

# The Saga

# Unwinds

⌚ Forget envelope openings and ribbon cutting; it's the coiling of a spring that draws the crowds nowadays. *QP* attends that of Parmigiani Fleurier - the latest manufacture taking the ultimate step towards true 'verticality'.

**Alex Doak**

Parmigiani Fleurier certainly isn't hanging around. The group's latest brainchild was originally projected at 10 years and 150 million Swiss francs. However, this June - just five years and a mere 100 million francs down the line - *QP* found itself in Neuchâtel gathered amongst the world's watch press, witnessing completion of Parmigiani's boldest move yet: complete integration of escapement production and balance spring manufacture; the horological Holy Grail.

Were it not for the generous financial backing of a Swiss pharma-giant, The Sandoz Family Foundation, such progress might be a little bewildering - not least for Michel Parmigiani himself, who used to restore the family timepieces little over 10 years ago. But a brand is nothing without vision and integrity - both of which have been cannily realised by the slight Italian, and duly recognised worldwide. Indeed, it was nice to see the quietly spoken watchmaker finally starting to enjoy the corporate lifestyle, fielding more than a few questions from the audience in his sharp new Italian suit. It seems he is finally catching up with his own success.

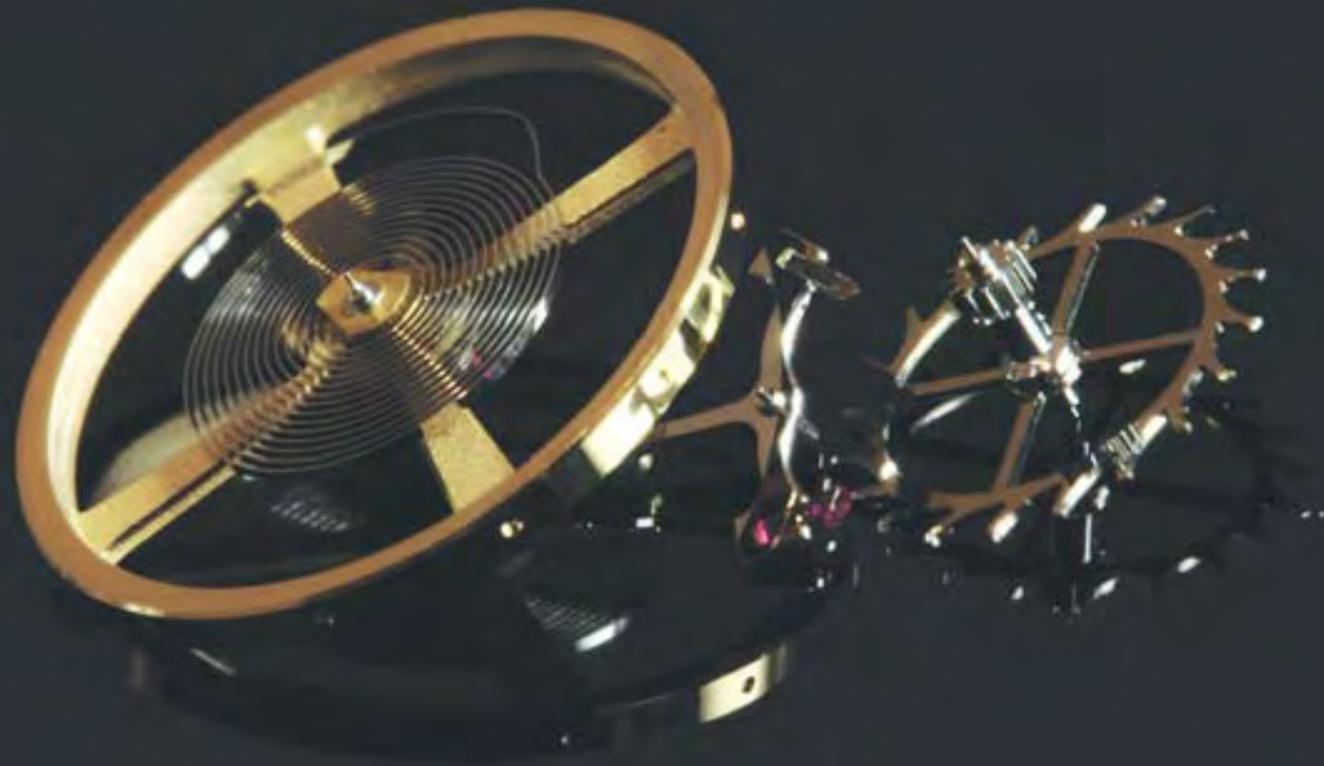
## Micromechanics

For such a tiny component, the scale of the launch itself might have dwarfed the issue at hand. But, as we all know, the escapement forms the

