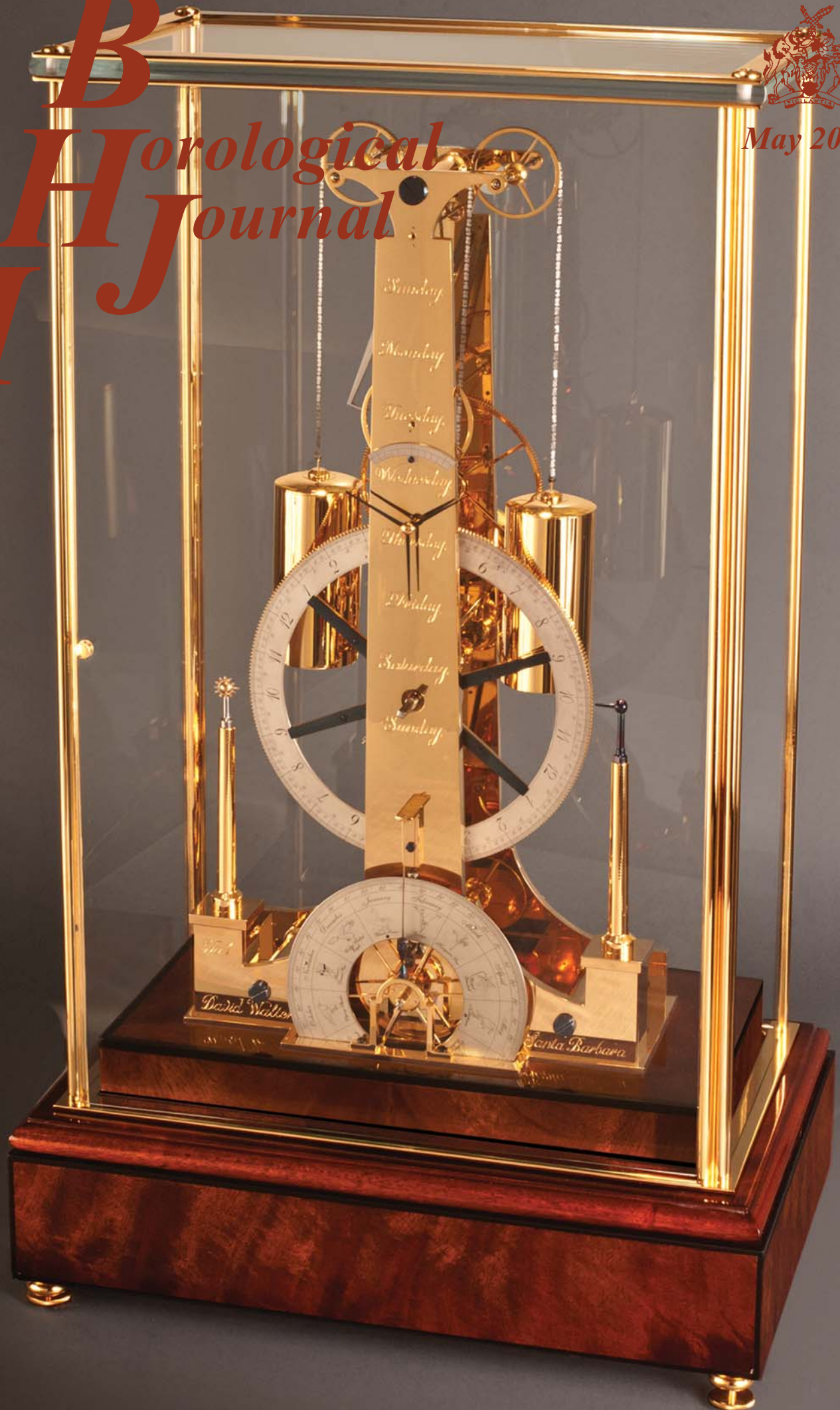


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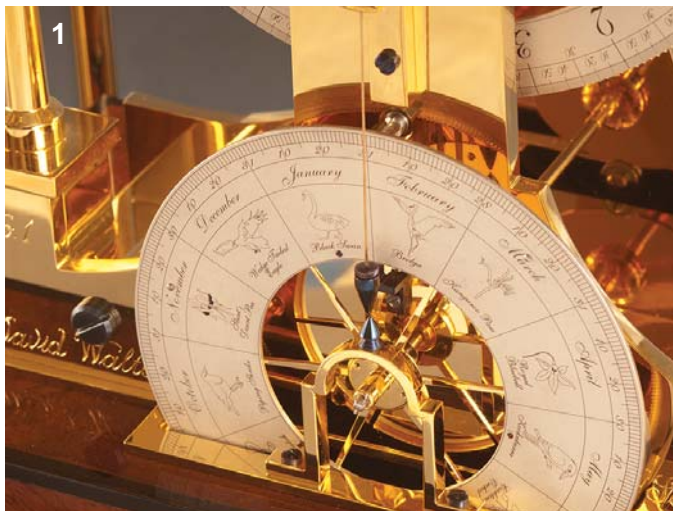
Breguet Style Three Wheel Clock

by David Walter

There are three known examples of this very attractive skeleton clock signed by A L Breguet; a further unsigned example is in a collection Zurich. These clocks were made by Samuel Roy for Breguet; the unsigned clock is almost certainly made by S Roy. Dr Daniels CBE FBHI has also made two three wheel clocks that were given Breguet numbers by M Georges Brown, the owner of Maison Breguet at that time.

This three wheel clock is another of Breguet's clocks that has always attracted my attention, in particular because of its clean lines and deceptive simplicity. A closer look will show this is not only an 8-day, weight driven skeleton clock, it has an annual calendar at the base and indicates the day of the week read from the top of the weights. The calendar is read by a thread suspended above the calendar disc **1**; this thread has a pointed weight on the end of it that also doubles as a plumb bob for leveling the clock. Mean solar time is indicated by the blue steel pointer to the right of the great wheel while apparent solar (sundial) time is indicated by the gold sunburst to the left of the great wheel **2**. The difference apparent solar time minus mean time is known as the - 'equation of time'.

In making this three wheel clock I decided to use a fused silica pendulum with Invar fittings and an asymmetric crutch, driven by the pin wheel escapement with its 60 'D' shaped pins. This permitted me to have the pulleys for the chain supporting the weights a little higher, **3**, and provided a safety margin, should the owner forget to wind the clock, of almost an extra day in running time before the weights reach the ends of their respective chains. All the pivots run in jewels that have been pressed into the plates.



