Jean (Joannes) BIESTA -- (La Haye 1702 – Paris 1791) *Author: Robert St-Louis, Ottawa, Canada*

A few times in my journey as a horological collector, researcher and writer, the acquisition of a timepiece signed by someone in the distant past has compelled me to research and write about an often-forgotten craftsman. André-Charles Caron[1] was the subject of such an exercice, followed by Pierre-François Le Roy[2]. The most extensive such exercice was two articles and a book in progress on English horologist Henry Sully[3]. Presently, a timepiece signed Biesta allows me a similar historical exercice.

A. The watch

In April 2025, I acquired a watch signed by parisian *horloger* Biesta. It was sold for auction on ebay.fr and the seller appeared to be a *brocanteur* living in Barentin, Haute-Normandie, France.

There were 24 bids from 10 bidders. I was very pleased to acquire it for a reasonable sum, since I was already familiar with Biesta from his earlier research into André-Charles Caron, as well as on french marine timekeepers in the latter half of the eighteenth century.

1 See articles I wrote: https://timetales.ca/07_19_Bulletin_Book_328-339W.pdf and https://timetales.ca/09_19_Bulletin_Book_427-437W.pdf
2 See article I wrote: https://timetales.ca/Pierre-Francois-Le-Roy-Article-NAWCC-Dec-2020_.pdf
3 See my various published and unpublished writings on sully here: https://timetales.ca/sully-main.html

The watch arrived in May 2025 and was as described in the auction listing:

- *Ancienne montre à gousset, mouvement à coq à clé signé Biesta à Paris et boîtier argent massif poinçon vieillard XIX siècle.*
- *Elle est en bon état avec son verre.*
- *La montre est à réviser le mouvement démarre mais s'arrête aussitôt.*
- *Diamêtre du boîtier 45 mm (actuellement 42 mm)*
- *Epaisseur 20 mm (actuellement 18 mm)*
- *Poids 59 grammes*
- *Envoi super protégé*

Early impressions and observations:

The dial is Lépine-style with arabic somewhat slanted numbers (similar to Breguet). Hands are blued steel and slender in the style called "Lépine-Breguet" (small circle near the tips) - the tip of the minute hand is missing a small portion. The movement is in a likely original silver case, exterior is tarnished, the back is guilloché (machine turned).

The inscription on the balance plate reads: Biesta A PARIS No 4221

A marking on outer edge of dial plate (by a repairman?) reads: *N ? aine aout 82* (then *84 86*). Could these by bi-annual service markings for 1782,4,6? If so, it would further help date the watch to around 1780, and these three initial services could have been carried out in Biesta's own shop. Given the comparatively low quality of oils used at the time, a service every two years was usually recommended to new owners, to keep the watch working well and as accurately as possible, taking into consideration the inherent limitations of the verge escapement.

There are numerous other markings on the inner surface of the silver case, some silver stamps to indicate percentage of silver (.800). Some service marks (*Guenet 88*). The case is numbered 23737. There is also a stamp AH inside a losange, which could signify the case maker.

Comparative number of watches produced:

To place the serial number of the Biesta watch (4221) in perspective, here is a comparison of production numbers of three other notable watchmakers of that period, these numbers coming from the research of Adolphe Chapiro[4].

Jean-Antoine Lépine:	1760-1782: 4,200 watches	~190 w/yr, 3.6 w/wk (Chapiro)
	1782-1792: 1,700 watches	~170 w/yr, 3.3 w/wk (Chapiro)
Julien Le Roy:	1730-1753: 3,000 watches	~130 w/yr, 2.5 w/wk (Chapiro)
Pierre Le Roy (fils):	1753-1777: 2,000 watches	~ 83 w/yr, 2 w/wk (Chapiro)
Jean Biesta:	1759-1791: >4,221 watches	~132 w/yr, 1.6 w/wk

Notes on production numbers:

- Jean-Antoine Lépine had taken over the shop of André-Charles Caron in 1761, upon the latter's retirement. Caron's son Pierre-Auguste (later known as Beaumarchais) had turned away from horological practice some years before. Lépine had previously married into the family, marrying Caron's daughter Madeleine-Françoise, which facilitated his take-over. Lépine later set up a manufacturing shop near the Swiss border in Ferney, in partnership with Voltaire, so this likely allowed an increased production of movements that were sold in his store in Paris. He may also have had a store in Geneva.
- Julien Le Roy's production declined after his death in 1753, at which time his son Pierre took over the family name and shop/storefront. Julien was known to have faithful workers whom he treated well. He was also very attentive to details and quality of the timepieces bearing his name, which may have somewhat diminished his production compared to other prolific Parisian horlogers at the time. Julien's name was frequently faked on cheap swiss watches brought into France, but those do not factor into the numbers listed above by Chapiro. The decline in production numbers after Julien's death may be partly attributable to some of the workers leaving after Julien's death, or Pierre focusing some of his own efforts on producing a marine timekeeper during a 20 year period (1750-1770 roughly). Pierre eventually closed the shop around 1777, after having retired in 1773 to a country house in Viry-sur-Orge.
- It is unknown how large some of these watch- and clock-making shops were. There were likely at least an apprentice (or two), one or two journeymen (having completed their apprenticeship, and hired for their superior skills as finishers for example), and a few workers. Many of the watch (and clock) components were acquired from specialized shops producing them for the entire community of horlogers around Paris, and basically assembled, fine-tuned (finished) and sold in the master's shop. Lépine may have had more workers (certainly factoring in people working in his shop in Ferney), because his new watch designs would make it more difficult at first to acquire parts externally, so would have to be made in-house.
- Biesta's shop was likely of a similar size to Julien Le Roy's, based on production numbers. Although several of his clocks appeared to have survived (upon researching results of past

4 Adolphe Chapiro: *La Montre Française*, 1991 Paris; *Jean-Antoine Lépine Horloger,* 1988 Paris.

auctions), but very few of his watches seem to be circulating among collectors and auction houses. This is not unlikely since according to Chapiro, only a very small percentage (2-5%) of watches have survived from even the well-known makers (ie. Le Roy, Breguet, etc.). Biesta does not appear to have been someone as popular during his life and since, however his healthy production numbers (over 4,200 in his long career) attest to the fact that his watches must have been of sufficient quality to attract numerous buyers at the time, who had the option of purchasing watches from very well known makers (ie. Le Roy, Berthoud, Lépine).

- Biesta was a practicing watchmaker before he was granted official status in 1759, which allowed him to sell watches (and clocks) from his own store, with his name on them. One assumes that any watch or clock he made before that, were sold to established makers who sold them with their own name inscribed. Thus one expects that Biesta's numbering system started only in 1759, whereas he had been an active and respected worker for some years before that (see Augarde). For example, André-Charles Caron had sent his son Pierre-Auguste (Beaumarchais) to work with Biesta sometime before 1753. Biesta had at one time been sent a watch by Caron to repair, so he was known as a very capable "mécanicien", as Augarde refers to him. Perhaps Caron wanted his son to learn a few additional skills from Biesta.

