

The horological legacy of Stanley John Wise

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*Stanley John Wise FBHI (1886–1963) was an electrical engineer and a keen horologist and model engineer. His book *Electric Clocks* is an important reference work on the subject. In the 1920s he secured an electric clock patent and briefly went into limited commercial production of clocks under the name *The Wise Time Company*. He is mostly known for having made ‘one-off’ clocks himself, including unusual miniature electric clocks. His collection of electric clocks and models was sold at auction in 2012. This article is a much shortened version of the author’s *Technical Paper No. 86 on Wise*, published in 2014 by the Electrical Horology Group of the AHS, but includes photos of the products and operation of *The Wise Time Company* that have emerged after publication of the *Technical Paper*.*

Introduction

In his book *Electric Clocks*, published in 1948,¹ with a second updated edition in 1951,² Stanley John Wise mainly reviewed existing known electric clocks, ‘their principles, construction, operation and repair’, and offered a rich source of interest and explanation for electrical horologists. It is one of the main publications on electrical horology in the first half of the twentieth century, yet little seemed to be known about the author. What inspired the present author to look closer into Wise’s life, works and clocks was the acquisition of an electric balance wheel clock from Stanley Wise’s own collection of electric clocks and models after this had been sold at auction.³

Stanley John Wise (1886–1963)

Stanley John Wise (Fig. 1) was born on 23 June 1886 in Luton, Bedfordshire, the second youngest of four boys. His education details are not known but he embarked on a career in engineering before 1914. He served as a decorated flier in the Great War in the Royal



Fig. 1. Stanley John Wise. Image courtesy of Charles Frodsham & Co.

Naval Air Service, flying with John Alcock, who in 1919 was to co-pilot the first non-stop transatlantic flight. In September 1917,

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1. S. J. Wise, *Electric clocks*, Heywood & Co., 1948, 144 pages with 137 illustrations. A review appeared in *The Model Engineer*, Vol. 99 No. 2476 (4 November 1948), p. 492.

2. S. J. Wise, *Electric Clocks*, Heywood & Co. Ltd., 1951 second edition, 168 pages with 156 illustrations. This updated edition cites ‘Fellow, British Horological Institute’, which is not cited in the first edition.

3. Auction held by Fellows & Sons Ltd., Birmingham, 3 September 2012; the catalogue is accessible on-line after registration. The clock was lot 726 – described as ‘A Eureka mahogany cased electric wall clock 28’ (71cm) tall – and came with a set of blueprints.



The Latest and Best of Clocks

The **WISE ELECTRIC CLOCK** requires no winding and keeps accurate time from January to December. *Only 13 moving parts.*

Price £8 8s., with either Pendulum or Lever Movement.
— IN OAK OR MAHOGANY CASE. —

Works from its own internal cell, or can be arranged for driving off the electric supply mains.

BRITISH MADE.

Also made as a Master-Clock for operating Secondary Clocks for Time Distribution throughout Public Buildings, Offices and Mansions.

For further information regarding this attractive quick-selling line, write to :—

THE WISE TIME Co. Ltd.,
88, ST. THOMAS STREET, PORTSMOUTH.

Fig. 2. Advertisement in *Horological Journal* April 1924.

Alcock, Wise and a third officer were shot down and kept as prisoners of war for over a year. Wise was employed by the Royal Air Force in the Second World War. He married Violet E. Brickwood in September 1922 in Portsmouth, and they had one son.

Wise had premises or a factory, housing a company called 'The Wise Time Company Ltd', registered 2 February 1923 at 88 St. Thomas' Street (Old Portsmouth) with the stated purpose 'to exploit, patent, develop, and turn to account the inventions of Lieutenant Stanley John Wise'. In 1924 'The Wise Time Company Ltd.' advertised the Wise Electric Clock from this address (Fig. 2) and also from 50 Fulwood House, Fulwood Place, London W.C. (close to Chancery Lane station). A master clock version was also offered, which means that Wise was prepared to compete with contemporaries such as Gillett & Johnston, Gent and Synchronome. Advertisements referred to a 'pendulum or lever movement', perhaps implying electric

