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## A CENTURY OF ECONOMIC RELATIONS BETWEEN SWITZERLAND AND JAPAN

On 6th February 1864, a Swiss trade delegation in Edo signed the first commercial agreement between Switzerland and Japan. Thus began the economic and cultural relations which have since developed so well between the two countries. A few Jesuits of Swiss nationality had served as missionaries in the Land of the Rising Sun in the seventeenth and eighteenth centuries, and the old folk custom of the "Japanese Games", still celebrated in central Switzerland, remains as a reminder of those very early ties. The first Swiss book on Japan was written in 1586 by Renwart Cysat, the Municipal Scribe of Lucerne, and a recent book on the relationships between the two countries, written by Father Thomas Immoos, points to the influence which Japanese art had upon Swiss Baroque.

Russia, Great Britain, the Netherlands and France had already signed trade treaties with the Shogun of Japan when, after the American Admiral Perry landed in that country, a Basle businessman urged the Swiss Federal Council to establish economic relations with Japan. The Horological Union of La Chaux-de-Fonds and Le Locle, the city of St. Gall, and several other groups, lent their support to this initiative. In 1859, the Federal Council approved funds for a journey by a semi-official delegation to Japan, led by Rudolf Lindau, a Prussian. The fact that this trade mission arrived not by warship, but by means of a peaceable commercial vessel, inspired an immediately friendly reaction among the Japanese, and this in turn led to the dispatching of an official Swiss delegation. The latter embarked from Marseille in November 1862, bearing with it a credit of 100,000 francs — a vast sum for the Switzerland of that time. Chairman of the delegation was Aimé Humbert, President of the Horological Union. The negotiators arrived in Nagasaki on 9th April 1863, and immediately encountered all manner of difficulty and a general atmosphere of mistrust, which had been aroused in the Japanese by the rather forceful tactics which the great powers had employed in opening up the Japanese market. But after nearly a year, negotiations led to the signing of the first commercial agreement between Switzerland and Japan on 6th February 1864.

A steam-driven fire extinguisher (invented by the mechanic Schenk of Worblaufen), which had been presented as a gift to the Shogun, contributed to the success of the negotiations; it helped to convince the Japanese that Switzerland could make a significant contribution to the expansion of the Japanese economy — in addition to the happy fact that Switzerland had no navy! As relationships between the two countries flourished in the years that followed, it became clear that Switzerland had more to offer than just material goods and technical and industrial concepts. The ideas of the great Swiss educator, Heinrich Pestalozzi, were received with enthusiasm in Japan and had a marked influence on the formation of that country's system of public education. Even today, many Japanese schools bear Pestalozzi's name.

The centenary of Swiss-Japanese relations was recently celebrated in Tokyo with a week-long Symposium on Swiss Technology and Enterprise, in the course of which twenty leading Swiss industrial and commercial figures reviewed the varied aspects of their activities. In a land with which Switzerland enjoys lively commercial relations, this symposium served to spotlight Switzerland's cosmopolitanism and its constant efforts to keep its products at a high level

of quality consonant with modern requirements. At the same time, Swiss companies joined in issuing a special memorial brochure in Japanese, and Japan's Institute for Democratic Education dedicated an entire issue of its magazine, which is distributed to 39,000 teachers in Japanese primary and secondary schools, to Switzerland. This richly illustrated periodical did much to stimulate a genuine interest among Japanese educators in the nature and achievements of the distant Alpine republic. And to round out the centenary celebration, the Swiss National Tourist Office, in collaboration with the Swiss Embassy in Tokyo, issued a Japanese version of its booklet "Switzerland Today".

## THE SWISS, PIONEERS IN THE FIELD OF RAILWAYS

Electricity was first used for the purpose of traction in Switzerland as long ago as 1888, when the Vevey, Montreux, Chillon tramway service was started. The inauguration of the Berthoud-Thoune normal gauge line in 1899 marked a turning point in railway history, for it was here that the first locomotives in the world to run on triphase current were put into operation.

