

sécrétion"; the Fanny Emden Prize to Louis Delherm and Albert Laquerrière for their work on the biological effects of various radiations.

*Statistics.*—The Montyon Prize has been awarded to the Institut de Statistique de l'Université de Paris for its contribution to the progress of applications of mathematics to statistics, finance, and political economy. Honourable mentions of 500 francs to Ernest Blin for his researches on the physical development of assisted children, and to Albert Ranc for his book, "Le budget du personnel des recherches scientifiques en France."

*History and Philosophy of Science.*—The Binoux Prize has been awarded to Henry de Varigny for his book, "La mort et la biologie."

*Works of Science.*—The Henri de Parville Prize has been awarded to René Legendre for his memoir on the concentration of hydrogen ions in sea water.

*Medals.*—The Berthelot medal has been awarded to Ernest Portier and to André Job.

*General Prizes.*—The Grand Prize of the mathematical sciences has been awarded to Eugène Bertrand de Fontviolant for his work on the resistance of materials; the Bordin Prize (physical sciences) to Auguste Pettit for his researches on serum for the treatment of infantile paralysis; the Lallemand Prize to Yvonne Sorrel-Dejerine for her work entitled "Contribution à l'étude des paraplégies pottiques," and a very honourable mention to Pierre Hillemand for his work, "Contribution à l'étude des syndromes de la région thalamique"; the Serres Prize to Charles Pérez for the whole of his work in embryology; the Vaillant Prize to Mme. Lucie Randoïn for her researches on the physiology of nutrition, with special reference to vitamins; the Jean Reynaud Prize to Mme. Alfred Giard, in memory of the biological work of the late Alfred Giard; the De Joest Prize to Alain

Quemper de Lanascot for his work on the geometry of compasses; the Houlléviqgue Prize to Jean Rey for his work on the physical properties of petrol vapours and their laws of flow; the Saintour Prize to Pierre Fauvel for the whole of his work on annelids; the Jules Mahyer Prize to Louis de Broglie for his studies on the quantum theory; the Lonchamp Prize to Charles Dhéré for his work on electro dialysis and the purification of proteids; the Wilde Prize (in equal parts) between Armand Renier for his studies of the Belgian coal measures, and Bruneau de Laborie for his African explorations; the Caméré Prize to René Feret for his researches on cement; the Jérôme Ponti Prize to Maurice Fréchet for his work on the theory of functions; the Gustave Roux Prize to Pierre Chevey for his work in zoology; the Thorlet Prize to Adolphe Richard; the Albert I. of Monaco Prize to Jean Charcot to permit him to complete the equipment of his vessel the *Pourquoi pas*?

*Special Foundations.*—The Lannelongue Foundation has been divided between Mmes. Cusco and Rück.

*Prizes at the Grandes Écoles.*—The Laplace Prize has been awarded to Georges Parisot; the L. E. Rivot Prize to Georges Parisot, Jacques Hémar, Louis Armand, and Louis Dherse.

*Foundations for Scientific Researches.*—The Trémont Foundation has been awarded to Edmond Marcotte for his work on internal combustion motors; the Gegner Foundation to René Baire for the whole of his mathematical work; the Hirn Foundation to Joseph Thoret for his researches on air currents; the Becquerel Foundation to Georges Bruhat for his work in optics and physical chemistry; the Bouchard Foundation to Maxime Ménard for his work on X-rays and radiations used in therapeutics; the Le Chatelier Foundation to Jean Cournot and Albert Roux for their studies on alloys by means of the X-rays.

### The Geographical Association.

THE Geographical Association held its annual meetings on Jan. 6-8 at the London School of Economics. The address of the president, Sir Charles Close, on "Population and Migration," gave a statistical investigation of world population with special reference to the development of the British Dominions. The tendency of population growth, indicated by graphs of census returns, gives some foundation for a forecast of the future. Within three-quarters of a century from 1875, England will probably pass from the period of highest birth-rate—36 per 1000—to a stationary condition in which birth-rate and death-rate will balance. Any migration policy must take this tendency into consideration, as well as the absorption rate in the Dominions, estimated at 5 per 1000. This at present would give about 100,000 per annum, excluding the quota to the United States. It is a corollary of this population movement that the dissemination of geographical knowledge of the regions of the world must occupy an increasingly important position in education.

Maps constitute one of the most important groups of geographical documents. Even the significance of the 'Bactrian Triangle' of Bukhāra, Merv, and Samarkand, discussed by Dr. Eileen Power in relation to trans-Asian caravan routes, cannot be fully realised apart from a cartographical representation of the three great east-west highways in their physico-geographical setting. But the mapping of such regions prior to the coming of the aeroplane has been financially almost impossible. Air surveys open a new era. Already such regions as the lower course and delta of the Irrawaddy, and the coastlands of

British Guiana, have thus been mapped. Some 100,000 square miles of Canada have been surveyed from the air. Even vegetation distribution, in certain circumstances, can be determined, the Katanga district in particular offering interesting possibilities. In the air survey about to be undertaken there, Major Heming thinks that the geologists will be able to locate copper ore deposits by the soil effect on vegetation, the distribution of which will be revealed by the air photographs.

Other possibilities of aircraft are under observation, as in the revision of the O.S. 1/2500, commonly called the 25-inch map, for south-east England. The Director-General of the Ordnance Survey, in discussing the official maps at present available to the public, indicated certain developments in the 1/1,000,000 map of England and Wales. Additional contours, a revision of the towns and certain other details, will enhance its value for general use, whilst the success of the map showing Roman roads encourages the Ordnance Survey to proceed with similar maps of an archaeological and historical character. A special map has been prepared showing the track in Britain of the total solar eclipse which takes place on June 29 next, a phenomenon not to be repeated here until the year 1999. In this connexion Prof. H. H. Turner described, by means of photographs of previous eclipses and by ingenious mechanical slides, the formation and nature of an eclipse.