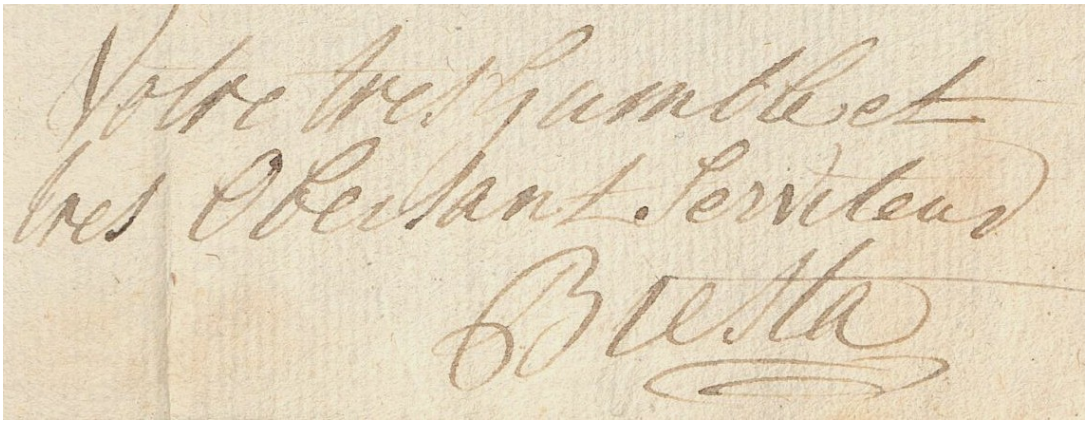
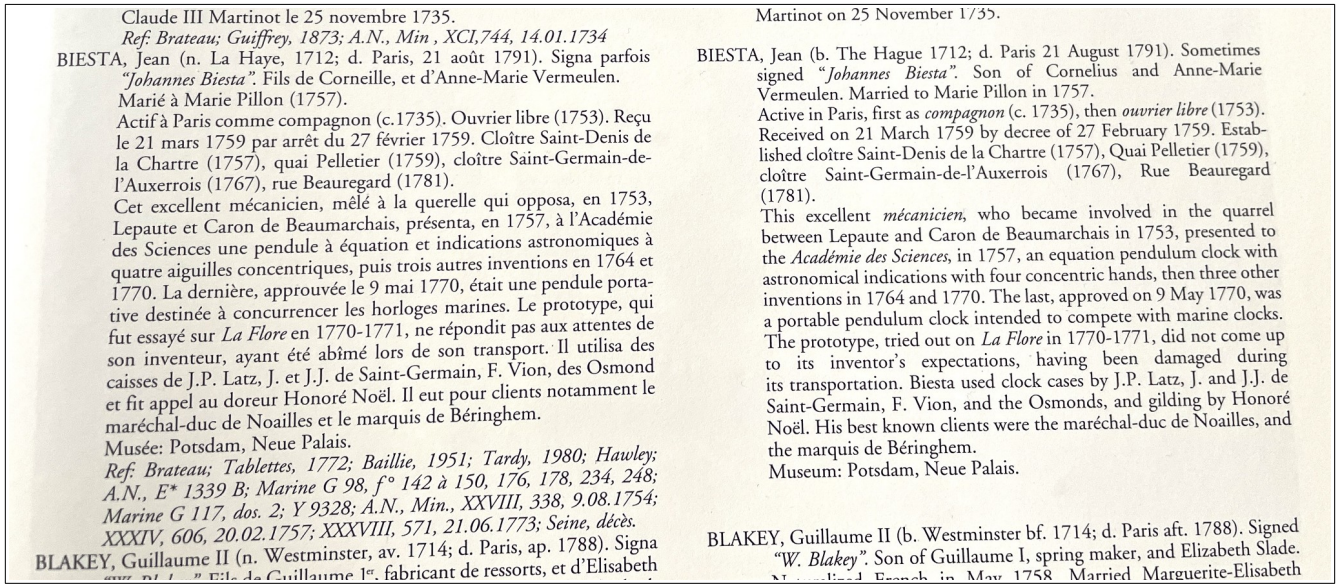


Figure 1: Biesta signature 1768

B. The maker: Jean Biesta – life, work and historical notes

In Les Ouvriers du Temps, Augarde[5] offers this useful information about Jean Biesta:



Claude III Martinot le 25 novembre 1735.
Ref: Brateau; Guiffrey, 1873; A.N., Min , XCI,744, 14.01.1734

BIESTA, Jean (n. La Haye, 1712; d. Paris, 21 août 1791). Signa parfois *"Johannes Biesta"*. Fils de Corneille, et d'Anne-Marie Vermeulen.
Marié à Marie Pillon (1757).
Actif à Paris comme compagnon (c.1735). Ouvrier libre (1753). Reçu le 21 mars 1759 par arrêt du 27 février 1759. Cloître Saint-Denis de la Chartre (1757), quai Pelletier (1759), cloître Saint-Germain-de-l'Auxerrois (1767), rue Beauregard (1781).
Cet excellent mécanicien, mêlé à la querelle qui opposa, en 1753, Lepaute et Caron de Beaumarchais, présenta, en 1757, à l'Académie des Sciences une pendule à équation et indications astronomiques à quatre aiguilles concentriques, puis trois autres inventions en 1764 et 1770. La dernière, approuvée le 9 mai 1770, était une pendule portative destinée à concurrencer les horloges marines. Le prototype, qui fut essayé sur *La Flore* en 1770-1771, ne répondit pas aux attentes de son inventeur, ayant été abîmé lors de son transport. Il utilisa des caisses de J.P. Latz, J. et J.J. de Saint-Germain, F. Vion, des Osmond et fit appel au doreur Honoré Noël. Il eut pour clients notamment le maréchal-duc de Noailles et le marquis de Béringhem.
Musée: Potsdam, Neue Palais.
Ref: Brateau; Tablettes, 1772; Baillie, 1951; Tardy, 1980; Hawley; A.N., E 1339 B; Marine G 98, f° 142 à 150, 176, 178, 234, 248; Marine G 117, dos. 2; Y 9328; A.N., Min., XXVIII, 338, 9.08.1754; XXXIV, 606, 20.02.1757; XXXVIII, 571, 21.06.1773; Seine, décès.*

BLAKEY, Guillaume II (n. Westminster, av. 1714; d. Paris, ap. 1788). Signa *"W. Blakey"*. Fils de Guillaume Ier, fabricant de ressorts, et d'Elisabeth

Martinot on 25 November 1735.

BIESTA, Jean (b. The Hague 1712; d. Paris 21 August 1791). Sometimes signed *"Johannes Biesta"*. Son of Cornelius and Anne-Marie Vermeulen. Married to Marie Pillon in 1757.
Active in Paris, first as *compagnon* (c. 1735), then *ouvrier libre* (1753). Received on 21 March 1759 by decree of 27 February 1759. Established cloître Saint-Denis de la Chartre (1757), Quai Pelletier (1759), cloître Saint-Germain-de-l'Auxerrois (1767), Rue Beauregard (1781).
This excellent *mécanicien*, who became involved in the quarrel between Lepaute and Caron de Beaumarchais in 1753, presented to the *Académie des Sciences*, in 1757, an equation pendulum clock with astronomical indications with four concentric hands, then three other inventions in 1764 and 1770. The last, approved on 9 May 1770, was a portable pendulum clock intended to compete with marine clocks. The prototype, tried out on *La Flore* in 1770-1771, did not come up to its inventor's expectations, having been damaged during its transportation. Biesta used clock cases by J.P. Latz, J. and J.J. de Saint-Germain, F. Vion, and the Osmonds, and gilding by Honoré Noël. His best known clients were the maréchal-duc de Noailles, and the marquis de Béringhem.
Museum: Potsdam, Neue Palais.

BLAKEY, Guillaume II (b. Westminster bf. 1714; d. Paris aft. 1788). Signed *"W. Blakey"*. Son of Guillaume I, spring maker, and Elizabeth Slade. Naturalized French in May 1758. Married Marguerite-Elisabeth

According to Augarde's research, Biesta was born in La Haye Netherlands in 1712. Son of Corneille Biesta (a *traiteur*) and Anne-Marie Vermeulen. One assumes that he was trained in the craft of horology in the Netherlands, later coming to Paris in 1735 (at age 23) as a compagnon, or trained worker who would work in a Parisian horloger's workshop, making or repairing timepieces.

In writing her 2014 book "*Les horlogers des lumières*", Marie-Agnès Dequidt spent a good amount of time researching records dealing with *horlogers* in the notarial archives in Paris (marriage acts, inventories after death, etc.). In her chapter discussing livelihood and different levels of wealth of various *horlogers*, she focuses on records showing the social climb of Jean Biesta as an example. The following is a translated excerpt from her book:

> When [Biesta] signs his marriage contract, in 1757, he resides in the *enclos de Saint-Denis de la Charte*, in the parish of *Sainte-Marie-Madeleine en la cité*, which is a priviledged area. His late father was a *traiteur* (caterer) in The Hague in Holland. His future wife, *majeure*, daughter of deceased horse trader in Paris, lives in the same *enclos Saint-Denis*. She brings into the marriage a dowry of more than 10,000 livres coming in large part from the division of assets of her father, of which 2,000 remain to be paid by her mother who withheld them as a sort of guarantee. The contract stipulates that this amount "*would remain in the hands of the Pillon*

5 Jean-Dominique Augarde is one of the finer French horological writers of our time, and meticulously seeks out historical details about the various *horlogers* that he writes about. Les Ouvriers du Temps (Antiquorum 1996) is a work of impressive erudition and contains a formidable wealth of information.

widow until the said future husband was received as master horloger or had a priviledge in his name sufficient to own a shop of the stated profession, in this city of Paris [or in] other places also priviledged". Why this refusal of work in a priviledged area from a mother residing there herself? We do not know. However what we do know is that the maternal ambition was more than satisfied since, two years later, Biesta achieved the title of master by *arrêt du Conseil d'État* (20 and 27 february 1759). As an indication of a certain prosperity, he appears in the *Tablettes de la Renommée*, living on *rue de la Vieille-Boucherie* in 1773 and in the *cour de Saint-Germain-l'Auxerrois* in 1777, as well as in the *Almanach Dauphin*, especially in years 1776 and 1777. His asset is having presented several things to the *Académie des sciences* and obtained its approval, which must have made his mother-in-law feel very proud.

