

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

BIRMINGHAM.—A special degree congregation is to be held on July 27 in connection with the meeting of the British Medical Association, in Birmingham, at which it is proposed to confer the honorary degree of LL.D. on the following gentlemen:—The Rt. Hon. John Burns, President of the Local Government Board; Sir Francis Lovell, K.C.M.G.; Dr. R. H. Chittenden, professor of physiology in Yale University, U.S.A.; Prof. H. Oppenheim, Berlin; Prof. Paul Strassman, Berlin; Dr. Byrom Bramwell, president, Royal College of Physicians, Edinburgh; Dr. J. A. Macdonald; Dr. R. A. Reeve, professor of ophthalmology, Toronto; and Prof. Sims Woodhead.

It is announced in *The Times* that the Chinese Minister has consented to become patron of the United Universities' scheme for a university for China. The Rev. W. E. Soothill has been appointed acting president of the university for five years. Mr. Soothill was formerly principal of the Imperial University, Shan-si, China, and is the author of standard works on the Chinese language.

THE French Physical Society, the International Society of Electricians, and other learned societies, are cooperating in the inauguration of a fund to honour the memory of the late M. J. Joubert, of the Pasteur Institute. The object of the fund is to found a scholarship, with which the name of Joubert will be associated, tenable at one of the institutions with which he was connected as pupil or teacher. Subscriptions may be sent to M. Gauthier-Villars, 55 quai des Grands-Augustins, Paris.

THE issue of the *Johns Hopkins University Circular* for May takes the form of the "Johns Hopkins University Register, 1910-11." The historical statement with which the volume opens shows that the university was incorporated on August 24, 1867, and its original endowment amounted to about 600,000. This fund has been supplemented by several gifts, including 200,000. in 1902, until now the income-bearing funds amount to more than 900,000., the total assets being 1,300,000. In June, 1909, the General Education Board offered to contribute to the university 50,000. towards the endowment, provided the institution could secure, on or before December 31, 1910, a supplemental sum of 150,000., in cash or pledges. By the date mentioned the sum of 188,600. was secured, more than sufficient to meet the condition imposed by the General Education Board. The Legislature of Maryland, too, has this year made a grant of 5000., which will be repeated next year.

THE fifteenth Oxford Summer Meeting will be held at Oxford from August 3 to 28. The general scheme of lectures is intended to illustrate the place and part of Germany in world history, and its contribution to literature, art, science, theology, and philosophy. The inaugural address will be given by Viscount Haldane. One section of the meeting will consist of lectures on the epoch-making names in German science. These discourses include: Humboldt, by Mr. H. J. MacKinder, M.P.; Helmholtz, by Sir Joseph Larmor, F.R.S.; Liebig and Bunsen, by Sir William Tilden, F.R.S.; Johannes Müller, by Prof. F. Gotch, F.R.S.; Von Bär—the founder of modern embryology, by Prof. G. C. Bourne, F.R.S.; the evolution of medicine in Germany, 1850-1900 (Virchow and Koch), by Sir W. Osler, F.R.S.; and Gauss and modern astronomy, by Mr. J. A. Hardcastle. There will also be a special class for instruction in field map-making under Mr. Mackenzie, and classes in educational psychology.

THE Royal Commissioners for the Exhibition of 1851 intend to put into operation at an early date a scheme of industrial bursaries. The scheme is as follows. The commissioners propose to establish a scheme of industrial bursaries for young men who, after a course of training in a university or approved technical college, desire to enter engineering, chemical, or other manufacturing works. The bursaries are intended to enable suitable applicants to tide over the period between their leaving college and obtaining remunerative employment in industry. The value of the bursary will depend on the circumstances of the candidate, but will, as a rule, not exceed 100l. a year. A bursar will be elected in the first instance for one year,

