"The Carriage Way"

International Carriage Clock Chapter #195
Founded 2013
The National Association of Watch and Clock Collectors

Volume 2024 No. 3

No. 1719. ***A. Demeur à Bruxells, her. de la Cour.***

President's Report

Stan Boyatzis

Thank you to all our members who attended our face-to-face meeting in Chattanooga. A total of 42 old and new members attended the meeting. Doug Minty from Australia gave a well-received presentation on miniature and sub-miniature carriage clocks and highlighted some of the miniature carriage on exhibit. I hope you enjoyed the meeting and that you also were able to attend the miniature carriage clock exhibit and the other displays by the Specialty groups. Congratulations to Tom Compton who was the lucky winner of the beautiful carriage clock given as a door prize. For any member who did not get a chance to see the exhibit, there is a video on the Chapter 195 website of the Specialty exhibit and a link to Doug's lecture.

Twenty new members were signed up at the 2024 National. To these new members I extend a special welcome. To date membership stands at 327.
A special thank you to Alex Simpkins for his support with the audiovisual and recording of the carriage clock lecture at the face-to-face meeting.

This month's feature article is by Tom Wotruba on "An Eighteenth-Century Travel Clock by *Duval à Rouen"* Tom describes this early French travel clock which has many interesting features and complications considered unique at that time and unusual even today. This article was previously published in *Clocks Magazine*, March 2018, pp. 14-16.
Permission to reprint this article is gratefully acknowledged.
The second article is by Lindsay Bramall on 'The Repair and Restoration of a "Two Dial Carriage Clock". These are rare carriage clocks and Lindsay discusses the repair and restoration of such a clock and how such a clock may have been used. Both Tom and Lindsay welcome any questions from the members.

The executive continues to work hard to promote the chapter and I again encourage current members to spread the word about Chapter 195 and invite friends with an interest in carriage clocks to join. Remember, this is your newsletter so if you have any helpful hints or unusual carriage clocks you own or have seen, please share these with the members. If you have any queries about a carriage clock, please do not hesitate to contact Doug or myself. Details are at the back of the newsletter.
Copies of previous newsletters, hints, and a question page are included on our website. There are also carriage clock articles from the Bulletin and carriage clock videos from the NAWCC library. You will need to be logged in as a NAWCC member to access these.

https://new.nawcc.org/index.phSEB195rosshogan@optusnet.com.aup/chapter-195-international-carriage-clock

A link to the 1stdibs website is included. This is a useful website to research retail prices of carriage clocks and what is currently for sale. The website is updated weekly. We are happy to include other websites that may be of interest to the membership.

Members of the Executive Committee:

Stan Boyatzis: President (Aust.) Email: carriageclocks@optusnet.com.au

Ken Hogwood: Vice President (USA.) Email: kenhogwood@aol.com

Doug Minty: Secretary (Aust.) Email: dminty@optusnet.com.au

Chris Maher: Director (Aust.)

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Leigh Extence: Director (UK)

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An Eighteenth-Century Travel Clock by *Duval à Rouen*

by Thomas R. Wotruba US

This article describes an early French travel clock, an eighteenth-century predecessor of the carriage clock, with many interesting features and complications considered unique at that time and unusual even today. It is pictured in Figure 1 and a close-up of the dial portion containing the signature *Duval A ROUEN* appears in Figure 2. We first examine the features and components of this clock and then consider what is known about its maker.

Figure 1. Duval travel clock.

Figure 2. Dial showing the maker's signature and location.

Features of the Clock

Case. As shown in Figure 1, this clock occupies a gilt engraved case with a convex glass dial cover in a bezel that opens for accessing the single winding arbor at numeral VI of the Roman chapters. Glass covers both sides, the back within a door that can be opened, and a portion of the top beneath the handle. The case stands on four toupie feet repeated as finials on the top of the case accompanying a folding handle. The case measures 9 inches high without the handle, 10 inches with the handle up, 5 ¼ inches wide, and 3 inches deep.

Dial. The large white enamel dial measures 4 ⅞ inches and is convex in shape. The black Roman chapter ring is accompanied by three other sets of marks.

The outer ring provides Arabic measures of minutes in increments of 5 interspersed with periods denoting intermediate minutes. Below that but still outside the chapters is a ring of red numerals for days of the month (1 to 31) with day 1 placed between hour XII and minute 60. Inside the chapter ring are days of the week in French in red script. The hours and minutes are indicated by a set of gilt pierced girandole hands. Calendar readings are provided by two blue steel arrowhead hands that mark the day of week and day of the month. For months with fewer than 31 days the latter hand must be adjusted forward manually to continue indicating correctly into the succeeding month. A single winding arbor occurs in the dial at the location of Roman chapter VI.

Movement. Figures 3 and 4 show the backplate revealing its design, its visible components, and their placement. These include the skeletonized going and striking wheels as well as an advance/retard adjustment mounted near the top. Note that striking is controlled by the locking plate (sometimes called a countwheel) surrounding the starwheel on the right.[1] This clock has a single large barrel driving the hands on the dial as well as hour and half-hour striking. A full wind produces a duration of at least eight days.

Figure 3. Back of the clock.

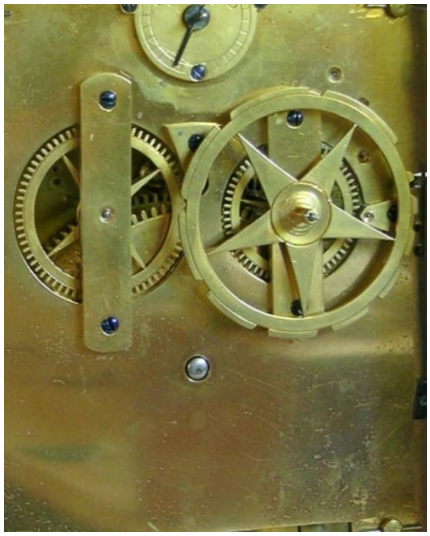


Figure 4. Close-up of backplate.