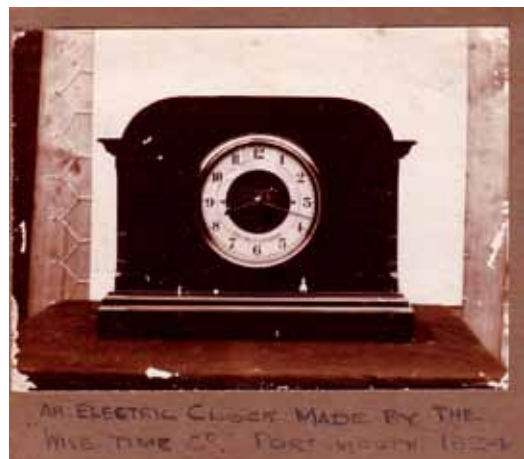
winding. The lack of known surviving commercial 'Wise Time' clocks suggests limited production and/or success. The Wise Time Company (Figs 3-7) was voluntarily wound up with a liquidation and auction of assets on 12 June 1925.

On 1 November 1922, just prior to registering his company, Wise had applied for patent GB200,433 for 'Electrical Driving Power Applied to Clocks', granted in July 1923. Whether any examples of this clock survive is not known. In the late 1930s he took out a second patent, this time for a non-horological device.

After the war, Wise lived first in Windsor and later in Sunbury on Thames. Beside his

Next page: Fig. 3. Inside the workshop of the Wise Time Company; S.J. Wise is standing in the centre. Fig. 4. Some of the clocks at the Wise Time Company, 1924 (all electrical). Photographs from the Fellows auction bundled in with lot 760, now acquired by the author.





Figs 5-7. Photographs from the personal collection of a relative of Stanley John Wise, acquired by the author in May 2015. We may assume that the man front centre is Wise.

book *Electric Clocks*, he published descriptions of clocks in the journal *The Model Engineer* between 1949 and 1955. In

1960, three years before his death, he was captured at home on a colour film by British Pathé displaying some of his miniature



Fig. 8. The electric balance wheel clock or, in his own words, the 'large balance precision timekeeper' from Stanley Wise's own collection.

clocks.⁴ His death certificate notes that he died at Ashford Hospital, Stanwell, and records his profession as 'electrical engineer'.

Overview of the clocks

Although, as we have seen, Wise briefly offered commercially manufactured clocks, he is better known for having built his own and encouraging others so to do. What constitutes a 'Wise clock'? They fall into two categories.

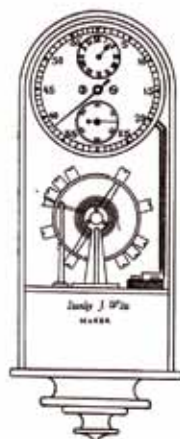


FIG. 53—LAYOUT OF COMPLETE LARGE BALANCE REGULATOR



FIG. 54—VIEW OF BALANCE SHOWING DEPULLING ROLLER AND CONTACT ASSEMBLY

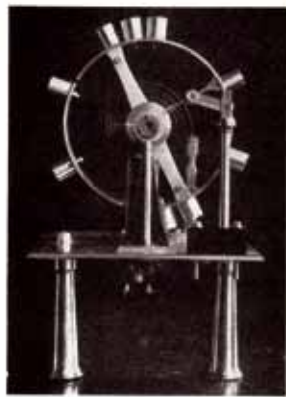


FIG. 55—BACK VIEW OF BALANCE SHOWING ELECTRO-MAGNET AND BALL BEARINGS

Fig. 9. *Electric Clocks*, 2nd ed. (1951), p. 84.