but the tenure of his bursary will ordinarily be prolonged for a second year provided that the commissioners are satisfied with the work done by the bursar during his first year. In special circumstances a bursary may be renewed for a third year. The appointments to the bursaries will be made by the commissioners from among candidates recommended by the authorities of certain selected universities and technical schools. In dealing with these recommendations, great weight will be given to evidence that a candidate has the practical abilities likely to lead to his advancement in manufacturing work, academic success alone being an insufficient recommendation. The candidate must be a British subject under the age of twenty-five. The candidate must have been a *bona fide* student of science for a term of three years. The candidate must further satisfy the commissioners (a) that he has obtained, or can within one month of election obtain, a post in some engineering or other manufacturing works approved by them; (b) that he is in need of pecuniary assistance to enable him to accept such a post. A bursar may, if the commissioners approve, spend part of the tenure of his bursary in studying a special industrial process or processes in works either at home or abroad. No bursar shall enter a firm as a premium pupil without the special consent of the commissioners. A bursar must submit a report of his work to the commissioners on the expiration of each year of his bursary. Forms of application may be obtained from the secretary to the commissioners.

SOCIETIES AND ACADEMIES.

DUBLIN.

Royal Dublin Society, June 27.—Prof. T. Johnson in the chair.—Prof. G. H. Carpenter: Injurious insects and other animals observed in Ireland during the year 1910. The points of interest in this paper are the record of a second brood of the codling moth (*Carpocapsa pomonella*) in the south-west of Ireland, and the occurrence of the maggots of *Scaptomysa flaveola* and an unknown Cecidomyid on turnips in county Louth.—Prof. J. Joly and L. B. Smyth: The radium-emanation content of soil gases and its escape into the atmosphere. The emanation content of soil gas is measured by filling a suitably calibrated electroscopes with gas drawn from certain depths in the soil. The rate of its escape at the surface of the soil is investigated by means of a collector, which covers a certain area of the soil, and beneath which a slow current of air circulates. The air current is finally led through a charcoal absorption tube. It is believed that natural conditions are best realised by this collector. It is found that the conditions favouring the maximum rate of exhalation are dryness and openness of the capillaries of the soil. These conditions also lead to a fall in the emanation-content beneath. In accordance with this, the daily readings of emanation-content and of exhalation at the surface when plotted show opposing curvatures. The amount escaping at the surface is very considerable. The rate of escape is often more than sufficient to account for the decay of the emanation in a radio-actively homogeneous atmosphere extending to a height of 5 kilometres, and possessing an emanation-content equal to the average found by Eve and others. Soil within the city of Dublin is found to contain less emanation and exhale less than soils in the suburbs. To the south of the city the soil is specially rich, the quantity of contained emanation near the surface per litre being such as would be in equilibrium with a quantity of radium of the order 10^{-9} gram, the quantity exhaled per square metre per hour being also of this order. The causes influencing the quantity of radium emanation in the soil are under investigation, as well as the influence of the emanation upon vegetable life.

PARIS.

Academy of Sciences, July 10.—M. Lippmann in the chair.—B. Baillaud: Remarks on a volume of the photographic catalogue of the sky, Paris zone.—M. Renault was elected a correspondent for the section of anatomy and zoology, in the place of the late M. Armand Sabatier.—MM. Lagrula and Schaumasse: The Kiess comet, 1911b. Observations made at Nice. Three observations are given for July 8. The comet appears as a bright globular condensation surrounded by a nebulosity.—

