

Demerec, director, Department of Genetics, Carnegie Institution of Washington, Cold Spring Harbor; Dr. Jesse Douglas, Department of Mathematics, Brooklyn College; Dr. Clarence H. Graham, Department of Psychology, Columbia University; Dr. Morris S. Kharasch, Department of Chemistry, University of Chicago; Dr. Karl Paul Link, professor of biochemistry, Agricultural Experiment Station, University of Wisconsin; Dr. Robert F. Loeb, College of Physicians and Surgeons, Columbia University; Dr. Esmond R. Long, Henry Phipps Institute, 7th and Lombard Streets, Philadelphia, Pa.; Dr. Joseph E. Mayer, Department of Chemistry, Columbia University; Dr. Charles S. Piggot, Geophysical Laboratory, Carnegie Institution of Washington; Dr. Marcus M. Rhoades, Department of Botany, Columbia University; Dr. George Scatchard, Department of Chemistry, Massachusetts Institute of Technology; Dr. Tracy M. Sonneborn, Department of Zoology, Indiana University; Dr. Leslie Spier, P.O. Box 880, Santa Cruz, California; Dr. S. Smith Stevens, Department of Psychology, Harvard University; Dr. Chauncey G. Suits, director of the Research Laboratory, General Electric Company, Schenectady, New York; Dr. Frederick E. Terman, dean of the School of Engineering, Stanford University; Dr. Merle A. Tuve, director of the Department of Terrestrial Magnetism, Carnegie Institution of Washington; Dr. Chester H. Werkman, head of the Department of Bacteriology, Iowa State College; Dr. Roger J. Williams, director of the Biochemical Institute, University of Texas; Dr. Frank C. Whitmore, dean of the School of Chemistry and Physics, Pennsylvania State College; Dr. Wendell P. Woodring, principal geologist, United States Geological Survey.

The following have been elected foreign associates of the National Academy of Sciences: Prof. Sydney Chapman, Sedleian professor of natural philosophy, University of Oxford; Dr. Peter Kapitza, director of the Institute for Physical Problems, Academy of Sciences of U.S.S.R.

National Research Council of Canada: Medical Fellowships

POST-GRADUATE medical fellowships have been awarded for 1946-47 by the National Research Council of Canada for the first time. Three junior awards (1,200 dollars a year) and five intermediate awards (1,800 dollars a year) have been announced: provision has also been made for senior awards (2,400 dollars a year). Junior fellowships are open to graduates in medicine who have already completed one year of post-graduate study; intermediate fellowships to applicants who have had experience in research work in a medical science for at least one year following graduation; senior fellowships are for applicants who have given evidence of capacity to conduct independent research in medical science. The awards for 1946-47 are as follows: *Junior Fellowships*: Dr. M. Hendelman (McGill), at the Royal Victoria Hospital, Montreal (obstetrics and gynaecology); Dr. Levitan (McGill), at McGill University (physiology); Dr. D. L. Wilson (Queen's), at the University of Toronto (biochemistry). *Intermediate Fellowships*: Dr. P. Dontigny (Laval and Montreal), at the Institute of Experimental Medicine and Surgery, Montreal (endocrinology); Dr. A. Gold (McGill), at McGill University (endocrinology); Dr. J. Leger (Montreal), at the Institute of Experimental Medicine and Surgery, Montreal (endocrinology and allergy);

Dr. K. R. Mackenzie (McGill), at the University Clinic, Royal Victoria Hospital, Montreal (experimental medicine); Dr. G. C. McMillan (McGill), at the Pathological Institute, McGill University (pathology).

Indian Statistical Institute

At the fourteenth annual general meeting of the Indian Statistical Institute, held on April 27 in Calcutta, the following officers were elected for the session 1946-47: *President*, Sir C. D. Deshmukh; *Hon. Vice-Presidents* (having filled the office of president), Sir Badridas Goenka, Mr. N. R. Sarker; *Vice-Presidents*, Dr. P. N. Banerjea, Sir A. H. Ghuznavi, Sir T. E. Gregory, Dr. S. P. Mookerjee, Sir C. W. B. Normand, Mr. Chandmull Rajgharia, Sir Shri Ram, Sir C. V. Raman, the Hon. Justice T. J. Y. Roxburgh, the Hon. H. S. Suhrawardy; *Treasurer*, Dr. Satya Churn Law; *Secretary*, Prof. P. C. Mahalanobis (on leave), Prof. S. N. Bose (to act in his place); *Joint Secretaries*, Prof. K. N. Chakravorti, Kumar Bimal Chandra Sinha.

