3. For example, ‘it continued to tell Old Chelsea the time […] until destroyed in April 1941’, Russett and Pocock, A History of Chelsea Old Church, p. 94.
Daily Advertiser which were for the correct man, I was certain, but they all related to the letting of the shop and premises of Edmund's clockmaker brother, John, who had worked in Chelsea (‘by the ferry’), but died in 1743. Out of curiosity I read through a 1786 advertisement
from Edmund Howard (the gardener), offering for sale ‘the best kind of grapes yet known beginning to be ripe’. And then came the shock. A second read revealed:

N.B. Church and Turret Clocks, made or repaired by the said Edmund Howard.

A salutary lesson for some of us—if a gardener can operate as a turret clock maker and repairer, how many other identifications have we missed in past research, imagining each trade to be exclusive—a point reinforced by David Bryden’s findings on parallel trades (clockmaker and farmer, clockmaker and market gardener etc).7

This discovery unlocked the material which forms the balance of this article. Soon after I realised that a manuscript autobiographical journal by Edmund Howard, dating from 1785, had been given to Chelsea Library in 1905, and then transcribed by J. Henry Quinn, the dynamic Chelsea librarian, who published it in four parts in the Friends Quarterly Examiner.8 With a copy of the 1905 transcription in hand, checked against images I later took of the original manuscript when I had finally tracked it down, it became obvious that the Chelsea Old Church clock was the responsibility of a man whose account offers much rich detail of the life of a clockmaker in the second half of the eighteenth century.

**Edmund Howard**

Edmund was born 27 February 1710 [NS], in Winckfield, Berkshire. He was the son of Simon Howard (b. 1695), a blacksmith, and Elizabeth (b. 1695), who kept a general shop. There were three other children, Simon (b. 1707), John (b. 1711), and Elizabeth (b. 1713), of whom only John features in Edmund’s manuscript account. It was a Quaker family, and a major feature of Howard’s account of his life reveals an amusing counterpoint to the naive notion that the Society of Friends offered a harmonious and always supportive backdrop to the lives of its members. Howard recounts in detail the distinctly unFriendly world he occupied for much of his life.

After initial schooling, the young Edmund wanted to be a gardener, and in 1726 his parents secured him an apprenticeship with George Burr in Chelsea, whose property adjoined Chelsea Manor, which belonged to Sir Hans Sloane. Chelsea was at that time a substantial and growing area for market gardening. Burr leased several acres of farmland, and had the care of Sloane’s garden as well as his own, and Edmund worked on both, though his journal suggests he was woefully under-utilized. But he did meet important and influential gardeners, from whom, for example, he learned about the care of grapes. In 1731 he moved to work for Mrs Edwards, a formidable local Chelsea character and a tenant of Sloane’s at Chelsea Manor. About this time he met James Gordon (c.1708–1780), who was working for Philip Miller FRS, chief gardener at Chelsea Physic Garden.9 It was Gordon who expanded Howard’s education significantly—Howard credits Gordon with introducing him to a wide reading list—he numbers Desaguliers’s Experimental Philosophy, Gregory’s Optica Promota (presumably in Latin), and Ward’s Young Mathematician’s Guide among his reading, commenting he bought a theodolite and read widely in surveying and measuring, as well as making a microscope and several telescopes—yet he was just in his early twenties. His education was clearly thorough—later, for example, we learn he ‘kept Sir Hans Sloane’s books in the Itallian method by double-entry’.


7. *Antiquarian Horology* (December 2016), 481–2, and Appendix 5. I am grateful to the editor for this reminder.


Howard refers to his ‘worthy Friend Peter Collison’, undoubtedly Peter Collinson FRS (1694–1768), a noted scientific horticulturalist in the circle of Sloane, Linnaeus, even Benjamin Franklin. It was Collinson who secured Howard his next job, in 1736, in the service of Thomas Revell, at Fetcham Park, in Surrey, as gardener. Here Howard met his future wife, a fellow servant, Elizabeth Holder. His brother John, a clockmaker, lived six miles away at Dorking, and they would meet, but life moved on apace, and in early 1737 Edmund returned to Chelsea, to lodge with the widow of his former master, George Burr. Sir Hans Sloane was in the process of buying the massive and near derelict Beaufort House, (Fig. 5) formerly Thomas More’s home, which occupied a large site roughly bounded (in modern terms) by the Embankment to the south, Milman’s Street to the west, the King’s Road to the north and Danvers Street to the east. Sloane employed Howard to take charge of the property, as a live-in watchman, rattling around the decaying pile on his own. When Sloane decided to flatten the house, rather than develop it, Howard was moved to an empty house ‘just close to the street by the waterside’—‘near the grand entrance to the mansion’, essentially close to the north end of the modern Battersea Bridge. Somewhere just nearby, brother John took a lease and opened a clock shop.