There are many interesting details in this text.

1. Biesta got married in 1757, at which time he was a mature man of 45 years old. One assumes that his wife was considerable younger (but at least 21 as she is described as *majeure*), as she was to later give birth to at least one son.
2. At that time Biesta was not yet an officially recognized *horloger* by the Parisian guild, which means that he could not own a store in which he could sell timepieces produced and signed by him. That was not uncommon as not all trained *horlogers* either had the starting capital or wanted to have the trouble of running a shop and store, deal with employees and customers, and pay annual fees to the Guild. Also, some (like Biesta) were excluded because they had been trained outside of Paris. Some preferred to just be a *compagnon* (journeyman) working in an approved *horloger*'s shop, or a "free worker" on their own premises as a skilled producer of watch or clock components or entire movements, which they would sell to established *horlogers* who would finish them, put them in a case, put their names on them, and sell them to customers. Many of these *horlogers* lived and worked in what were called *lieux privilégiés* (priviledged areas) which were outside the control of the Guilds. Biesta had likely worked in such an area for many years before getting married, and made a good living building and repairing parts and movements for established *horlogers*. It was known that André-Charles Caron had sent him at least one watch for such repair work, and even had his son Pierre-Auguste working with Biesta for a while in the early 1750's, possibly to learn additional skills from the crafty horologist.[6]
3. Biesta's mother-in-law evidently felt that becoming a recognized *horloger* by the Parisian Guild was a desirable thing for her son-in-law (and her daughter), so withheld a portion of the dowry to encourage Biesta to take the necessary steps to do so, which in fact took place in February 1759. Because Biesta had been trained in the Netherlands prior to arriving in Paris as a worker, his non-Parisian apprenticeship was not recognized and he could not aspire to become a recognized horloger except through a process named *arrêt du Conseil d'État* (essentially, approved by the King). This required the *horloger* to make a request through a notary, and pay a considerable sum (as high as 1,000 livres) if accepted. Becoming a recognized *horloger*

6 This caused some controversy in 1753 when not only did Caron accuse Jean-André Lepaute of having stolen his design for a double-virgule escapement, but Biesta also came out and claimed that Caron had stolen it from him.

allowed to sell timepieces with one's signature on them, but also enabled any future son also becoming a *horloger* (this was not to happen in Biesta's case, as it turned out).

4. Biesta and his family appear to have moved a few times after marriage, which was not uncommon as his family and business grew, eventually requiring larger accommodations, or to relocate closer to the more common areas where *horlogers* worked, and more importantly, where customers would frequent their stores.

<u>Presentations by (and correspondence from) Biesta to the Académie des Sciences de Paris.</u>

During the eighteenth century, when science and technology were advancing in a multitude of directions, innovators and inventors of all kinds interacted with the Académie royale des sciences in Paris (established in 1666 by Minister Colbert under Louis XIV) to communicate their inventions, seek the Académie's feedback or opinion on their usefulness, originality, and relevance to the French industries and economy.

It was also a way for innovative artisans and thinkers to receive recognition and intellectual ownership for their work, in an era where copyrights did not really exist, and where many competitors were quick to steal ideas from others and claim them as their own, especially if there was a financial incentive to do so, there being intense competition among artisans to differentiate themselves from the rest and attract some of the rich clientele that sought out modern and innovative timepieces, for example.

Like many others, Biesta interacted with the Académie in this manner, and information resulting from these interactions would be communicated not only by the annual reports of the Académie, but also by the press of the day (Mercure de France in particular), where citizens followed the developments of quickly evolving trades and technologies (not much different from what we do today).

In order to thwart the fraudulent stealing of their ideas, innovators like Biesta were often intentionally vague about some aspects of their new product, or at times did not include detailed diagrams with their submission, in order to try to protect details of their ideas, for some time anyway. Once the new watch or clock was put out into the market, competing *horlogers* could obviously take one of these apart and copy the design in their own products. One prominent horloger of that period who was not vague and actually quite open about his improvements to the technology was Julien Le Roy, which is why he is rightly given credit for having played a strong role in elevating the quality and relevance of French horology in the eighteenth century.

The debate that surrounded the invention of the *double-virgule* escapement in the early 1750's is a great example of what was described above: several competitors (including Biesta) claiming to have been the inventor, the Académie playing a clear role in determining who should be credited for the invention, and the Mercure de France publishing letters from the various participants, and findings from the

Académie, for a readership that was both interested in the subject, and entertained by the opposing claims of the participants.[7]

1754

Double virgule escapement, claiming ownership of the invention instead of Caron son. The Académie did not find in his favour. Explained in detail by the Académie in the Mercure de France edition of April 1754.

1757

Equation clock showing seconds, minutes and hours of mean time, as well as hours and minutes of real time, using four concentric hands. The equation movement differed from ones previously used, in that less parts are used to arrive at the same results. However the Académie were concerned that an increased rotations of the intermediary wheel may result in a problem due to friction.

1764

A new way of building watches to facilitate repairs to the escapement without having to take the whole watch apart: by grouping the potence, counter-potence, the cock, the coulisse, the rosette, the balance wheel, the piton and the spiral spring, onto a steel plate attached by three screws to the brass plate containing the name, itself being pierced to allow access to the crown wheel, the potence and counter-potence. There was no cost to add this to a new watch made by him, but to retrofit to existing watches the cost was two louis for a simple watch, three louis for a repeater watch.

Also presented was a way to easily incorporate to pendulum clocks the ability to show real time, by modifying them for a cost of eight louis.

1768

Sealed letter to protect against future copies of his developing design (a not uncommon practice at the time, since there was no way to establish copyright of ideas and inventions) of a clock movement that would preserve escapement in a situation of troubled seas, that involved also incorporating a second movement of great oscillation in the form of a cross. [This is difficult to understand given lack of diagrams, but seems to represent early thinking on the design of the pendulum clock presented two years later, in 1770, and which is assumed to have been incorporated in Biesta's ill fated marine clock subjected to sea trials in 1771.]

1770

A pendulum clock that always remained in escapement regardless of the various positions of the frame, which according to the Académie "seems new and ingenious, and could be useful in many situations."

Also presented was a portable two faced (sun) dial for timing watches that shows both mean and real times, which the Académie indicates "could be very well received by the public."

1773-78

Several pieces of correspondence to and from Biesta and the Marine Ministry as well as the Académie, to be compensated for his marine clock destroyed during sea trials in 1771 (see

7 See articles I have written on André-Charles Caron for a description of the double-virgule story.

section below). Final document (dated 1778) suggests that he was finally paid 2,400 livres as compensation.

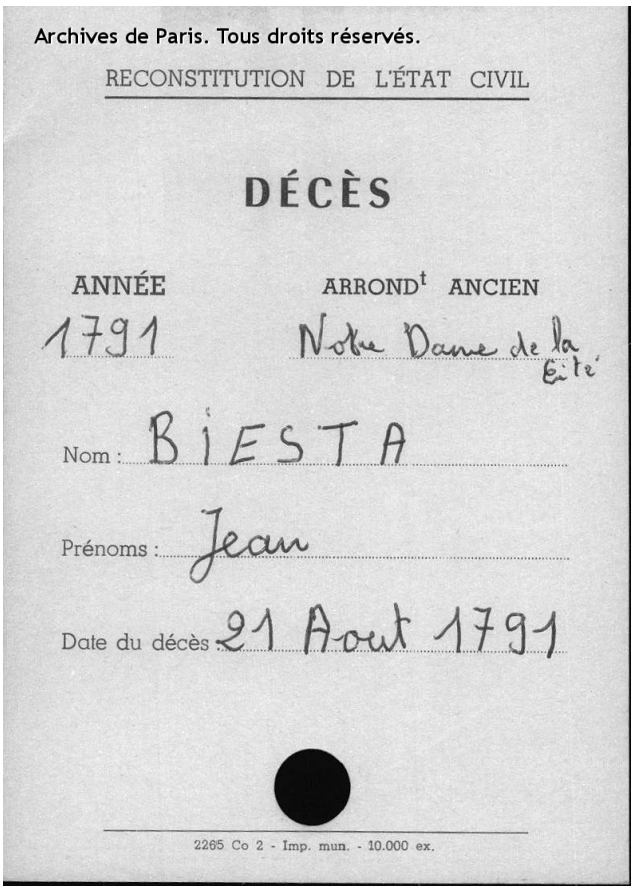
1783

Moyens de tirer partie d'une petite rivière pour faire aller de grands moulins… [This indicates that Biesta's mechanical inventions went beyond just horology, as André-Charles Caron had done before him. Some clockmakers at that time were also mechanics in other areas.]

