

The Liverpool Meeting of the British Association.

THE preliminary programme and invitation circular for the meeting of the British Association to be held at Liverpool on September 12-19, under the presidency of Sir Ernest Rutherford, have just been issued. The Association has met at Liverpool on four previous occasions, the years and the presidents being 1837, Earl of Burlington, afterwards Duke of Devonshire; 1854, Earl of Harrowby; 1870, Prof. Huxley; 1896, Lord Lister. The meeting in 1896 was the fourth largest in the history of the Association, the attendance being 3181, and it is hoped that this number will be exceeded at the forthcoming meeting. Arrangements have been made with the Railway Companies in Great Britain under which members attending the meeting may obtain return tickets to Liverpool on payment of single fare and a third.

The provisional programme of addresses, discussions, etc., is given below, the sections being as follows:—A, Mathematics and Physics; B, Chemistry; C, Geology; D, Zoology; E, Geography; F, Economic Science and Statistics; G, Engineering; H, Anthropology; I, Physiology; J, Psychology; K, Botany; L, Educational Science; M, Agriculture.

Wednesday, September 12, 8.30 P.M.—Inaugural general meeting: presidential address by Sir Ernest Rutherford, on the electrical structure of matter.

Thursday, September 13.—Addresses by presidents of sections:—D, Prof. J. H. Ashworth, on modern zoology, its boundaries and some of its bearings on human welfare. E, Dr. Vaughan Cornish, on the position and opportunity of the British Empire. K, Mr. A. G. Tansley, on the present position of botany. I, Prof. G. H. F. Nuttall, on symbiosis in animals and plants. M, Dr. C. Crowther, on science and the agricultural crisis. Discussions (Sections A, B, G) on cohesion and molecular forces; (Sections F, J) on psychological assumptions underlying economic theory; and (Sections G, J) on vocational tests for engineering trades.

Friday, September 14.—Addresses by presidents of sections: C, Dr. Gertrude Elles, dealing with some aspects of evolutionary palaeontology. G, Sir H. Fowler, on transport and its indebtedness to

science. L, Prof. T. P. Nunn, on the education of Demos. B, Prof. F. G. Donnan, on the physical chemistry of interfaces. J, Dr. C. Burt, on the mental differences between individuals (with special reference to individual psychology in education and industry). Discussions (Sections E, H) on the methods of anthropology in relation to the social sciences; (Sections F, M) on the outlook for British agriculture; and (Sections B, I) on the physical chemistry of membranes in relation to physiological science. Lecture (Section D) by Mr. Julian S. Huxley on the physiology of development in the frog; and by Prof. G. Elliot Smith on the study of man.

Monday, September 17.—Addresses by presidents of sections:—A, Prof. J. C. McLennan, on the origin of spectra; H, Prof. P. E. Newberry, on Egypt as a field for anthropological research; F, Sir W. H. Beveridge, on unemployment and population. Discussions (Sections J, L) on the delinquent child; (Sections E, L) on geography as a basis for a general science course. Lecture (Section K) by Dr. W. L. Balls, on cotton.

Tuesday, September 18.—Discussions (Sections G, L) on the teaching of dynamics; (Sections K, M) on virus diseases of plants; and (Sections E, H) on the origin of domestic animals.

Delegates of the Corresponding Societies will meet on Thursday, September 13, and on Tuesday, September 18, to discuss matters of common interest to the Societies and the Association. The officers of the Conference of the Corresponding Societies are:—*President*: Prof. H. H. Turner. *Vice-President*: Prof. P. G. H. Boswell. *Local Secretary*: Miss E. Warhurst.

An exhibition of scientific apparatus is being organised and will be held in the Central Technical School. Leading scientific instrument and scientific apparatus makers will be represented, and it is believed that this will be the most complete exhibition of its kind that has ever been held. It will include the latest inventions in instruments and apparatus, as well as charts and diagrams, and, in order to make it thoroughly representative, every section has been asked to submit ideas and suggestions.

International Union for Pure and Applied Chemistry.

CONFERENCE AT CAMBRIDGE, JUNE 17-20.

THE International Union for Pure and Applied Chemistry will meet in Cambridge, at the invitation of the Vice-Chancellor of the University, on June 17-June 20, when about 150 delegates, representing more than thirty different countries, will be present.

The majority of the delegates are expected to arrive on Saturday, June 16. On Sunday, June 17, there will be visits to colleges and other places of interest in the afternoon. In the evening there will be a reception of the delegates by Sir William Pope, president of the Union, and the British Federal Council, in the Arts School.

On Monday, June 18, in addition to the meetings of committees, a report by Prof. J. W. McBain, on "The Nature of Soap Solutions," will be presented and discussed. Two receptions will be held on this day, one by the master of Gonville and Caius College and Mrs. Anderson, and the other by the master of Sidney Sussex College and Mrs. Weekes.

On Tuesday, June 19, there will be the usual committee meetings, and in addition two reports

will be presented and discussed. The first will be by Dr. E. K. Rideal on "Recent Developments in Contact Catalysis," and the second by Prof. J. F. Thorpe on "New Aspects of Tautomerism." During the afternoon there will be a garden party in the gardens of Sidney Sussex College, and in the evening the annual banquet of the Union will be held in the Hall of Trinity College.

On Wednesday, June 20, after the committee meetings, Prof. F. Gowland Hopkins will present his report on "Chemical Mechanisms involved in the Oxidations which occur in Living Tissues."

At 4 P.M. the degree of Doctor of Science, *honoris causa*, will be conferred on the following delegates: Prof. W. D. Bancroft, Cornell University; Prof. E. J. Cohen, University of Utrecht; M. A. Haller, president of the Paris Academy of Sciences; Prof. C. Moureu, Collège de France; Prof. R. Nasini, University of Pisa; Prof. Amé Pictet, University of Geneva; and Prof. F. Swarts, University of Ghent. The ceremony at the Senate House will be followed by a reception by the Vice-Chancellor and Mrs. Pearce in the Fitzwilliam Museum.