Some Duval clocks were made initially with a pendulum driven design and later converted to employ a platform. But this clock was originally produced with a large star-framed balance wheel platform employing a Sully-type tic-tac escapement.

[1]The countwheel or locking plate was an early form of striking mechanism and is discussed in detail in Eric Smith, *Striking and Chiming Clocks* (David & Charles, 1985), pp. 13-15 and various others.

The platform and escapement are visible through the window within the finely engraved top of the clock beneath the handle as shown in Figure 5. Because this clock employs a platform and associated escapement rather than a pendulum, it is portable and can be moved without affecting its timekeeping operation. Thus, this is a travel clock that can be carried from place to place – the forerunner of the carriage clock.

Figure 5. The balance wheel platform and escapement as seen from the top of the clock.

Striking. As already noted, this clock strikes the hour and half-hour on a bell mounted in the base as seen in Figure 3. There is no repeat. As already noted, the striking action is controlled by the locking plate seen in Figure 4 and driven by the same single barrel which powers the timekeeping as well as the calendar readings on the dial. Figure 6 is a side view of the clock in which the large single barrel can be seen.

Figure 6. Side view of Duval clock showing the large single barrel.

The Clockmaker – *Duval à Rouen*

The signature on the dial identifies the clockmaker as Duval from Rouen , a city in France. Information about this clockmaker is scarce and even somewhat puzzling as there were a number of clockmakers named Duval and nowhere on this clock is there an indication of his first name, a number attached to the clock, or a clear indication of the year when it was made. But a number of sources offer information that can help address these questions.

First, this same clock was pictured in a 1994 publication, and a query I sent to its authors provided a response stating that Duval is recorded as being a successful maker of complicated mechanisms in 1773 in the affluent resort town of Rouen, just outside Paris[2] I also sent photos of the clock to Charles Allix in 1995 after discovering that he did not mention Duval in his classic

[2] Linda and Frank Vitale, *The Carriage Clock: 200 Years of Timely Allure* (Vitale & Vitale Ltd., 1994), p. 3.

book on carriage clocks.[3] In his response he sent a copy of an auction announcement from Ferri-Drouot picturing this clock and dating it circa 1780. (A subsequent letter to M. Ferri generated no response, however.) Allix stated that the maker Duval was probably the one Tardy noted as *A Rouen 1773,* the maker of a complicated watch.[4] Allix also noted that Tardy presented photos of two watches signed Fred Duval à Rouen, suggesting that Duval's first name was Fred or Frédéric. But additionally, Tardy noted that there was a Frédéric Duval in Paris at Rue Mazarine in 1777-78 as well as several others named Duval between the years of 1741 and 1860. One might ask whether any of the Paris Duvals were also the same as a Rouen Duval, and whether perhaps the Rouen Duval moved to Paris sometime during the latter 1770s?

Additional sources of information were found on the websites of clock dealers and auction companies in relation to clocks being offered. So, we look next at other clocks recently available made by a clockmaker named Duval and highlight the information offered by these sources.

Other Duval Clocks

In a Sotheby's London auction of June 28, 2002, lot 53 was a "good, rare gilt-bronze quarter striking Pendule de Voyage with calendar, Duval, Roüen, circa 1780." It is shown in Figure 7.

Figure 7. Duval à Roüen travel clock, Sotheby's London, June 28, 2002, Lot 53.

[3] Charles Allix, *Carriage Clocks: Their History and Development* (Woodbridge, Suffolk: Antique Collectors' Club, 1974)

[4] Tardy (H.L.*), Dictionnaire des Horlogers Français*, Paris 1973, p. 213.

Note that this listing corrected the spelling of the town name from Rouen to Roüen. Duval's signature on the dial was *Duval Fecit* and on the backplate *Duval à Roüen.* Like the clock in Figure 1, this one was similar in case and dial size, used Roman numerals for the hours and Arabic numerals in the minute ring, and unnumbered. But it differed in several ways, using astronomical symbols for days of the week, providing an outer calendar ring of names of months in French, having three calendar hands in black, and two asymmetrical winding holes required for a two-train movement that struck the quarters on two top-mounted bells. The pendulum aperture below the dial indicates that this clock was originally pendulum driven and later converted to a platform escapement. A subsequent discussion of this clock on the website of the Swiss firm of Richard Redding Antiques stated that the maker "is almost certainly Frédéric Duval" who was working in Rouen in 1773 to at least 1775, very likely the same Frédéric Duval who was later working in Paris as an associate of François Béliard and subsequently incorporated into the Parisian Clockmakers Guild in 1777. His address in 1778 was given as Rue Mazarine and then in 1781 at Rue Jacob.

Another clock signed *Duval A ROÜEN* appeared as lot 150 in Sotheby's Paris sale of November 10, 2009. It is shown in Figure 8.

Figure 8. Duval A Roüen standing clock, Sotheby's Paris, November 2009, lot 150.

It was not a travel or carriage clock but rather a gilt bronze standing clock identified as a Louis XVI period style, and its case was decorated with symbols of military life such as a horn, muzzle barrel, flags, and topped by an urn finial with descending feather designs and berried leafy foliage surrounding the dial.
It measured 11½ inches high and was not dated or numbered . The dial had some similarities to that in Figure 2, with girandole hands, Roman hours, and Arabic minutes. It had no calendar work such as days of the week or month and thus no associated calendar hands, and it showed two winding arbors for a movement with separate time and strike trains though the striking pattern was not specified. The typography within the signature, especially the swirl within the city name, strongly suggests this was the same clockmaker as that for the clock in Figure 2.

One more clock provides an interesting comparison with those above because it is attributed to Frédéric Duval à Paris. This clock, shown in Figure 9, was contained on the website of La Pendulerie, an *atelier* (workshop, merchant, or studio) in Paris.
It was described as a wall cartel clock by a clockmaker "*agrégé à la corporation en 1777*" (probably referring to his admission to the Parisian Clockmakers Guild in 1777).