1787

Reference in the Archives of the Académie des sciences of a correspondence between Biesta and Jean Paul Grandjean de Fouchy of the Académie (subject unknown).

Death of Jean Biesta


Archives de Paris. Tous droits réservés.

RECONSTITUTION DE L'ÉTAT CIVIL

DÉCÈS

ANNÉE 1791

ARROND^{t} ANCIEN Notre Dame de la Cité

Nom : BIESTA

Prénoms : Jean

Date du décès 21 Aout 1791

2265 Co 2 - Imp. mun. - 10.000 ex.

As noted by this reconstituted death notice, Jean Biesta died on 21 august 1791 in the parish of Notre Dame de la Cité, at the very heart of Paris. 1791 of course is one of the early years of the French Revolution, and many things were occurring before and after Biesta's death.

This helps bring context to the social milieu the family found itself during Biesta's last days, and after his death. It could in part explain why the Biesta horological story comes to an end there: it was not a time when Parisians were thinking about buying new watches or clocks. Some of the events at that time are summarized below:

21 Jun 91 – arrest of Louis XVI in Varennes
17 Jul 91 – crowd shooting in Champ de Mars
21 Aug 91 – death of Biesta
20 Apr 92 – losing war started against Austria
Jul 92 – Prussia joins Austria, Paris threatened
Sep 92 – massacre of aristocrats in Paris
22 Sep 92 – the French Republic is proclaimed
Jan 93 – Louis XVI is executed
1793-95 – reign of Robespierre (The Terror)

Genealogical information on Biesta and his family:

Genealogical family trees on Geneanet (which can be suspect) indicate the following:

- Married in Paris to Marie Pillon in 1757 (source: Augarde); they had two sons:
  - Antoine Gabriel Biesta – born 1775 (18 years after Biesta's marriage? Probably an error in the genealogy), married 30 Nov 1809 to Aglaé Maitre (two daughters Adelaide Emeline Fanny 1810-1890 and Aglaé b.1812)
  - Jean Marie Philippe d. 1837 – profession "receveur de rentes" (loan or rent collector), married Marie Thérèse Françoise Magnee; they had two sons:
    - Adolphe-Auguste Biesta 1806-1841 (notary), married to Claudine Joséphine Octavie Grellet, two children: Marie Thérèse Sophie Biesta b. 1840, Jean-Baptiste Adolphe Charles Biesta (1842-1897)
    - Hypollite Guillaume Biesta (1811-1870) married Adelaïde Emeline Fanny (? see above, probably an error in this genealogy)

Other genealogical sources consulted in a cursory fashion include the following:

- Famillesparisiennes.org (which tries to reconstitute Parisian civil records destroyed by the Communards by fires in 1871)

  The only record on deals with Antoine Gabriel Biesta and his possibly the birth of his daughter Aglaé Emilie on 19 november 1821. Nothing on Jean Biesta unfortunately, which is not surprising since his birth records would be in the Netherlands.
- Paris archives état civil reconstitué

  Several documents, including Jean Biesta's death certificate in 1791.
- Léon de Laborde vol. 13 BEV-BIL, Répertoire alphabétique d'artistes et d'artisans

  No entry for "Biesta" unfortunately. There could only have been one, Jean was the first to relocate to France from the Netherlands, and none of his children followed in the same path (horloger).

If we single out two descendants from the geneanet list above, they offer interesting historical facts that will be described herewith: Hyppolite Guillaume Biesta (1811-1870) – Jean Biesta's grandson; Jean Baptiste Adolphe Charles Biesta (1842-1897) – Jean Biesta's great-grandson.

1. Jean Baptiste Adolphe Charles Biesta (1842-1897)

Jean Baptiste Biesta, the great-grandson of Jean Biesta, was a notary, as his father had been. There is nothing remarkable about him in the online records, save the way he died, which was tragic and historic. He died on 4 may 1897 during the fire of the *Bazar de la Charité*. At this event were shown some early "moving pictures", and the projectors at that time used ether. Some of the ether vapours caught fire, which quickly sent flames throughout the building where the film was shown, killing most

of the people in attendance who were trapped inside, including the duchess of Alençon (the sister of *Impératrice Sissi*). There were 125 victims of which 118 were women. Biesta was not named immediately but was one of the seven men who died in this tragedy.

2. Hyppolite Guillaume Biesta (1811-1870)

Hyppolite Biesta is by far the most famous of the Biesta descendants. He is said to have started out as a notary clerk (probably in the practice of his brother Adolphe Auguste). From there, his career and life took on much greater proportions, very much tied to some of the political and social upheavals that France went through in the turbulent nineteenth century.

- He fought in the barricades in Paris in July 1830, the revolution that overthrew Charles X, and brought to power his cousin Louis Philippe (who would himself be overthrown eighteen years later in the revolution of 1848 which brought about the Second Republic under Napoléon the third)
    - He was given a medal that month, and a Légion d'Honneur in August 1833.
- In 1841 Biesta became co-manager of a foundry producing both French and Foreign type characters for printing presses
    - In 1842 this company became Biesta Laboulaye et Cie.
- In 1848, he actively participated in the fall of Louis Philippe and the arrival of Louis-Napoléon Bonaparte the third. As a reward he was put in charge of the Comptoir d'Escompte (CNEP), a lucrative role he kept until his death.
    - In 1849, with his growing wealth he made several real estate purchases (castles, land, buildings, farms).
- He played a minor indirect role in the annals of the Statue of Liberty.
- His mentors were the Péreire Brothers, Sephardic jews who started banking in Paris under the Rothschilds.
- Biesta was influenced by Saint-Simon, a thinker who promoted the idea of an easily accessible system of credit to counteract aristocratic privileges.
- He was a key player in creating a national system of banks in France, which was extended to a network of banks in the Middle East and Asia
- Biesta died following an amputation of a limb incurred during the siege of Paris in 1870 by the Kingdom of Prussia – as part of the Franco-Prussian war
    - On 2 September 1870 the French forces were defeated and Napoleon III was captured
    - Hypollite Biesta died on 15 October.

Jean Biesta's horological workshop and store had likely closed before his death in August 1791, during the early throes of the 1789 French Revolution. It is likely that his offspring was not interested to continue in this family tradition of *horloger.* His son developed a role in finances, one of his grandsons became a respected notary, and the other grandson had the illustrious career just described. Quite probably, Biesta's successful watch and clock business allowed him (similar to Julien Le Roy and his

four sons) to provide very good education to his sons, which set his descendants on very profitable career paths amid the further political turmoils and great opportunities of nineteenth century France.

C. The story of Biesta's Marine (longitude timekeeper) clock.

During the eighteenth century, many clockmakers tried to find a solution to the problem of determination of longitude at sea. Efforts had been made by Christiaan Huygens in the late seventeenth century, as well as Henry Sully in the first quarter of the eighteenth, but the state of horological technology did not allow a viable solution until the middle of the century. In England, John Harrison famously worked for decades to finally come up with a large watch that proved that a timepiece could accurately detemine longitude, thereby winning the substantial English prize. In France, horologists like Pierre Le Roy (son of Julien) and swiss-born Ferdinand Berthoud had been working on a solution, independent of Harrison, since around 1750, and each arrived independently at working clocks around 1770, Le Roy being awarded recognition by the Académie royale des sciences, while Berthoud was ultimately awarded the contract to build such marine clocks (or watches) for the French navy.

Evidently, Jean Biesta had also been working for some time at developing a marine timekeeper, and submitted a clock he had favourably presented to the Académie, to the French government who was going to carry out more sea trials in 1771 of various marine timekeepers, including watches by Le Roy and Berthoud. Biesta submitted a clock, which he argued would be a more reliable timekeeper than the watches of his competitors.