In 1739–40, Edmund supervised the demolition of Beaufort House and the sale of

10. Revell, who was immensely rich, served as agent-victualler for Gibraltar, and as MP for Dover in several years.
the significant quantities of building materials involved, though in the latter he struggled significantly, owing to unrealistic demands placed by Sloane's adviser, George Sampson, former Surveyor of the Bank of England. John moved to live with Edmund, and much time was apparently spent harmoniously among fellow Friends—in contrast to later years. John ran his clock business from the shared house. In 1741, Sloane's tenant, Mrs Edwards, quit Chelsea Manor, and Sloane retired from practising medicine, moving from Bloomsbury to live in the Manor. After some negotiation, Howard agreed to become Sloane's steward, and acquired a long lease on the property that he and his descendants would occupy for many years. The house (see Fig. 5a) formed the western element of the range of buildings that had been the stabling to Beaufort House, at the north end of Milman's Row (now Street) close to the King's Road—very close to the kink in the modern King's Road at World's End. Here Howard would in later life be neighbour to the caricaturist James Gillray, prior to the latter's departure to live with Hannah Humphrey—indeed Gillray was one of the witnesses to Howard's will. In all the images of the house (see Figs 6 and 7), there is a gateway to the right side of the house, which would have led to the old stables behind.

But back to December 1742, and disaster struck with the death of John the clockmaker, ‘of a fever, according to the report of two neighbours’, aged just thirty-one. Edmund reported:

The loss of him was to me matter of great grief. I advertised the shop to let, and the stock and tools to be sold. Few came to look at it, and I was obliged to keep the shop open in hope of disposing of it, which I did by still employing an old man who used to work for my brother in the whitesmith’s branch, for he took in that kind of work as well as clock and watchmaker’s business, and was, at the time of his death, in prosperous, increasing trade.

Having failed to sell his brother’s business, a different plan emerged:

Then a true friend of my brother’s offered to assist me to carry on the clock and watch business. This kind offer, the promising state of my late brother’s affairs, and the small profits of Beaufort Garden induced me to attempt it, as, also, the disadvantage of parting with such a good set of engines and tools. These considerations induced me to attempt, but had I known what a hard task it would prove, I surely should not have ventured; but when I had engaged, although I began to see how laborious and difficult it would prove, I was unwilling to

---

13. Edmund's will mentions an 'engine for cutting clock wheels made by my late brother John Howard'.
give it up, and applied to it with the greater
diligence, and took a journeyman, a
stranger, who once came to treat about my
brother's shop.

Edmund must have succeeded in disposing of
his brother's lease on the riverside property,
and then concentrated activities at the top of
Milman's Row:

I built a shop on the spot where I now live,
and added to it a forge which I built with
my own hands; a boy about eleven years
old was my labourer, and [William Smith]
my journeyman. [...] Thus I lived about
two years; the boy and I cooked for
ourselves the days my aunt was not with
us, and my man lodged and victualled with
his wife near [at] hand. He was a fit hand
for my business, having been used to
country shops, and could do other things
besides clock-work. I sometimes worked in
the garden and sometimes in the shop, for
(being with my brother) I had learned a
little to handle the tools, and while this
stranger was with me [perhaps two years]
he made four or five clocks and I made an
eight-day time-piece. But my chief point
was then to learn how to deal with a watch.
Some old ordinary ones were brought to
the shop by those who respected my
brother and some by those who knew not
how little skill I had in that art, and, by
help of the kind friend before mentioned, I
was soon able to clean a watch and repair
some small faults in them, and what I could
not manage he did for me on such terms
that I had a small profit from them.

All to the good, perhaps, though Edmund had
concerns:

But this stranger, who came to me by the
name of William Smith, was far from being
an honest man. My business obliged me to
be frequently from home; my way from
London to the shop was such that, if he was
at work at the vise, he could not see me till I
was close to the window. Thus have I caught
him at work at what I could not see when I
entered the shop. I suppose he put it into his
pocket. I have also, when he was at work at
the forge, found buried in the ashes at one
time several small tools, such as small
punches and chisels, just made; and thus,
with my iron, steel, and coals, while I paid
him wages, he was furnishing himself with
tools at my expense to fight me with my own
weapons. I have also detected him carrying
coals from my small stock, and such tricks
he might with ease do, as I had no eyes at
home to be a check on his actions while I
was from home; and though I saw this I
knew not how to prevent it, for I thought
was I to put him away another might plunder
the house and make off with his booty, so I
bore with it as well as I could.