As in previous years, the Indian Statistical Institute has continued during the past year its usual activity along various lines of theoretical and applied research. It undertook and carried out various types of statistical surveys, among which may be mentioned a comprehensive crop survey in Bengal covering jute, Aus paddy, and Aman paddy, population forecasts, and inquiries relating to the economics and statistics of road development projects, the economic condition of agricultural labour in Bengal, rural indebtedness, and the family budget of middle class employees in Bengal. A sample survey of the after-effects of the Bengal famine of 1943 undertaken by the Institute in collaboration with Prof. K. P. Chattopadhyaya of the University of Calcutta mainly from the point of view of rehabilitation culminated in a comprehensive paper on the subject recently published. Government servants from many parts of India and students from various universities received training at the Institute. A special course in industrial statistics was also instituted last year and was largely attended. Prof. P. C. Mahalanobis, honorary secretary of the Institute, has recently been carrying out work in New York for the United Nations Organisation and is now taking part in the Royal Society Empire Scientific Conference being held in Great Britain.

Radiobiological Research

A RECENT number of the *British Medical Bulletin* (Vol. 4, No. 1, 1946. 7s.) is entitled "Radiobiology, Experimental and Applied". This volume is the second of a series concerned with the applications of physics in medicine and contains twelve reviews. The subjects include most of the problems of contemporary interest in relation to the scientific basis of radiotherapeutics. The introductory article by Dr. F. G. Spear summarizes the whole field of radiobiological research and includes an instructive plate illustrating the relationship between cell division and cell differentiation in normal tissues. Dr. L. H. Gray contributes a valuable review of the influence of 'linear ion density' (specific ionization) on the relative biological efficiency per ion pair. The genetic effects of radiations are lucidly summarized by Dr. D. G. Catcheside. The article by Dr. D. E. Lea on the action of radiation on viruses and bacteria is an only too brief survey of a subject to which he has so largely contributed. Radiotherapists will be especially

interested in the review by Dr. A. Glücksmann entitled "Quantitative Histological Analysis of Radiation-Effects in Human Carcinomata". The measurement of radiation is discussed by Dr. G. J. Neary in a manner interesting to biologists. Dr. Frank Ellis writes on total energy absorption in radiotherapy and includes much information of practical value. Dr. J. Read summarizes the most important technical methods in use in X-ray therapy, and Prof. S. Russ discusses technical methods in radium therapy. Mr. G. S. Innes reviews the subject of one million volt X-ray therapy and concludes that the "physical and clinical results are such that they lend support to the view that a further increase in voltage to the 5 to 10 million volt range is likely to give still better clinical results". Protective methods in radiology are of great interest at the present time and are discussed in some detail by Mr. W. Binks. A final short article by Dr. J. Read describes the scheme developed by the Association of Hospital Physicists for the exchange of diagrams and data between radiotherapy centres.