Biesta's clock likely featured a novel construction which he had presented to the Académie in 1770[8]. In the Académie's short writeup, it is stated that:

> "in ordinary clocks, the movement is fixed to the case. In that of Mr. Biesta, the movement is, one could say, independent; it turns freely on two pivots placed exactly in the extension of the escape wheel axis, these two pivots extend to the exterior surfaces of a type of chassis, qui resembles the *cage* (frame) of a very small pendulum clock, and turn in two pieces fixed to the interior of the movement plates. This small frame contains internally the verge and anchor, and externally the suspension of the pendulum; from what we have just said, it is easy to see that if we incline the cage to one side or the other, the movement of the pendulum clock will always right itself in the vertical; and since it always turns around the same point, the relation between the anchor and the escape wheel teeth will not be changed, and the clock will remain in escapement, and continue to run. We need to add that to bring the small frame more forcefully to its real position, it contains a large frame of copper, in which the movement can come and go, and which at its bottom has a considerable thickness in order to have more weight. This construction of Mr. Biesta to allow a pendulum clock to always remain in escapement

8 Machines ou Inventions approuvées par l'Académie en 1770

> regardless of the various positions of the frame, seems new and ingenious, and could be useful in many situations."

It is not very easy to fully appreciate the description (in French) that the Académie writer is trying to convey, especially with the lack of an illustrating diagram. But the movement design seemed to have impressed the Académie, which probably encouraged Biesta to include it in a clock case to be used during upcoming sea trials being planned the following year for marine watches by Pierre Le Roy, Ferdinand Berthoud, and a watchmaker named Arsandaux. Biesta no doubt contacted the organizers of this sea trial and arranged to have his marine clock delivered to them for loading onto the fregate La Flore at the port of Brest, in October 1771.

Unfortunately, Biesta's clock was damaged in transit by coach from Paris to Brest. According the the Académie,

> "*one of the lateral lead weights of the clock had moved and caused damage; some parts were broken others only damaged, the wheel train appeared unscathed.*" Some repairs were made by a local horologist named Lansquenay, and later reviewed by one of Biesta's workers who had been quickly sent to help address the matter. The clock was deemed ready to go on ship for the trials, and installed on the ship according to strict instructions given by Biesta: "his clock had been placed toward the middle of the ship, quite close to the great mast; it was suspended underneath the deck using a large bolt with a nut, that Biesta had sent for this purpose, such that the clock's vibrations were perfectly free … Biesta's student found that his master's instructions had been perfectly carried out. The ship set sail on October 29 (1771); on the 31st, going to compare the time on the clock, we found it in pieces: there had been some turbulence at sea, and the rocking of the ship had made the bolt turn, the nut had let go, and in falling the machine was broken. Thus the trials of Mr. Biesta's clock only lasted four days; but this sufficed to prove that this machine could not give daily time of a ship in longitude, even in the precision of two degrees or fourty leagues under the line. Moreover, the lack of proper design and of execution of this clock had not given us a very favourable expectation."

This experience must have been quite disappointing for Biesta, who had no doubt been working on his marine clock design for some years, hoping to gain favour with the French navy, and possibly generate lucrative contracts to produce many such clocks for the navy's ships. Instead, Berthoud ended up being the one chosen to produce marine timekeepers, to the chagrin of Pierre Le Roy, whose timekeepers had actually been applauded by the Académie as being the most reliable.

Starting as early as 1772, Biesta sought compensation from the French Navy for the destruction that his valuable clock had suffered on the ship. Unfortunately for him, his attempts were met with resistance and obfuscation by the French government, in part passing the matter between the Navy department, and the Académie des sciences, neither of which were prepared to pay the damages he sought (around

1,000 livres, which he claimed he could have sold the clock for, had it not been irretrievably damaged on the way to, and on board, the Navy ship).

Archives of the French marine ministry, and of the Académie des sciences, contain several original letters written by Biesta, as well as the responses from the French authorities and it seems that Biesta continued to unsuccessfully seek compensation as late as 1778. A final correspondence in the file at ministry of Marine archives, dated 19 october 1778, appears to indicate that Biesta was finally compensated 2,400 livres in 1778 for the destruction of his marine clock in 1771 during the sea trials.

Unfortunately, this episode of Biesta's career and work, which under different circumstances could have been a crowing achievement of the long career of a respected and important horological master, became a frustrating exercice, and ultimately a footnote in the history of French horological history, supplanted by the success in reputation for the efforts of Pierre Le Roy, and in remuneration for those of Ferdinand Berthoud. There is no indication that Biesta pursued any further development attempts in this area, as his career and business wound its way toward his death in 1791, about 13 years after the last letter on record of his still seeking compensation.

Below are some summaries of correspondence between Biesta and the Navy ministry, over several years. In one of the last documents, Biesta is described as "*a perfectly honest man, full of zeal, who would have wanted to do better*" (Pingré, 3 october 1778).

Épreuves de diverses montres marines. (MAR/G//98)
Reference codes: MAR/G//98, Dossier 31770-1774
Nouvelle épreuve dans les mers d'Europe, d'Afrique et d'Amérique des montres des sieurs Berthoud et Le Roy.

(This archive encapsulates several documents which can only consulted in person at the National Archives in Paris. However from a summary of the documents this summarized chronology of Biesta's attempt to have his clock assessed at sea, along with marine watches by F. Berthoud and P. Le Roy:)

- Fol. 142. Paris. Lettre du sieur Biesta, horloger, au ministre : demande d'expérimentation d'une pendule portative de son invention. 2 fol. 29 juin 1770.
- Fol. 146. Paris. Lettre du sieur Biesta au ministre : transmission à celui-ci du document ci-après ; aide matérielle sollicitée par le sieur Biesta afin de construire et de mettre au point sa pendule portative. 1 fol. 27 mai 1770.
- Fol. 147. « Mémoire au sujet d'une pendule ambulatoire relative à la longitude sur mer, présentés à l'Académie royale des Sciences, et le jugement de ladite Académie suivant son certificat du 9 mai 1770... » par le sieur Biesta, marchand-horloger à Paris : description de cette pendule portative et de ses avantages ; opinion élogieuse de l'Académie sur cet instrument. 2 fol. S. d. [1770].
- Fol. 149. Paris. Lettre du sieur Biesta au ministre : demande de subvention afin de poursuivre la mise au point de sa pendule. 1 fol. 6 juin 1770.
- Fol. 150. Paris. Lettre du sieur Biesta au ministre : envoi à Brest d'un ouvrier chargé de réparer sa pendule portative ; supériorité de celle-ci sur les montres marines. 1 fol. 14 octobre 1771.
- Fol. 176. Brest. Lettre du Père Pingré, du chevalier de Borda et du lieutenant de vaisseau de Verdun de La Crenne au ministre : début du programme de vérification des instruments destinés à être expérimentés à bord

de la *Flore* ; graves avaries subies au cours de son transport par la pendule du sieur Biesta ; horloges marines envoyées par les sieurs Le Roy, Arsandaux et Berthoud ; embarquement de ces horloges sur la *Flore* ; arrivée attendue de la chaise marine du sieur Fyot. 2 fol. 7 octobre 1771.

- Fol. 234. Requête adressée au ministre par le sieur Biesta : demande d'indemnité pour le bris accidentel de la pendule construite par cet horloger et embarquée à bord de la *Flore.* 1 fol. S. d. [juin 1773].
- Fol. 248. Paris. « Observations faites, tant à bord de la frégate du Roi la *Flore* qu'en différens ports ou rades d'Europe, d'Affrique et d'Amérique, pour la vérification des instrumens et des méthodes relatives à la détermination des longitudes sur mer et à d'autres objets concernant la navigation », par le chevalier de Borda, le lieutenant de vaisseau de Verdun de La Crenne et le Père Pingré : mission confiée à la frégate la *Flore* ; octant et sextant anglais ; montres marines ; pendule du sieur Biesta ; montre du sieur Arsandaux ; montre du sieur Berthoud ; montres marines du sieur Le Roy ; mégamètre de M. de Charnières ; lunette de l'abbé Rochon ; chaise marine du sieur Fyot ; remarques sur les méthodes de détermination des longitudes à la mer ; relèvement des côtes et des sondes ; tenue du casernet ; utilisation du loch ; connaissance des courants ; usage du compas de variation. 55 fol. 8 mai 1773.
- Fol. 302. Paris. Lettre de M. Grandjean de Fouchy au ministre : transmission à celui-ci du document ci-dessus (cf. fol. 234) ; indemnité sollicitée par l'Académie des Sciences en faveur du sieur Biesta. 1 fol. 26 juin 1773.