Category 1

These are clocks known to be in Wise's possession and of any design, primarily those sold at auction in 2012, or seen with him in a photograph or image, or sold by his Wise Time Clock Co Ltd. In EHG Technical Paper No. 86, all examples in this category currently traced by the author are listed as Figs 17-31 with the auction catalogue descriptions. Here we concentrate on just one item, the electric balance wheel clock from Stanley Wise's own collection, acquired by the present author following the auction (Fig. 8). In the auction catalogue it was understandably described as 'A Eureka mahogany cased electric wall clock', but is in fact shown on pp. 82-5 of *Electric Clocks* (2nd ed.; see Fig. 9). Wise called it 'a large balance precision timekeeper' and the auction clock conforms to the late addendum to page 83 of *Electric Clocks*, in that the moving electro-magnet on the balance wheel has been replaced by a cobalt magnet, so that it now operates on 12V DC.

4. British Pathé, The Miniature Clocks of Stanley Wise (4 January 1960) Issue no 262. ID 12083. The 91-seconds film can be seen on-line at https://www.youtube.com/watch?v=04gyh_0mtwU.



Fig. 10. The large balance wheel. Note the redundant contact block on the backboard.

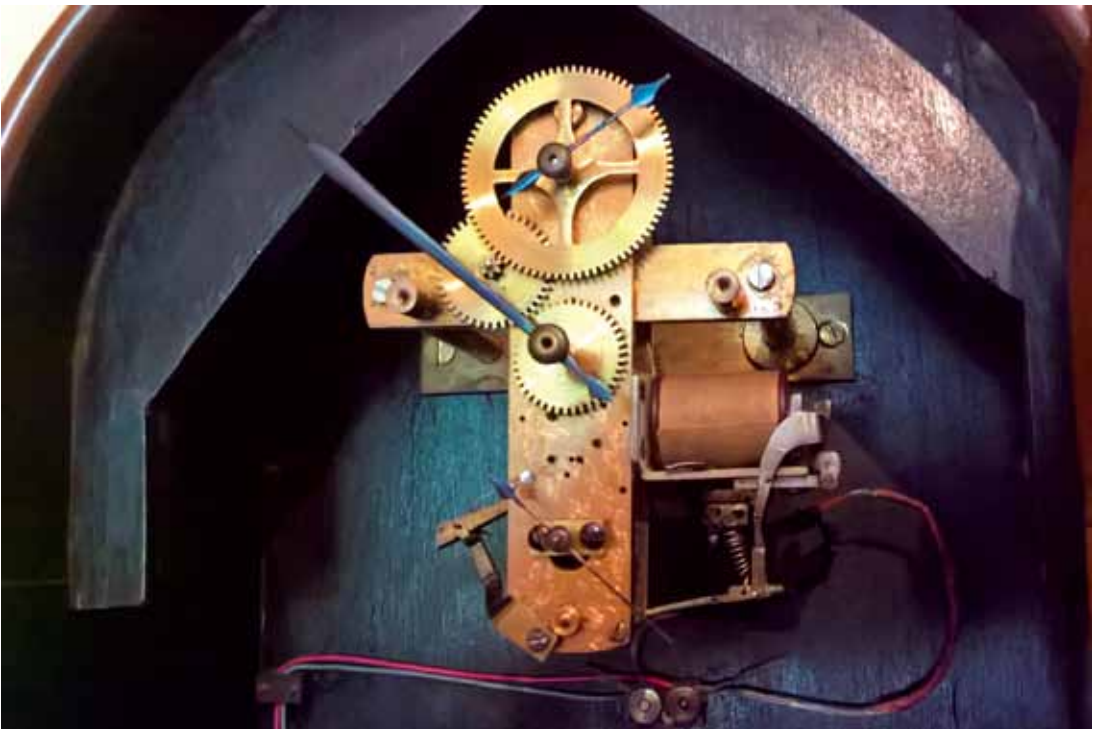
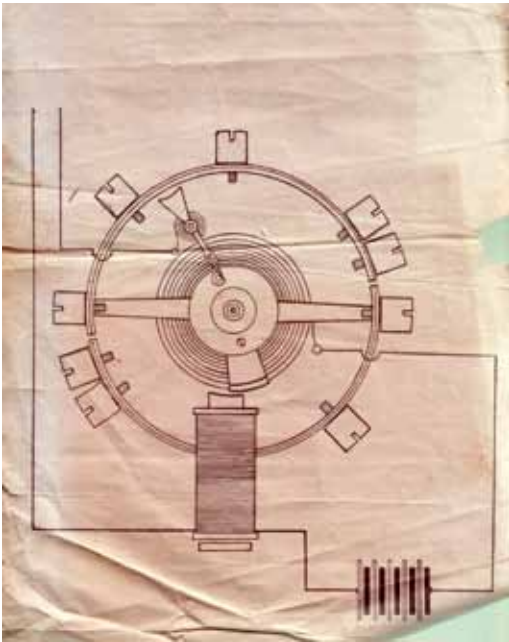