Land Use in Cyprus

A CONFERENCE on "Land Use in a Mediterranean Environment" was held in Nicosia, Cyprus, during April 16-17 under the chairmanship of the Colonial Secretary, Mr. R. E. Turnbull. In addition to senior officers of the Cyprus Government Departments interested in land use—agriculture, forests, water, co-operation and land registration and survey—and a number of Cypriot non-officials representing farmers' organisations, there were present Dr. R. O. Whyte, director of the Imperial Bureau of Pastures and Forage Crops, and six officers from Palestine Government Departments connected with land and its use. Mr. Turnbull, in opening the conference, explained that it had been organised as a result of a visit which Dr. Whyte had made in the autumn of 1945, in the course of which he had formed the opinion that there was in Cyprus a fund of technical knowledge and practical experience on a number of subjects connected with land use which could with benefit be brought out at such a conference. Papers, each followed by a general discussion, were read on: land use in relation to the climate and topography of Cyprus (J. MacDonald, director of agriculture); State forests and their role in the island's land-use economy (R. Waterer, conservator of forests); water control in Cyprus (A. Cawley, assistant water engineer); forest grazing (G. Chapman, assistant conservator of forests); tenure and inheritance of immovable property in Cyprus and the 1946 reforms (P. Christodoulou, Department of Land Registration and Survey); development of co-operation in Cyprus (R. Henry, registrar of co-operative societies); soil fertility in the arable lands of Cyprus in relation to land use (L. Littlejohn, Department of Agriculture); trees and their place in village land use and development (T. Couppis, assistant conservator of forests); animal husbandry in relation to land use and environment (J. Maule, Agricultural Department). It is hoped to publish the proceedings of the conference shortly.

Astronomical Work in Spain

A RÉSUMÉ has been issued of the observations of solar prominences made at Madrid during 1941 (*Bol. Astron. Observ. Madrid*, 3, No. 2; 1944). The observations were conducted by E. Gullón with the 20-cm. Grubb equatorial, focal length 3 metres,

equipped with a Zeiss spectrocope. Observations of sunspots made at the Observatories of Madrid, Valencia and Cartuja (Granada) in 1941 are given graphically in six diagrams, each diagram showing a separate graph for each of the observatories. M. Martín Lorón provides a table showing the results of observations of occultations of stars by the moon during the years 1941, 1942 and 1943. The reduction of the observations was effected by Comrie's method which appeared in the "Supplement to the Nautical Almanac", 1938. No. 3 of the *Boletín* continues the record of sunspots for the year 1942, and contains separate sections on three remarkable solar prominences observed in 1936 by Enrique Gullón at the Observatory of Madrid; on the observations of Mars during the opposition of 1939, by Enrique Gullón and Mariano Martín Lorón; and on occultations during 1944, by M. Martín Lorón.

Map of Hispanic America

THE task of compiling a map of Hispanic America on a scale of 1:1,000,000 which was undertaken by the American Geographical Society, of New York, in 1920 has now been completed by the publication of the 107th Sheet. This is regarded as a provisional issue of the international 'million' map in which in 1913 thirty-five governments agreed to participate. The original plan embraced the production of 974 sheets to cover the continental land masses and the larger islands, exclusive of polar regions. By 1938 a total of 405 sheets had been published, of which, however, only 232 could be voted as standard. Of these sheets, a large number were the American Society's sheets of South and Central America, in which areas only Brazil and the Argentine Republic had contributed any part of their respective shares in the international scheme. In Brazil the production was rapid and went far, but was not a government undertaking, and the sheets fell short of the standard scheme. Of the three Argentine sheets, no general printing seems to have been undertaken. In the *Geographical Review* of January there is a full account of the map of Hispanic America and some of the problems encountered.

South-Eastern Union of Scientific Societies

THE first congress of the South-Eastern Union of Scientific Societies was held in April 1896 at Tunbridge Wells; it is therefore appropriate that, in the year of its jubilee, the annual congress should return to Tunbridge Wells. During the War one-day congresses were held to preserve continuity, and the Union is marking the return to normal procedure and also its jubilee by a five-day congress, July 9-13, under the presidency of Prof. J. D. Bernal, whose address will be entitled "The Place of Scientific Societies in the New World". The sectional presidents are Mr. E. Yates (archæology), Prof. W. H. Pearsall (botany), Dr. J. C. M. Given (geology), and Dr. E. Hindle (zoology). The Alexander Pedler Lecture of the British Association will be delivered on July 11 by Dr. O. J. R. Howarth, who will speak on "Charles Darwin's Life at Downe, Kent". In order to mark the jubilee of the Union, Miss M. S. Johnston has prepared a brief account of its history; and a survey, "Royal Tunbridge Wells, Past and Present", edited by Dr. J. C. M. Given, which includes chapters on Wealden geology, history of the neighbourhood, the Wealden iron industry and local natural history, will be available (Pp. 183. Courier Printing and Publishing Co. Ltd. 5s.)