Edmund's account reveals that already for a
while he had felt the need of a wife. Being a
Quaker, he had naturally sought among fellow
Friends for a companion, but this had led
nowhere. He had kept in touch with Elizabeth
Holder, his fellow servant from the time spent
in Surrey, who had moved back to St Swithin's
in London, and in April 1745 finally married
her. It has happened before in human history
that the arrival of a woman in a man's life has
led to changes. We can speculate that
Elizabeth would not tolerate William Smith—
the journal reveals that Edmund put up with
Smith's behaviour
till I was married, soon after which I parted
with him. He took a house where all that
came from the town to me must pass by his
doors; there he opened a shop with few tools
but what he had made at my expense or
pilfered from me, insinuated himself into
the favour of the tradesmen of the town by
frequencing their clubs, drew off some of
my customers and stopped others who were
passing by his door in their way to me,
picturing me as not only an unskilful but as
an ignorant fellow, and was encouraged by
some of my neighbours to my detriment and
loss; and this was not all for when he met me
where none could be witness he would
abuse me in the vilest manner, and, with
oaths and curses, say he should some time

14. Marriage 14 April 1745 at St George Chapel, Mayfair; Register of Baptisms and Marriages at St. George's
Chapel, May Fair (London: Mitchell and Hughes, 1889), Book B, p. 46.
lay hold of me, and if he did he would squeeze me, which he confirmed by an oath. He has lifted up a stick and threatened to strike me in the public road, and has spit in my face—all which abuse I received patiently.

This was in 1745, and Edmund’s life was changing dramatically in other ways. His first child, Elizabeth was born that year, and four more were to follow over the succeeding seven years. On the negative side, Edmund had fallen out with Sloane in 1744 and left his service.15 True he had the shop and the forge, but his income was far less than his increasing outgoings and he ran into debt. A young man called James Cawsway—another blacksmith—worked with Edmund for about two years, but lack of funds to pay him led to him moving on:

This was a sore trial to me, as there was some prospect of my business improving, and I had no hope of supporting my increasing family but by what I could earn by repairs of clocks and watches, for by this time I could do something that way, and at intervals worked in the garden—sometimes by moonlight—in both which my wife often assisted me. But my money being now all gone, and that man who lent me twenty pounds pressed hard for its return, I was now in great straits. I could not pay it; where to find a friend I knew not, but try I must.

By way of context, Howard’s £20 debt was equal to the amount he had been paid annually by Mrs Edwards in the early 1730s, and represented the annual wage of an agricultural or general labourer in the period, while the annual income in other fields, such as guards, watchmen, miners etc might be £25. Those skilled in the building or engineering trades might command £30-45 per annum, and these figures remained relatively static throughout Howard’s life.16 If we take his neighbour James Gillray as a guide (from the cartoon The British Butcher, 1795) a gardener or blacksmith might earn 8 shillings per week, while a pound of beef might swallow a day’s wages.17 The debt was therefore significant, and things continued on a hand to mouth basis with funds occasionally raised on bond, though most Friends refused to help.

Our struggles for a living and to pay every one his due and the hardships we met were not small. While we had but one or two children my wife could and did help me in whatever I found to do, but children came so fast we had need of two cradles at once in the same room; then suckling, nursing, and the business of the house was full employment for her, and as I had parted with my young man, James Cawsway, I left off that part of my business in which he was chiefly employed, and applied myself wholly to the clock and watch business, and at intervals did some work in the garden.

More children arrived in relatively quick succession: Ann in 1747, Mary in 1748, Sarah in 1750 and finally Martha in 1752.18 Family increasing very fast and I not expert in my new undertaking, money came very slowly in and expenses grew larger, as at this time I had none but a little boy and myself. With our utmost diligence and frugality, we could not bring our expenses within our receipts, and, of course, must run in debt. This, indeed, was a time of great trial [...] my former journeyman [Smith] abusing me often, and always circumventing me in my

15. Howard’s account has regularly been mined by historians for commentary on Sir Hans Sloane, of whom Howard was sometimes critical. See, for example, see Arthur McGregor’s biographical chapter in Sir Hans Sloane. Collector, Scientist, Antiquary Founding Father of the British Museum (London: British Museum, 1994), p 28 and p. 44 (n. 205), quoting from Howard’s ‘journal’ as McGregor calls it.


17. Although the wage figures are representative, note the cartoon was principally aimed at the recent 40 per cent inflation in the price of bread.

18. The births of all five children are recorded in the Quaker records: piece 0826: Monthly Meeting of Westminster: Births (1652–1776).
business to the most of his power, and he encouraged by some principal tradesmen when they became parish officers. They would call two or three times in fourteen or sixteen days for the rates, and have summoned me to appear before the Bench of Justices for non-payment of poor rates. This act was, perhaps, not unjust in law, but, as I was often entrusted with other property, had it spread abroad it might have ruined the little business I had.

With Howard’s finances at a low ebb, ‘I had notice sent that if I did not pay I should be ejected from my house’. Eviction was, however, avoided just in time, through the offices finally of a Friend who acted out of character, by comparison with those who gave Edmund a hard time. This unidentified man advanced Edmund the funds necessary to cover his critical debts.

This satisfied my landlord and prevented my being turned out of a habitation where I have, by the blessing of my Creator, brought up a family of children who are respected by most that know them; and although the people called Friends have disregarded me, and treated me with some degree of contempt—which, to some spirits, is worse than abuse—yet among them I found one Friend who, when he knew the straits I was in, came six or seven miles on purpose to relieve me with a purse of ten guineas, which he put into my hand never to return it till I was very well able to spare it. With this money I paid off a note that I feared might be demanded when I could not pay it.