Archives Nationales – Fonds de Marine

Reference codes: MAR/C/7/29, dossier 39

Biesta, horloger, 1773-78

Demande de dédommagement pour une pendule brisée sur la frégate la Flore en 1771.

In a letter dated ---- Biesta stated that since 1772 he had tried to be paid for a pendule d'observation (observation clock) sent by order of the past King (Louis XV) to Brest, and which was broken and disabled on the frigate La Flore. Biesta was frustrated by the French government stating that it was not the responsibility of the Marine ministry (in charge of sea trials of longitude clocks on La Flore in 1771 – in addition to Biesta's clock, there were also marine watches by Berthoud and Pierre Le Roy), since it was the Académie des sciences

D. Biesta clocks in museums and at past auctions:

Below is the top portion of the large floor standing clock at the Postdam Neues Palais museum, the case made by famous parisian *ébéniste* J.P. Latz, the clock made by Biesta. The museum date it at 1754, which is probably a bit early. It is an example of the very rich and sumptuous clocks that Biesta produced, outside of his prolific watch production.

A few clocks by Biesta have sold at auction over the last several years. The examples below were obtained through Barneby's site (Price Database of realized sales):

8 May 2021: Jean Biesta Master, rec. in Paris 1754-89. A large Louis-XVI-Cartel Clock. Paris, ca. 1780. Gilded Bronze. White dial, labelled 'Biesta A Paris'. Movement platine marked 'Biesta A Paris', strike on half and full hour on bell, spring suspension, with pendulum. H. 78 cm, B. 42 cm. Germany (Auktionshaus Stahl), 2,400 Euros.

18 Sept 2019: PENDULE D'ÉPOQUE TRANSITION En bronze ciselé et doré, le cadran émaillé blanc signé "BIESTA A PARIS", le mouvement signé "Biesta AParis" inscrit dans un boîtier surmonté d'un panier fleuri Jean Biesta, reçu maître en 1759 H. : 39,5 cm (15 ½ in.) l. : 23 cm (9 in.) Provenance : Collection Altounian-Rousset A Transitional ormolu mantel-clock, the dial and the movement signed by Jean Biesta. France (Artcurial) 2,800 Euros

15 Dec 2017: Important cartel d'applique en bois peint de forme violonée ; à décor de fleurs et feuillages ; ornementation de bronzes dorés à feuillages et rocailles ajourées. Le cadran signé Joannes Biesta. Estampille… France (Drouot) 2,875 Euros

17 Apr 2013: A LOUIS XV ORMOLU-MOUNTED VERNIS MARTIN STRIKING MANTEL CLOCK\nBIESTA, MID-18TH CENTURY\nCASE: the waisted case with painted floral decoration against a yellow background, a bird to front, foliate scroll mounts to edges and surrounding the aperture to base, pierced foliage to side panels, on bracket feet, conforming base DIAL: the white enamel dial with Roman numerals and Arabic five-minute marks, signed BIESTA, A PARIS pierced gilt-brass hands, sweep seconds hand MOVEMENT: twin barrel movement, recoil anchor escapement, with silk suspension, count wheel strike to bell\n23 in. (58.5 cm.) high; 13 3/8 in. (34 cm.) wide; 7 5/8 in. (19.3 cm.) deep. UK (Christie’s) 2,750 GBP

28 June 2011: A LOUIS XVI BRONZE STRIKING CARTEL CLOCK\nBIESTA, PARIS. LATE 18TH CENTURY\nThe white enamel dial signed 'BIESTA/A PARIS', cut brass hands, twin barrels movement with converted anchor escapement and countwheel strike on replaced bell, formerly quarter-striking and repeating; pendulum, winding key\n32¼ in. (82 cm.) high. UK (Christie’s) 2,250 GBP

17 May 2005: A LOUIS XV ORMOLU-MOUNTED CORNE VERTE BRACKET CLOCK**\nMID-18TH CENTURY\nThe glazed circular ormolu dial with foliate scrolls inset with Roman and Arabic chapters and inscribed 'JOHANNES BIESTA A PARIS', the movement signed 'MANGEANT A PARIS', above a mount with Venus leaning on a putto-supported dolphin shield, within a shaped case with C-scrolls and rocaille surmounted by a female figure holding a torch and on a conforming tapering bracket, the mounts associated\n50 in. (127 cm.) high. USA (Christie’s) 19,200 US (Note: interesting that dial signed Biesta and movement signed Mangeant)

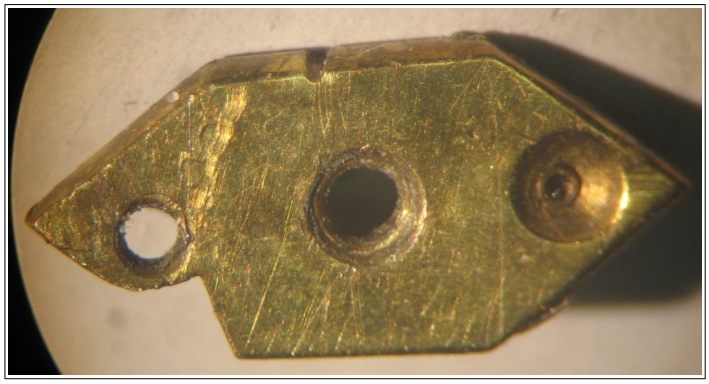
30 Oct 1996: A LOUIS XV STYLE ORMOLU-MOUNTED CHINESE FAMILLE VERTE PORCELAIN CLOCK\nthe porcelain late 18th century\nThe circular enamelled dial with Roman and Arabic chapters signed Biesta A Paris within a berried foliate-cast surround surmounted by a dragon and supported by a famille verte elephant base standing on a shaped plinth cast with flowerheads and rockwork with pierced scrolled feet, the elephant previously fitted with a candleholder\n31½in. (80cm.) high, 19¾in. (50cm.) wide. USA (Christie’s) 32,200 USD

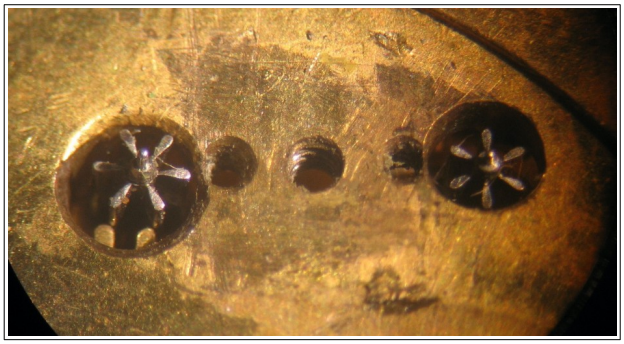
No Biesta watches show up in the Barnaby’s search results on “Biesta”.

Appendix A: Further examination of the Biesta watch.

The hinge pin having been removed, the movement was separated from the case and could be more easily examined from all angles. Asterisks in parentheses indicate work needed to repair, severity from one (light) to three (more involved).

- Only one pin present holding the dial to the plate (*)
- Intermediate wheel off axis, and is likely what jammed the movement (the fusee is half wound so there is tension on the spring – the chain appears good and connected at both ends) (***)
- The balance wheel appears to spin well, so the balance spring and pivots are likely good
- The balance cock features a brass cockerel topped by a separate steel cockerel
- Removing the balance wheel, the pin holding the balance spring comes out away from the adjusting silver disk; pressing the pin in the other (usual) direction appears to have loosened the square holder somewhat (**)
- The verge is short, to accommodate a small diameter crown wheel, and both pallets (angled at roughly 100 deg.) are good, as are the pivots.
- On removing the hands and dial, it became evident what was the main problem with the watch: there is a double bridge to terminate the pivots of both the intermediate wheel and the contrate wheel. The bridge end for the contrate has a well repaired silver soldered plug with hole for the pivot. The other end of the bridge is missing something to provide a suitable pivot hole for the intermediary wheel, and thus will need to be repaired. (***)





- Disassembled the rest of the watch to examine the condition of the wheels and pivots. The spring being under tension and not adequately secured, some of the wheels spun when the two plates were separated. No damage to the wheel teeth or pivots. The fusee chain hook at the fusee end broke however when the spring pulled back the chain to the end, and will need to be replaced. (**)
- There was an unusual but functional tapered steel pin holding one of the watch pillars (to correct a damage pillar end no doubt)

- Overall the movement and components is relatively clean (compared to other movements from that era examined previously). So it had to have been serviced in the last century or so, but the watchmaker failed to repair the fatal flaw with the double bridge, which is a mystery, as the watch could not have run without that. Someone wound it halfway at some point to try to get it to run, but the intermediate wheel jammed because it was not secured vertically, and that was the end of the watch ever running.
- The potence and counter potence appear good, as is the crown wheel, arbour and pivots.
- Compared to the author's Pierre-François Le Roy movement from ca. 1730 (ie. 50 years before the Biesta), the diameter, height and number of teeth on the Biesta crown wheel differ markedly:
  - Le Roy crown wheel: 15 teeth, 8 pinion, crown diameter 8 mm, height 2 mm
  - Biesta crown wheel: 13 teeth, 8 pinion, crown diameter 4.5 mm, height 1.5 mm
- The watch is now fully apart awaiting cleaning, repair, lubricating, and reassembly operations.

