F.P.JOURNE
Invenit et Fecit

THE HOUR GLASS

Young Talent Competition

Awarding to the winner at the F.P.Journe Manufacture

November 11, 2022

Since 2015, the Young Talent Competition allows discovering the next generation of most talented young watchmaking apprentices in the world, supports them in their route to independence by identifying their achievements and putting them under the spotlight. F.P.Journe organizes the Young Talent Competition with the support of The Hour Glass, luxury watch retailer in the Asia Pacific region. Both Maisons aim to perpetuate and support the art of haute horology and cultivate the appreciation of extensive horological craftsmanship.

The selection criteria are based on technical achievement, the search for complexity in their realization, the quality of craftsmanship as well as their sense of design and aesthetics. Applicants must have independently designed and created a timepiece or an horological construction. The 2022 Young Talent Competition winner receives a diploma and a CHF 20,000.- grant from The Hour Glass and F.P.Journe, which will allow him to purchase watchmaking tools or finance an horological project.

The jury of the Young Talent Competition 2022 is composed of key personalities from the international horological scene: Philippe Dufour, Andreas Strehler, Giulio Papi, Marc Jenni, Michael Tay, Elizabeth Doerr and François-Paul Journe.

Maciej Miśnik

Marine design pocket watch with tourbillon and pivoted detent escapement

Age 30 - Warsaw - Poland

Self-taught - Journeyman's certificate in watchmaking - Warsaw, June 2018

Graduate in physics - Gdańsk University of Technology - September 2021

Case, hands and dial_

Marine chronometers inspired my pocket watch. For this reason, the case was made of brass, however, for contrast, the pendant and the bow were made of silver. Most parts were made in my own workshop without using CNC machines. Basic machines such as lathes, milling machines and hand tools were used to make the watch. For readability, steel hands were thermally oxidized to blue. In my opinion, blued hands harmonize with black indexes on the silver dial. For added complexity, the hour hand jumps once per hour rather than smoothly, as is the case with most watches.

Technical characteristics of the movement_

As in marine deck chronometers, a pivoted detent escapement was used. Oscillation frequency of the balance wheel is 2 Hz. It is well known that detent escapement has good friction properties but it is not shock resistant. Due to this, I decided to make a pocket watch instead of a wristwatch. Additionally, the watch was equipped with a tourbillon thereby reducing the problem of poising the balance. Two barrels are used to ensure sufficient torque. A major problem with watches using a tourbillon is the inertia of the cage. For this reason, the tourbillon cage components are very thin and delicate to reduce the inertia. The cage is very heavy, weighing 2 grams, but the problem of inertia was reduced. In the escape wheel, the pinion and the wheel are separated and connected via a bronze hairspring. There is a sleeve with two rubies in the wheel, which runs on the steel axle of the pinion. The hairspring is arranged in such a way that it holds the wheel on the pinion (the wheel does not fall out). As soon as the cage is stationary, the escapement wheel is released. The escapement wheel moves and the cage begins to rotate. When the escapement wheel stops on the ruby, the cage continues to move and winds up the hairspring, losing its kinetic energy, and then slightly backs up. The backing up of the cage results from its high inertia and the reaction force of the hairspring. In most tourbillon watches, the cage stops with the escapement wheel, causing a temporary high force on the escapement elements and undesirable vibrations. In the case of the presented solution, a hairspring absorbs the vibrations, similar to solutions proposed for example by Derek Pratt, Karol Roman etc. The balance wheel is equipped with a Breguet-overcoil spring. There is no regulator on the hairspring due to chronometric properties. Two screws on the balance wheel maintain regulation of the oscillation period. Other screws are used to poise the balance wheel. The tourbillon cage is also poised, by a silver counterweight. Silver was used due to its high density.

Manufacturing of the components_

The presented watch is made of raw metals. No elements have been electro painted or plated. Only the hands and three screws were thermally oxidized to blue. Sulphide was grown on silver elements, this is what gives this darker look to the dial and to the small plate with the signature. As previously written, I made most of the parts myself. Every part was finished by hand. In my workshop were not made: the watch chain, glass, 18 ruby bearings, balance hairspring, 2 mainsprings and 28 of 40 screws. I did not engrave the signature; it was made by a professional engraver.

