CURRENT SCIENCE

Vol. XIV] SEPTEMBER 1945 [No. 9

INDIAN INDUSTRIALISTS' DELEGATION ABROAD

THE Delegation of Indian Industrialists, whose activities in the United Kingdom were briefly recounted in this Journal (*Current Science*, July 1945, p. 165), have now returned home from the United States travelling *via* England. Many of the individual members have been interviewed by the Press on various aspects of their work abroad. The press accounts of the opinions and impressions of the individual members have not always been easy to piece together and at times have tended to be slightly confusing. It was thus necessary to issue an authoritative statement on behalf of the Delegation and this has been now done in the form of an official Report which has been released by Dr. P. S. Lokanathan, Secretary to the Delegation. The Report covers a wide range of problems, some of which, like the political background of the country, the allotment of Dollar exchange and the liquidation of blocked sterling assets, primarily not within the purview of *Current Science*. The following excerpts from the Report of the Secretary are, however, of interest to men of science and technology.

"We were ... enabled in the aggregate to get a general picture of British and American industry, covering an extremely wide range of industrial activity. .... Our impression was that American industry is in many respects well ahead of British industry in efficiency and in equipment used. In the field of research, on the other hand, it seemed to us that Britain was at least as advanced as America. In both countries applied and theoretical research is being conducted on a gigantic scale and money lavished on it by both Government and private enterprise.

"We are much impressed by the improvements in technique and the scientific advances effected in both countries. ..... The immense complexity of modern industry particularly in the engineering and chemical fields ..... have convinced us that if India's industrialisation is to be as speedy as public opinion and her economic situation demand, we should unhesitatingly seek to import ready-made technique and industrial "know-how" from these two and other countries.

"With the possible exception of medium-sized, general purpose machine-tools .... the demand for capital equipment ... is so great that deliveries and prices are bound to be unfavourable for a considerable time. .... There seems to be no chance of getting any (textile machinery) for a long time from America while deliveries from England cannot be expected under two years. In the case of other types of capital equipment, such as power plants, heavy and special purpose machine tools, transport equipment, electrical equipment, mining machinery, forging, foundry and chemical plants, etc., delivery periods vary greatly from six months to two years or more but they are generally longer in England than in the U.S.A.

"We believe that in a couple of years or so prices as well as deliveries will become easier and that the machinery then available will be of a more advanced and efficient type. ... It would be inadvisable for industrialists in India to be in a hurry to purchase capital equipment under present conditions except, of course, where requirements are so urgent or of such a nature that they cannot be postponed. ... We should like to sound a note of warning against the purchase and installation of old and worn-out equipment which would cripple India's capacity to compete in later years. ...

"... of war surplus stock ... being either new or practically new ... prices will range

from 50 to 60 per cent. of their original cost ... we should like to impress upon Government and the business community in India the necessity and urgency of constituting in both countries an organisation which would locate available equipment, inspect and report on it when necessary, canalise all enquiries from India and furnish machinery for their procurement from the various surplus disposal boards.

"We have returned from our trip enriched with first-hand knowledge of the economic and industrial conditions and prospects in Great Britain and the United States and with a better informed appreciation of the significance, scope, needs and complexities of modern industry. We have come back more than ever convinced that only by means of large-scale industrialisation backed by massive scientific research and education, can India hope to emerge from her poverty and distress and rapidly build up the high standard of living to which her people are entitled and so desperately aspire."

This valuable Report does not make pleasant reading to those who believe that the industrial development of India is merely a question of planning on paper, ordering the requisite equipment from just across the counter, install it and begin to collect profits. It is refreshing to notice the emphasis placed by these veteran industrialists that the large-scale industrialisation of the country should be "backed by massive scientific research and education". The Delegation have done a signal service to the country in publishing this Report which is characterised by objective and critical discernment.

COMMODITY COMMITTEES AND COMMUNAL PROSPERITY

IT was indeed a happy moment when the Member of the Government of India for Education, Health and Lands, struck the fruitful idea of creating Commodity Committees for ensuring the education and collaboration of the communities of India for the development of their economic resources. This plan has been welcomed by *Current Science* as an effective instrument for the creation of a new epoch of scientific and industrial awakening in the country.

At the present time five such Committees have been constituted and are in a working condition, namely, The Indian Central Cotton Committee, The Indian Lac Cess Committee, The Indian Central Jute Committee, The Vegetable Oil Committee and the latest addition, the Coconut Committee.

Considering the possible expenditure of public money and material on these Committees and expectations of increased economic prosperity arising from their activities, it seems necessary to review not only their past working so far but also to indicate the general policy which they must pursue in order to realise their full potentialities of development.

At the outset it is necessary to emphasise that in the creation of institutions of this sort, the main object should be to foster an original output of new thoughts, new knowledge and new modes of utilisation of the valuable commodities of India providing suitable opportunities for self-expression of national professional talent in the connected fields of scientific research, skilful industrial and agricultural application of new knowledge and business enterprise required for large-scale production of new products. Obviously the best way of realising this consummation is the organisation of an experimental industrial laboratory for each commodity under the leadership of competent and patriotic leader of scientific research interested in the subject who will be a whole-time officer adequately financed and authorised for the free exploitation and investigation of the industrial and scientific potentialities of the commodity concerned. Without such a nuclear activity it will be useless to expect an adequate economic development of the resources of this country. Judged from this standpoint scientific India can well complain that the current administrative policy has failed to give the scientific Indian researcher the leading place in the constitution and working of these Commodity Committees. On the other hand, by placing commercial and political foreign interests at the head of affairs in the creative realm of future developments for the economic benefit of the country the cart has been put before the horse at too early a stage of our Country's new era of industrial regeneration.

To take one example, the oldest of these Committees, namely, the Indian Central Cotton Committee, has been in existence since 1921 and in a Report of their work during the last twenty years published in 1942, the attention which they have paid to Indian scientific research is so scanty and indifferent that it almost deserves thorough overhauling. Below is quoted a paragraph on "Research Students" from page 31 of the Report in illustration of the importance given to Indian research by this Committee, and of their utter neglect of leading national scientific talent in organising their programmes.

> "In the beginning, the Committee had perforce to undertake the training of research scholars in the various branches of science pertaining to cotton for employment on its research schemes or in the Provincial Agricultural Departments. Gradually, however, the necessity for this has disappeared and scholarships are now, generally speaking, only granted when need for specially trained workers arises in connection with the Committee's schemes or in Agricultural Departments. Sometimes scholarships are also awarded for specialised training at recognised institutions abroad or in the Committee's Cotton Genetics Research Scheme at the Institute of Plant Industry, Indore."

If, on the other hand, there had been a continuous harnessing of all-round National Scientific talent in the elaboration of schemes of research for the adequate utilisation of cotton and its associated by-products, India might be producing by now, commercial quantities of furfural, laevulinic acid, raffinose, tocopherol and a few other valuable industrial products for internal consumption and prosperity (unpublished work of K. Karamchandani under the writer's guidance).