

### THE INDIAN SCIENCE CONGRESS.

THE proposal to assemble an Indian Science Congress was first put forward in 1913, and was due to the initiative of Prof. MacMahon and of Dr. Simonsen. The support of the Asiatic Society of Bengal gave to the new scheme a prestige which has helped it materially. The first congress was held at Calcutta in 1914, the second at Madras in 1915, and the third has recently been held at Lucknow. The future development of these congresses will be watched with interest by all who are engaged in scientific work.

India is struggling to devise an educational system that will satisfy her peculiar and complicated requirements; in her endeavours she has been the recipient of much criticism and advice; other countries have been held up to her as models, and she has been urged to adopt, for her numerous races and her tropical climate, methods that have been found suitable to homogeneous northern peoples.

Amid the clamour of politicians quarrelling over questions of primary education, the Government of India has had to consider the teaching of science at colleges and universities, and the prosecution of research in its scientific departments. In the last twenty years many well-qualified professors of science (physics, chemistry, zoology, medicine, mathematics) have been appointed, the Science Institute at Bangalore has been founded by the late Mr. J. N. Tata, the Research Institutes at Dehra Dun and Pusa have been erected and officered. In 1902, in order to prevent the duplication and overlapping of work, and in order to promote co-operation and touch, Lord Curzon created the Board of Scientific Advice, upon which each scientific department of State is represented.

The expansion of scientific teaching and work in India has created new wants, and the absence of scientific societies and of scientific libraries has now begun to be felt. Although the Board of Scientific Advice may prevent the Forest Department in its researches from overlapping the Agricultural Department, it does not bring the scientific departments into touch with the universities and colleges, and it does not bring together individuals who are working at the same branch of science.

If the Government of India had made no efforts to push on the teaching of science, it would have been blamed for supineness; now, however, that it is showing enterprise and determination, it is criticised for giving scientific education without providing a career or a livelihood for the youth whom it educates. It is pointed out that the educated youth of India is crowding into the legal profession, because it is the only learned profession that holds out a prospect of money-making. This statement is, however, no longer quite correct, as the medical profession is beginning to offer great chances to young men of ability. In every civilised country the public are willing to pay large fees to men who can save them from illness or can protect them in the law courts; and this fact will always render the legal and medical professions popular and lucrative.

The word "research" is now in common use, but what is meant by "research"? Some authorities, influenced by the commercial success of foreign medicines and of synthetic indigo, urge that research must be utilitarian; others are contending that science must be pursued for love of science only. Enough has been said to show the difficulties of the situation in India. In such a situation an annual congress of all interested in science cannot fail to be advantageous. Twenty years ago such a congress would not have

been possible; twenty years hence it will have created for itself a powerful position.

In India workers in science are scattered to an extent which residents in England can scarcely realise. It is desirable that they should become personally acquainted. Without libraries and without intercourse individuals cannot keep abreast of the times. A congress meeting affords an opportunity for workers from every part of India to meet together and to discuss their difficulties, and is of particular value to the younger workers, in that they are able to present their results to audiences capable of offering sound criticism. Trained students from the Indian colleges are able at a congress to obtain information concerning chances of employment.

The recent congress at Lucknow was well attended by both Europeans and Indians, and the discussions showed great and general interest. Colonel Selby, the principal of the Medical College, had kindly placed some of his buildings at the disposal of the congress, which was opened on January 13 by Sir James Meston, the Lieutenant-Governor of the United Provinces. Sir Sidney Burrard was the president, and in his address he discussed the origin of the mountain ranges of India. The congress then separated, and meetings of its several sections were held—Agriculture, Zoology, Chemistry, Botany, Physics and Mathematics, Geology and Ethnology. It would serve no useful purpose to give complete lists of the papers read in the various sections. A report of the meeting, with abstracts of the papers read, has been published in the Journal of the Asiatic Society of Bengal for February, 1916.

From the papers presented to the Chemistry Section, it is clear that both among the European and Indian members of the teaching staffs at the various colleges and institutions, a keen desire to carry out chemical investigations exists, a desire which is shared also by the senior students of some of the colleges. Among the centres where such activity is pronounced are Calcutta, Madras, Dacca, and Bangalore. The growth of this desire to participate in chemical research has been most marked during the past few years, and the activity at present is such that materials for papers and discussion at subsequent meetings of the congress are assured.

In the Physics Section the attendance was large. Papers were read on atmospheric electricity; radioactivity of rocks; electrical discharge in gases; the oscillations of a violin string, and the history of mathematics, showing that the range of work was wide. The papers were of a high standard, and indicated that research in the physical sciences is healthy in India. Of the researches described in the papers read, four were made in Government scientific departments and eleven in university colleges. The meetings acted as a stimulus to those taking part in them.

Lucknow being a large city, the committee of the congress arranged for three lectures to which the public were admitted. The first was by Dr. Hankin, on the evolution of flying animals; the second by Dr. Bose, on invisible light; and the third by Prof. Neogi, on the manufacture of iron in ancient India.

With a record of three successful meetings, it seems clear that the Science Congress has established itself as a valuable aid to scientific progress in India. In the future it is perhaps possible that it may develop on broader lines and eventually grow into an Indian Association for the Advancement of Science, with greater scope for promoting scientific inquiry and co-operation. All who have been engaged in scientific work in India will realise the great benefits which might be conferred by such an association.