NATURE

SATURDAY, FEBRUARY 3, 1934

No. 3353 Vol. 133

CONTENTS

Industrial Economics

UNTIL 1914, the industries of Great Britain progressed more or less on an even path, developing on conservative lines and only slowly adopting the inventions resulting from scientific research. The clash of peoples in the War had a violent repercussion on industry: throughout the War, production was pressed to the utmost, there was a free interchange of information, and scientific invention was applied in a hitherto unprecedented manner. Post-War trade has experienced first a boom in 1919–20, then a slump lasting until 1925, followed by another and greater boom lasting to the end of 1929, and by an unprecedented depression from which it is beginning slowly to emerge. During all these periods, science and invention have been applied to industry as never before; there was money available during the boom periods and need for economy in production costs during the slump.

If we take stock to-day, much will be found to have changed; some of our old industries are hard hit almost beyond recovery; newer and more scientific industries have arisen which may be expected to take their place. If British industry makes the mistake of attempting to perpetuate the past, the outlook is serious, and apparently it is still foreign to the nature of those who control industry to experiment on the large scale or to act as pioneers of new and untried industries; but fortunately we are proving adept at taking up these newcomers when their teething troubles are past and they have reached the stage of being really practical as well as remunerative, which is more important from a business point of view.

Economists have preached from many texts during the depression; at times there have been as many doctrines as preachers—a fact which arises, in our belief, from insufficient knowledge of the practical details of an industry and also perhaps from the inability to grasp the problem as a whole. The factors are too numerous to fit into any one theory, their inter-play too obscure to follow easily.

Prof. Allen, in a most readable book*, has recently attempted to give a picture of the major British industries as they are at present organised. After tracing the chief features of industrial development up to 1914, indicating in particular the relative importance of the major trades in the economic life of the nation, he takes several of

* British Industries and their Organization. By Prof. G. C. Allen. Pp. xi+338. (London, New York and Toronto: Longmans, Green and Co., Ltd., 1933.) 10*s.* 6*d.* net.

these trades in turn to describe their rise to prominence, their fortunes during the last decade and their organisation. His selection comprises the staple trades, coal, iron and steel, engineering, shipbuilding, automobiles, and cotton and woollen textiles: it could with advantage have included the chemical and the electrical industries, in which new and progressive methods predominate. He summarises the post-War history and concludes with a chapter on changes in the structure of industry. They are indeed profound, and if the man of science is to go outside his specialised subject, and help the nation at large, he must seek to study them carefully and try to understand their significance.

Instability of demand is one of the most difficult problems of modern business. Fashion has a greater and wider influence than ever before, due to the widespread circulation of the newspaper and perhaps also to cheap travel and an accelerated news service. Sir Josiah Stamp has indicated how the increased purchasing power resulting from a fall in the price of boots, due to improved methods of manufacture, may be devoted to the buying of gramophones, so setting up a new industry and providing new employment. But at any moment, the public may leave gramophones for a new interest, for example, radio, and the elaborate and costly plant and organisation built up to supply gramophones fall on evil days. In a sentence, the demand for goods and services satisfying secondary needs is less stable than is the demand for the necessities of life. It is indeed optional and erratic, as witnessed by the fact that one result of the universal adoption of the cigarette-smoking habit by our women-folk has been a diminution in their consumption of chocolates.

A like change has come over the markets for raw materials—in part due to chemical discovery—which is likely to play a continually growing part henceforth. There are enthusiasts who claim that the chemical revolution will bring lower costs, a far wider range of raw materials, a growing multitude of new products and the increasing replacement of familiar wares by superior synthetic articles. Cheaper goods, more goods, new goods, will tend to keep the wheels of industry turning, to make more work, to create new wealth, to distribute purchasing power more broadly. On the other side of the picture, these changes in the sources of raw materials will alter the relative advantages of different countries for specific manufacturing industries.

The change is inevitable, the problem of the transference of national resources to other activities must be faced: the future means more research by a greater number of workers, or perhaps, as Mr. E. W. Rice has said recently in the United States, "the time will come in industry when research will be regarded as more important than advertising". As Prof. Allen rightly emphasises, the economic system has become more rigid. Wage rates are inelastic, oncosts make up a high proportion of the total cost, mass-production technique, standardisation, rationalisation, all have had their effect. It would seem, he says, that technical factors have been given too much weight in determining the organisation of production, whilst widespread national advertising and instalment-selling have accentuated the instability of demand.

The elimination of the small firm by larger corporations with greater resources and apparently also greater bank protection, has eliminated in times of crisis what used to be termed 'healthy bankruptcy'. Output is maintained in times of stress at the bare cost of labour and materials without any contribution to overheads. Such competition is ultimately fatal, not only to the firm but also to the industry, to the nation and to the world—it is equivalent to slow decay. Such a policy is, more than any other reason, in our opinion, the cause of the present world crisis.

There have been great changes also in administrative methods—indeed a new science of industrial management is being evolved which will in time bring order out of chaos. The delegation of authority in a great business is a most important problem—the specialist is replacing the all-rounder. We find planning, employment, costing, purchasing and stores departments all entrusted with specific duties, the work of which has in turn to be co-ordinated.

Another problem is that arising out of joint stock management by experts for shareholders in substitution for that of interested owners. The disappearance of the family business has involved a loss of personal relationships with the work-people, which can only be regretted. Labour claims a greater voice in industry; much depends on the wise solution of these claims by co-partnership or some other means. Topics of this kind surveyed by Prof. Allen will well repay serious consideration by all who seek to be in touch with the most important of our national problems. We live by industry, not by politics. E. F. A.