Fig. 11. The impulse movement behind the dial.



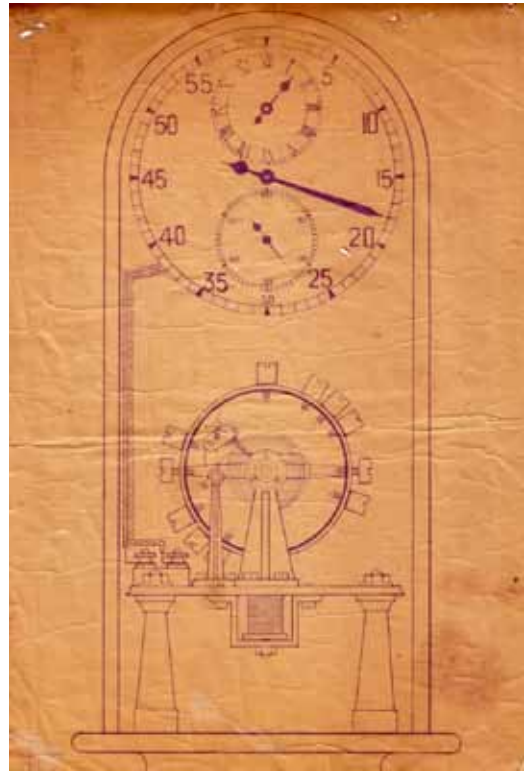
Figs 12 and 13. Blueprints that came with the clock, conforming to both the design in *Electric Clocks* 2nd edn. (1951) pp. 82–85 and the addendum on page 83.

Fig. 10 shows the balance wheel, now without a moving electro-magnet, with a fixed electro-magnetic coil beneath. Note the redundant earlier ‘dual purpose’ part switch, screwed to the backboard, which offers evidence that the clock may originally have been a ‘Wise Dual Purpose Electric Clock’—see Figs 12 and 13. The impulse movement shown in Fig. 11 appears bespoke, and conforms to pp. 82–85 of *Electric Clocks* (2nd ed.) The movement advances the second hand by two seconds at each impulse, as per page 85.

Category 2

These are clocks built by others to Wise’s plans and specifications. A unique, distinctive design feature to his most commonly produced clock is the use of three electro-magnets that operate on alternating or direct current, and the contact arrangements. These clocks also showed design progression and he used the following terms:

- ‘Wise Dual Purpose Clock’ which uses three electro-magnets and an external switch block and a contact trip pin to close



- contacts (See Fig. 15). Operates on alternating or direct current. No clocks currently known.
- ‘Electric Clock With a Semi-Free Balance’ which uses three electro-magnets and an insulated glass/platinum ‘finger’ switch device. Operates on alternating or direct current, see Figs 16-17. Some clocks are known that conform to this design, as published by Wise in *The Model Engineer* in five parts between November 1949 and March 1950 (see Fig. 14). The small third impulse coil in the circuit sits below the hands to drive the wheelwork. This coil is evident in Fig. 19.
- ‘A Large Balance Precision Timekeeper’ which uses two electro-magnets, one in the base and one in the impulse movement. Operates on direct current only. Beside the clock in the author’s possession, discussed in this article, which falls into category 1, no other example is currently known.

