Bugler alarm

by Thomas Fattorini

Ian Beilby, UK

Figure 1.

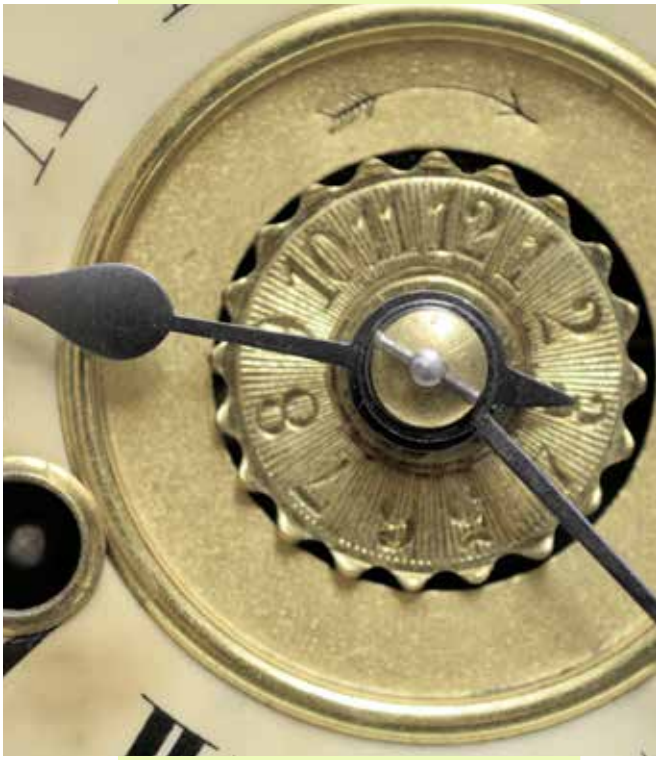

Figure 2.

A casual glance at the clock shown in **figure 1** reveals a characteristic late Victorian or early Edwardian mantel clock in a nice period oak and mahogany case very typical of the late nineteenth century. As can be seen the case is in very good clean condition, all the mouldings and finials are present and the overall impression of the clock is very pleasant indeed.

Readers who are a little more observant will have noticed the alarm-setting disc in the centre of the dial and have deduced that the movement is fitted with an alarm. **Figures 2** and **3** shows the dial and alarm-setting disc. Clocks fitted with alarms became very prevalent from the middle of the nineteenth century, largely in response to the demand for such clocks by workers in the industrial cities who needed to wake up early in the morning and arrive at work on time.

Figures 8, 9 and 10.

Figure 6.

Figure 7.

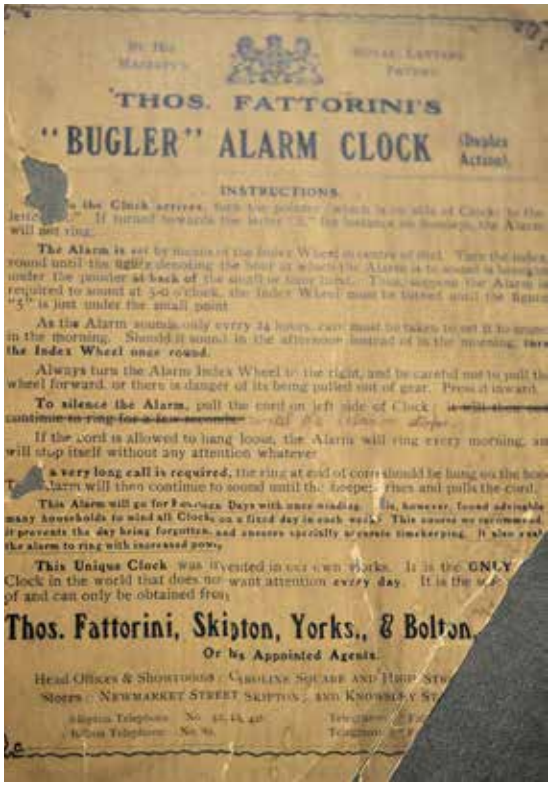

Figure 11.

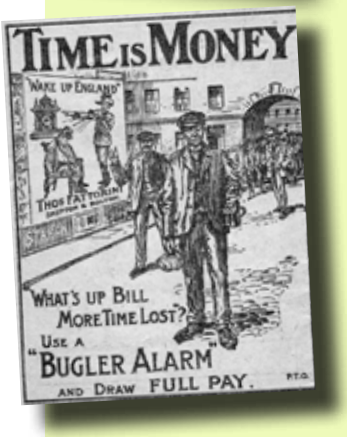

Figure 3.