Appendix B: Comparing watch escapements: Pierre-François Le Roy and Jean Biesta:

The information below provides a useful little example of some aspects of watch construction evolution in the mid 18th century, in France. Lépine, Breguet, and all those (french and swiss) who followed, would take it to another level later that century (and early 19th), setting the basis for the "modern watch".

Pierre-François Le Roy (1687 Tours - 1762 Paris) was the brother of famous french maker Julien Le Roy, and a very fine maker in his own right. I acquired a watch movement of his (which I estimated to have been made around 1730) some years ago and wrote an article about the Le Roy family, and this watch in particular, in NAWCC Bulletin in December 2020:

https://timetales.ca/Pierre-Francois-Le-Roy-Article-NAWCC-Dec-2020_.pdf

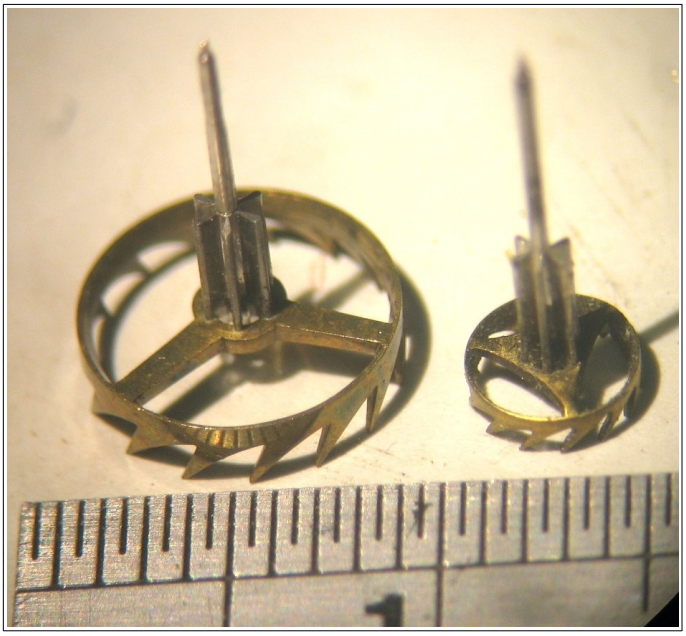
An interesting written exchange was published between 1752 and 1754 in the Mercure de France, involving Pierre François and a lesser-known Parisian horloger named Godefroy (who had apparently briefly held the title of horloger to the Duke of Orleans). It all started with the publication in June 1752 of a letter that Le Roy had sent earlier to someone in the Bordeaux Science Academy about a watch that Pierre-François had presented to the Académie royale des sciences on August 18, 1751. In that letter, Le Roy expressed his displeasure at the current trend for thinner watches (which were becoming popular with customers since the watches were not as bulky to wear). As Pierre-François convincingly explained, the design considerations that went into a flatter watch, most notably the reduction in the diameter of the important crown/escape wheel, invariably resulted in a watch that was less able to run well and reliably over a long period of time. In a way, Le Roy revealed himself as somewhat of a traditionalist (in this case favoring the older verge escapement design) and suspicious about the ability to produce reliable and well-constructed thin watches.

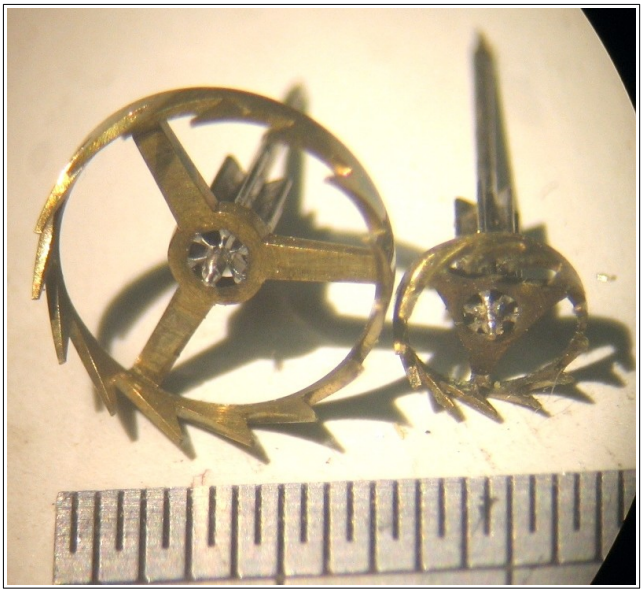
As indicated earlier in this article, Biesta is a notable maker in Paris, and although several of his clocks have survived, seemingly very few of his watches have come down to us. In 1753-4 Biesta had been involved in the dispute between Lepaute and Caron fils (later known as Beaumarchais) about who had invented the double-virgule escapement. In 1770 he had also submitted a marine clock of his own design for sea trials, but the clock was damaged in transit by coach and did not work as Biesta had hoped. He had also presented to the Académie royale des sciences, in 1757, "an equation pendulum clock with astronomical indications with four concentric hands" and evidently was, as Augarde described him (in his exceptional book Les Ouvriers du Temps) "an excellent mécanicien".

It could seem surprising that a fine maker like Biesta was still making verge watches late in his career, as a few other escapements were by then available and in use, notably the cylinder. But the venerable and reliable (though not as accurate) verge watch still had its supporters on the Continent, both among makers and owners.

In the photos below, the larger escape (crown) wheel is by Pierre-François Le Roy (ca. 1730), and the smaller one is from a verge watch by Jean (Joanne) Biesta (1712 La Haye -1791 Paris) that I recently acquired. Based on the rather high serial number on the watch, I estimate it to date from a later time in Biesta's career, so have estimated it dating around 1780. Thus, around a half-century separates these two verge-fusee watches. Their measurements are:

- Le Roy (left) - 15 teeth; 6 pinion leaves; crown is 8 mm diameter, 2 mm high
- Biesta (right) - 13 teeth; 6 pinion leaves; crown is 4.5 mm diameter, 1.5 mm high



