

pioneers, all of whose work is represented in the Museum. Recent acquisitions, special exhibitions, lectures, attendances, staff are all referred to in the report, which contains information also of the Library, testimony being paid to the initiative and resource of Dr. S. C. Bradford, who last year retired after being in charge of the Library for thirteen years. The record of the Museum is one of steady progress.

Vocational Education in India

AMONG the many baffling problems confronting the authorities responsible for education in India are the prevalence of unemployment among ex-students of high schools, intermediate colleges and universities, and the scarcity of young people trained for practical work in industry. Mr. A. Abbott was invited as an expert in vocational education to bring his special knowledge to bear on these problems, and delivered a lecture on the subject at the Royal Society of Arts (*Journal*, March 10). His lecture is largely based on observations in the Punjab, the United Provinces, Delhi, and the States of Hyderabad and Baroda. It outlines a scheme providing for vocational schools of three grades: the vocational high school, the technical college and the postgraduate stage. The first and, for the time being, most important would be open to students who had completed eight years of 'general' education. As an exception, prospective artisans of the small-scale industries would be admitted to industrial schools if qualified in arithmetic, reading and writing by six years of general schooling. These would devote a third of their time in the industrial school to general subjects, including drawing, and spend the remainder in workshop exercises. But the keynote of the lecture is 'planning'. The first step must be the establishment of machinery for effective consultation between industry and educational organizations. This would take the form of advisory councils, provincial and local. The former would in the first instance survey the needs of industry and plan a provincial scheme. On the local council would devolve the critical function of estimating the number of recruits needed annually for each calling, a consideration too often ignored in the provision of opportunities for advanced literary education. Entry to the technical colleges would be restricted to students who had not only gained the leaving certificate of a higher secondary school with credits in mathematics and science, involving ordinarily eleven years of schooling, but also had already a prospect, more or less assured, of finding employment.

Indian Statistical Conference

ALTHOUGH the desirability of holding an Indian Statistical Conference was realized by the Indian Government in 1934, it was not possible to hold the first meeting until January 1938. The Proceedings of the Conference were published in December (Calcutta: Statistical Publishing Society; London: P. S. King and Son, Ltd., 1938), and contain, besides the official speeches, some twenty research papers in

full and abstracts of many others; it will probably surprise many English statisticians to learn how vigorously the subject is being developed in India. The Conference was divided into four sections dealing respectively with theoretical statistics, agricultural statistics, medical and public health statistics, and economic statistics. There was a symposium on agricultural field experiments, and a special discussion on standardization in industry. The Conference was presided over by Prof. R. A. Fisher. Among the supplements is a biographical sketch of Prof. Fisher, pointing out how deeply he has influenced statistical work in India. Other supplements give the sixth annual report of the Indian Statistical Institute, and an account of the work of the Calcutta Statistical Laboratory, with a list of 128 original papers produced there.

The Art of Pyrometry

THE growth of the science of matter at high temperatures in the last century has been largely determined by the perfection of methods of measuring high temperatures. Prior to that time manufactures at high temperatures were of necessity empirical and dependent on the unaided skill and judgment of craftsmen. It was impossible to measure furnace temperatures much more exactly than in the time of Shadrach, Meshach and Abednego. The progress can be realized by comparing the symposium on "Gas Temperature Measurement" (*J. Inst. Fuel*, March 1939) with the modest and pioneering classic of Le Chatelier "Les Mesures des Températures Elevees" published only so recently as 1900. This report, with its discussions, covers more than 100 quarto pages and forms an excellent summary of the art of pyrometry as it exists to-day—an art which makes use of almost every branch of physics. In the symposium all pyrometric matters were considered, but considerable attention was directed to the suction pyrometer for measuring temperatures of gases flowing through flues. Dr. G. Naeser described a recent introduction to pyrometric technique—a colour brightness pyrometer—which makes use of colour instead of the intensity of radiation. Advantages are claimed in connexion with the measurement of the temperature of melted metal.

The Ross Institute Industrial Advisory Committee

AT a meeting of the Ross Institute Industrial Advisory Committee held on April 21 with Mr. G. H. Masefield in the chair, reports were presented upon malaria control in Ceylon, and upon housing and air-conditioning in the tropics. Sir Malcolm Watson spoke on anti-malarial oil for treating water in order to destroy mosquito larvae. An almost perfect anti-malarial mixture has been compounded, but it is very necessary to employ the right kind of oils, which are not always available. The conveyance of disease by aircraft was another subject discussed, particularly by transmission of infected mosquitoes, and it was mentioned that an apparatus had been recently devised for disinfestation during flight.