While Edmund seems to have focused on clock repairs to secure an income, the flower business, chiefly run by Elizabeth, ‘helped to bring up our family’. Edmund built a hot-house, and raised pineapples, and roses out of season, and many other flowers and plants, but it would appear that competition abounded, and over time the returns from the business decreased. Nor was the clock business an easy ride—‘It proved such a laborious and difficult task that I sometimes wished I had not undertaken it. But the hardship I was to suffer did not appear till it was too late to look back, for to put myself out of all employ and begin afresh must have been a great loss of time, labour, and expense.’ Having employed the tricky William Smith, and struggled with debt, and being unable to employ more help, Edmund had to depend wholly on what I could do with my own hands and a lad to help in the garden. In the daylight I work at repairs and cleaning watches and the better sort of clocks, and by candle-light coarse thirty-hour clocks, mend a poker, clean a gun, mend a lock or a key, or anything of that kind that could be done by a single hand. I also had about this time a journeyman clock-maker, who had some skill in the founders’ business, by whom I learned something of that art, and I was able to cast an odd wheel pillar or some small thing that might be wanted in repairs of old clocks, but I had not business to keep him long. I then bought old brass nails, two or three pounds at a time, that a grave-digger picked from the earth of the graves, and other small parcels of old brass as offered at my shop, and when I had enough to make a wheel, &c., I used to melt them.

There are significant insights here, such as the comments on the quality of light—that ‘coarse’ thirty-hour clocks might only merit attention by candlelight; and the need for diversification, so that working on locks, keys, guns and pokers might be necessary to keep the wolf from the door. An extraordinary insight appears with the revelation that the brass tacks used to decorate coffins (perhaps spelling a name, or to hold cloth coverings) were being recycled through the forge into clock wheels.

After making several articles, or small parts of eight-day works, I made wooden patterns, and from them cast a set of wheels for a small turret clock which I designed to fix on the top of my house, with a view to remove the prejudice to[o] often entertained that none can learn a trade or employment without being bound apprentice for seven years. And to make a clock that did nothing but what others did, I supposed, would be no sufficient proof that I made it with my own hands; therefore I made it to show the
day of the month the whole year by an index on the centre of the dial, which index required no altering but once in a year. I also made it to strike in a manner that no other clock in the realm doth that ever I heard of, for it will of itself strike every quarter—both the last hour and the quarters, as doth a repeating watch, or every half-hour, or strike the quarters only, as a common quarter clock, or repeat the hours and quarters when pulled; all this it performs without one wheel or pinion more than a common eight-day clock. As I had none to help me, I was long about it, for I was not to neglect the work I had of my neighbours, which was the only support of my family, therefore did this in the evening after the shop was shut, frequently working till nine at night when others were wasting their time and money at the alehouse.

From an early nineteenth century account, we learn the clock had a wooden dial.\textsuperscript{19} Fixing it to the outside naturally led to the building coming to be called the Clock House, and thereby it passed into Chelsea legend (Figs 6 and 7). It was still written about as ‘The Clock House’ in the 1870s, despite having been pulled down some years before. From the description, it would appear the clock could offer \textit{grande sonnerie} striking and repeating, implying either a significant fall for the weight, or a complicated system of pulleys, let alone a possible need for the hammers to shift. Edmund believed his external clock was good advertising:

By this means some people took notice of me. Sir Henry Bellandine bespoke a clock of me, which I made and put it up at his house at Petersham, and he recommended

me to the Duchess of Argyll; but for want of money to make the appearance of a man of importance, I lost my footing in that family, soon being obliged to work with my own hands and to embrace every half-crown or five shilling job—which was the only means I had to supply the present necessities of my family—very few being able to get forward and acquire wealth till they can make a grand outside appearance.

Further details emerge of the use to which Howard put his forge:

The knowledge I had acquired of the founder's art was serviceable to me in my low state, for I could buy small parcels of old brass, two or three shillings' worth at a time, when I could not raise money enough to pay for a suit of work [i.e. a set of rough movement castings] at the founders, and at my leisure cast it into such form as I wanted. By this means I made with my own hands some clocks from old candlesticks, kettles, and old nails, &c., when I could not pay the founder, and I also forged the iron and steel work I used in the same clocks.

It would appear that over the balance of the 1740s and into the 1750s, Howard's affairs gradually improved—he did not want to work on jacks, pistols, or mending pokers—'all which I declined as soon as I could, and stuck close to clocks and watches', with some work in the garden as well, although the impression given is that this was his second trade. Probably in the mid-1750s, Howard was first introduced to the site in Chelsea that brought us in touch with his narrative:

About this time the man who had the care of Chelsea Church clock died; a neighbour gave me the hint that if I would apply to the churchwarden I might succeed him. I did so, and had the grant; and the keys delivered to me—this I held some years. Other churchwardens succeeded, and they moved for a new clock, had a clockmaker from London to view it, never sent to me for the keys, but broke open the doors to show him the clock. A neighbour who was at the Vestry informed me what passed there, and that they were to meet on the business again on a certain day, and wished me to be there. I went, but nothing final was then done.

