



F.P. JOURNE
Invenit et Fecit

CHRONOGRAPHE RATTRAPANTE



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LINESPORT COLLECTION

The Chronographe Rattrapante of the lineSport collection is available in Platinum PT 950, 18K 6N Gold and Grade 5 Titanium. The case, 44 mm in diameter and 12.10 mm thick, encloses the split-second chronograph movement, made in 18K rose Gold for the Platinum and the 18K 6N Gold versions, and in Aluminium alloy for the Titanium version.

The metal bracelets match the respective cases and have a matte finishing. The links attached to the case are articulated to adapt to the different wrist sizes with an adjustable folding clasp in length of approximately 5 mm.

The F.P.Journe Chronographe Rattrapante features a power reserve of 80 hours making it possible to efficiently use the chronograph with the rattrapante function, even 2 days after the last complete winding. The very large date allows a better readability with a window of 5.20 x 2.80 mm.

The dials differ according to the watches:

- For the Platinum model, a blue-mauve color Silver guilloché dial with applied numerals in matte white Gold and 2 counters in whitened guilloché Silver.
- For the 18K 6N Gold model, a Silver guilloché dial covered with Ruthenium, applied numerals in matte 5N Gold and 2 counters in whitened guilloché Silver.
- For the Titanium model, a slate-grey or yellow color dial in Aluminum alloy with luminescent applied numerals and 2 counters engraved in sapphire.

The tachymetric bezel and the numerals with new typography on a ceramic background are a nod to the 2017 Only Watch timepiece.

The crown has 3 positions:

- Position 0: winding.
- Position 1: correction of the very large date.
- Position 2: time setting.

The pushers are made in the same metal as the case:

- A pusher at 2h for the chronograph start, stop and back to zero functions.
- A pusher at 4h for the rattrapante.

The hand-wound Calibre 1518 is as always entirely designed and produced in our Manufacture. F.P.Journe perpetuates the watch-making tradition and maintains exclusive craftsmanship, as every experienced watchmaker performs all the assembly stages from beginning to end, a unique practice in the profession.

Inspired by the Chronographe Monopoussoir Rattrapante Bleu made for Only Watch 2017, this new movement features a direct gearing chronograph with an oscillating pinion avoiding the jump of the hand at the start. It required significant development to integrate the very large date - signature of the F.P.Journe brand - in a total thickness of only 6.80 mm.

The magnificent finishing and decorations of the movement, visible through a transparent sapphire back, are one of the numerous qualities of F.P.Journe Haute Horology timepieces.