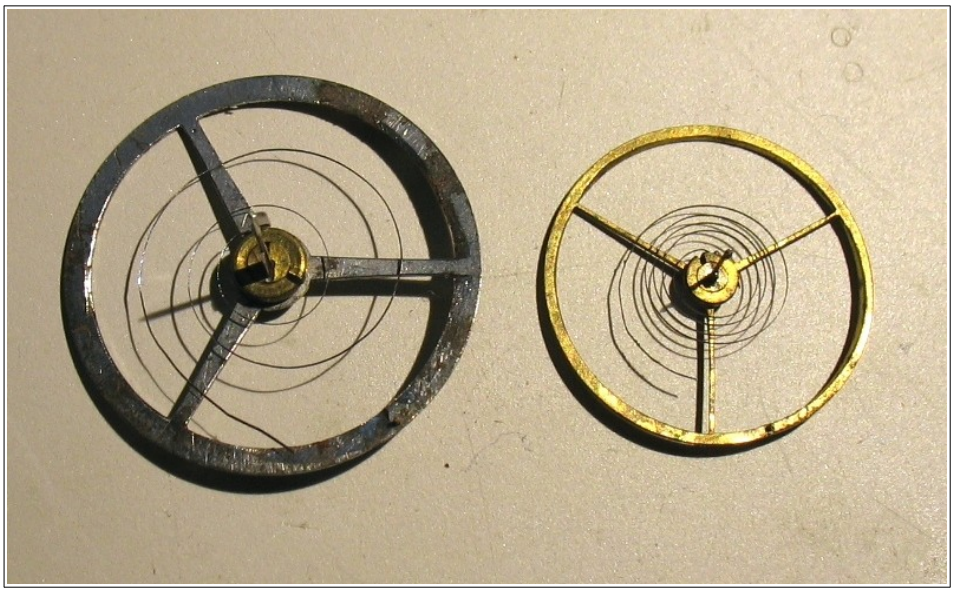


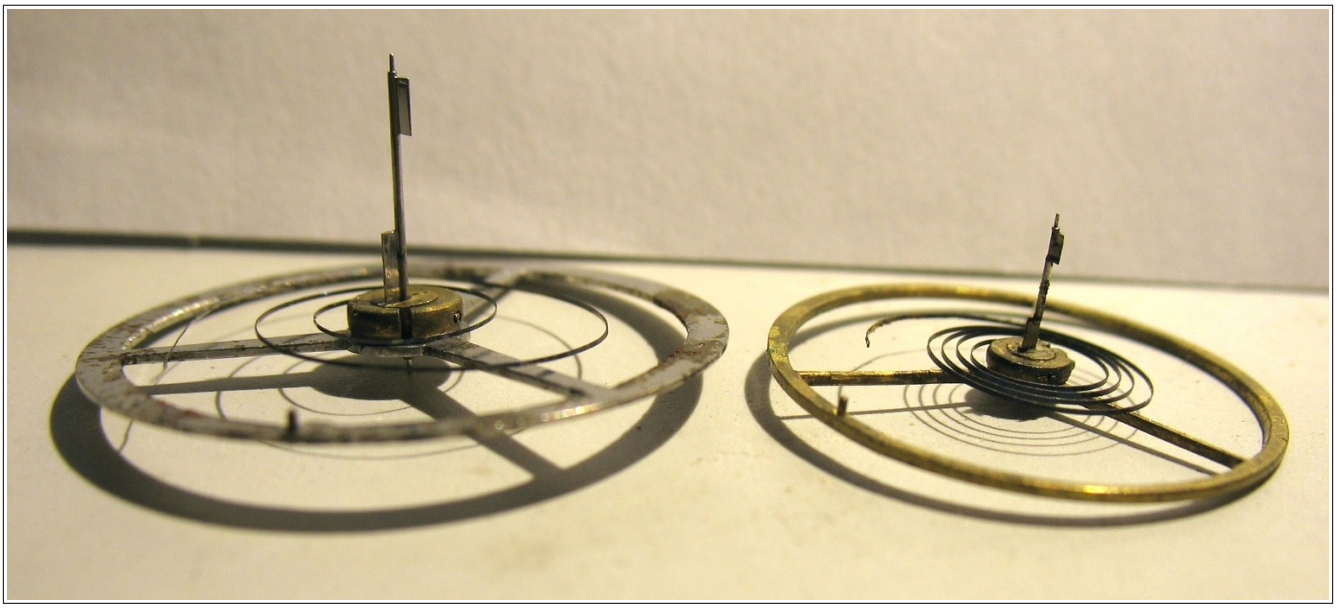
Having discussed the escape wheels, it is only proper to also show the corresponding balance wheels and verge on these two watches, and photos are shown below.

Obviously, the verge on the Biesta watch (on the right) is considerably shorter than on the Le Roy, as it interacts with a much smaller diameter crown wheel. The two pallets are also noticeably smaller. As is the balance wheel, which in Biesta's watch is made of brass (or could it be gold?). Le Roy's balance wheel is made of steel, larger diameter, and much flatter profile to keep the weight down. Notice also the hairsprings: in Le Roy (ca. 1730) hairspring manufacturing methods were not as advanced so the spring only has 2 loops around the center axis, whereas by the time of Biesta's watch (ca. 1780), the hairspring is wound tighter, more regular, and has 4 loops around the axis.

The end result is that the Biesta watch movement was somewhat thinner than Le Roy's, but nowhere as thin as the innovative movements that Jean-Antoine Lépine had developed by 1780, doing away with

the fusee, replacing one of the plates with small individual bridges, and using a 'horizontal" escapement (cylinder or virgule) as opposed to the earlier "vertical" verge escapement.





Appendix C: Various notes and references on Jean Biesta

Elizabeth Badinter: La révolution intellectuelle 2002, chapitre: La guerre des horlogers

> *A l'époque [XVIIIe siècle] les grands noms de l'horlogerie sont Graham à Londres, Le Roy l'ainé [Julien], Berthoud, Jodin, Le Plat, Le Mazurier, Lepaute, les Caron père et fils – ce dernier plus connu sous le nom de Beaumarchais, le Genevois Romilly et le Hollandais Biesta.*
> Ed: intéressante liste de noms, qui sait ce que fut la source, mais l'inclusion de Biesta est notable.

Me Lamalle, Lettres des sieurs Beaumarchais et Daudet, 14 mars 1789:

> *A en juger par ses lettres [Beaumarchais], son éducation avait été fort négligée; mais il avait cet esprit d'intrigue qu'il faut pour séduire, & cette forfanterie, qui fait tout oser; il en avait donné des preuves des l'enfance (…) en 1754, dans son affaire avec son maître Biesta, au sujet d'un échappement qu'il sut s'approprier malgré les nombreux certificats des gens de l'art rapportés par cet article (2) – (2) Ce Biesta qui existe encore est très connu des premiers horlogers de Paris. Le Sieur de Beaumarchais s'était perfectionné chez lui en 1751, et y avait fait de vains efforts pour copier l'échappement dont il est question [double virgule], et qu'il s'appropria ensuite, malgré les attestations remises entre les mains de MM. Camus et Montigni, Commissaires nommés par l'Académie des Sciences en Janvier 1754, qui prouvaient non seulement l'incapacité du Sieur de Beaumarchais, mais encore que cet échappement appartenait au Sieur Biesta.*
> Ed. l'auteur inclue une longue liste de noms qui auraient déposé des certificats attestant de l'appartenance à Biesta, dont: Lepaute, Bailly, Robin, etc. Cette attestation de Lamalle contredit la réalité en ce qui attrait aux conclusions de l'Académie, donc est entièrement douteuse. L'indication que Caron se serait perfectionné chez Biesta est possible.

Mercure de France, Avril 1754, Jugement de l'Académie des Sciences [au sujet de Caron et l'échappement double-virgule]:

> *Trois mois après que cette contestation [Godefroy et Berthoud, supportant Caron comme inventeur] a été portée devant l'Académie, le Sieur Biesta, dont nous avons déjà parlé est venu revendiquer le même échappement, comme une suite de celui de sa pendule, prétendant être le premier qui l'ait appliqué dans les montres. (…) à la fin de l'année 1752, le Sieur Caron père avait mit une montre portant son nom, entre les mains du Sieur Biesta, pour y refaire un échappement de construction nouvelle, dont le Sieur Caron prétend lui avoir donné l'idée. Le Sieur Biesta n'en convient pas, & dit que pour remplir les vues du Sieur Caron, il ne s'agissait que d'appliquer aux montres le même échappement à fourchettes; que lui, Biesta, avait déjà construit dans les pendules, & que nous avons décrit ci-dessus. Quoiqu'il en puisse être, tous deux conviennent que plusieurs horlogers, du nombre desquels était le sieur Caron fils, travaillant alors chez le Sieur Biesta, firent ensemble & séparément des tentatives inutiles pour réduire cet échappement dans une montre (…) ainsi le Sieur Biesta n'a aucun droit pour réclamer le nouvel échappement, ni la première application d'un échappement à repos & à leviers égaux dans les montres. Dans le courant de Janvier 1754, le Sieur Biesta nous a remis plusieurs cylindres faits à l'imitation de celui du Sieur Caron; mais ces pièces ne prouvent rien en sa faveur (…) il s'en suit que le Sieur Biesta ne peut point être recu pour concourir à cette invention.*
> Ed: Voici donc la source du fait que Caron fils aurait travaillé chez Biesta soit fin 1752 ou 1753, avec d'autres horlogers dont Demeure, pour essayer d'adapter un échappement de pendule de

Biesta à une montre. Cet échappement est conclu par l'Académie comme étant très différent de celui contesté (double virgule). Donc même si Biesta à cet époque n'était pas reconnu officiellement par la Communauté comme horloger à Paris, il avait une réputation favorable pour réparer ou améliorer des montres d'autres horlogers tels Caron père, et avait un atelier où d'autres horlogers, tels Caron fils, iraient passer du temps pour travailler et se perfectionner.

(Last edited: 12 june 2025)