Figure 9. Cartel clock by Frédéric Duval à Paris (from La Pendulerie)

This website also stated that this Duval was located at the rue Mazarine in 1778 and the rue Jacob in 1781. In addition, the design of the dial, except for the signature, is identical to the dial in the clock in Figure 8. All of this affirms what was stated about Duval à Roüen, the maker of the clock in Figure 7. Does this suggest that both clockmakers named Duval – one from Roüen and the other from Paris – were really the same person? It seems quite likely until some other evidence appears to contradict that conclusion.

Conclusion

The subject of this article is very interesting in a number of respects. The clock itself is an example of a complex timekeeping mechanism, especially for this era of the late 18th century. It provides some historical perspective as a forerunner of the carriage clock which has greatly developed in numbers and types through the 19th century and beyond. And it offers a challenging opportunity to investigate and learn about an early clockmaker at the time when information sources were sparse, vague, and perhaps even contradictory. It has been an enjoyable learning experience for this author, and I welcome comments and suggestions related to this article. Please send them to twotruba@sdsu.edu.

A Two-dial Carriage Clock.

Lindsay Bramall (Aust.)

French carriage clocks were made with a huge range of variations, both in case design and style, and in the complexity of the movement.

Many have crossed my bench over the years but today one, or "was it two", arrived for service.

I have never seen such a carriage clock. Two dials on opposite sides of the movement. Without being aware one could be forgiven for thinking that they were two separate clocks!

In the major reference book, *"Carriage Clocks"* by Charles Allix he indicates that such two-dialled carriage clocks are *few*. In such a large book, specifically on carriage clocks there are no pictures of such a clock and there is a very short paragraph stating that they exist, and he has heard of one !

Quote:

> Besides four-dial carriage clocks there exist a few two-dialled examples. It is sometimes said that these were intended for "partners' desks"; but the theory sounds like wishful thinking on the part of the antique trade. An anonymous two-dial clock under scrutiny as these pages are written is plainly of Saint-Nicolas-d'Aliermont manufacture. It uses a timepiece movement, suitably modified and housed in a *Corniche No. 1* case. The movement is wound from below the base where squares for setting the hands and for remote control regulation are also accessible. The escapement is a cylinder and the whole clock is of modest quality.

This clock referred to by Allix is "of modest quality" and has a cylinder escapement.

The clock on the bench today has a quality, skeleton bridge lever escapement on a mid-grade movement with a good level of workmanship to the additional mechanical devices to allow for under-base winding and hand setting of both dials.

The case is of a good quality Corniche style with no rear or front doors.

LEFT SIDE

FRONT DIAL

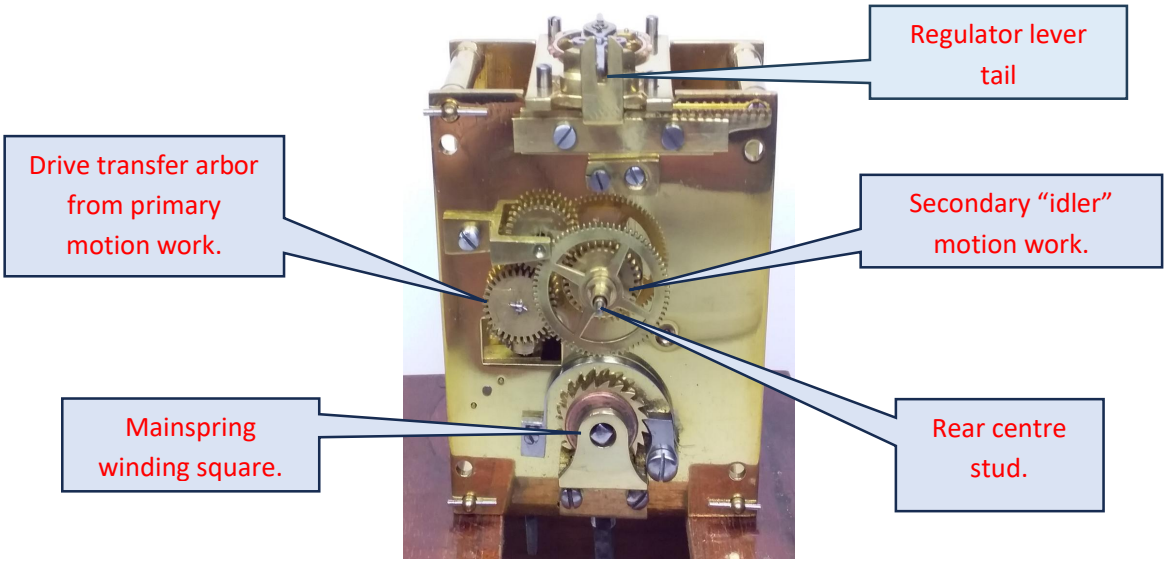
(Primary)