We know nothing of the old clock, other than perhaps it would have dated from the mid-1670s, as the tower was completed in 1674. Vestry records from this early period have not, however, survived. In the autumn of 1760, the possibility of a new clock re-emerged:

Some few years after the matter was agitated again; a Vestry was called to determine whether there should or not be a new clock; a friend informed me of it and advised me to attend, which I did. It was resolved to have a new one, and I was allowed to give in a proposal, which I prepared, and met them at the time appointed. There was Smith, of Moorfields, and two other clockmaker candidates for the job besides myself. I was chosen by a great majority to make it.

While it is tempting to speculate this William Smith, a well-known turret clockmaker, was also Howard's former journeyman, the wording of the manuscript simply does not support such a conclusion—the name is a coincidence. The minutes of the vestry (Fig. 8) reveal that in addition to William Smith, the

other tenders came from William Boxall and William Reynolds, traces of whom I have failed to find in the literature. It was unanimously agreed that the old clock could not be repaired and Howard was to provide a new clock for the sum of £50, as well as a minute hand—the original clock presumably showed only hours—for a further £1 10s. Howard ‘further agrees to take away the old clock and to pay for the same in manner following—for all the old brass as is therein at eight pence per pound [and] for all the old wrought iron 15 shillings per c.weight’. For the new clock, he agreed to repair it when needed and ‘also to wind up the same for and after the rate of two pounds ten shillings per annum.’ Howard reveals:

The Vestry was held on a Thursday, and the Sunday following two or three heads of the parish came to my house to forbid me to proceed, saying, I must not go on with the work, the parish was against my doing it. I replied that could not be, a Vestry had appointed me, and confirmed it by signing their order, and no Vestry had been called since, therefore I would go on.

It seems entirely possible that the hand of William Smith (the journeyman) is detectable here. An earlier quotation mentioned that Smith was ‘encouraged by some principal tradesmen when they became parish officers’. Certainly Howard faced determined opposition, as ‘They also spread reports that if
I did make it I should not be paid without going to law, and said many foolish things if possible to hinder my proceeding. Turning to the practicalities, despite the experience of constructing the turret clock at his own premises, it was perhaps the first time Howard had attempted a clock on such a scale:

Though it was the first of its kind, I was not in the least puzzled how to go about it; being well skilled in figures I could proportion every part, both as to the strength required in each part, and the number of turns each wheel ought to make, and could work at the lathe in turning the wheels and pinions.

Howard was however candid about his lack of ability to complete the clock single-handedly:

The worst was to get a proper hand to help me, for no man can do such work alone. At length a ragged fellow offered, who had but one shirt, and a ragged one it was. I employed him: he was a good workman, an honest fellow, and good natural parts, but had contracted bad habits by working with sots, who, if possible, will leaven all sober men into the same lump, and, if they cannot do that, endeavour to drive him from them. This is the ruin of many sober men whose lot is to work in great shops. By his help and my close attention the work was completed, so as to be well approved by both the men who were to inspect it—one on my behalf, the other for the parish—and I was paid the money. This was in the year 1761; with this money I paid off the greatest part, but not all the debts I had contracted in the time of my distress.

The clock was installed in May 1761.22 (Fig. 9) Its completion for £50 was clearly a watershed for Howard, both in terms of overall improved prospects, but also the clearing of past debts. The ‘ragged man’ left him, but he was replaced:

I got another man who made several small clocks for me, and nearly (with my help) completed a large turret clock, which, after he was gone, I finished and put up for Mr. Wollaston, near Stowmarket, in Suffolk.

The clock and a new bell, both dated 1767, were installed in a cupola above the coach house of Finborough Hall, home of the

22. Manuscript addition to the Vestry Minutes (25 September 1760).
Wollaston family, to which Howard refers here. Unfortunately, the clock was removed, and sold at auction in 2004; we shall return to it later.

Howard lists carefully the debts he now began to clear:

in the year 1762 I paid John Cater for goods I had from him in the year 1745; and in the year 1770 I paid Edward Bailey, watch-case maker, five pounds four shillings, which completed the sum of sixteen pounds eleven shillings, due to him by my note of hand, date 29th of November, 1752.

John Fothergill FRS (1712–80) was a noted Quaker, physician and botanist who settled in London in the mid-1740s. He was another important benefactor of Howard's:

I also paid, on the 15th of July, 1762, Dr. John Fothergill, two pounds and two shillings which he lent me on my note dated the 23rd of January, 1747. About the time, as Friends became possessed of Ackworth School, Dr. Fothergill had thoughts of presenting them with a turret clock, and sent me to look at one he had seen. I viewed it, and went to his house to give him my opinion of it; he ordered me a breakfast, and went out, and I, after being well refreshed, went home, and a little while before he died he gave me two guineas for my trouble.