Figure 4.

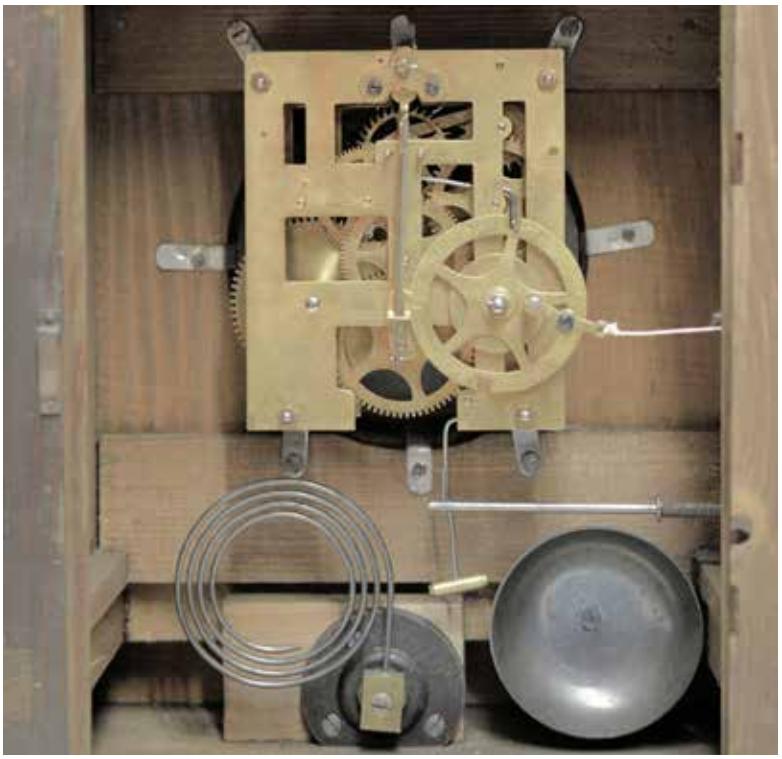

Figure 5.

The Industrial Revolution and the migration of thousands of workers from the country to the towns and cities created a more strictly regulated lifestyle that was dependent on working set hours and starting work very early in the morning. The competition for work was fierce and employers would not tolerate workers who turned up late for work. The factory whistle was a typical audible early morning feature, commonplace in many industrial cities, giving workers due notice and warning of the time when they were expected to arrive and be at work.

Of course, clocks were not a cheap commodity and many households of the day would rely on a 'knocker-upper' which was a paid job in England that started during the Industrial Revolution, before alarm clocks were affordable or reliable. Generally the job was carried out by elderly men or women but sometimes police constables supplemented their pay by performing the task during their early morning patrols.

The knocker-upper used a short heavy stick to knock on the client's doors or a long and light stick to reach windows on higher floors. The knocker-upper would not leave the client's window until they were sure that the client had been awoken.

In the Victorian period there were large numbers of such people carrying out the job, especially in larger industrial towns such as Manchester, Birmingham and Newcastle. The

Figure 12.

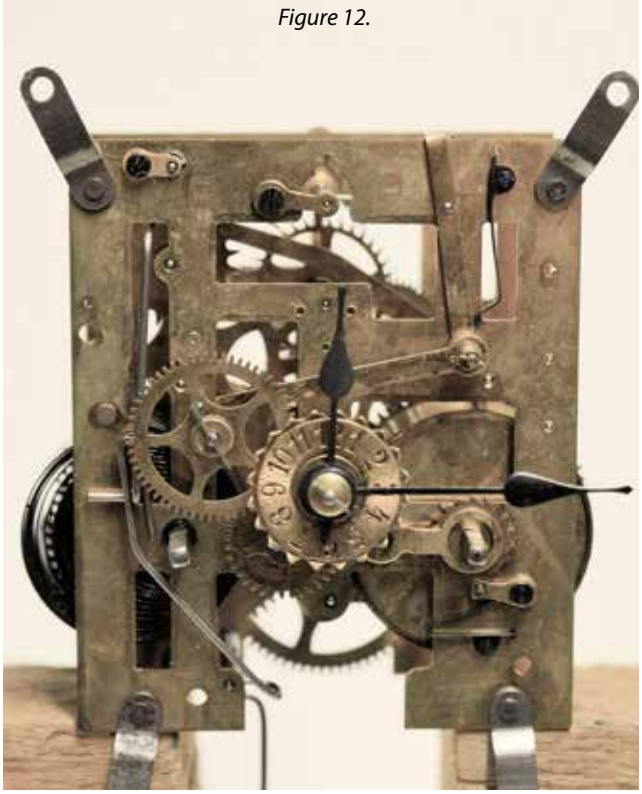

Figure 13.