RIGHT SIDE

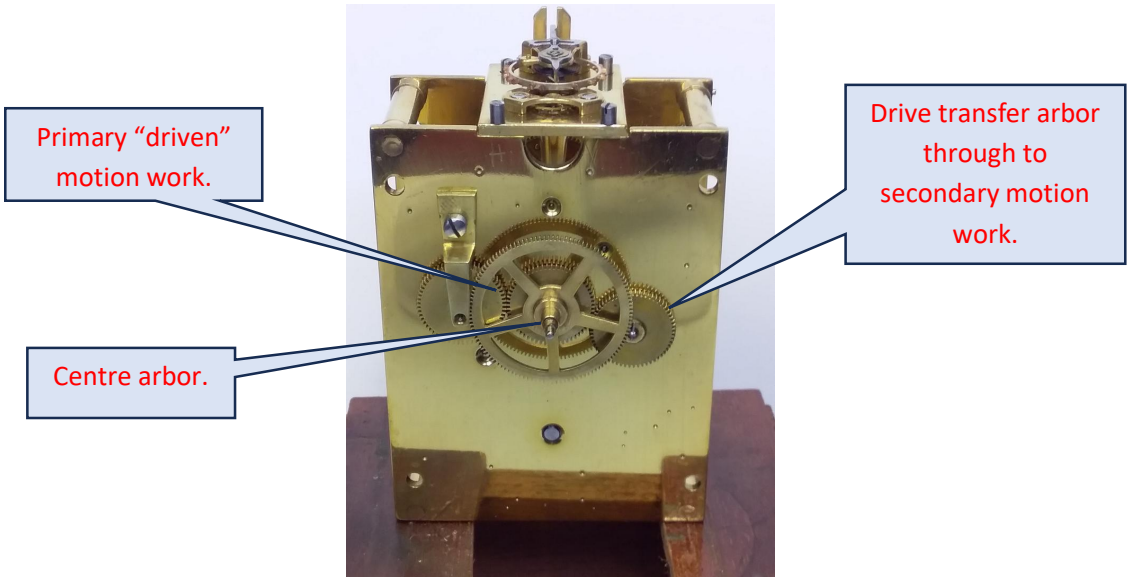
REAR DIAL

(Secondary)

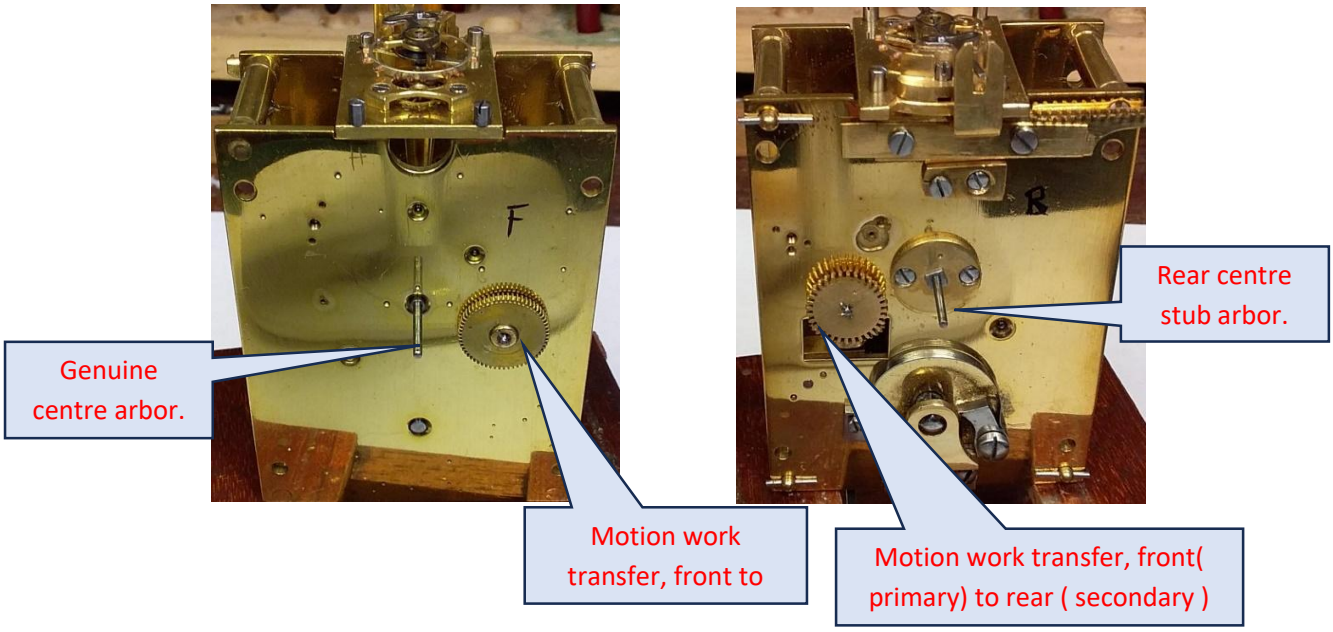
I classify the rear of the clock as the plate which has the mainspring barrel arbor square, the platform escapement regulator and the pillar pins. These components are always on the rear of French carriage clocks.



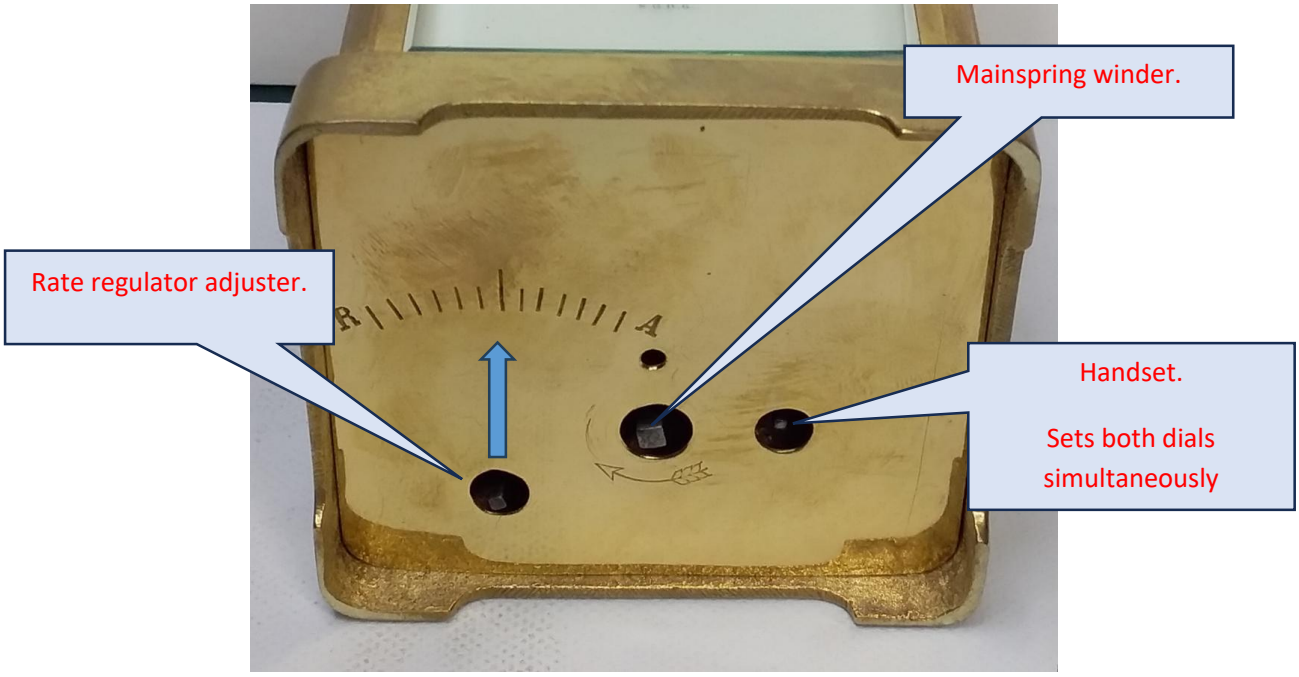
The front plate has the centre arbor extending through the plate, as normal, to carry the primary motion work hence it is "driven" whereas the secondary motion work wheels are all "idlers".