Finally, evidencing more of the network of other trades on which Howard relied, we learn about his case supplier:

I must not forget Joseph Clark, clock-case maker, to whom I had been long indebted. I went to him for a clock-case, and said if he would please to send it I hoped to pay for it on the delivery, but could not say when I should be able to pay him what I owed. He replied, ‘O! God bless you, master, I will never rest [i.e. take legal action against] your widow for it.’

Regrettably, beyond Cater (unspecified), Bailey (watch-case maker) and Clark (clock-case maker), Howard's manuscript offers no further details of his suppliers. Joseph Clark appears in the Sun Life insurance records for 1747 and 1752, based at Three Foxes Court, Long Lane, West Smithfield. 23 Bailey is most likely Edward Branstone Bayley, who was made free of the Clockmakers Company in April 1738, recorded as paying quarterage in 1747, and served as a steward in 1749. 24 We know Howard used a founder for the supply of 'suits of parts', but not the identity or the location of that founder, although the most likely candidate would be the nearby New Foundry, established in the mid-seventeenth century just off World's End Passage, a few hundred metres away from Howard's shop. 25 As for the competitors for the Chelsea clock, we have to assume they were not prolific since no evidence of their other work appears to have survived.

Howard in the afterlife
Howard's remarkable journal was completed in 1785, at the age of 75. He survived more than another decade. His wife Elizabeth predeceased him on 26 March 1797, at the age of 84, a few days before their fifty-second wedding anniversary, while Edmund soldiered on another year, dying on 27 December 1798, not long before his eighty-ninth birthday. As Howard had spent so many years at The Clock House, with its distinctive dial to the front, it is no wonder it had fallen into local lore—indeed it continued to be written about many decades after Edmund's death. He made some provision for this to be the case. His will contained many standard elements, bequeathing pairs of gloves, a bedstead, bedding and curtains, as well as money, to his four children—but to Martha and Mary he passed the lease to the Clock House, in

23. From the transcription by R. F. Carrington of the London Metropolitan Archives Fire Insurance Records, indexed and copied by the AHS, Sun Life MS 11936, Vols 78 and 96.


25. Presumably where Foundry Place was later sited, though the street has now disappeared.
addition to which he laid down some special instructions:

I direct my daughters Mary and Martha to keep the turret clock [i.e. on the front of Clock House] in good going and striking order [and] with regard to my stock and implements in the clock watch and smiths business, I give and bequeath to my daughter Mary my regulator compleat, my silver watch made by my brother John Howard, and a folio manuscript book bound in vellum containing my several inventions and memorandums. I give to my daughter Martha a yellow watch in a tortoiseshell case, and also my engine for cutting clock wheels made by my late brother John Howard. I direct my daughters Mary and Martha to select and keep what tools there may be in the shop that they please for their own use, and the remainder of the working tools and clocks to be sold for the most they will produce.26

Mary died in 1813, but Martha continued on, living at the Clock House. An account dated 6 October 1828 reports on the house and ‘one of the oldest gardens in the vicinity of London’ whose ‘walls are covered with ancient fig trees, and fine old vines of the choicest sort’. Martha sold fruit and ‘distilled’ waters. The writer described the ‘venerable old lady […] whose lease of the ground and of her life is alike fast drawing to a close’.27 This was a timely observation—Martha died less than three months later, on Christmas Day 1828. Edmund had no sons, and his daughters seem to have died childless. By the time of the 1841 census, the Clock House was occupied by others, and was apparently demolished by mid-century.

**Howard’s religious outlook**

Howard’s manuscript has been mined by a number of commentators, generally for insights in relation to Sloane. The fact of its transcription and publication in the *Friends Quarterly Examiner* was also indicative of its perceived value in illuminating an interesting phase of Quaker life. Howard belonged to the Savoy Meeting, occasional visits to which probably meaning a walk of over three miles. It was nearly as far to the Hammersmith Meeting, close to which lay the burial ground in which much of his family would rest.

Howard largely offers criticism of his treatment at the hands of his fellow Friends, and understandably offers no insight into any failings of his own that might have given rise to any criticism. His ‘mixt marriage’ to a non-Quaker is one probably source of friction, which he of course rejects as any legitimate cause for grievance. There might be a temptation to speculate that he was a difficult character, given to confrontation, but this is countered by two factors. First, the entire tenor of his philosophy as outlined in his own words completely fails to support such an image. Secondly, it seems likely that the novelist and moralist Laetitia Matilda Hawkins (1759–1835) knew him reasonably well. Fine details of Howard’s autobiographical account are closely echoed over five pages of one of her novels, published in 1811—and on the surface of it, a factual account is given, touching on Sir Hans Sloane, the gardening, even the particulars of stories relating to the catching of mice during Howard’s apprenticeship.28 While it is not impossible that Hawkins read Howard’s personal manuscript, the parsimonious explanation is that she met Howard in person, and listened to him telling stories in the shade of his trees, close to the end of his life. Her novel describes him thus:

> This man—let us be pardoned if we indulge in a gratifying recollection of departed worth!—was one of those in whom experience, joined to natural good sense, form worldly wisdom, while moral and religious principle give to the harmlessness of the dove, the dignity of virtuous

preference: the gentleness of his natural temper was guarded by a sagacity that owed its origin to ill treatment: when he ceased to be subject to oppression, it was a bulwark against the craft or violence of the world; and it had enabled him to rear a family in peace and prosperity.