M. Javelle: The Wolf comet. Observations made at Nice with the Gautier equatorial of 76 cm. aperture. Data given for July 5 and 7. The comet appears like a star below the 14th magnitude.—**Silvanus P. Thompson**: A new method of harmonic analysis by the algebraic summation of determined ordinates. The method described is specially adapted for the harmonic analysis of tides, of diurnal magnetic variations, and of the periodic motion of the mechanisms for the distribution of steam in steam engines.—**G. Sagnac**: Interferential strioscopy and striography analogous with the Foucault and Töpler optical method of striæ.—**Ch. Fabry** and **H. Buisson**: The radiation from mercury vapour lamps. The numerous applications of quartz mercury vapour lamps renders desirable precise measurements of the yield of radiation, visible and ultraviolet, under various conditions of employment. The proportion of ultraviolet rays emitted by a given lamp depends greatly on whether it is water-cooled or not, and also upon the age of the lamp.—**L. Benoist**: The application of the chemical harmonica to chronophotography. An acetylene flame, issuing from a fine jet, is placed in a glass chimney, and from the pure note thus obtained the time of vibration can be determined with considerable accuracy. A mirror is fixed to the rotating apparatus the velocity of which it required to measure. The high actinic power of the flame renders the application of photography very easy.—**M. Girousse**: A means of suppressing the troubles caused on telegraph lines by energy-carrying cables. A description of a simplification of the method proposed by Voisenat. The immunity obtained against an alternating current has been proved experimentally, and details are given.—**R. Boulouch**: The sine relation of Abbe is a condition of stigmatism. The condition of true aplanatism.—**A. and L. Lumière** and **A. Seyewetz**: The development of photographic images after fixing. If a very dilute solution of sodium thiosulphate is used for fixing, the Neuhaus method can be much simplified. The formulæ of the solutions taken are given, and also an alternative solution containing mercury salts instead of silver.—**Marcel Guichard**: The extraction of the gases from copper heated in a vacuum. The complete elimination of the gases from copper by heating is difficult to realise, and requires in all cases a very lengthy period of heating.—**H. Gault**: The lactonisation of the α -ketoic esters, α -ketoacidic ester, and in general, the esters of α -ketomonoacids and α -keto-diacids under the influence of condensing agents, forms lactones by the elimination of a molecule of alcohol between two molecules of the ester. Several examples are worked out in detail.—**Ph. Dumesnil**: The preparation of some unsymmetrical benzyl-dialkylacetic acids. Starting with ketones of the type $C_6H_5.CO.C(R_1R_2R_3)$, prepared by the method of Haller and Baur, the prolonged action of sodium amide in boiling xylene upon these ketones gives the amide $NH_2.CO.C(R_1R_2R_3)$, from which the corresponding acid is readily obtained by hydrolysis with sulphuric acid.—**E. Léger**: The constitution of some nitro derivatives obtained by the action of nitric acid upon the aloins.—**A. H. Richard**: A dimethylpentene obtained by the action of heat upon a dimethylcaoutchouc. Methyl-isoprene polymerises in exactly the same manner as isoprene. Under the influence of light and heat it gives a rubber-like mass: the dry distillation of the latter gives a homoterpene as the principal product.—**M. Gard**: Is the law of uniformity of hybrids of the first generation absolute? It has been found that for the genus *Cistus* the uniformity found by Naudin is not fixed.—**J. E. Abelous** and **E. Bardier**: The influence of oxidation on the toxicity of urohypotensine. The toxic power of urohypotensine is increased by oxidation.—**H. Bierry** and **J. Larguier des Bancels**: The action of the light emitted by the mercury lamp upon solutions of chlorophyll.—**M. and Mme. Lapique**: The useful duration of the discharges of condensers: experiments on the snail.—**A. Imbert**: A graphical study of work done by a file. The curves obtained showed clearly the differences between an apprentice and a practised workman: pathological conditions in the latter are also clearly brought out, a fact of medico-legal importance.—**J. Bergonié**: The respiratory exchanges in chronic articular rheumatism and the modifications which they undergo by muscular exercise electrically stimulated. The respiratory exchanges, in subjects affected by chronic articular rheumatism, are very appreciably lowered, in one

case to about $3/5$ of the normal. The light bath appeared to be without any influence on these cases, but muscular exercise, electrically stimulated, caused these exchanges to approach the normal.—**Jules Courmont** and **A. Rochain**: Vaccination against the pyocyanic infection by the intestinal method.—**A. Sartory**: The value of Meyer's reagent in the examination of the blood. Meyer's reagent ought not to be considered as a specific test for blood in chemico-legal researches, and should only be used for corroborative purposes.—**A. Fernbach** and **M. Schoen**: Some observations on the mechanism of the mode of action of the proteolytic diastases.—**Alexandre Lebedeff**: The mechanism of alcoholic fermentation.—**J. Wolff** and **E. de Stœcklin**: The specificity of various combinations of iron from the point of view of their peroxidasic properties. A reply to some criticisms of H. Colin and A. Sénéchal, the authors giving the results of fresh experiments in support of their views.—**Paul Hallez**: The double function of the ovaries in some Polyclads.

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