

in their value for bacon. Useful information is given regarding sheep breeding in Britain, Canada, Australia, New Zealand and South Africa, and the varying problems each country has to face. We learn that the world's record for butter-fat production—1,614 lb. in a year—is held by an Australian Shorthorn, that Romney Marsh sheep are successful in New Zealand, and that camel breeding is developed by Government in the Sudan. Zebu cattle and buffaloes have been introduced from India into the West Indies, Tanganyika and British Guiana. Cattle suitable for the tropics can probably be produced by crosses between zebu and certain European breeds. Such crosses between zebu cows and Friesian bulls have produced a satisfactory breed in Trinidad, but Krishna Valley zebu in Tanganyika crossed with Devons or Aberdeen Angus give intractable animals unsuitable for domestic uses.

National Institute of Agricultural Botany

THE fourteenth report of the National Institute of Agricultural Botany records considerable progress in the selection and multiplication of improved crops. Exhaustive tests of yield of many farm and garden plants have been made in different districts, and authoritative comparisons of varieties are now available. Considerable research is being devoted to problems of seed-testing, and a large number of routine tests have been made for other investigators. The classical potato trials at Ormskirk, Lancs, seem to have suffered from severe climatic conditions, but the work on potato synonyms progresses satisfactorily, and should do much to protect the farmer and gardener from unfair exploitation. The head office of the Institute is in Huntingdon Road, Cambridge, and a very close co-operation is maintained with related organisations.

Ichthyology in the United States

THE twentieth anniversary number of *Copeia* (No. 4, December 1933. American Society of Ichthyologists and Herpetologists), which deals with fishes, reptiles and amphibians, is dedicated to its founder, John Treadwell Nicholls. In it are included many interesting and valuable papers, notable among them being "Deep-Sea Stomioid Fishes" by William Beebe, in which one new genus and eight new species are described from the Bermuda Oceanographic Expeditions of the Department of Tropical Research of the New York Zoological Society. These were all taken within the eight-mile circle, the centre of which is at lat. 32° 12' N., long. 64° 36' W., 9¼ miles south-south-west of Nonsuch Island, Bermuda. The barbels of some of these fishes are very peculiar; one of them, belonging to *Ultimostomias mirabilis* gen. et sp. nov., has a barbel measuring 417 mm. in length (more than ten times the length of the fish itself). Other papers on fish are by Albert Eide Parr, George S. Myers, E. W. Gudger and C. M. Breder, Jr. A new snake from Panama is described by E. R. Dunn and there is an interesting article on the immunity of rattlesnakes to their venom by A. A. Nichol, Volney Douglas and Lewellyn Peck. Other

papers are on the nests and young of the Allegheny salamander, the ophidian generic names *Ahaetulla* and *Dendrophis*, secondary sexual characters of *Bufo melanostictus*, and *Pseudemys troostii-elegans* complex, a case of sexual dimorphism.

Strength of Spirits

As is well known, the Finance Act of 1915 provided that where by reason of the high temperature or strength of spirits the ordinary Sikes hydrometer was not applicable, the strength may be ascertained by means of the supplemental Sikes A hydrometer, using tables identified as II and IV prepared by the late Sir Edward Thorpe when principal of the Government Laboratory. Under the Strength and Weight of Spirits Ascertainment Regulations, 1930, when the same conditions of high temperature or strength apply, the use of a further supplemental Sikes B hydrometer is permitted. When this is used without the poise marked A attached, Tables V and VI prepared by Sir Robert Robertson are applicable. Tables II, IV, V and VI have been issued under the authority of the Commissioners of H.M. Customs and Excise in one volume at 2s. 6d. (London: H.M. Stationery Office): the ordinary tables I and III are printed in a separate volume. The tables cover temperatures from 30° to 100° F.

Institution of Petroleum Geologists

THE summer meeting of the Institution of Petroleum Technologists will be held in London at the Royal Society of Arts on June 28–29. The programme consists of a series of papers, available in advance, on general topics which will be submitted for discussion. The subjects of the first day's discussions are the relation of oil and coal to the petroleum industry, measurement of oil in bulk, and the format of the Institution's *Journal*. The second day is being given to a series of reports on the progress of naphthology; the Refining and Chemical Section, under the chairmanship of Dr. F. H. Garner, will occupy the morning session, while the Field Technology, Geology and General Sections, under the chairmanship of Mr. A. Beeby Thompson, will take up the afternoon session. During the course of the annual dinner on June 29, the Redwood Medal of the Institution will be presented to Dr. David White, of the U.S. Geological Survey, who is known for his studies in palæobotany. This medal is awarded biennially, and is given for contributions to our knowledge of petroleum technology.

Rockefeller Medical Fellowships

THE Medical Research Council announces that, on behalf of the Rockefeller Foundation of New York, it has made the following awards of travelling fellowships for the academic year 1934–35: Mr. I. Aird, demonstrator in anatomy, University of Edinburgh, and clinical tutor in surgery, Royal Infirmary, Edinburgh; Mr. I. A. Anderson, house physician, Royal Infirmary, Aberdeen; Prof. E. G. Oastler, professor of physiology, St. Mungo's College, Glasgow,

and assistant physician, Royal Infirmary, Glasgow; Mr. W. H. Owles, resident medical registrar, Queen's Hospital, Birmingham; Dr. H. L. Sheehan, lecturer in pathology, University of Manchester; Mr. C. Wilson, assistant in pathology, London Hospital. These fellowships are awarded to graduates who have had some training in research work either in the primary sciences of medicine or in clinical medicine or surgery, and who are likely to profit by a period of work abroad before taking up positions for higher teaching or research in the British Isles. All the fellows appointed this year will work at centres in the United States.

