

The Synchronomes at the end of the world, 2

Norman Heckenberg and Anthony Roberts from Australia conclude their two-part series on Antipodean electric clocks

Ultimately the Brisbane-made controllers reached a fairly standard form, as shown in **Figure 13**. This one has an art-deco style case and probably dates from the 1930s. The base frame is cast iron and looks similar to English ones except for having a solenoid mounting bracket integrated into the casting and the provision of an adjustable clamp for the pendulum suspension. This allows fine adjustment of the pallet-roller clearance. There is no longer a pushbutton (or N-R-A lever) for rapid dial adjustment, and the impulse pallet is now mounted directly on the pendulum rod.

Hundreds of these were made for use as master clocks in installations and as timers for the telephone industry. The last installation for which records survive was made in 1952, but we know of one installed in a research laboratory at The University of Queensland for the International Geophysical Year in 1958, and there were probably many others. Apart from the presence of a seconds counting mechanism, the 1958 model was little different from that shown in figure 13.



Figure 13. Classic Brisbane Synchronome master c1930. Total height 493 mm. (Private collection).



Figure 11: Three quarter second movement. (Private collection).

Conclusion

It is interesting to see how, in spite of the great distance separating Jackson and Hope-Jones, the fluctuating warmth of their relationship, and the rapid rate of development of the design of the Synchronome controlling pendulum, the transfer of technology was not completely one-way. It even seems not unlikely that the idea of supporting the pendulum from the back plate, which became a standard feature of the Synchronome design, may have originated at the other end of the world rather than London. In any case, the sequence into which we can place a number of clocks we have examined, together with the surviving documentation, sheds new light on the way the Synchronome controlling pendulum developed at the opening of the twentieth century.

**Appendix A: letter from A.G. Jackson to F. Hope-Jones, 16 January 1907
Jan 16th 1907
LETTER 59
F Hope-Jones, Esq.
London**

Dear Sir,

I have to acknowledge yours of Nov 23rd also Post Card with kind greetings for which I heartily thank you. Also draft which I have honoured. The controllers

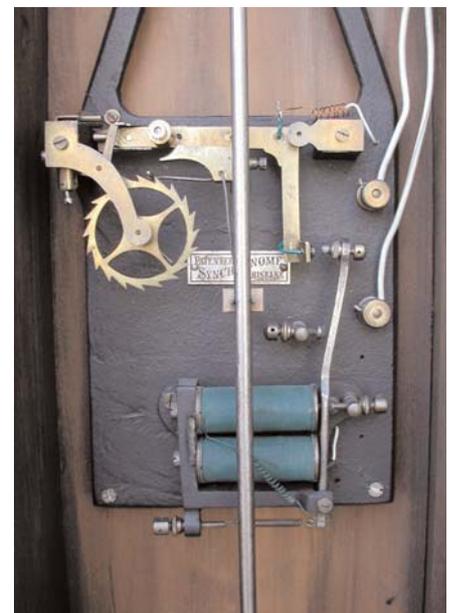


Figure 12: Three quarter second movement. Total height 393 mm. (Unrestored, private collection).

and instructions came to hand to day but as yet I have not been able to give the former a trial. I regret you have not sent me a sample pendulum bracket and click you were using as I may not make this just to size without some trials and thus not be able to give the new controller a fair test from the start. I like the style and finish and consider the agate stop on arm gives it a much better appearance. Unfortunately the controller came in a much damaged condition, the top arm and bracket carrying the spring was bent right forward, probably as a result of the casting being so soft, and this has bent the spring, the impulse arm or lever A was also broken from the arbor. After fixing this up I hope to give it a good test on a number of dials. Re the post cards sent some time ago with buildings fitted with Synchronome Clocks I would take it a great favour if you would obtain for me another set or with any additional you may be able to obtain for myself as I sent those on to Mr Knox and have not since seen them. I will only too willingly discharge any cost due from them.

In yours of the 23 of November you ask for our progress in manufacturing improvements and also our manufacturing orders. I am under the impression I answered this for you in saying that we had not ordered any

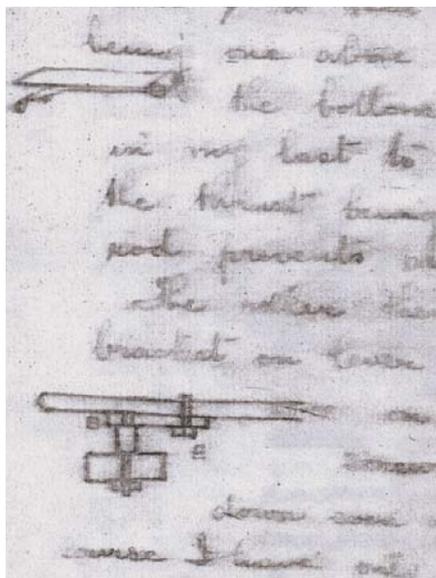


Figure 14. Diagrams from A.G. Jackson's letter of January 16, 1907

goods, but of which, you know and which was done when Mr Knox was home, until this last lot which I mentioned to you.

viz 2ft, 3ft and 4ft dials from Thwaites? through Allison and Co.