There can be little doubt that of the Category 2 ‘Wise’ clocks built by horologists,

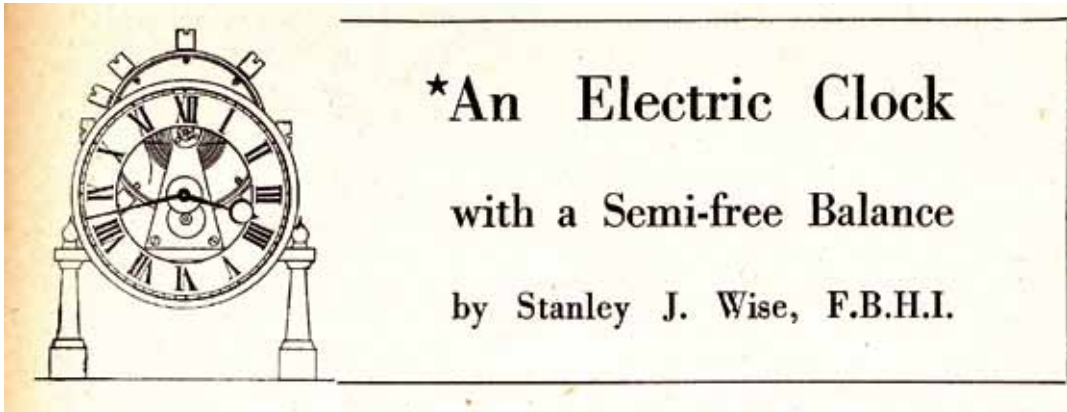


Fig. 14. Top of the first page of part 3 of Wise's description of 'An Electric Clock with a Semi-Free Balance' in *The Model Engineer*, Vol. 101, No. 2531 (24 November 1949), p. 677.

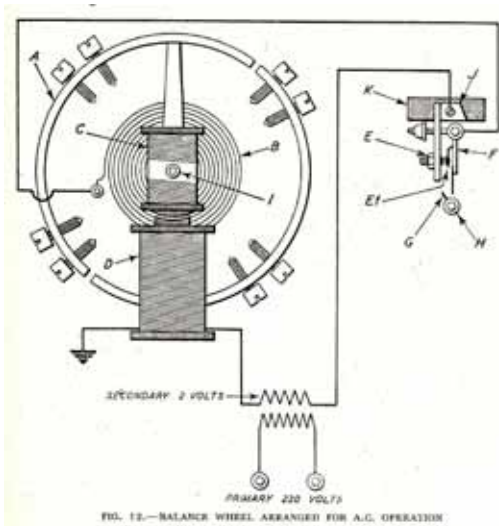


Fig. 15. 'The Wise Dual Purpose Electric' clock showing the trip pin contact block (top right). From Wise, *Electric Clocks*, 1948 page 43

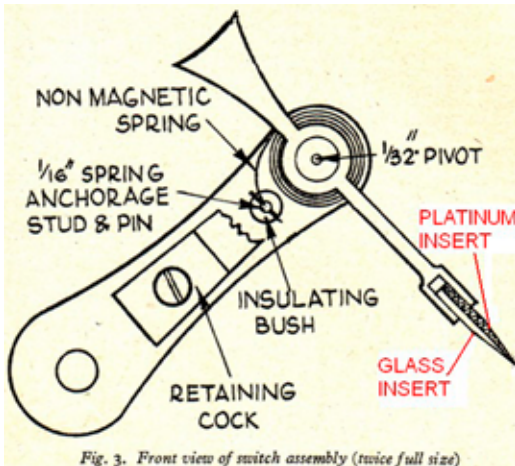


Fig. 3. Front view of switch assembly (twice full size)

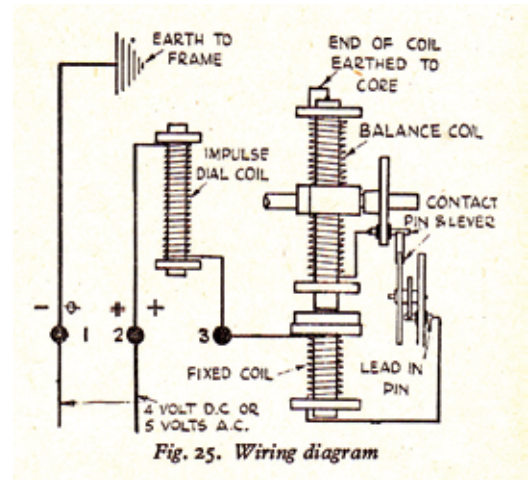


Fig. 16. Diagram showing how the three electromagnets were arranged for the semi free balance and how it can work on alternating and direct current. From *Model Engineer* No 2532 pp. 691-92.

