

# St Luke's Church

## The Vulliamy Clock (updated Dec 2016)



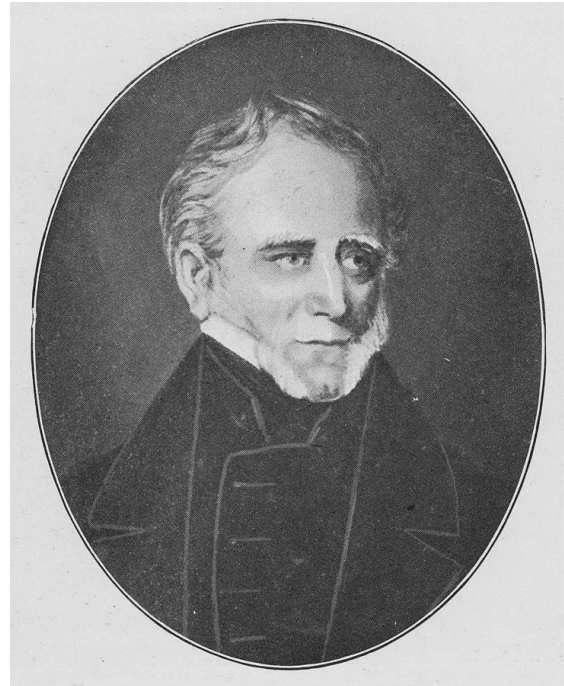
### Historical Context

St Luke's church was built between 1825 and 1826, at a cost of nearly £13,000. Comparing such numbers with modern equivalents is fraught with difficulty, since the value of goods, labour and the size of the whole economy has altered vastly over two centuries – but using the cost and expressing it only in labour terms one would arrive at a modern equivalent of at least £10 million.<sup>1</sup> What can we therefore make of the fact that the authorities then spent £357 on a new clock in 1827 – 3 per cent of the budget and proportionately the equivalent of perhaps spending several hundred thousands of modern pounds?

<sup>1</sup> For the best means of evaluating historic values, see [www.measuringworth.com](http://www.measuringworth.com)

<sup>2</sup> But note there is a turret clock which can be described as a flat bed, made in 1820 in Dublin, by

The reason is they chose to have the clock made and fitted by one of the very finest makers, Benjamin Lewis Vulliamy (1780–1854). He was official clockmaker to George IV, William IV and Victoria, and served an unprecedented and unrepeated series of five terms as Master of the Worshipful Company of Clockmakers.



*Benjamin Lewis Vulliamy (1780-1854).*

In 1825, Vulliamy had travelled on the Continent, observing developments in technology, and returned to England having established a new and revolutionary way to lay out the mechanism of his turret clocks. He put this into practice in West Norwood, and the St Luke's clock is the first in a line, holding the accolade of being the first 'flat-bed' turret clock in the UK.<sup>2</sup> This design became a common feature in the industry over succeeding years as it enabled the clockmaker to dismantle the clock one

*Alexander Waugh, for a house called The Argory, in Northern Ireland.*

arbor (the axle of each wheel) at a time, rather than having to struggle with a train bar incorporating several arbors.



*General view of the clock.*

Other refinements of the St Luke's clock are the pinwheel escapement with Vulliamy's design of self-levelling pallets and a 2-second pendulum with a heavy bob. Both contributed to the clock being capable of an accurate performance. Vulliamy's clocks were substantially more expensive than those of his competitors, but he boldly claimed they would outperform and outlive the cheaper alternatives. While it may not presently be working, the survey of the St Luke's clock in February 2016 revealed a very high quality clock, still in remarkable order.



*The setting dial.*

## **The Problems**

The clock has been stopped for several years, to the frustration of many local residents – especially given the absolutely central placement of the church and the high visibility of its dials.

Several factors have contributed to its stoppage. A fundamental change over the decades is the move away from having an official responsible for climbing the clock tower each week, for winding, setting to time, and ongoing maintenance. For reasons of both cost and obvious health and safety issues, visits to the towers of any churches and public buildings are minimised.



*Earlier auto-winding, showing additional weight being added with sticky tape – not a proper solution.*

Reliance has to be placed on automatic winding mechanisms, infrequent visits, and the chance of stoppage increases as a result, particularly if there are occasional interruptions to the power supply. At a simple level, changing responsibilities for the budget necessary to cover annual maintenance and the spring and autumn time changes can see clocks stop, and then remain stopped.