As regards the manufacturing, I have made a few controllers of the new pattern which are out working but as I said to you in the former reply things generally had been at a standstill owing to for one thing making the new controllers and another the trouble given with the old type of controller from the Simplex Co., not forgetting the poor type of magnets sent out to us, which all helped to delay matters and keep us back. Of course if I give my sole divided attention to the clock business much more could be done but I have practically to keep the shop running with other work to meet expenses and I am sure you will agree this is a great draw back to me my experimenting and making of the controllers for trial I do mostly in my own private workshop at home. I will be pleased to draw up a list of all the installations we now have working the type of controller number of dials and sizes if this is any use to you. I am still in hope of good things here but as I said in a former letter I have great difficulty in getting others to erect the controllers satisfactorily to run properly and I can go a thousand miles to simply erect such a controller and that is the distance from here to Melbourne so you see our difficulty. Re your letter of 4th (9th?) re the impulse pallet I can say I have given up the idea of the roller on the pendulum and have been trying another idea which I may as well mention which is to bring the xxx end of the impulsing? arm directly over the toothed wheel which by

adding a projecting piece to the front or bringing the arm forward and then altering the shape of the click B to that shown in margin [figure 11] to two halves being one above the other instead of side by side the bottom one having the two lips mentioned in my last to prevent the click falling off wheel, the thrust being directly on the centre of pendulum rod prevents any risk of twisting motion.

The roller then instead of being in a fixed bracket on lever is fitted as shown on an arbor on a plate B which by loosening the screw may be moved slightly up or down even without stopping the pendulum. Of course I have only as yet tried this experimentally but thought I would mention it to you.

By the bye do you consider the original patent of the new Controller sufficient to cover your improvements or have you taken any further protection, with the competition we have now to meet it would be as well to take all necessary precautions. Hoping this will not worry you,

Believe me,

Yours faithfully,
A.G. Jackson.

Appendix B: letter from A.G. Jackson to F. Hope-Jones,
1 May 1908 -May 1st. 08
F. Hope Jones Esq. M.I.E.E
32 to 34 Clerkenwell Rd.
London E.C.

Dear Mr. Hope Jones,

I thank you very much for yours of 20th March with enclosure of Newspaper cutting, and congratulate you most sincerely on your bravery in attempting to save life under such circumstances.

Having on two occasions in my boyhood days fallen through the ice whilst skating, I know and realize what it means to have presence of mind sufficient to dive under ice in such circumstances, and feel you were justified in receiving the highest honor the Society could bestow. The thought came to me that if anything had happened to yourself, the Synchronome System would have had a loss, impossible to replace and which would have meant a loss to the whole world practically, at any rate for some time, as enthusiasts [sic] are not meet [sic] with every day, and you can be sure that although we have never meet [sic] I personally should have felt it deeply, and cannot help expressing my pleasure that nothing untoward happened to yourself, and in this my wife joins me as we often think of you when talking over our Clock worries at this side. No doubt ere this you have met my Son, probably with my

Sister who was to meet him in London. I may mention also that my cousin George Jackson who is a member of the Legislative Assembly here and was Chairman of Committee in the last Parliament, is on his way to London as special commissioner to the Queensland Dept. of the Franco-British Exhibition, you may possibly meet him in the Queensland Court where there will be numerous friends and acquaintances of mine. I note your remarks re. the new improvements in the Controlling Pendulum, and I may say in the few I am making for present use I am using the bracket shown in Photograph Sept. somewhat modified attached to all the bases and dispensing with the wood back. I have had working for some time the modification with the pulling instead of pushing pawl, but as yet have not had near the successful working with it, the faults found in first trying it 12 months or more ago still appearing and preventing its installing by the layman.

Awaiting your further good news.

I am,
Yours faithfully,
Alf Geo Jackson

Notes and references:

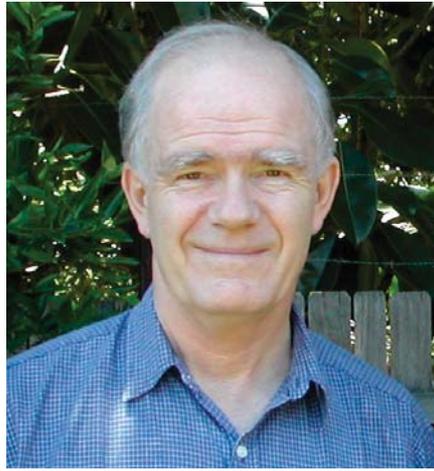
1. Synchronome Goods and Details notebook' p32. Two 'samples from London', plus six 'first pattern' and five 'second pattern' are listed. This notebook has been transcribed by R. H. Miles.
2. G. Bianchi, J. Gardner, N. Heckenberg, A. Roberts, and J. Woolrych, "Synchronome Brisbane 1903-1991", NAWCC Chapter 104, 1998.
3. F. Hope-Jones, *Horological Journal*, January 1906, 67.
4. Some of the letters and other documents can be found at http://www.physics.uq.edu.au/physics_museum/synchronome/Synchronome.html
5. *Horological Journal*, June 1909 (from offprint headed 'Time distribution on a large scale' found in company files)

Author notes



Anthony (Tony) Roberts is a retired Australian Army Officer who has been collecting clocks since his early teens. He first became interested in Synchronome clocks when he purchased a Brisbane built master 15 years ago.

Tony is a keen restorer and builder of mechanical and electro-mechanical clocks. He was a member of the Brisbane based NAWCC Chapter 104 team which produced the booklet 'Synchronome Brisbane 1903 - 1991' in 1998.



Norman Heckenberg is Reader in Physics at The University of Queensland and Director of the Physics Museum there. He first became interested in Synchronome clocks when he found a controlling pendulum and bell controller in the basement while looking for old instruments. After he realised they had been made in Brisbane, and met the grandsons of the founder of the Synchronome Electrical Company of Australasia, who were still running the company, he began to research the history of the brand.

Norman was a member of the NAWCC Chapter 104 team which produced the booklet 'Synchronome Brisbane 1903-1991' in 1998.