Howard's clocks
The known universe of surviving Howard clocks is presently small—just three turret clocks. His will refers to his 'regulator compleat', while his autobiographical account describes the small turret clock at his shop, and various other eight-day clocks which may have borne his name. All these other clocks are presently lost, and are perhaps unlikely to have survived. I therefore focus just on the three striking wrought iron bird-cage clocks which survived (at least until relatively recently), though in view of my singular lack of relevant qualifications, I asked Keith Scobie-Youngs and Jonathan Betts for help, and the survey below relies entirely on their analysis.

1761 Chelsea Old Church clock
The 1761 clock from Chelsea Old Church was converted to a pin wheel escapement from its presumed original anchor escapement. It also seems likely that a conversion from rack striking to the use of a countwheel took place. The workmanship is likely that of Vulliamy, in view of its similarities to other conversions known to be his (for example in the case of the 1753 Mudge clock formerly installed at Gopsall Hall, near Market Bosworth, and remodelled by Vulliamy in 1842). In the 1957 image, the central train bar, visible to the front of shot, betrays bomb damage, being bent over at the top. The image also betrays the shadow where a circular handset dial would have been, and what are probably its fixing points. Further, there are friction discs on the centre wheel and the centre arbor has an extension, both of which support the presence of a setting dial, which would probably have had a single hand, showing minutes. The construction of the clock frame is of wrought iron and typical of clocks of the period in its design and construction.

1767 Great Finborough clock
The coach house at Great Finborough (just south-west of Stowmarket) was converted to residential use in the 1980s, and the 1767

29. The setting dial records the detail of Vulliamy's work. The clock was removed from Gopsall Hall and re-assembled at Measham (just south of Ashby-de-la-Zouch) by Townend & Hart in 1951. It is held in store by Leicester Museum having formerly been stored in the reserve collection at Snibston Discovery Museum.
clock was later sold. 30 (Figs 10 and 11). The cupola remains, the dials now driven by a synchronous movement. Residual elements of original bevel work betray Howard’s signature wheel crossings. The images from the 2004 sale catalogue reveal the clock now has a replacement escapement, with a new escape wheel (not crossed out) and replacement pallets, which are now dead-beat, whereas the original wheel and pallet arrangement would have been a recoil escapement. The rack-striking is probably original, though perhaps unusual at this date (cf. Aynsworth Thwaites, who used rack striking—although with the rack inside the frame—from the 1750s).

By contrast with the Chelsea Old Church clock, the frame of the 1767 clock is significantly more decorative and has a more complicated construction. While most likely to be all wrought iron, Keith did query if the horizontal bars might possibly be cast, owing to the incised signature, which would be difficult to accomplish in wrought iron. Jonathan’s analysis—albeit based on a low resolution image—concluded that the front and back horizontal bars, both top and bottom, are wrought in the form of a long U, with short up-turns (on the lower rails) and down-turns (on the upper rails) and that the ends of these up/down turns are bolted to the inside of the end verticals. Their presence causes the end verticals to appear thicker at top and bottom. The side horizontals top and bottom are then bolted right through the sandwich, with a well-proportioned buttress-like shoulder, formed where the side members meet the sandwich on the inside.

Howard’s account suggests a fair amount of the work on the clock was completed by an assistant, but that Howard helped, and also finished the clock after the departure of his assistant. Overall, the conclusion for the 1767 clock is that the frame shows fine detailing. Coupled with the pleasing way the crossings meet the centre of each wheel, the clock betrays significant character and quality.

1787 Gautby Old Hall clock
A third clock from towards the end of Howard’s life survives at St. Margaret’s church, Hemingby, near Horncastle, in the East Lindsey district of Lincolnshire. The clock (Figs 12 and 13) was originally installed a few miles away, at Gautby Old Hall, built in the eighteenth century but destroyed in 1874. 31 The clock was reportedly purchased and gifted to St Margaret’s by Mr Jesse Marshall, being installed by Maddison and Blythe. Dated 1787, remarkably Howard’s seventy-seventh year, this is the last known of his surviving clocks.

The Hemingby clock, despite being relocated, is relatively unaltered, which is unusual for a clock of this age. The wrought iron frame is of standard construction, once more comparable in form to clocks by Aynsworth Thwaites, including the way the hammer lever and strike locking lever are pivoted in the corner posts. Unusually, there are finials only on the front posts, not the back ones, perhaps owing to limitations on space.