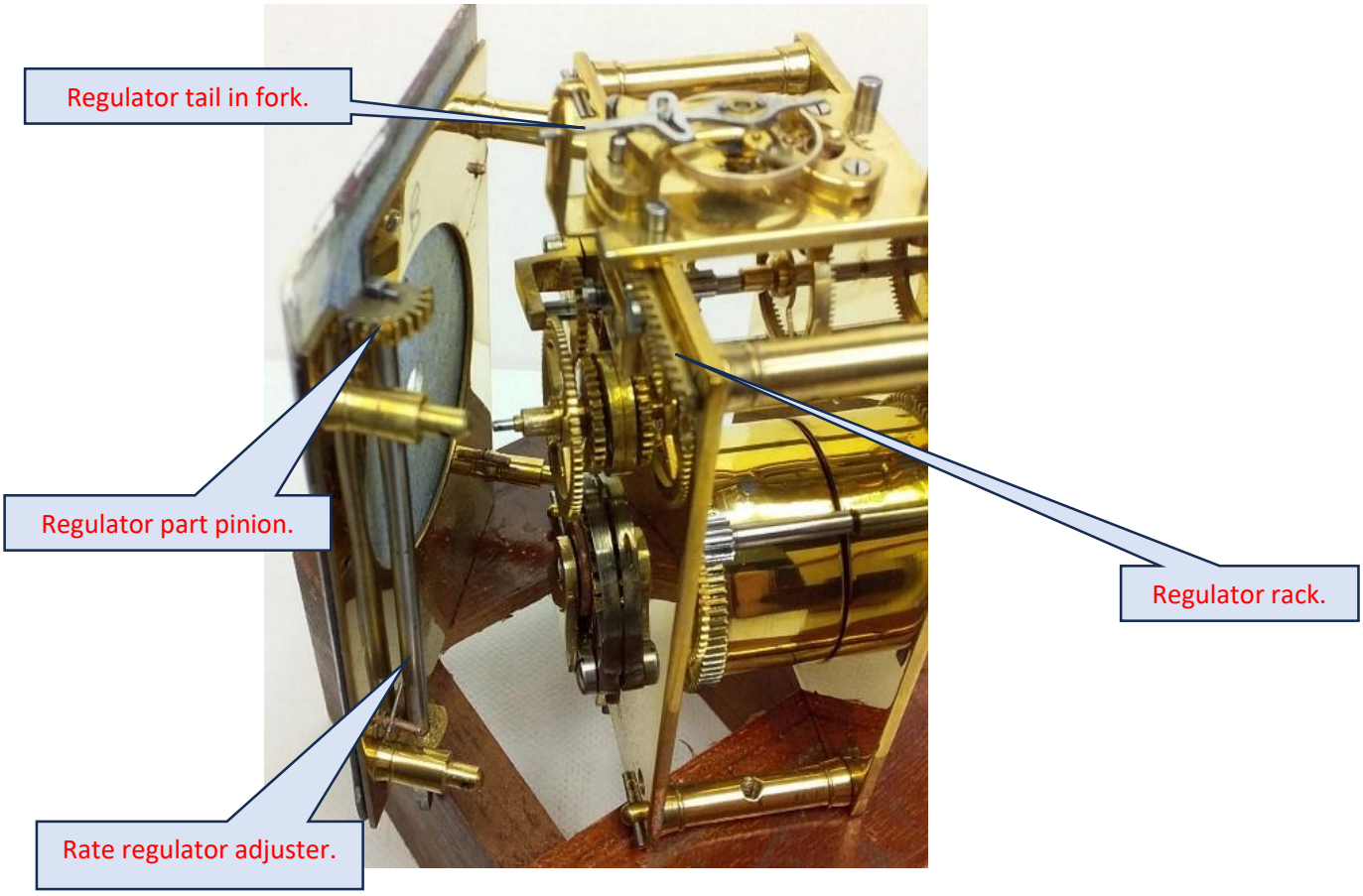
The primary motion work transfers the drive through the movement to the rear secondary motion work.