Measurement_

Diameter: without hinge and lock, 4.9 cm / with hinge and lock, 5.2 cm **Height:** 7.1 cm - Depth: without screws, 1.55 cm / with screws, 1.67 cm **Weight:** with key and chain, 112.2 g / without key and chain, 100.2 g

Interview
Maciej Miśnik

About you:

When did your passion for watchmaking begin?
I wasn't quite 2 years old when I destroyed my first Cuckoo clock. Ever since then, clocks, watches and tools have never left me.

Where did you learn about watchmaking?
Mainly, I'm self-taught, but my grandfather, and his father and grandfather, were also watchmakers. From time to time, I went to see watchmakers in my hometown, and would ask them questions.

What type of watchmaking exam did you take, and where?
On June 25, 2018, I passed my journeyman exam in Masovian Chamber of Crafts and Entrepreneurship in Warsaw.

What was your first watchmaking achievement? (Or first watch)
I built my first watch in September 2019. It's a simple chronograph wristwatch based on parts from a pocket watch.

About the watch:

Why did you choose these complications?
My father is a seaman. Ever since my childhood, I have liked shining brass marine devices, especially clocks. I wanted to have a small marine chronometer watch that I could put into my pocket, so I decided to make a pocket watch with a tourbillon and detent escapement. For me, precision poising the balance wheel is a challenge, so I used a tourbillon to solve the problem.

How long did it take to create this watch?
About 8 months, 1,000 hours of work in total.

What was your favourite part of making this watch?
It's hard to say. I think one of my favourite parts of making a watch is its first assembly and first run.

What are the challenges of working on basic machines?
In my opinion, the biggest challenges are self-control and self-discipline. In just a few seconds you can destroy 3 days of work. You have to be very careful and 100% focused on all elements.

Why didn't you use a CNC machine?
The answer is very easy. I did not use a CNC machine for 2 reasons: first, I think that if we say a watch is "hand made", it has to be hand made, not made on a CNC machine and hand finished. Otherwise, it would be only hand-finished, and manufactured on a machine. I know many factories do this, but I can't change that. I would like to point out that I'm not an enemy of mechanisation of production. It's OK, but we have to be honest. The second reason is CNC machines are extremely accurate and reproducible, so, in my opinion of course, a watch cannot be unique. It can be beautiful, precise, amazing, but not unique. Besides, CNC machines are expensive, and I am not the owner of a large factory.

About the future:

What do you intend to do with this prize?
The diploma will be hung above my workbench. Maybe it's selfish, but I would like to buy some machines and tools for my workshop, for example a professional Swiss-made jig-borer, a pivot polisher, a bigger precision watchmaker lathe, etc.

What is your aspiration for the next five years?
It's a good question. I would like to make a pocket watch with a 1-second constant force mechanism. It's my current project. In the near future, I would like to launch my own manufacture, but I'm not sure that will be possible. One thing IS for sure - I will make watches. Wristwatches, I hope.

www.fpjourne.com

The independent F.P.Journe Manufacture produces fewer than 900 precision mechanical watches per year with 18K rose gold movements, the brand's exclusive signature. The label "Invenit et Fecit" engraved on all its watches, guarantees and highlights the importance of an in-house calibre entirely designed and constructed in its workshops.

F.P.Journe organizes the Young Talent Competition and brings more than 40 years of expertise in authentic haute horology. François-Paul Journe's historical knowledge has led him to show a timeless consistency in his research on precision and innovative prowess. It is a real honor for him to encourage these young talents by sharing his knowledge, his passion and his determination on a daily basis. He supports them as he was supported at their age.

www.thehourglass.com

The mission of **The Hour Glass** is to advance watch culture. They are known for their thoughtfully curated selection of brands, their passion in designing uniquely immersive retail experiences and their team of highly knowledgeable watch specialists. The Hour Glass strives to become the primary port of call for all enthusiasts and watch collectors alike. Everyday across their combined network of over 45 boutiques in the Asia Pacific region, they are poised to further the awareness and appreciation of watches and ready to guide their clients in their hunt for a superlative timepiece.