

promising seem to be the organising of district panels of suitable lecturers, the inclusion of provisional science courses in the programmes of classes, and propaganda to encourage interest in the study of science, by printed leaflets and by peripatetic lecturers capable of interesting popular audiences. Two interesting "general recommendations" are added: that there should be "a rapid and progressive improvement in the supply of films and slides applicable to science teaching", and that for this purpose "the Association should investigate the possibilities of the setting up of a national organisation for the production and distribution of educational films".

The Science Museum during 1931

THE Report of the Advisory Council of the Science Museum of 1931 is the first issued since the Council was reorganised on lines suggested by the Royal Commission on National Museums and Galleries. With Sir Richard Glazebrook as chairman, the Council now includes three representatives appointed by the Board of Education, and twenty-six representatives of various scientific, technical, and industrial institutions. The Royal Commission also recommended that the Advisory Council should be assigned a more active part in the management and development of the Museum, and the adoption of this recommendation has already resulted in the appointment of a Standing Committee which will meet four or five times annually, and of three small sub-committees which are to report on the Science Library, the development of the Electrical Engineering Section, and on an exhibition of pottery and porcelain manufacture. The Report contains details of the attendances, lectures, temporary exhibitions, acquisitions, and of the Library. It also contains a tribute to the late Sir Hugh Bell, who was chairman of the Advisory Council from 1912 until 1931, and to the Director, Sir Henry Lyons, and his staff. Among the acquisitions during the year are the apparatus used by Sir William Ramsay in his work on the rare gases of the atmosphere, the fine collection of optical instruments, numbering nearly 600, given by Mr. T. H. Court, and the cinematographic apparatus invented in 1887-89 by Louis Augustin Le Prince, who disappeared while travelling in France in 1890.

Safety in Mines

THE Safety in Mines Research Board has just issued Paper No. 74, which contains an account of an important conference on safety in mines held at Buxton last year. There seems no adequate reason why information about this important conference should have been so long delayed, though there may have been difficulty in getting the authors of the various papers to correct their contributions. The meeting derives its great importance from the fact that it was the first international conference of this kind. In addition to the British representatives, there were delegates from Belgium, France, Germany, and the United States. A number of important papers on mining explosives were read, and proposals were made for future international meetings, subject to ratification by the organisations concerned—a ratification

which, we presume, will certainly be forthcoming. Perhaps the most important of the suggested future arrangements was that "Periodical meetings of the directors of research shall be arranged at each research station in rotation". This arrangement would thoroughly ensure the international character of future conferences, and it is a most welcome sign that the question of safety in collieries is for the future to be treated as an international question and not as one possessing local interest only.

Geodetic Surveying in the United States

THE annual report of the Director of the United States Coast and Geodetic Survey for the year 1930-31 (Washington, 1931, 45 pp., 60 cents) describes briefly the wide range and large extent of the activities of this important and progressive organisation. It has as a frontispiece a photograph of the new surveying vessel (one of several possessed by the Survey) *Hydrographer*, commissioned in March 1931, and fully equipped with sound-ranging apparatus for depth-surveys; sound-ranging is also used for locating the position of the ship from the shore at the time of each depth-measurement. The use of these methods has greatly increased the rapidity of the coastal survey work. The control survey work on land has also been rendered much more rapid and less expensive by abandoning the erection of the large wooden towers formerly used in flat or rolling country, at points about ten miles apart, to enable the observers to see across such distances over intervening trees and other obstructions. These towers were often 100 feet or more in height, each being double, so that the observer could walk on the outer platform, unconnected with the inner tower carrying the instrument. They contained large quantities of material, used once only, and required much time to erect. They are now replaced by portable steel towers, which can be erected by five men in less than a single working day, and used many times, their transport from one place to another being made by trailer trucks. An improved and smaller theodolite has also been devised and brought into use.

Czechoslovakian Contributions to Science

THE scientific communications to the Czech Academy of Sciences during 1928 and 1929 have now been published in French or English in volumes 29 and 30 of the *Bulletin International* of the Academy. Among the papers presented are several by Dr. F. Němejc dealing with his palaeobotanical investigations on some quaternary deposits in the district around Ružomberok in Slovakia. Dr. R. Kettner has made a similar study of the geological formations in the Hron Valley, and Prof. Ulrich describes the minerals variscite and barrandite from Třenice and also a Slovakian rutile. Dr. J. Hahn's account of the life history of *Monocystis Mrazeki* is illustrated with some fine photomicrographic plates, whilst M. Uher's communication dealing with the genesis of nerve elements cultivated *in vitro* is similarly illustrated. Dr. O. Jirovec has succeeded in observing and recording on a coloured plate some twenty stages in the nuclear

division of *Trypanosoma evansi*. His observations apparently contradict the earlier ones of Roskin. In pure chemistry, Prof. Tomiček and Dr. Janský have made an exhaustive study of the methods available for determining mixed halides in connexion with the analyses of bromides and iodides in spa and thermal waters. The improvements which they have introduced enabled them to give more accurate and detailed results. It was long supposed that the waters from Darkov, Silesia, were the richest in iodine, but according to these authors the waters from Čiz in Slovakia and Bad Hall in Austria are still richer, with a total iodine content of more than 28 mgm. per litre.