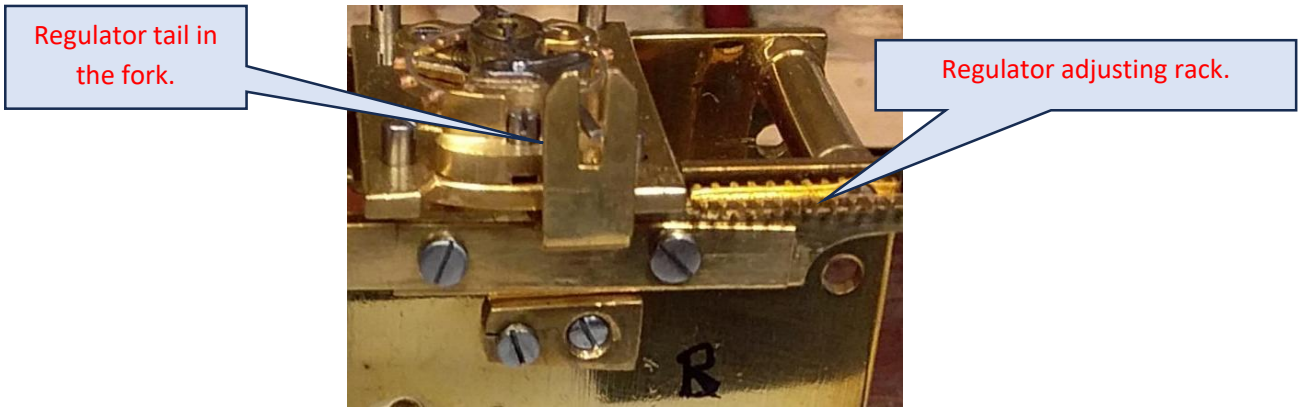


All the winding, hand setting and rate adjustment are performed from under the clock.

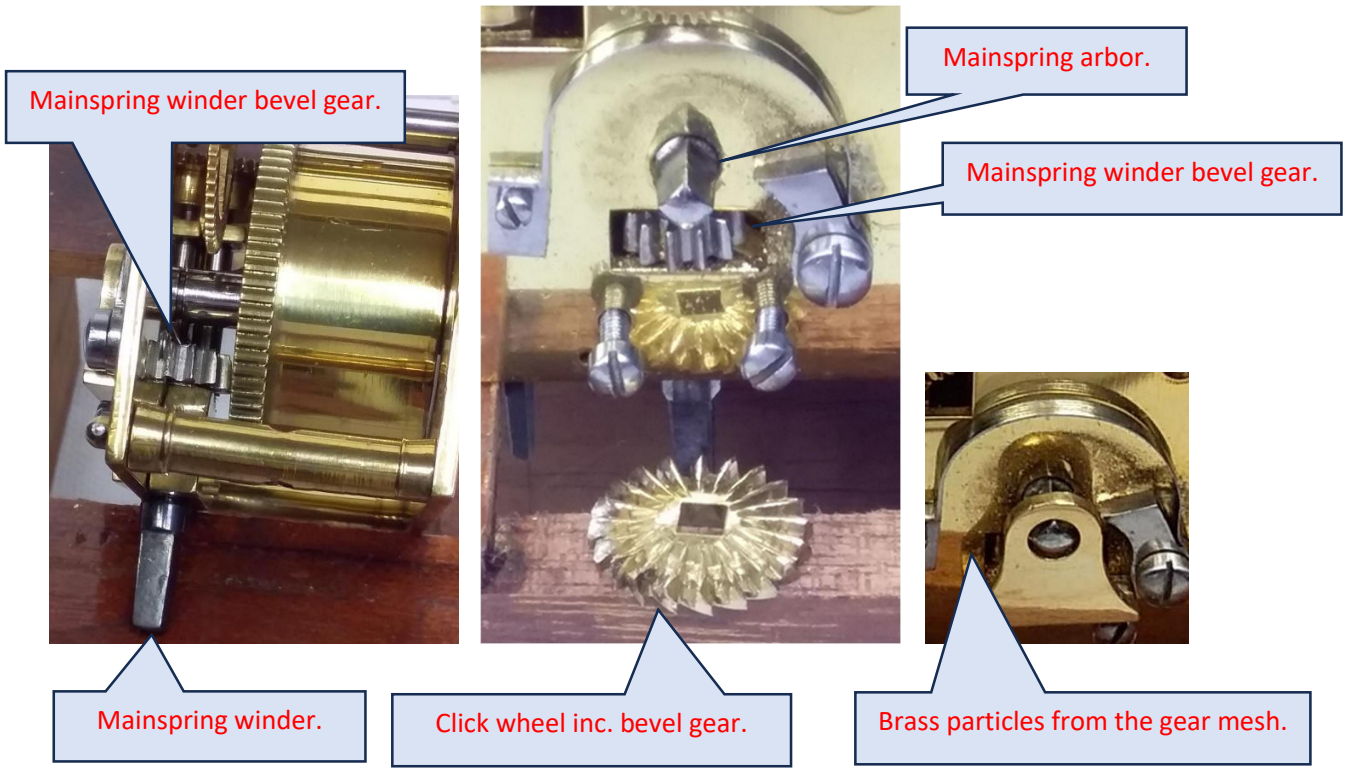


Adjusting the rate of the clock is performed as usual at the platform escapement regulator but, to do this from under the clock, a vertical rod with a part pinion engages with a rack. Rotating the rod moves the rack horizontally carrying the regulator tail with it in a vertical fork.