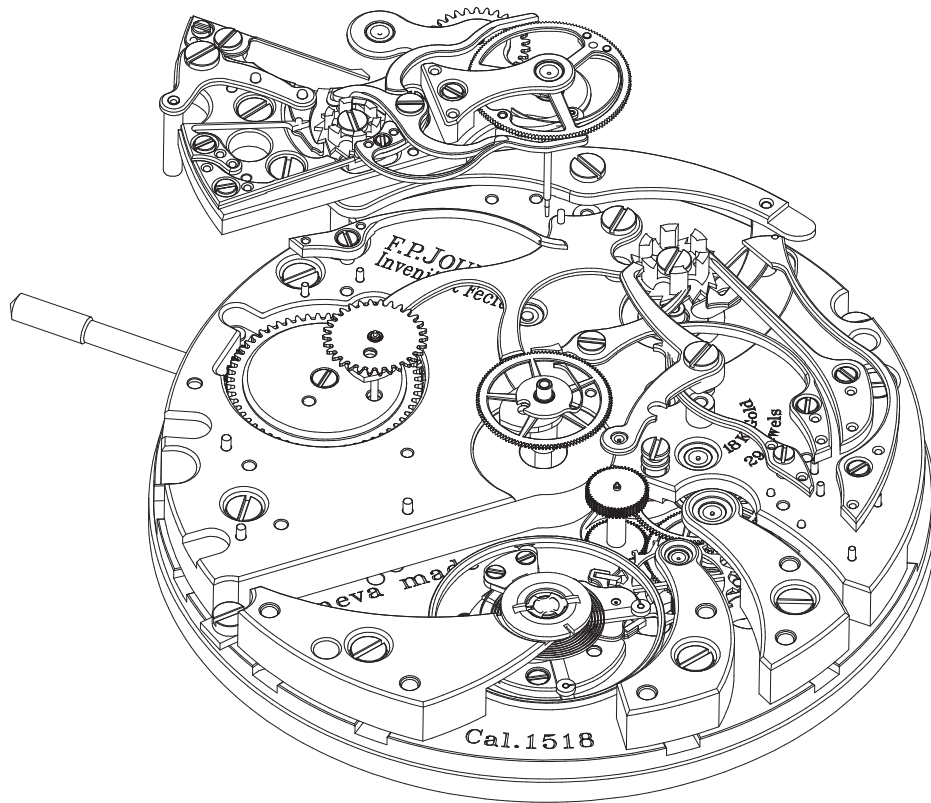




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THE CHRONOGRAPH AND THE SPLIT-SECOND FUNCTION

TWO RELATED INVENTIONS

Early days of the chronograph_

When reading the word chronograph, you will probably think of Nicolas-Matthieu Rieussec. And for good reason, since he invented, in 1822, the mechanism for “writing the time”, which derives its name from the Greek *chronos* (time) and *graphô* (to write). Yet, summing up the history of the chronograph in this way would deprive you from the rest of this exciting story and the steps that led to the invention of the modern chronograph.

Before even contemplating measuring the time, it was necessary to have instruments capable of determining the seconds and displaying the time with extreme accuracy. Research of astronomers, mathematicians and watchmakers was thus correlated. George Graham (1673–1751) seems to be the first to be interested in a mechanical solution for the division of seconds (theoretically 1/16th of a second) to then measure the duration of a phenomenon. Problems encountered: the device did not display the time, had to be set to 0 and stopped manually.

The next step was the display of the independent second: an independent seconds-hand was incorporated on a mechanism displaying the time, by means of an additional gear train that allowed displaying the time division (1/5th of a second for 18,000 vibrations per hour) with a start/stop function that did not influence the functioning of the watch. While Jean Romilly, Geneva watchmaker settled in Paris presented to the Royal Academy of Sciences a watch with repeater and off-centered seconds in 1758, Jean-Moise Pouzait proposed in 1776 an independent deadbeat seconds watch.

Scientists for whom measurement of time was associated with many of their experiments were particularly in search of precision instruments. Louis Moinet, inspired by the work of astronomers and aware of their needs, offered in 1816 his version of a counter. This invention, which he named “*compteur de tierces*”, is described in his *Traité d'Horlogerie* of 1853 (Volume II, p. 430-431). With a seconds-hand showing 1/60th, that is a balance wheel beating at 216,000 vibrations per hour, we can easily imagine the difficulties associated with this counter: lubrication, premature wear, energy consumption, etc... It should be noted that in this same treaty he does not hesitate to largely quote the works of his peers.

Meanwhile, soldiers sought to give more precision to their shots with these precision instruments. The works signed by Breguet also contain “military counters to measure the troops’ pace.” These devices beat 76 times per minute instead of 60 times. We find descriptions thereof starting 1819.

Lighter but equally strategic aspects, especially for sports bettors, led Rieussec to his invention that gave his name to the chronograph, used in horse racing: it comprised an enamel dial that rotated on itself in 1 minute. On this enamel dial was painted a scale of seconds that passed under a system that placed a drop of ink on it when a button outside the box was pushed.

This watch wrote the time, hence the name taken from the Greek *chronos* and *graphò* which gave the term chronograph used today, not to be confused with the chronometer, qualifying a precision timepiece.

The system was improved, including by watchmaker Frédéric-Louis Fatton, student of Abraham-Louis Breguet. His watch had a fixed dial and its seconds-hand had a small ink reservoir. This hand was fitted with a device connected to a pushbutton located outside the case. By pressing this button, the hand deposited a fine drop of ink on the dial. The report of the exhibition of French industry products of 1823 thus speaks about the work of Breguet and Rieussec. The latter received a bronze medal for his work.

As to the modern chronograph, Adolphe Nicole, from Vallée de Joux but practicing in London under the trade name Nicole & Capt, invented in 1862 the system that allowed returning the seconds-hand to its initial position after stopping it. He fitted his zero-reset mechanism with a heart-piece (heart-shaped cam), a component still used today.