The original Breguets were fitted with the French revolutionary calendar in use at that time. However, my client did not want that on his clock so the decision was made to use, in alternating sequence, flora and fauna of Australia on the inner band of the calendar disc.

The shaft carrying the calendar disc also carries the cam for the apparent time indication. A hard steel wheel rests against the cam and this wheel is screwed to a pivoted lever which provides a pump action to the vertical shaft supporting the gold sunburst. This shaft passes through a longitudinal hole reamed through the left hand column.

The base and cover are a new design of mine. The three bun feet on the base are adjustable for easy leveling of the clock and there is a drawer on the left to store the winding key. The cover is the result of many years' thought. I wanted to get away from the traditional glass domes used in the past because of the delicate task of lifting off and replacing a dome over a tall skeleton clock.

The new cover is brass and glass with a glass door at the front; the brass is gold plated. The cover consists of three brass rectangular pieces with the center cut out to fit over the base and four brass column extrusions. The two upper brass pieces sandwich a 12mm thick piece of ultra clear glass which has four through holes to pass the four fixing screws clamping the top section to the corner pillars. The front glass is a full door which is hinged on the right; a pull knob is visible half way up on the left hand side of the front glass. Once the clock is fully set up the cover is placed over the clock and onto the mahogany base. For the weekly winding ceremony the door is easily opened to wind the clock.

Photos by Bill Taylor ASC, HonFBH.