Tests carried out between 1904 and 1907 on traction with high voltage single-phase alternating current represented the real start of the use of electricity for the Swiss Federal Railways and two private companies which were later to become the most important in Switzerland, the Rhaetian Railways and the Lötschberg Railway. It is interesting to note that the first experimental locomotive, known as the "flat-iron", with its transformer, can still be seen at the Swiss Transport Museum in Lucerne.

In the construction of vehicles with heat engines, Swiss industry also opened up new paths. At Winterthur (Switzerland) in 1913, Rudolf Diesel, brilliant inventor of the diesel engine, built the first locomotive bearing his name. Since then, the diesel driven vehicle has conquered the world and there are countless locomotives of Swiss origin in all countries.

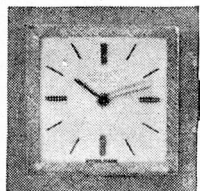
Among other very remarkable technical achievements of Swiss industry in the railway field, mention should be made of the steam turbine locomotive (Zöllig system) built in the 'twenties, the high pressure steam locomotive (60 atm.) and the first gas turbine locomotive, dating back to 1940. These inventions did not however get beyond the experimental stage owing to the extremely rapid progress in electrically propelled and diesel propelled vehicles.

As with locomotives, Switzerland also branched out along new lines with regard to the construction of railway carriages. By 1935 — at the time it was a big innovation — Swiss Railways had put into service the first steel carriage with light integral body and chassis. Instead of the body resting on the chassis as previously, the floor, sides and roof now form a rigid welded whole equally resistant to flexion and torsion. Violent shocks are absorbed by deformations of the body and passengers are less exposed to injury as a result of collisions. Thanks to these new constructional principles, it has been possible greatly to reduce the weight of vehicles.

The first electric Trans-Europ-Express trains, which the Swiss Federal Railways put into service in 1961, bear witness far beyond the frontiers of the country to the quality of Swiss workmanship. In addition to unparalleled comfort and high speed (100 m.p.h.), the outstanding feature of these trains is that they are designed to work on four systems of current and can therefore run on any of

the electrified networks in Europe. Finally let us remember that today the Swiss Federal Railways network and the Swiss private railways are the only ones in the world to be almost wholly electrified.

[O.S.E.C.]

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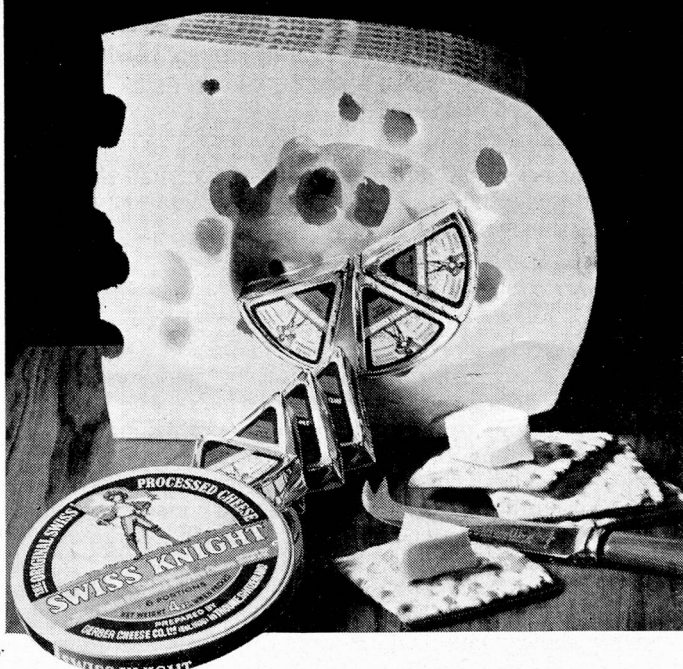
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