beating heart of the mechanical movement - the ultimate regulatory organ that determines a watch's accuracy, and therefore the primary focus of horological attention. The balance wheel, suspended on a tightly coiled balance spring, oscillates back and forth several times a second; unlocking and locking the gear train tooth by tooth, 'tick' by 'tick', controlling how quickly the hands rotate. It is the balance spring that is hardest to make, as the alloy must be engineered incredibly precisely for correct elasticity and also minimal vulnerability to environmental change. So despite the 5-star accommodation, *haute cuisine* buffet, and stunning helicopter ride over the Jura mountains, the enormity of Parmigiani's achievement was never far from our minds.

We soon hovered into Alle - the sort of tiny Swiss village where two tractors constitute rush hour. It is here that atokalpa, one third of Parmigiani Fleurier's 'Vaucher Manufacture Fleurier' production division is based. (Affolter in La Chaux-de-Fonds and Elwin in Moutier complete the picture.) It is here, in typically sterile surroundings, that 'Oscillateur AK215' has come to fruition.

With reverential awe, we followed André Droz through his springs department, winding our way between gleaming machines busily stretching and flattening the wire from bobbin to bobbin.



Oscillateur AK215 - the first new Parmigiani escapement to come out of Vaucher Manufacture Fleurier's micromechanical engineering division, atokalpa. A special alloy was chosen for the anchor lever and escape wheel, to reduce magnetic disturbances to the escapement as a whole.



(Above) Parmigiani's micromechanics division, atokalpa has developed a unique method for assembling its new anchor lever.

(Right) Stretching wire alloy to the dimensions required for balance springs. Diameter is reduced from 0.6 mm to around 0.07 mm, depending on the calibre.

(Below) The anchor lever from Oscillateur AK215. The materials used for the exit and entry palettes differ, in order to standardize energy transmission at each phase of oscillation - white sapphire and ruby respectively.



The 72-year-old is a 10-year veteran of both Rolex and Nivarox, and clearly knows what he is talking about. However, this is business as usual for Droz. What affords the most interest, certainly from a mechanical perspective, is the clutch of improvements to the rest of the escapement. Pascal Suter's anchor lever department boasts numerous 'optimisations', including different materials for the entry and exit palettes, standardising energy transmission at the entry and exit phase of each oscillation.

### Breaking away

The only model currently using AK215 is the transverse-movement Type 370 Bugatti watch. Considering that virtually every component of this remarkable piece was designed from scratch, it was an obvious first candidate. However, a big hint towards the scale of Parmigiani's undertaking was given away when Droz mentioned that five or six different spring dimensions were being machined, depending on the calibre. With Corum, Richard Mille and Hermès already on board as confirmed customers, and a target of 50% integration into Parmigiani's output within two years, atokalpa should have its work cut out.

Refreshingly, the manufacture's latest bid for true 'verticality' is not the predictable affront to Nivarox's near-monopoly on spring production. The executives gathered at Hotel Palafitte that sweltering morning were quick to emphasise that "naturally" this would not mean the end of co-operation with the industry's customary spring supplier. Not be seen ruffing feathers, this was a display of utmost Swiss politeness.

For a bigger player in the industry though, it might seem odd not to make the absolute split, given the absolute independence at its fingertips. But this is Parmigiani - a small-series producer focused not on industrialisation, but the maintenance of choice and quality. Enticingly, press materials already hint that "this strategic production... paves the way for excitingly innovative prospects. Promising horological developments are already guaranteed by the knowledge and technical mastery of these components." While the Type 370 might already be old news, Parmigiani's SFr.100m should buy them plenty more column-inches and customers to come. ○