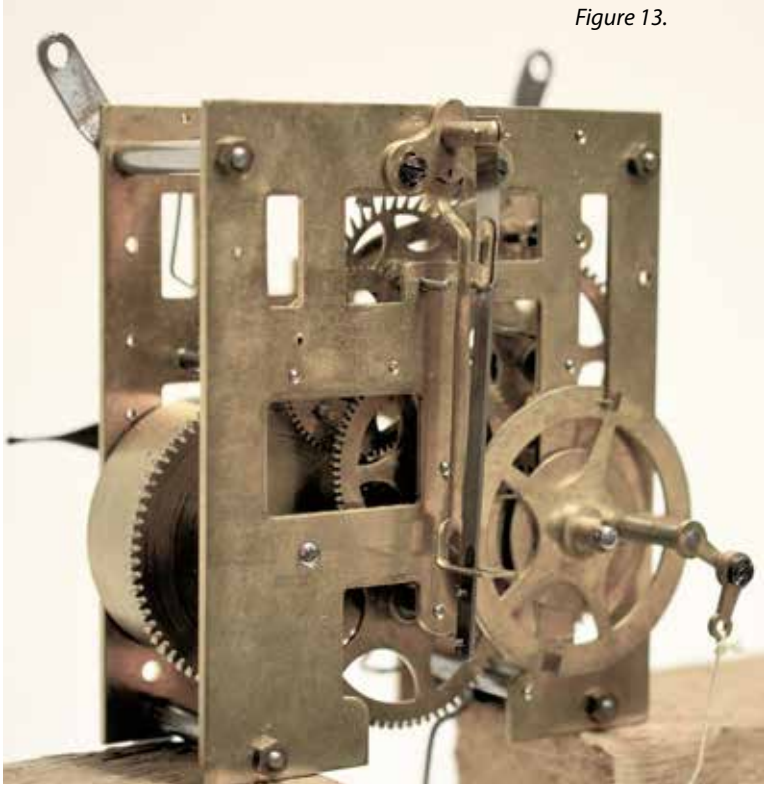

Figure 14.

advent of affordable and reliable alarm clocks eventually made the knocker-upper redundant, clocks very similar to the clock shown here.

These clocks were often made by German and American clockmakers who at the time were exporting thousands of them throughout Britain and Europe. Many of these early alarm clocks were of 30-hour duration and had to be wound and set each day. This clock is however somewhat different from the average alarm clock of the period and possesses a rare and most useful feature of great use to its owner.

A glance at the side of the clock as shown in **figure 4** reveals a couple of initially rather puzzling attributes not normally associated with an alarm clock. You can see there is a length of cord with an attached ring, a hook screwed into the side of the case and a small pointer attached to an arbor which rotates from left to right.

Clearly this is no ordinary alarm clock.

Opening the rear door and looking into the case revealed more unusual components not normally associated with the movement of a conventional alarm clock. You can see in **figure 5** the clock is fitted with a gong and a bell, both struck by a single metal hammer. This in itself is not unusual. I have come across this feature before on several German alarm clocks. Unmistakably this clock was designed to wake even the soundest of sleepers!

What is unusual is the rather strange looking wheel attached to the rear of the movement, something I have never seen on an alarm clock before. What, I asked myself, was the purpose of these extra fittings and what effect did they have on the operation of the movement?

Fortunately, when the clock was sold, two labels were pasted on to the inside of the rear door of the case. These two labels enlighten the owner regarding the retailer of the clock, its warranty and also the correct use and operation of the clock.

Figure 15.

Figure 16.

Figure 17.

Figure 18.