International Council of Scientific Unions

THE International Council of Scientific Unions will hold its triennial meeting at Brussels on July 8-14. At the last meeting, in 1931, the title of the organisation was changed from that of the International Research Council to the present one, and the statutes were revised to give greater freedom of action to the international unions. On the present occasion each of these unions, representing astronomy, geodesy and geophysics, chemistry, scientific-radio transmission, physics, geography and biological science, will communicate an account of its activities during the past three-year period. Addresses will also be given by Dr. D. la Cour on the International Polar Year, 1932-33, its aims, methods and some preliminary results; by General G. Perrier, on recent international determinations of longitude; by Dr. E. P. Hubble, on the exploration of space; and by Prof. H. R. Kruyt, on electricity and hydration of colloids.

Announcements

A MOSELEY Research Studentship of the Royal Society has been awarded to Dr. Barnet Woolf for research on bacteriology and immunology.

SIR HAROLD HARTLEY, chairman of the Fuel Research Board of the Department of Scientific and Industrial Research, is inviting a number of scientific workers and industrialists to inspect the work in progress at the Fuel Research Station, River Way, Blackwall Lane, East Greenwich, S.E.10, on June 25. The function will be generally similar to the annual visitation of the National Physical Laboratory, but it is the first of its kind to be held at the Fuel Research Station.

A SCIENTIFIC committee to assist the director, Dr. Louis Martin, has been formed at the Institut Pasteur, Paris, consisting of MM. J. Bordet, director of the Institut Pasteur of Brussels, and Nobel prizeman; G. Bertrand and F. E. P. Mesnil, members of the Institut de France and Académie de Médecine; C. J. H. Nicolle, professor at the Collège de France and Nobel prizeman; A. J. E. Yersin, director of the Institut Pasteur of Indo-China; and A. Borel, director of the Institut d'Hygiène at Strasbourg. Further members may be appointed later.

AT the seventeenth annual meeting of the American Society of Ichthyologists and Herpetologists, held in New York on May 10-12, the following

were elected officers for the ensuing year: *Honorary Presidents*, Leonhard Stejneger and John T. Nichols; *President*, Carl L. Hubbs; *Vice-Presidents*, Dr. E. W. Gudger, Dr. Francis Harper and Clifford Pope; *Secretary*, M. Graham Netting; *Treasurer*, A. W. Henn; *Editors*, Carl L. Hubbs and Helen T. Gaige. The next meeting of the Society will be held in Pittsburgh in May 1935.

MESSRS. A. GALLENKAMP AND CO., LTD. (17-29 Sun Street, and 1-3 Clifton Street, London, E.C.2) announce the introduction of a new type of all-glass syringe for medical use. It is constructed of pyrex glass in various sizes, and is provided with stainless steel needles. Copper-coated glassware—beakers, flasks, etc.—is also supplied by this firm. The copper is electrolytically deposited on the outside, and the advantages claimed are rapid distribution of heat and saving of the liquid should the glass crack.

APPLICATIONS are invited for the following appointments, on or before the dates mentioned:—A lecturer in mathematics and physics at the Portsmouth Municipal College—The Registrar (June 25). Part-time lecturers and instructors in engineering, welding, electrical installation, etc. at the Willesden Technical College, Denzil Road, London, N.W.10—The Principal (June 25). A professor of botany in the Egyptian University—The Dean of the Faculty of Science, c/o The Director, Egyptian Education Office, 39, Victoria Street, London, S.W.1 (June 25). A head of the Women's Department in the Wolverhampton and Staffordshire Technical College—The Clerk to the Governors, Education Offices, Wolverhampton (June 25). A lecturer in botany and a lecturer in zoology at Armstrong College, Newcastle-upon-Tyne—The Registrar (June 26). A teacher of chemistry at the Doncaster Technical College—The Secretary, Education Offices, Doncaster (June 27). An assistant civil engineer to the Air Ministry—The Secretary (S.2), Adastral House, Kingsway, W.C.2 (June 28). A metallurgist to the British Non-Ferrous Metals Research Association—The Secretary, Regnart Buildings, Euston Street, London, N.W.1 (June 30). A lecturer in science at the Gordon Memorial College, Khartoum—The Secretary (Sir/C A), Board of Education, Whitehall, London, S.W.1 (June 30). An assistant lecturer in electrical engineering at University College, Nottingham—The Registrar (July 2). A research assistant in soil science in the Department of Agriculture, University of Cambridge—The Secretary of the School of Agriculture (July 2). A field officer for investigations on Braxy-like diseases of sheep and a junior research officer for investigations on swine erysipelas at the Institute of Animal Pathology, University of Cambridge—The Director (July 7). A professor of social anthropology in the University of Cape Town—The High Commissioner for the Union of South Africa, Trafalgar Square, London (Aug. 15). A Regius professor of midwifery in the University of Glasgow—The Private Secretary, Scottish Office, Whitehall, London, S.W.1. A chemist at the East Malling Research Station, Kent—The Secretary.