A complication particularly sought after for its utility, the chronograph has been continually updated. Extremely complex to implement, it requires great precision in its construction in order to provide an accurate reading of the time. Today, François-Paul Journe continues the lineage of the great watchmakers of the 18th century, and contributes to progress with the launch of his original split-second chronograph.

The split-second function for a faithful reading of an interval_

For a more precise and comfortable reading of these precision instruments, it quickly became essential to stop the hand showing the intervals.

In 1827, Louis-Frédéric Perrelet innovated with a two seconds-hands watch. One of the hands could be stopped at will and, by a second press on the same button, the hand could catch up to the first hand that had continued to run.

Around 1831 Joseph-Thaddeus Winnerl invented a “split-second” system that could stop the seconds-hand, then allow it to catch up on its stopped time, provided the stopped time did not exceed 30 seconds. The characteristic of this first system called “nib”, and of the second system he would invent later, this time fitted with two superimposed seconds-hands, is that they are based on the seconds wheel and not on the chronograph’s mechanism.

We shall also refer to the works of Henri Robert, author of various articles of the Modern Encyclopedia, reported by the *Société d’Encouragement*, in 1833, with the precise description of a “chronometric counter and travel alarm clock” whose characteristic is the split-second mechanism in a register at 12 o’clock.

It was around 1880 that the split-second function appeared in its current form. While many chronograph manufacturers began during that period, few names are linked to the flyback. And when talking about the flyback hand, we automatically think of the most complicated pieces, such as, for example “La Merveilleuse” of Ami Lecoultre, produced in collaboration with Louis-Elysée Piguet, who received the bronze medal at the “*Exposition Universelle de Paris*” in 1878.







Technical specifications

Movement_

Exclusive F.P.Journe Calibre 1518
- in 18K rose Gold for the Platinum PT 950 or 18K 6N Gold models
- in Aluminium alloy for the Grade 5 Titanium model
Mechanical with manual winding
Complete winding in 35 crown revolutions

Dimensions of the movement_

Overall diameter:	33.60 mm
Casing-up diameter:	33.20 mm
Overall height:	6.80 mm
Height of winding stem:	2.20 mm
Diameter of stem thread:	S1.20 mm

Balance_

In-line lever escapement, 15-tooth escape wheel
Chronometric with 4 adjustable inertia weights
Anachron balance spring
Mobile stud holders
Free-sprung balance
Nivatronic laser-welded to collet
Pinned GE stud
Frequency: 21,600 V/H, 3 Hz
Inertia: 10.10 mg*cm²
Angle of lift: 52°
Amplitude: 12h flat: > 300° / 12h vertical: > 260°

Main characteristics_

Crown with 3 positions:
- **Position 0:** winding
- **Position 1:** correction of the date
- **Position 2:** time setting
Chronograph command (start, stop, reset) at 2h
Split-second command at 4h

Power reserve_

Over 80 hours without the chronograph

Indications_

Central hours and minutes
Register 60 seconds at 9h
Register 30 minutes jumping chronograph at 3h
Very large date at 6h

Finishing_

Circular stripes on the bridges, circular graining on the baseplate,
polished screw heads with chamfered slots, pegs with polished rounded ends,
Steel parts with polished chamfers and straight graining.

Case_

Diameter:	44 mm
Total height:	12.10 mm
Platinum PT 950, 18K 6N Gold or Grade 5 Titanium	

Dial_

- **Platinum model:** Silver guilloché dial in blue-mauve color, applied numerals in matte white Gold, 2 counters in whitened guilloché Silver.
- **18K 6N Gold model:** Silver guilloché dial covered with Ruthenium, applied numerals in matte 5N Gold, 2 counters in whitened guilloché Silver.
- **Titanium model:** Slate-grey or yellow color Aluminum alloy, luminescent applied numerals, 2 engraved sapphire counters.

Hands_

- **Platinum model:** Matte rhodium plated Steel, ivory colored Steel and small hands in blued Steel.
- **18K 6N Gold model:** Matte 5N gilt Steel, ivory colored Steel and small hands in blued Steel.
- **Titanium mode:** Luminescent in Steel, black colored or matte rhodium plated Steel, ivory colored Steel and small hands in red lacquered Titanium.

Bracelet_

Platinum PT 950, 18K 6N Gold or Grade 5 Titanium

Number of parts_

Movement without dial:	285
Cased up with strap:	453
Jewels:	29







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