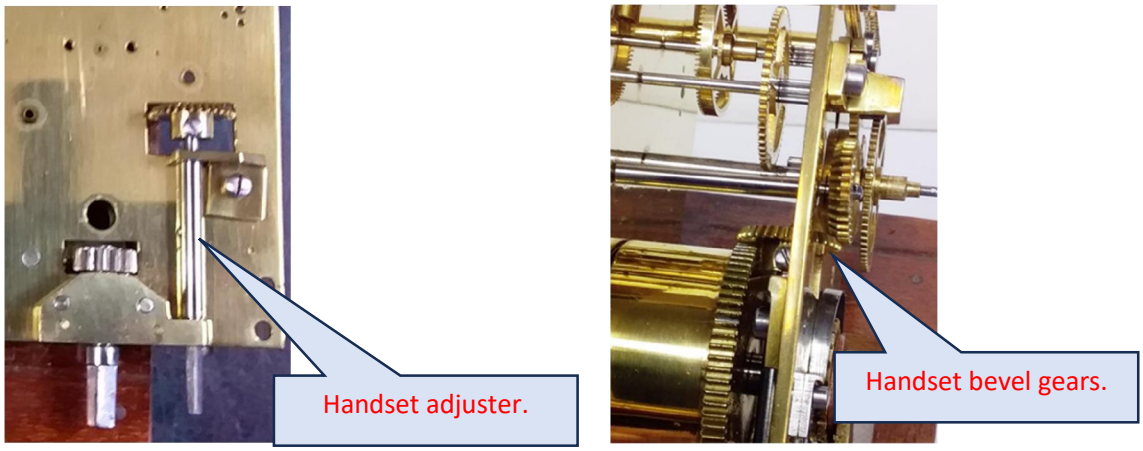




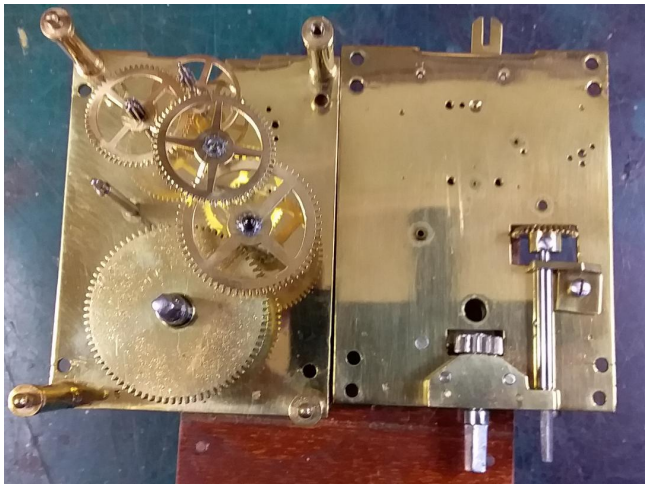
Winding the mainspring from below uses heavy bevel gears. The heavy load placed on the these gears when winding results in wear particularly of the brass beveled gear and the stubby "winding square" post.



To adjust the hands, a vertical shaft again carries a bevel gear at the top to engage with a bevel gear incorporated into the motion work on the primary side of the movement.



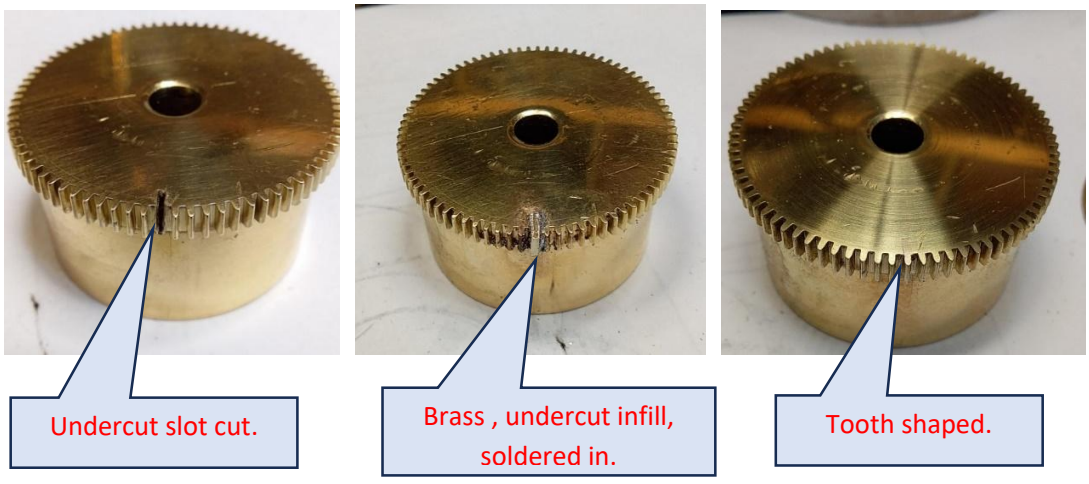
Having examined the movement and the layout, position and operation of all the parts, disassembly and repair of the clock was undertaken.



All the wheels were cleaned, and pivots examined for damage and scoring. No damage was found. There were, however, two pivots holes that had excessive wear and these were re-bushed and reamed to fit the pivots.

Rebushed pivot holes

There was evidence of prior mainspring breakage as the barrel hook had been forced outwards as the spring rapidly expanded. This was reversed and the barrel teeth examined. One tooth was found to be fractured so it was replaced.



The mainspring winding beveled gear arbor, being under heavy load during winding had worn the brass retainer plate badly, allowing the steel/brass gears to continually and gradually reseat, creating brass “filings”.

Brass particles from the ever-changing gear mesh.

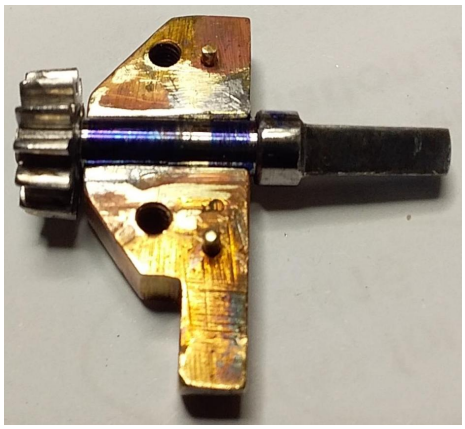
Worn away from vertical, resulting in gear wear.

The wear was found to be diagonal across the bearing due to the winding force being in one direction, so a brass shim was laid into the bed and pressed home with a suitable rusty blue steel rod. The application of a clamp, heat and solder, secured the shim.

Why a rusty rod? Solder won’t bind to dirty, rusty metal !

