

Current Topics and Events.

OF the numerous Botanic Gardens that have been established throughout the Crown Colonies during the past century, the only ones now remaining as an independent department are those of the Straits Settlements at Singapore and Penang. Under Mr. H. N. Ridley, the scientific reputation of this Department attained a high level, which has been well maintained by the present Director, Mr. I. H. Burkill. With the development of the Malay Peninsula, however, the scientific centre of the country has passed of recent years to Kuala Lumpur, and the more recently constituted Departments of Forestry and Agriculture are both centred there. It is natural, therefore, that the Botanical Department, which works with each, should also incline to Kuala Lumpur, and in this connexion it is rumoured that a possible change in the centre of botanical activities may be considered. The continued economic approachment of the Federated Malay States and Straits Settlements is a natural process, and it is only reasonable that each should contribute to the maintenance of a department which serves both and at present is maintained by the Straits Government only. The recent alienation of the Economic Section of the Singapore Gardens for building purposes materially limits the scope of the work which can be carried out from Singapore, and suggests that some alteration is desirable if the botanical work of the country is to be continued and be given full opportunity to develop. Mr. Burkill is due to retire in February 1925, and should the headquarters of the Department be moved to Kuala Lumpur and a new garden established there, from which those at Singapore and Penang would be administered, the selection of a successor is of more than usual importance. It will be no easy task to secure a Director capable of maintaining the traditions of the past and of reorganising and administering the Department in a widely extended sphere.

WHEN the Optical Convention was held in London in 1912, sextants, theodolites, telescopes, and binoculars were tested at Kew, and it was only in the succeeding year that the work was transferred to the National Physical Laboratory. The transfer of the tests and their improvement occupied so large a proportion of the time of the staff of the Optics Department that little progress could be made with the study of aberrations of optical systems which they had commenced, and their contributions to the volumes of *Collected Researches of the Laboratory* for 1912, 1913, and 1914 were small. In these circumstances, progress in optical industry could only be slow, but the industry seemed quite content with the pace until the War showed that important branches of the trade were practically controlled by German manufacturers. The Minister of Munitions appealed to patriotic citizens in 1916, and as a result the School of Technical Optics at the Imperial College, South Kensington, was founded. The issue of the *Collected Researches of the National Physical Laboratory* for 1922 shows how important for optics the intervening years have been. Although the volume covers more than 350 pages its 31 papers

are on optics only, and represent to a large extent the work of three men not entirely free from routine duties. Of its great ultimate value for the industry there can be no doubt, but it rests with the industry to see that the advances made in the laboratory are translated without delay into improvements of the instruments manufactured. This can be effected only if we are training sufficient scientific workers who can appreciate advances even when embodied in mathematical formulæ and these men are being absorbed by the industry. It must no longer be true of optics that "accurate writing is unintelligible to the reader," the intellectual chain from research to manual worker must be unbroken.

SCIENTIFIC readers everywhere will read with regret the brief telegram dated June 19, which has appeared in the *Times*, announcing the deaths of two members of the Mount Everest Expedition, Mr. G. L. Mallory and Mr. A. C. Irvine. At the time of writing, no detailed information is available beyond the fact that the unfortunate accident occurred on the occasion of the third and final attempt which was to have been made to reach the summit early this month. On two previous attempts, the climbers were defeated by the unusually severe weather conditions, and it seems probable that bad weather was the cause of the disaster. Mr. Mallory, who was an experienced climber, was the only member of this year's party who had taken part in the two previous expeditions: his death at the early age of thirty-nine is a great loss to mountaineering. Mr. Irvine, who was only twenty-two, joined the Mount Everest Expedition straight from Oxford. He had had some experience of ice-work with the Merton College Expedition to Spitsbergen last year, and owed his selection for the Mount Everest Expedition mainly to his physique. Thus has closed in tragic fashion another chapter in the story of the attempts to scale Mount Everest.

SIR J. J. THOMSON gives an interesting appreciation of Lord Kelvin in *John o' London's Weekly* for June 21, laying stress on the fact that the development of the Second Law of Thermodynamics formed the basis for much of Kelvin's most important scientific work. As a young man, Kelvin had the good fortune to work for a short time in Regnault's laboratory in Paris, and this experience under one who was a master of the art of accurate measurement was of great value to him. The importance of the work he did in submarine telegraphy and in navigation is also emphasised. For more than sixty years Kelvin was a leader, and for the greater part of this time the most conspicuous figure, in physical science and its applications. He made the meetings of the British Association go with a swing from start to finish, stimulating and encouraging as no one else did the younger men who crowded to hear him. His personality was as remarkable as his scientific achievements. His genius and enthusiasm dominated any scientific discussion. Never had science a more enthusiastic, stimulating, or indefatigable leader.

Sir J. J. Thomson reminds us that at the British Association meetings in the later years, Kelvin was generally accompanied by Lady Kelvin, who would often stay with him to the end of the meeting.