Some of the wheelwork betrays Howard’s hand—with six crossings, and the detail at the bottom of each crossing. Some wheels have probably been replaced, owing to wear, and are evident in their different crossings. The wrought iron pallet frame with inserted hardened pallets is unique and well made, with little wear to the pallet faces, indicating Howard used good steel that had been well hardened. The lack of any maintaining power offers something of a puzzle.

30. Christie’s (16 December 2004), lot 181, signed ‘EDM. HOWARD 1767 CHELSEA’.
In the striking train the method of incorporating the rack system is notable, with the star wheel, below the setting dial, indexed by a pawl on the centre arbor and the rack and snail on the outside of the back frame with an extension of the third arbor, supported by a cock, fitted with the gathering pallet. Keith believes the 1761 Chelsea clock probably had the same arrangement before being converted by Vulliamy. If this were the case, the Chelsea clock would have been a very early example of rack striking being incorporated into a turret clock—Howard would therefore have been a pioneer alongside Thwaites in this regard.

A further puzzle is the placement of the pendulum suspension, at the back in the centre of the frame, necessitating an added link between the pendulum and the crutch. A nice detail is the decorative top section of the pendulum suspension.

The dial works are similar to those at Finborough and therefore perhaps original, though the bevels are later and may date from the move of the clock from Gautby Hall to the church. The extended winding squares are notable, and perhaps imply the clock was originally sited in a tight or slightly inaccessible position. The winding handle and handset key may well be original and the wooden stand is sufficiently elegant that there is again a possibility of originality.

We know that the other two clocks described here involved large scale assistance, and Howard must have received help with this clock. We can speculate this may even have come from his daughters Mary and Martha, to whom he bequeathed his tools and wheel-cutting engine.

**Conclusion**

Unrecorded other than by Baillie with some unexplained dates (1747–52), Howard has remained largely unobserved till now, by anyone other than historians mining his account for references to Sir Hans Sloane. He seems to have kept occasional company with a range of interesting and prominent...
characters in eighteenth century London, including several Fellows of the Royal Society, but generally in a horticultural context, the arena to which he was drawn by his apprenticeship, before his brother’s death drew him into horology. He refers to just three turret clocks in his manuscript, and perhaps made only a limited number, accounting in part for his limited visibility in the literature. There seems no reason not to take Howard’s account largely at face value. But it is worth stressing that his abilities as a smith and also as a craftsman, able to cast wheels and parts using all manner of scrap brass, must set him apart from many fellow clockmakers, who would normally rely entirely on the founder for a ‘suit of parts’ in making domestic clocks, and in that sense Howard is probably unrepresentative of many of his peers. The need to diversify and to fill time with work on objects other than clocks and watches is however probably something Howard shared with many of his fellow clockmakers.

The Chelsea clock may well still exist—perhaps this article will bring it to light. It was valued enough in its life so far to endure significant updating and improvement, probably at the hands of Vulliamy, and later Dent’s. The firm certainly had the care of the clock in 1905, and perhaps that had been the case for some time, as it would continue to be for at least another half century. When it was recovered from the wreck of the church, following the May 1941 raid, a Chelsea Society report recorded:

Its works have happily survived and have been examined by experts [Dents’ no doubt], who declare them practically undamaged and quite fit for restoration to the rebuilt church.\textsuperscript{32}

In fact, for whatever reason a new double three-legged escapement Dent clock was instead installed in the church, leaving Howard’s clock redundant. When it was last recorded it was sitting in the Dent workshop in the late 1950s, and had survived two hundred years, with some recent battle scars.\textsuperscript{33} Half a century earlier in 1905, Mr Pyall of E.J. Dent & Co, writing about the Chelsea Old Church clock, could not foresee the Blitz (who could?) and he was therefore fairly bullish—‘It is a fine old Clock, in excellent condition—having been well taken care of. So long as it receives the same attention as heretofore there is no reason why it should not run another hundred years.’ \textsuperscript{34} (Fig. 15) Parachute mines aside, Howard appears to have produced clocks well enough designed and made to last for the long-term.

**Acknowledgements**

This article exists only because the editor asked me to return a bundle of papers to the AHS archive, including an old envelope of pictures by Bob Miles—wonderful serendipity. I was helped greatly by Keith Seobie-Youngs and Jonathan Betts at every stage, and also by my assistant Sarah Urquhart-Briggs. Thanks are also owed to John Ablott for alerting me to the Hemingby clock, Toby Woolley of Christie’s, Tim Gates of Chelsea Old Church,


\textsuperscript{33} See youtube.com—search for ‘Dents, the actual makers of the Big Ben clock’—1 min 59 seconds and following.

\textsuperscript{34} W. A. Pyall of Dent to J. Henry Quinn of Chelsea Library (23 February 1905), a letter tipped into the original manuscript, MS SR210(B), Kensington Central Library, Local Studies archive.
Tabitha Driver of the Library of the Society of Friends, and the staff of Kensington & Chelsea Local Studies department—finally two anonymous referees kindly offered valuable advice and encouraged me to hunt out some final details.