Fig. 17. The glass/platinum 'finger' switch device from *Model Engineer* March 30 1950 No 2549 p. 422.

enthusiasts and hobbyists, most fall into the category of the large balance wheel type. Of the examples illustrated in EHG Technical Paper No. 86 as Figs 38-41, two are shown here: one early (Fig. 18), the other more recent (Fig. 19). Comments tend to refer to the attractive nature of operation of these clocks and comparisons made with the more plentiful and production run 'Eureka Clock' are compelling. It is worth

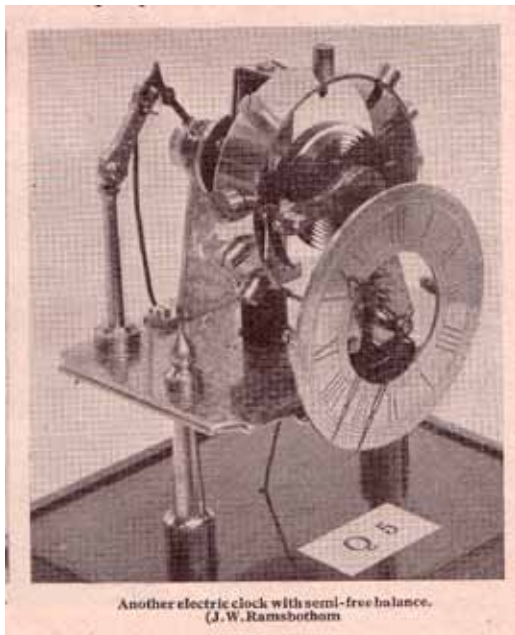


Fig. 18. An early Wise 'semi-free balance' clock, exhibited at the Model Engineers Exhibition (1954). From *The Model Engineer* 7 October 1954, p. 429.



Fig. 19. A recently made Wise 'semi-free balance' clock.

noting that Wise's first publication of his large balance clock in *The Model Engineer* in November 1949 fell just twenty-five issues or six months after the publication of the construction plans for the 'Eureka Clock' by 'Artificer', also in *The Model Engineer*.

Amateur, home-made or bespoke clocks may attract different interest from commercially produced clocks, and are perhaps not always highly regarded, but the 'Wise' clock has transcended this status by virtue of time, its following and by duplication of its style.

Conclusion

Model engineering (including electrical horology) was a significant interest at the time Wise wrote one of the principal reference works on the subject—*Electric Clocks*. He reviewed existing knowledge on the subject that is still relevant, and published plans bearing his name which are still available and used to produce electric clocks today. In his writings and the short British Pathé film of his work, preserved for posterity, he displayed his gift for invention and for the encouragement of other horologists.

There is more information about Wise yet to be located. His education, occupations, workplaces and relationship with the BHI are not fully known. The movements and power sources for some of his electric clocks, particularly his commercial clocks including his master-clock, later miniature clocks (and possibly watches) are not described. Being bespoke or individual, unusual and intricate pieces, his clocks need to be studied individually, and the whereabouts of many remains unrecorded. If clocks have survived, they may be in private collections. The fact that some of his clocks became available in 2012 after fifty years in storage may give hope that there are yet more to be discovered.

A quotation from Stanley John Wise, which appeared in *The Model Engineer* in March 1950, is a fitting tribute to his following by model engineers in the mid-twentieth century:

Many letters have been received from enthusiastic readers—in one case as far away as Wellington, New Zealand—all of which goes to show the keenness and inventive mind of the present day model engineer.