Clock towers are deeply inhospitable environments, cycling in temperature between plus 40 degrees C and falling below zero – with humidity varying from low to 100 per cent over time. The St Luke's tower had its original slate dials replaced in 1928 with the opal glazed versions we see today. These offer a wonderful night-time spectacle, but have serious downsides as well. The original putty fixing of the glass has slowly dried to a cement-like hardness, and the lack of flexibility allows for cracking of the glass, as the cast iron tracery expands and contracts. This leads to moisture ingress, and eventually 'rust-jacking' as the metal

corrodes, and rigid surfaces move against each other. A number of glazed panels failed long ago, and have been replaced in wholly unsuitable plastic, which offers a patchwork impression at night. Many other panels are cracked, and the eventual failure of the glazing is certain.



*Many opal panels are cracked and broken, rust is widespread, and some panels have been replaced with unsuitable acrylic in the wrong colour.*

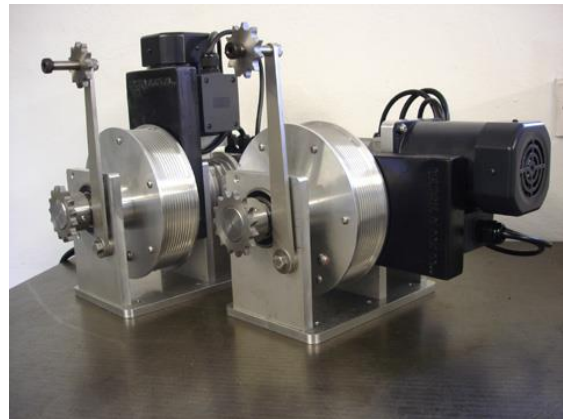
The job of replacing the glass is by far the largest element in any project. The proper glazing of the dials is vital to the smooth operation and continuing longevity of the clock. The clock is a precision instrument, which requires the best circumstances possible in the clock room in the tower.

### **The Proposed Project**

The proposal is to arrange the complete overhaul of the clock, the fitting of new automatic winding, the addition of remote monitoring equipment, and the entire reglazing and repair of the four dials. The whole project has a budget of approximately £35,000, not including VAT. This breaks down as follows:

- Clock service, to include new auto-winding £5,720
- Reglazing (in glass, not plastic) £29,590

The new auto-winding system will carry a ten-year guarantee, and is to a highly proven design, used nationwide. An added feature is that we expect to provide monitoring of clock performance, visible on the Internet – with the further chance for schools (e.g. Physics students) to lift and lower a fine regulation weight, remotely, and to observe the effect on timekeeping – under supervised and passworded access, of course.



*Robust, modern automatic winding units of the type that will be employed.*

The auto-winding equipment offers the hugely significant benefit that visits to the tower (where access is by vertical steel ladder) are minimised. It will also be important to allow for ongoing annual maintenance, but the contractor that will carry out the main works offers an annual maintenance contract at a cost of just £195 per annum.

### **Funding Sources**

This is a project of great significance to the community of West Norwood – the clock is highly visible and a symbol of local civic pride over two centuries. It is action and pressure from the local community that has led to the present proposals for a project to restore the clock to function.



*Another view of a dial, showing poorly replaced opal panels, and extensive corrosion to the iron tracery, and cracking to older glass panels.*

It is natural that the community should be deeply involved in the fundraising necessary to complete the project. As at 22 December 2016, and with only a limited circulation of the proposals and budget, over £26,000 (74 per cent of the total) has already been pledged by local residents, supported by Norwood Action Group, Norwood Forum, the Church Buildings Council, the Golden Bottle Trust, the Worshipful Company of Clockmakers and the Antiquarian Horological Society. It is anticipated that the local fundraising appeal will be widened significantly, with the Norwood Action Group spearheading the publicity drive. Gift Aid recoveries on local donations make a significant contribution, and bring total commitments to date to very close to half the required total. At the same time there are important and major possible sources of funds – notably the Heritage Lottery Fund. The Vulliamy clock at St Luke's is of national significance, and is

eminently suitable for the involvement of these types of charitable institution.

### **YOU CAN MAKE A HUGE DIFFERENCE**

Every £1 counts. There is a crowdfunding operation in place through JustGiving.

[www.justgiving.com/crowdfunding/stlukesclock/](http://www.justgiving.com/crowdfunding/stlukesclock/)

The clock lies at the heart of our community. Returning it to working order will symbolise the regeneration that is so powerfully visible locally.

Any questions? Contact James Nye –

[james.nye@theclockworks.org](mailto:james.nye@theclockworks.org)