A COMMENCEMENT has been made with the publication of scientific papers from Jerusalem, the two so far received being "Beweis der Nichtexistenz eines überall regulären zentrisch symmetrischen Feldes nach der Feld-Theorie von Kaluza" by Einstein and Grommer, and "Fluid Motion past Circular Barriers" by S. Brodetsky. While these two papers themselves are not necessarily of prime importance, this new venture may well mark the beginning of a definite shift in the centre of gravity of scientific publication. Such well-known continental names as Einstein, Levi-Civita, Landau, Loria, Born, Hadamard, Karman, to take a few at random, and a host of others, need merely be mentioned for it to be evident that if these investigators were to publish their work exclusively from Jerusalem, the contribution of Jewish workers to scientific knowledge would be clearly distinguishable. Whether or not it would correspond to anything distinctively Jewish is a different matter. As things are at present, it is well-nigh impossible to trace any common Jewish characteristic throughout the work of these men, and it is unlikely that mere publication, and nothing more, from Jerusalem will achieve this. A distinctively Jewish school in science is likely to be obtained only by a group of Jewish scientific workers investigating from a common geographical area and developing from a distinctive educational scheme. This Palestine has not yet achieved, but the large number of Jewish scientific workers of first rank arising from a scattered population of about thirteen millions indicates that the intellectual potentialities of the race are not inconsiderable. The present publications are bilingual, Hebrew and the language in which the papers were originally written, but it is probable that this is merely an intermediate phase. A scientific school of thought in Jerusalem, one would expect, would publish in Hebrew. Does this mean that scientific workers are presently to be faced with the necessity for acquiring yet another language?

A REPORT has recently been issued of the work carried out during the last year by the Joint Board of Research for Mental Disease, established by the City and University of Birmingham. The lines of research have been initiated by Sir Frederick Mott, the honorary director of the laboratory, and Dr. T. C. Graves. A respiratory chamber similar to that used in the University of Birmingham Mines Department has been constructed for the purpose of investigating basal metabolism in mental disorders. Mr. D. L. Woodhouse is conducting a research into the pathology of mental disease by an investigation of the effects of hypnotics upon animals, more especially in relation to growth and metabolism. The routine work of the laboratory, which is carried out under the direction of Dr. Pickworth, includes all the usual pathological and bacteriological investigations for the Birmingham Mental Hospitals, and an extensive bacteriological examination is being made to ascertain the connexion

between mental disease and chronic septic infection. On the clinical side the same line is being pursued, with the aid of the dental, gynaecological, and other special departments recently established by the Asylums Committee. The utility of tryparsamide and bismoxyl, the latest drugs used in the treatment of dementia paralytica, is also being investigated.

At the recent meeting of the Association to aid Scientific Research by Women, the Research Prize of 1000 dollars was awarded to Dr. Mary Evelyn Laing, of the University of Bristol. Ten theses were considered, seven of these being from Great Britain and three from the United States. With this award going to one of the competitors in Great Britain, the two countries are even in the awards, each having had three successful candidates, and each country having had the grant of 1000 dollars once. Dr. Laing submitted her thesis under the pseudonym of "Venture," and it proved a good venture. The title of the thesis was "A General Formulation of Movement in an Electrical Field: Migration, Electrophoresis and Electro-osmosis of Sodium Oleate." Miss Laing received the B.Sc. degree from the University of Bristol in July 1915, the M.Sc. from the same University in 1919, and the D.Sc. in August 1923. She is the author of a number of scientific papers published in the *Journal of the Chemical Society*, dealing with soap solutions and the structure of jellies. Her latest work has led to a simple and unexpected general relation between the electrical behaviour of colloids and ordinary salts. Her paper is to appear in the *Journal of Physical Chemistry*. She at present holds the appointment of research assistant and lecturer in physical chemistry at the University of Bristol.

ON June 11, at the dinner of the Worshipful Company of Woolmen, a special gold medal was presented to Prof. J. Cossar Ewart, of the University of Edinburgh, "in recognition of work done for the benefit of the Wool industry." The obverse of the medal is a ram's head with horns surrounded by the words, "The Worshipful Company of Woolmen," and below the head is a woollack; the reverse is inscribed, "Presented to Professor James Cossar Ewart, M.D., F.R.S., for research in connection with wool, 1924." The award was made by a committee appointed, at the request of the Company, by the council of the University of Leeds. Prof. Cossar Ewart is well known for his researches into the origins of the domestic sheep. He has also carried out many important breeding experiments on the University farm at Edinburgh, and has shown the value of the Southdown and Blackface from the wool point of view. For some time he has acted as chairman of the Sheep-breeding Conjoint Committee of the British Research Association for the Woollen and Worsted Industries and of the Board of Agriculture. Scientific work does not always receive the recognition from the practical men that it merits, and this honour, which we hope is only the first of many such, should prove stimulating to scientific workers.

THE forthcoming meeting of the French Association for the Advancement of Science will be held at Liège on July 28–August 2, under the presidency of M. P. Viala, of the National Agricultural Institute, Paris.

LT.-COL. ANDREW THOMAS GAGE, Director of the Botanical Survey of India and Superintendent since 1906 of the Royal Botanic Gardens, Calcutta, has been appointed Librarian and Assistant-Secretary to the Linnean Society of London.