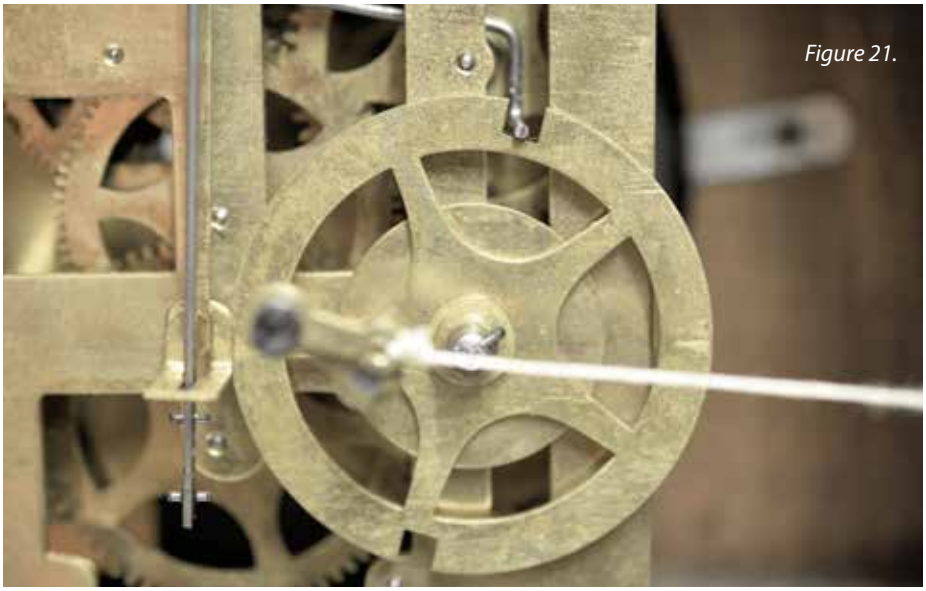

Figure 21.

Figure 19.

Figure 20.

Figure 6 shows a small label giving the name of the retailer and attesting to the efficiency and timekeeping of the movement. **Figure 7** is a larger label which is much more informative, going a long way in explaining the interesting movement and its functionality.

It transpires the clock was retailed by Thomas Fattorini of Skipton and Bolton in North Yorkshire. Though Fattorini were principally jewellers they were perhaps among the largest importers and retailers of clocks and watches in the north of England during the late Victorian and early Edwardian period.

The company was founded in 1827 by Antonio Fattorini (1797-1859) an Italian speaking jeweller and barometer maker and who settled in Yorkshire where he established a number of retail outlets specialising in jewellery, watches and fancy goods including barometers. Antonio Fattorini was followed by his son, Innocent (1830-74), and the retailer of our clock, Thomas (1864-1934). The family firm Thomas Fattorini Ltd is still trading today as designers and makers of civic insignia, national awards and honours, medals, ceremonial swords, badges, and bespoke trophies, and is currently managed by the sixth generation of the family. Today the company exports throughout the world. Its customers range from National Governments to private individuals with the same exacting standards being as important today as they were in the 1800s.

Returning to our clock and **figure 7**, we can see the label pasted on the inside of the rear door tells us that it was marketed as the 'Bugler' alarm clock, invented by the firm and also the first alarm clock to be manufactured that 'does not want attention every day'.

This is a clear reference to the fact that prior to the manufacture of this clock most alarm clocks of the period required a fair bit of attention, either to set and wind the alarm each night or to silence it once it had activated in the morning. In fact, many Victorian and Edwardian alarm clocks could not be silenced once they started to ring, and only fell silent when the alarm spring had fully wound down. This being the case the owner had to remember to fully wind the clock before going to bed in order for it to wake them in the morning.

Clearly, according to the manufacturer's instruction label, this clock possessed a number of features not found on the normal alarm clock of the day. It appears Thomas Fattorini went to great lengths in order to promote and advertise the clock to the general public.

Figures 8, **9** and **10** show a copy of the instructions and two contemporary advertisements designed to highlight the clock's unique features and bring the clock to the attention of would-be customers. **Figure 8** is a copy of the operating instructions supplied with the clock but **figures 9** and **10** are much more extensive and illustrative, going to great lengths in extolling the clock's virtues.

'By Royal message the King has graciously granted letter patent to an invention that stands alone in the history of the world. This is a clock that keeps exact time and runs fourteen days with once winding. It also sounds an alarm for the whole of that fortnight without being touched again in any way whatever. In a word you have a clock which is 14 times as handsome, saves 14 times the winding, and which costs little more than the price of an old-fashioned one day alarm, which is not one-fourteenth as useful.'

'The only 14 days alarm clock in the world.'

'Alarms for 14 days with one winding.'

The advertisements also state that the clock 'can only be purchased from Thomas Fattorini or his appointed agents' and was 'invented in our own works'.

The pictorial advertisement goes farther in emphasising the value of the clock to the working man. Headed 'Time is money' the advert portrays a dejected looking worker who clearly must have arrived too late for work, being told 'What's up Bill, lost more time, use a Bugler alarm and draw more pay'.

