

The observatory in Ondřejov belongs among the oldest scientific workplaces in the Czech Republic. It was established from initiatives of Bohemian businessman Josef Jan Frič as early as in the beginning of 20th century. Necessary equipment was supplied by his Prague's firm, which specialized to manufacturing optical and measuring instruments.

ROBERT ŠIMEK

Manufacturing of measuring instruments in our country was mainly affected by two historical periods. The first of them was the period of Emperor Rudolf II., falling within the second half of 16th century. At that time, prominent European scientists and astronomers acted in the court of Rudolf II., from whom Tycho de Brahe and Johannes Kepler were the most significant.

Events of the thirty year war resulted in damping in the area of science and technology. Therefore, it was not until in 19th century, at the time of national revival, when manufacturing of fine mechanical systems began to develop again. Several specialized firms were right away established in Prague, products of which were comparable with the European production. However, only one company proved to gain recognition around the globe, and its products started to be used



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Contemporary photograph of J. J. Frič's study in Žalov, Prague's factory, and Ondřejov observatory

JOSEF JAN FRIČ

Businessman and stars



Historical appearance of Prague's factory.

foto: Technický památkový ústav, in: Město a ve Škole.

for many important measuring and observations. It was company of Frič brothers, which Josef and Jan Frič established in Královské Vinohrady in Prague in 1883.

NERUDA INSPIRING

Josef Frič was born in 1861 in Paris, France, where his father, known revolutionary and patriot Josef Václav Frič, had had to escape after 1848. Also the second son Jan was born in emigration, but both brothers soon left France's metropolis, and since 1867 they lived with their mother in Prague.

Josef passed academic secondary school and applied for study of natural science in the field

of zoology and paleontology, his brother Jan studied chemistry. However, both had common interest in astronomy, which in them arouse Jan Neruda, writer and a friend of their father. His Cosmic songs enchanted both young men, and brought them to an idea of establishing their own observatory. But implementation of such a plan was not simple at all. Necessary equipment was very expensive and should be imported. The Fričs could not afford such luxury, therefore they choose another solution. They opened a small workshop in Královské Vinohrady in Prague in 1883, in which they started to produce astronomical and measuring instruments themselves. They started with one lathe imported from Berlin, but they were



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View on the western cupola of Ondřejov observatory, year 1909.

Foto: Astronomický ústav AVČR

patient, and already in 1884 they achieved their dream. Right in the attic of the factory they arranged a small room, from which they started to observe stars.

POLARIMETERS AND TARGETING INSTRUMENTS

But firm Josef & Jan Frič would not earn enough living for a long time from mere manufacturing astronomical instruments, therefore, brothers soon expanded assortment also by geodesic, military, and mining measuring instruments. On a counsel of chemist C. K. Neumann, they buckled down also to manufacturing instruments for sugar industry, especially polarimeters, by the help



Frič on foundations of the central cupola, year 1908.

Foto: Astronomický ústav AVČR

of which it was possible to determine accurate concentration of sugars in solutions.

Venturing into this branch proved very good, and brought the Fričs considerable profits. Also a number of foreign firms displayed interest in new instruments, and in the United States, polarimeter of the Frič brothers was even accepted as the official standard.

In 1889, the firm started intensive preparation for the Prague's Jubilee Exhibition in 1891, in which it achieved great success. Immediately after it, it moved to the larger premises next door to the original building, and from workshop work it definitely moved to factory production. In 1896 the firm was already strong enough that it could accept even a big job order for targeting instruments for fortress cannons of company Škoda.

OBSERVATORY FROM GRIEF(ŽAL)

Promising development of the firm was put behind until tragic year of 1897, when Jan Frič succumbed to acute appendix inflammation. Josef bore this loss very badly, and to honour his brother's memory, he started to sign as Josef Jan Frič.

He also recollected that he wanted with his brother to establish a modern observatory in Bohemia. Though their little attic observatory made observing the skies possible, but because of glare from street lighting, the results were not good, anyway. Frič therefore decided to erect a genuine observatory to his brother tribute, and found an ideal place for it in village Ondřejov, 35 kilometres southeast from Prague.

Punctually one year after his brother's deaths he bought lots with the hill Manda, which, from pious reasons, he renamed to Žalov (= Grief), and started with construction. The first observatory was made of timber only, but during the time he gained resources for construction of bricked buildings, and in 1911 and 1912 also two brick cupolas were erected beyond Ondřejov. Frič equipped the observatory with many instruments of his own construction, and made use of it until 1928. All that time, at the occasion of 10th anniversary of existence of Czechoslovakia, he donated the observatory to the state. Since 1954, it has been used by the Astronomical Institute of the Academy of Sciences.

EASTERN DICTATION

Henceforth, Josef Jan Frič continued in devoting himself to fine mechanical systems, and in addition to geodetic instruments and polarimeters, his firm also manufactured medical equipment, industrial thermometers, and aircraft board instruments. For controlling operation of boiler-rooms, power plants, and heating plants, it also developed an absolute innovation – analyzers of combustion gases. The demand began quickly rise again, and in 1924, a new branch office of the firm in Bratislava was opened.

After 1939, Frič refused to collaborate with German occupants as a loyal patriot, by which the production considerably diminished. After the war, because of economic changes, restructuring of the production program was to take place, but Josef Jan Frič did not already live to see that; he died only a few months after liberation

JOSEF JAN FRIČ (1861-1945)



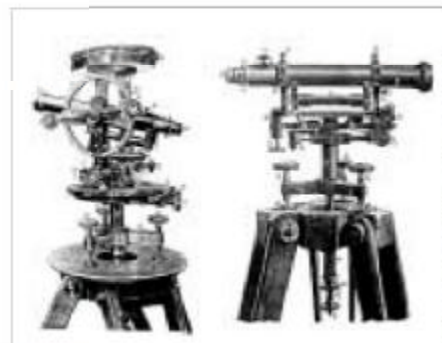
Czech entrepreneur, Josef Frič, was born on 12th March, 1861 in Paris, where emigrated his father, a known poet and writer Josef Václav Frič (among others, author of poetry collection Songs from a bastion). However, Josef

did not stay in France for a long time. Together with his mother and younger brother Jan, he returned to Prague already in 1867, where both brothers later started to study natural science.

But their main interest was astronomy, and that's why they decided already in 1883 to establish in Prague a workshop for optical and measuring instruments, which would make possible for them to observe stars. The assortment later expanded also for other goods, and the firm became one of the leading European producers of fine mechanical systems.

After his brother's death in 1897, Josef Frič adopted the second name Jan, and started to accomplish his brother's long-time dream – to build a new Bohemian observatory. He chose Ondřejov in Central Bohemia, where after several years, one of our best known observatories was erected. In 1928, it became the property of the state, and it serves to the original purpose up to the present day. In its area, sculpture of Josef Jan Frič can be found, who died on 10th September 1945.

foto: Pražský inženýr



Theodolite and a level instrument of brand-name Frič.

Foto: Technické památky v Čechách, ve Moravě a ve Slezsku

of the republic.

After 1948, the Vinohrady firm was nationalized and production of geodetic instruments passed over to Meopta Košiče (a one-time plant of Srb and Štys firm). The

remainder of the firm operation was incorporated to company Metra Blansko, and in 1954 it was transformed to Metra Praha. The last change came in 1963, when the former firm of Frič brothers was incorporated to company Laboratorní přístroje. However, at that time, damping of production already happened, and to the country, which in production of such instruments once belonged to world's peak, technology of lower quality started to be imported from Poland, Soviet Union, and GDR.



One of the first binoculars in Ondřejov.

Foto: Astronomický ústav AVČR

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