At the Cincinnati meeting of the American Association for the Advancement of Science, a prize of 1000 dollars was offered by a member of the Association for a paper contributed to the meeting constituting a notable contribution to science, and the prize was awarded to Prof. R. B. Dixon, of the University of Chicago, for his mathematical papers. We learn from *Science* that a similar prize has been offered by the same member, who still remains anonymous, for each year for a term of five years beginning with the Washington meeting in December next. There is to be no restriction as to the manner of award, but it is desired that the prize should not be given in two successive years in the same major division of science.

A CONFERENCE of Modern Churchmen, at which the subject for discussion will be "The Scientific Approach to Religion," will be held at Oxford on August 25–September 1. Dean Inge is to open the Conference, and other speakers include Prof. E. W. Macbride, on evolution; Prof. J. G. Adami, on the possibility of purpose; the Rev. H. Macpherson, on the universe as revealed by astronomy; Mr. J. W. R. Calvert, on modern knowledge of the structure of matter; Prof. J. S. Hadane, on biology and religion; Prof. C. Lloyd Morgan, on the autonomy of life and mind; and Mr. J. A. Hadfield, on psychology and religion. Canon E. W. Barnes will preach a sermon on Sunday, August 31, on faith and the future. Particulars of the meeting can be obtained from the hon. secretary, Miss Dora Nussey, Westfield, Ilkley.

THE thirty-fifth annual conference of the Museums Association will be held at the Conference Building of the British Empire Exhibition at Wembley on July 21–26, under the presidency of Dr. H. Bolton, Director of the Bristol Museum and Art Gallery. Papers have been promised on museum development, by Dr. H. Bolton; on fossils as museum exhibits, by Dr. F. A. Bather; on museums and ethnography, by Dr. H. S. Harrison; on the policy and scope of the Science Museum, by Col. H. G. Lyons; on industrial art, by Sir Cecil H. Smith; and on the preservation of wild life, by Mr. C. W. Hobbey. The arrangements include visits to the Victoria and Albert Museum, the British Museum (Natural History), and the Science Museum. The Conference of Delegates of Corresponding Societies of the British Association, which has been arranged in conjunction with the Museums Association, is to be held at Wembley during the afternoon of July 22, when Dr. J. L. Myres will read a paper on the preservation of sites.

A SCOTTISH Cattle Breeding Conference will be held in Edinburgh on July 7–12. It has been convened in order to enable cattle breeders from all English-speak-

ing countries to meet recognised authorities in animal genetics and to discuss with them the notable contributions which science has, during recent years, made to the theory and practice of animal breeding. Among the papers of scientific interest and importance which will be presented at the Conference are the following: Dr. Raymond Pearl (Johns Hopkins University, Baltimore), "Some Unsolved Problems of Genetics in Relation to Cattle Breeding"; Dr. L. J. Cole (Bureau of Animal Industry, Washington, U.S.A.), "Genetics of Cattle Inheritance; Breeding by Type, Pedigree and Progeny Performance; Inbreeding and Outbreeding"; Mr. E. N. Wentworth (Armour's Livestock Bureau, Chicago), "Relation between Genetics and Practical Cattle Breeding; Prepotence in Character Transmission; Character Correlation in Cattle Breeding"; Prof. J. Cossar Ewart (Edinburgh), "The Origin of Cattle; Fallacies in Cattle Breeding"; Prof. J. A. Scott Watson (Edinburgh), "Inheritance in Scottish Breeds; Families and Line Breeding"; Prof. James Wilson (Dublin), "The Formation of Breeds"; Mr. J. MacIntosh (Reading), "Uniform System of Stating Milk and Butter-fat"; Mr. John Hammond (Cambridge), "The Reproductive Function in the Cow"; Dr. John W. Gowan (Maine), "Review of Cattle Breeding Experiments at Maine Agricultural Experiment Station." The organising secretary is Dr. G. F. Finlay, Animal Breeding Research Department, Edinburgh, with whom any one interested is invited to communicate. It is hoped that the Conference, by bringing together the scientific worker and the practical man, will result in a sounder appreciation of the rôle that the science of genetics can play in agricultural practice.

MESSRS. BURROUGHS WELLCOME AND Co. have issued their annual booklet, "Foresight in Photography," which may be obtained free on application to them. It contains a classification of plates and films according to their development speeds, time-tables for development, information as to "tabloid" preparations, and other useful matter.

DR. C. S. MYERS has edited and the Cambridge University Press will shortly publish "The Proceedings of the Seventh International Congress of Psychology," containing contributions on the conception of mental and nervous energy; the classification of the instincts; the nature of general intelligence and ability; the principles of vocational guidance; the present position of vocational testing in Germany; an experiment on indirect measures of fatigue; the cardio-vascular changes in mental work; psychic asthenia and atony; the psychic-galvanic phenomenon in dream analysis; religion and psychoneurosis, and symbolism in folk lore.

WE regret that there are two typographical errors in the reference to a turbo-generator exhibited by the General Electric Company at the British Empire Exhibition which appeared in our issue of June 7, p. 826, second column, third paragraph. This machine has a capacity of 5000 kw., not 50 as stated, and the speed is 3000 revs. per min., not 300 as given.