This is a clear reference to the employment practice of the day whereby workers were paid by the day and late-comers were turned away from the factory gates and given no pay whatsoever.

The advert also displays a billboard coining a caption from the patriotic poem by Robert Bridges 'Wake up England', which was published in *The Times* shortly after the outbreak of the First World War and was often used by the government and political activists in an effort to cajole the public into action. Thomas Fattorini was clearly aiming his clock at the working man who had to get up every morning without fail in order to earn a decent wage and feed his family and pay the rent. He was also shrewd enough to realise that not everyone could afford to buy the clock outright and as such offered the clock for sale on a weekly instalment plan.

The advert states the clock was invented by them and that Fattorini are the sole retailers, but note that it does not say the clock was made by them. Inspection of the back plate of the movement in **figure 11** reveals the cross arrows emblem of the German clock manufacturer HAC & Co; it is therefore highly probable that Thomas Fattorini had the movements made in Germany with the sole selling rights in this country. He was clearly a shrewd businessman who recognised the need and demand for such a clock. As a large importer and retailer he no doubt had the buying power to negotiate such a deal with the German clock company, to everyone's mutual advantage!

Figures 12 and **13** show the movement removed from the case and you can see in some respects it displays many of the features of a typical German clock mechanism. The open plates, lantern pinions and method of attaching the movement to the case are all very characteristic of this type of clock movement. You can also see the spring that operates the alarm is an open spring, whereas the more powerful movement spring is enclosed in a brass barrel.

This alarm clock is however very different from the average alarm clock of the day. It has the facility to be operated every day or just the days the owner wishes to be woken at a specific time. You can choose for the alarm to ring for 30 seconds and then silence and reset itself automatically ringing at the same time on the next morning, or to ring until the alarm is manually silenced by the owner of the clock. Both springs are powerful enough to ensure both the alarm and going train will run for 14 days between winding.

In operation the alarm mechanism works as follows. The alarm setting dial on the front of the clock dial is turned clockwise until the time you wish the alarm to ring is indicated under to the small pointer at the back of the hour hand. For the alarm to function the alarm mechanism must be switched on. There is a small dial on the side of the case and a pointer protruding through the side of the case as shown in **figure 14**. This pointer silences or sets the alarm. The disc is stamped with the letters A (alarm) and S (silent). With the pointer turned to the alarm position this frees the alarm hammer, as shown in **figure 15**. Alternatively, if the alarm is not required, the pointer is turned to the letter S and the alarm hammer is obstructed by the pin as shown in **figure 16**.

Figure 17 shows the alarm train locked, with the alarm locking lever at rest in one of the notches of the alarm locking wheel. When the alarm is activated by the going train (**figure 18)** the alarm locking lever is raised, sounding the alarm and running on the circumference of the locking wheel.

The alarm continues to sound until the owner pulls the cord, or the alarm is allowed to run and the locking lever drops into the next notch of the locking wheel silencing the alarm. It takes approximaely 30 seconds for the locking wheel to make half a revolution of the wheel (between notches). If the alarm is then left it will repeat the process at the same time on the next morning for the next 14 days. If however you require a longer alarm call, the ring attached to the cord on the outside of the case is hooked on to the hook as shown in **figure 19**. After the alarm has started to sound the cord prevents the alarm locking wheel from fully advancing and in doing so prevents the locking lever from dropping into the notch and silencing the alarm, **figure 20**.

In order to silence the alarm the owner must release and pull the cord or allow the locking wheel to rotate and the locking lever drop into a notch, silencing the alarm,

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Without a doubt this is a very ingenious and efficient means of automatically setting an alarm clock, eliminating the risk of the alarm not being wound or set and the owner not waking up on time. It is a highly versatile clock, allowing for the alarm to be operated in many different ways with ease and reliability.

As far as I know the Fattorini family were not practical clock or watchmakers in the manufacturing sense and clearly the movement was not made by them, however it is possible that someone in their workshops came up with the idea, presented it to the German firm of HAC & Co who made and cased the movements exclusively for them.

The patent would prevent any other firm from copying the idea, hence the rarity of this type of movement.

Whatever the circumstances surrounding the inception of the clock, it is a most interesting and highly effective alarm clock, a forerunner of the modern alarm clock that most of us even today cannot live without!

Acknowledgement

I would sincerely like to thank Tom and Greg Fattorini for their help and permission to use figures 8, 9 and 10 in this article.