A visit to East Kent included an excursion to the Betteshanger Colliery and the housing schemes at Elvington and Aylesham. The latter, serving the needs of the Snowdown and Adisham Collieries, may

be taken as the best expression of an attempt to save the beauty of the Kentish countryside in face of a possible industrial development. In the valley below Aylesham Wood, Nature offers a site for a town of ten thousand inhabitants which gives the planner of towns, both in the form and the setting of the valley, his maximum opportunity. The collieries, though less than a mile away, are effectively hidden by rising ground, the summit of which, crowned by woods and spinneys, forms an effective horizon. This Aylesham scheme is a striking application of geographical science to the economic and social needs of our times. It is one in which the unconscious and empirical adjustment due to slow growth and lack of policy—illustrated by Mrs. Ormsby's regional survey of London—may be replaced by a sound but not too rigid plan of organised urban development.

### The Proposed New Biological Station in Bermuda.

WE have recently received from Prof. Herbert W. Rand, of Harvard University, a statement setting forth the history of the Bermuda Biological Station and the steps which are being taken for its reorganisation with the view of placing it on a permanent foundation and of extending its usefulness.

The station was inaugurated in 1903 through the joint activities of Profs. C. L. Bristol (New York) and E. L. Mark (Harvard), and since that time about 250 workers have carried out investigations at the station, and 141 published papers have been issued.

In August 1925 a group of American biologists interested in the Bermuda Station met to consider its future, and proposed a scheme for its complete reorganisation on the same general lines as those which have proved so successful in the case of Wood's Hole. The first step was to communicate with biologists who had either worked in Bermuda or for other reasons might be expected to be interested in the work of the station, and replies from about 150 were received, and these biologists form the corporation. They were asked to nominate a committee of reorganisation, which met in New York in Nov. 1925. Recognising the importance of securing the co-operation and support of the Bermudians, this committee sent letters to the Governor of Bermuda, to former members of the Bermuda Natural History Society, and to several other residents of the island. The responses are stated to be most encouraging. The committee arranged for the election, by ballot of the members of the corporation, of a board of twelve trustees, and it was provided that four of these should be non-residents of the United States. These are Dr. E. J. Allen, Plymouth; Prof. J. H. Ashworth, Edinburgh; Dr. A. G. Huntsman, Director of the Atlantic Experimental Station for Fisheries, Halifax, Canada; and Dr. E. A. McCallan, Director of Agriculture, Bermuda. The American trustees are Prof. E. G. Conklin, Dr. E. V. Cowdry, Dr. C. B. Davenport, Profs. B. M. Duggar, R. A. Harper, R. G. Harrison, E. L. Mark, and H. W. Rand.

Papers of incorporation under the laws of the State of New York have been prepared and approved, so that the station is authorised to accept and hold funds to establish and maintain a station for scientific study in biology. A committee is investigating the possible sites for the new station and is drawing up the detailed plans for the station and its equipment.

It is hoped that the government of Bermuda may be willing to make some provision for the station, possibly in connexion with the new aquarium now in course of construction. The Royal Society of London

has intimated its interest in the scheme to widen the scope and value of a station offering such exceptional advantages of position, which, though situated in British territory, has hitherto owed its existence and development to American enterprise, and the National Research Council at Washington has passed a vote approving the project.

We understand that, when the organisation is completed, there is every hope that funds to a substantial amount will be forthcoming from America to put the station upon a sound financial basis and to make it a first-class laboratory with thoroughly adequate equipment. British marine biologists will, we are sure, follow with sympathetic interest the efforts of the committee to this end. The advantages of the Bermudas for biological research are considerable; the semi-tropical fauna can be studied under reasonable conditions of living and of climate throughout the year, and the station will be readily accessible, being reached in about forty-eight hours from New York. A well-equipped station in the Bermudas will afford the opportunity for the proper investigation of the semi-tropical waters of the Atlantic, and in these studies it is hoped British and American scientific men will be associated. We cordially wish the committee success in its endeavours to provide the means for the furtherance of this important work in marine biology.

### University and Educational Intelligence.

CAMBRIDGE.—A. R. Clapham, Downing College, has been appointed to the Frank Smart University studentship in botany.

DR. GEORGE MCOWAN, lecturer in chemistry in the United College of St. Salvator and St. Leonard, University of St. Andrews, has been appointed reader in chemistry at Raffles College, Singapore.

A REPORT on Higher Degrees has been issued by the Association of University Teachers as a supplement to the *University Bulletin*, vol. 6, No. 1. It represents the results of the labours of a committee of the Association appointed to inquire into the conditions under which higher degrees are awarded in the universities of Great Britain. Several years ago a similar inquiry was undertaken by the Universities Bureau of the British Empire, and summaries of the conditions have since been published in the "Universities Year-book." The committee of the A.U.T., however, has not rested content with recording existing conditions, but has fitted its record into a convenient tabular form, and has gone so far as to formulate general principles and even to suggest standard regulations which it commends to the careful consideration of the universities on the ground that, if some common agreement could be achieved, it would be to the great advantage of university study and research. The general principles recommended are: that the D.Litt. and D.Sc. should imply conspicuous ability and originality and distinguished and sustained achievement; the Ph.D., ability to study a problem systematically and to relate results to the general body of knowledge of the subject, and a definite contribution to knowledge or scholarship; and the degree of Master, the mastery of the technique of investigation. The suggested regulations include a *viva voce* examination for the Ph.D. and for the Master's degree. Standardisation is not a word to conjure with in university circles, but this report seems to deserve the consideration it asks for.