Zeitschrift: The Swiss observer : the journal of the Federation of Swiss Societies in the UK

Herausgeber: Federation of Swiss Societies in the United Kingdom

Band: - (1953)

Heft: 1213

Artikel: Swiss Inventiveness

Autor: Fueter, Edward

DOI: https://doi.org/10.5169/seals-694245

SWISS INVENTIVENESS.

by Dr. Edward Fueter, Zurich.

Foreign observers have often commented on the inventiveness of the Swiss. They have even gone to some trouble to prove their complimentary statements by means of statistics, stating for instance that in proportion to the number of inhabitants Switzerland supplied up to and far into the nineteenth century the largest number of foreign members and correspondents of the learned societies, notably those for the promotion of Natural Science. The German Patent Office in 1930 declared us to have taken out the highest national percentage of technical patents classified as original and important. Ronald S. Edwards, Professor of Economics with special reference to Industrial Organization in the University of London, after thoroughly examining the problem has come to analogous conclusions with regard to the present time.

If the findings of our kind friends are correct, let us see what are the causes of this inventive spirit. Professor Edwards in his study on "Industrial Research in Switzerland" points out that there is not one single main reason, but that there are quite a number of preliminary factors to be considered which are mutually interdependent and contributing to the same effect. The poverty of the land as far as treasures of the soil are concerned, and the fact that it never had any colonies, early and of necessity developed that hard working spirit, which saved the people from want and starvation. He then mentions the work of Pestalozzi, the famous educator, who was born at Zurich. Next he describes the excellent system of public elementary schools which were created after 1830 under the impulse of the democratic movement here called the period of Regeneration. This popular movement likewise favoured vocational training and the rise of secondary schools and universities. The average standard of schooling of the Swiss, his vocational as well as his general instruction, is remarkably high. The situation of the country in the heart of the Continent of Europe, the fact that four languages are spoken on a small territory, all contributed to plead in favour of Switzerland as a place of international studies where useful and immediate application of the knowledge acquired would appear to be most profitable. The young Swiss like to learn from other nations. They are willing to recognize superiority where they see it, and they are anxious to meet all comers in fair competition. They know that in everything they have to be very thrifty, a characteristic which has not been weakened by the growth of financial prosperity. Every effort, every new invention or improvement, whether technical or scientific, must answer to the principle of rationality and help to achieve the maximum of results with a minimum of the smallest and simplest means. Many examples could be quoted of results achieved in Switzerland at perhaps one fifth of the cost in other countries. On the other hand modern firms in Switzerland will occupy a staff of technicians and scientists for research work and experiments proportionately much bigger than what we usually find in the management section of firms abroad. The Chemical Industry for instance now spends about 20% of its total expenditure on research purposes (including personnel, laboratories, etc.). Other industries are following this example at a distance, the Textile Industry and Watchmaking seemingly lagging a bit behind. But even in these two industries there are brilliant exceptions.

But history alone will not fully explain Swiss inventiveness. Four subsidiary factors will have to be considered.

1) Every collective progress of humanity, whether in science or in technics, is due either to the initiative of "self-made" men or to high intellectual tradition. For both forms there are exceptionally favourable conditions in Switzerland. They can even be proved by means of figures.

2) Swiss democracy greatly facilitates the rise of the man of parts and efficiency. There are few obstacles of social prejudice or tension. Intelligence and in particular practical and technical ability are highly valued and favoured. In the more progressive and industrialized cantons stipends, scholarships, and prizes are numerous, though uneven and generally rather modest. Though we still are far behind the U.S.A. in this respect, we too believe in giving a man a chance.

3) Switzerland holds a unique position when we come to inheritance and families. We have had little dynasties of men of science succeeding each other over many generations. Most famous have been the Bernoullis of Basle. These great mathematicians challenge

comparison with the musicians of the Bach family. It would be easy to name six to twelve similar families, though naturally of differing importance, in each of our towns. They have prospered over a greater number of years than did their counterparts in Great Britain or America. The cause may be found in the country's quiet history, its being spared the horrors of war and the evils of inflation. On the other hand the Alpine Republic could offer greater stability, better hygienic conditions, plenty of common sense, and healthy lives in close touch with Nature, factors which, rather than men and works of genius, will produce a high average standard of work of the many.

4) Even in inventiveness there is such a thing as "highly developed mediocrity". Of supreme importance, however, will always be the endeavour to achieve results of higher quality. The Swiss have developed this tendency into a veritable passion for quality work. This ambition is shared by the artisan and the professional man. What is now a laudable quality in all vocations was originally a necessity due to the pitiless exigencies of international competition. And it is perhaps not too much to say that with the best elements of the Swiss community, whether they are aware of it or not, the ambition to produce quality work has become something like a national characteristic.