Colloid Aspects of Textile Materials

A GENERAL discussion on "The Colloid Aspects of Textile Materials" has been arranged by the Faraday Society to be held in the Department of Chemistry of the University of Manchester on Sept. 21-23, under the presidency of Sir Robert Mond. An introductory address will be given by Prof. F. G. Donnan. The general subjects to be discussed include cellulose and its derivatives, lignin and keratin; fibre particles, their production, deformation, and degradation; and manufacturing processes. Among the foreign guests who will speak at the discussion are: Prof. H. Mark (Ludwigshafen), Prof. H. Staudinger (Freiburg), Dr. S. E. Sheppard (Rochester, U.S.A.), Dr. J. J. Trillat (Paris), Prof. K. Freudenberg (Heidelberg), Prof. O. Roehrich (Paris), Prof. Herzog (Berlin), Prof. J. R. Katz (Amsterdam), Mr. C. R. Nodder (Lambeg), Prof. E. Elöd (Karlsruhe), and Prof. P. Kraus (Dresden). Further particulars of the meeting can be obtained from The Secretary, Faraday Society, 13 South Square, Gray's Inn, London, W.C.1.

Swedish Meteorology

THE State Meteorological and Hydrographical Service of Sweden has published as Part 2 of the Årsbok for 1932 the meteorological statistics of the country for the year 1929. The data are collected from more than two hundred stations, for each of which pressure, temperature, humidity, wind direction and force, cloud, and rainfall are given in three records on every day of the year. For some forty stations, monthly and yearly means are also given for each hour of observation. There is no discussion of the data, but the usefulness of this publication is enhanced by the headings and notes being given in French as well as Swedish.

Announcements

PROF. F. WOOD JONES, professor of anatomy in the University of Melbourne, will go to Peking as head of the Department of Anatomy at the Peking Union Medical College, during the absence of Prof. Davidson Black on leave in Europe and America during the next six months.

THE valuable collection of Australian Coleoptera, containing a great store of 'types', of the late Mr. A. M. Lea, who died at Adelaide on Feb. 29 (see NATURE for May 28, p. 786), has recently been pur-

chased by the Governors of the South Australian Museum, partly as a memorial of his work.

THE "Achema VII" (the German Chemical Plant Exhibition, Ausstellung für chemisches Apparatewesen), arranged by the "Dechema" (Deutsche Gesellschaft für chemisches Apparatewesen, of Seelze, Hannover), will be held at Cologne in 1933 (probably on June 2-11, 1933) at the same time as the conferences of the Verein Deutscher Chemiker, the Deutsche Kautschukgesellschaft, the Deutsche Brennkrafttechnische Gesellschaft, and the Dechema. Other scientific and technical societies will also hold their annual meeting at Cologne during the same period.

THE following awards for the year 1932-33 have been made by the Salters' Institute of Industrial Chemistry: Fellowships renewed to: D. J. Branscombe, University College, Exeter; H. G. Simpson, East London College; J. L. Sweeten, St. Catherine's College, Cambridge; P. Chisholm Young, Trinity College, Cambridge. Fellowships awarded to: S. C. Britton, Pembroke College, Cambridge; E. H. T. Hoblyn, Imperial College of Science and Technology; R. H. McDowell, Jesus College, Oxford; G. Pearce, University of Birmingham. The Salters' Institute has also awarded 107 grants-in-aid to young men and women employed in chemical works, to facilitate their further studies.

POPULAR science book lists, 27 in number, have been prepared by a special committee of the American Association for the Advancement of Science, aided by some 300 specialists in colleges, libraries, and museums. The object of the series is to offer to the general reader reliable guidance in the choice of a few elementary science books, and in following up such reading by systematic study. The lists are annotated, and cover the whole field of elementary physics and chemistry, natural history and physiography, the history of science, and the teaching of science.

THE Arctic Institute of Leningrad has prepared a new map of the polar areas of the Soviet arctic regions. The map shows the regions discovered by recent Soviet expeditions, and has been compiled in both Russian and English.

MESSRS. Watts and Co. announce the early publication of "The Universe of Science", by Prof. H. Levy, in which recent pronouncements of Sir James Jeans, Sir Arthur Eddington, and General Smuts regarding the universe are critically examined.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A lecturer in metallurgy and applied chemistry at the Royal Naval College, Greenwich—The Adviser on Education, Admiralty, Whitehall, S.W.1. (Aug. 22). An assistant lecturer in engineering at the School of Mines, Treforest—The Director of Education, County Hall, Cardiff (Aug. 26). A de Beers professor of mining and surveying at the University of the Witwatersrand, Johannesburg—The Secretary, Office of the High Commissioner, South Africa House, 73 Strand, W.C.2 (Sept. 7).