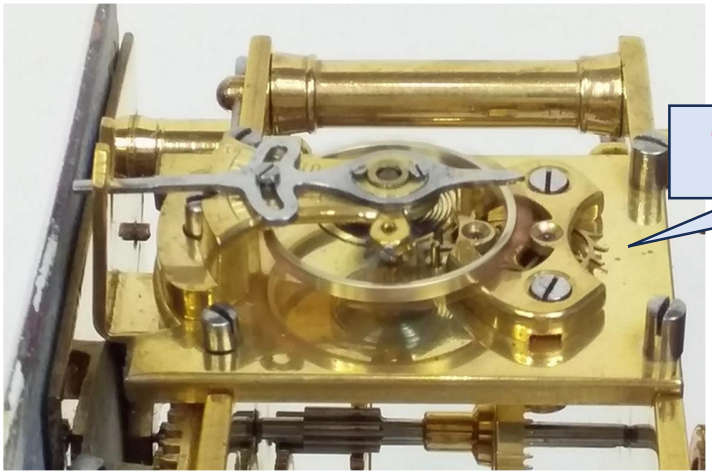
The diagonal shim was dressed down and the winder arbor was dressed, “blued” and fitted.

Rotating the arbor in the slot shows the shim high points which were dressed down. This process was repeated until the blue was removed over the full length of the arbor.



Once cleaned up, the brass retaining plate was ready to be fitted back onto the movement.

Next the escapement was dismantled for cleaning and servicing.



Once re-assembly and lubrication of the escapement was done, it was ready to refit.

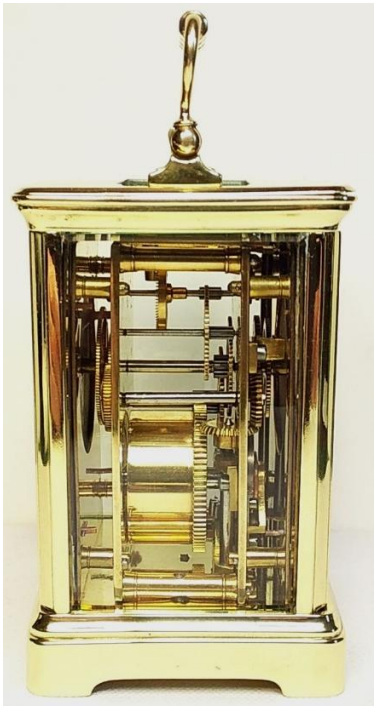
Being a time-only movement assembly was straight forward but confusion over which side is which could be a problem. I had ensured that all parts from each side were placed in separate trays with **good photos for comparison** on re-assembly.

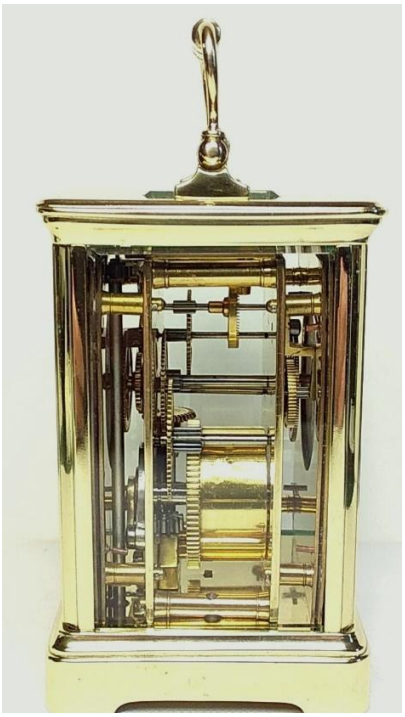
THIS IS ESSENTIAL WITH ANY UNUSUAL, UNFAMILIAR, CLOCK.

Movement assembled and running.

The case was dismantled for cleaning , polishing and lacquering. (Wattyl Clear Lacquer Finish , aka. Incralac is used).

When the lacquer had dried the case was re assembled and the movement installed.





Completed case and movement

Both dials indicate the same time. With the transfer of motion from the primary motion work to the secondary there are two extra transfer gears plus the rear idler motion work wheels all with a smaqll backlash. It is likely that the hands will not always be exactly synchronized. Perhaps at 6.27 they will be the same !

So what could be the purpose of a two-dialed carriage clock?

As Allix stated in his book, it would be suitable for a “partner desk”. Also, it could sit on a cabinet between twin-single beds.

One dial could be set an hour ahead of the other, one Eastern Standard Time, the other Daylight-Saving Time, then simply turning the clock around when appropriate !

Any other applications?

Perhaps, because no one could come up with a justification for having two dials, very few were made and have become rare.

Do you own a carriage clock?

If so, you may have questions about your clock. Such as,

1. When was it made and by whom if it is not signed by a maker?

Many carriage clocks are marked by retailers, such as “Tiffany”. Many times, the maker is not identified. However, the maker can often be identified by the construction style and other tell-tell signs found on the movement.

2. Should I clean the case, or not?

3. And the greatest question of all, what is its value.

This is the hardest question to answer because of the many variables, such as the condition of movement and case, the name and standing of the clockmaker, & the quality and rarity of the clock. We are not licensed appraisers. We can only advise you where to look for comparable clocks so you can make your own "best guess" as to the actual value, always remembering the oldest approach to a value is "Willing Buyer, Willing Seller".

Members of our chapter have many years of experience collecting, researching and restoring carriage clocks. Many are willing to help you answer some of these questions.

This free service is for NAWCC members only.

Email questions and pictures of your carriage clock (one clock at a time, please) to:

Tom Wotruba: (USA) twotruba@sdsu.edu

Doug Minty: (Australia) dminty@optusnet.com.au

Ken Hogwood: (USA) kenhogwood@aol.com

Leigh Extence: (UK) leigh@extence.co.uk

Greg Cook (USA) gcookie16@yahoo.com

Link to the 1stdibs website:
https://www.1stdibs.com/search/?q=carriage%20clocks