

anonymous donor who has already undertaken the erection of the Medical School Buildings. The gift is conditional on certain contributions by the Treasury to the upkeep.

MR. H. S. ROWELL has been appointed to the position of senior lecturer in mechanical engineering at Bradford Technical College, and will commence his duties in September next.

MR. FREDERICK SODDY, lecturer in physical chemistry in the University of Glasgow, has been appointed to the chair of chemistry at the University of Aberdeen, in succession to Prof. F. R. Japp.

PROF. J. S. MACDONALD, professor of physiology in the University of Sheffield since 1903, has been appointed Holt professor of physiology in the University of Liverpool, in succession to Prof. C. S. Sherrington.

DR. T. J. JEHU, lecturer on geology at the University of St. Andrews, has been appointed Murchison regius professor of geology and mineralogy in the University of Edinburgh, in succession to Prof. James Geikie, who lately resigned the chair.

THE Extension Lecture scheme of the Selborne Society has become so successful that it has been found possible this year to issue a handbook of fifty pages giving particulars of nearly two hundred lectures. The addresses are mainly of a popular character, and are by lecturers who command high fees as well as by those who will accept a small honorarium, or in exceptional cases merely their travelling expenses. The society hopes that in this way it may be of considerable assistance to societies and schools, whether large or small, by enabling them to secure the services of competent lecturers. There are many local societies which cannot afford big fees, and plenty of county people who are glad to arrange lectures in their villages, and to these the handbook should prove most useful. The Selborne Society during the coming winter will arrange courses of these lectures in London and the provinces. Particulars can be obtained from the Extension Lecture Secretary, Mr. Percival J. Ashton, 37 Walbrook, London, E.C.

AN appeal on behalf of the Equipment and Endowment Fund Committee of University College, Gower Street, W.C., has been issued by the Hon. Rupert Guinness, M.P., who is the chairman of the executive committee. The committee has been engaged for some years in endeavouring to collect funds to meet the capital expenditure which has become necessary for the proper development of several departments of the college work. These efforts have already met with much success. The London County Council has made a grant of 30,000*l.*, and this grant has encouraged the committee to renew the endeavour to obtain the money required to complete work already in hand and necessary to enable the college to discharge with proper efficiency its present functions. The sum immediately required is about another 30,000*l.* The money is wanted for four main purposes:—(i) About 10,000*l.* to complete the equipment of the new chemical laboratories, especially that for physical chemistry. (ii) A large hall to serve as an examination room, for ceremonial assemblies and for public lectures. For this, about 12,000*l.* is required. (iii) A benefactor has erected, at a cost of 35,000*l.*, buildings to accommodate the University School of Architecture and the Department of Applied Statistics and Eugenics. To complete this part of the college about 6000*l.* is required. (iv) The college libraries contain about 130,000 books and more than 17,000 pamphlets, but the proper custody and arrangement of the books and manuscripts, as well as the use of them by readers, are interfered with by want of space. To remedy

these disadvantages will cost 2500*l.* The current work of the college is hampered badly, and much-needed developments are arrested, until these four objects are provided for fully. The Equipment and Endowment Fund Committee, of which Prince Arthur of Connaught is president, consequently feels that, in urging the claims of University College on the favourable consideration of all who recognise the importance of providing facilities for advanced study and investigation, it is doing work of national value. We trust the efforts of the committee in their public-spirited work on behalf of higher education in London will soon be rewarded, and that the funds needed so urgently will be speedily forthcoming. Contributions may be sent to the president or to the chairman of the executive committee, at University College, Gower Street, London, W.C.

### SOCIETIES AND ACADEMIES.

#### PARIS.

**Academy of Sciences**, July 13.—M. P. Appell in the chair.—Paul Sabatier and Léo Espil: The reduction of the oxides of copper, lead, and nickel. Using calcium carbide as an indicator of the production of water, the reduction of cupric oxide in dry hydrogen is clear at 120° C. For lead dioxide, the corresponding temperature is 150° C. Nickel oxide, NiO, on reduction at low temperatures gives a mixture of metallic nickel and a suboxide of doubtful composition.—A. Haller and Mme. Ramart-Lucas: Syntheses by means of sodium amide. The oxide of propylenedimethylacetophenone and some of its derivatives. A new method of preparation of the  $\gamma$ -ketonic acids.—Charles Moureu and Georges Mignonnac: Additional examples of the class of compounds described in a recent paper, and containing the grouping  $RR'C=N-CRR''$ . On hydrolysis, ammonia and a ketone are the products.—M. Calmette and L. Massol: The preservation of cobra poison and its antitoxin. Cobra poison slowly loses its toxic power on keeping; the antitoxin is absorbed not only by the toxic substance of the snake poison, but also by other substances accompanying it. The antitoxin serum preserves its power for at least six years.—Ph. A. Guye and F. E. E. Germann: The analysis of very small quantities of gas; application to the analysis of air. The apparatus illustrated is based on the application of a modified MacLeod gauge. An example of an analysis of air with the apparatus is given, in which the initial volume was only 0.25 c.c.—Maurice Paschoud: Application of the method of Walther Ritz to the problem of the uniform régime in a tube with square section.—J. Boussinesq: Observations on the preceding note of M. Paschoud.—Farid Boulad bey: A new theorem on elastic displacements and its application to the simplification of the direct calculation of reactions of the supports of continuous beams.—E. Estanave: The exteriorisation of the photographic image by the autostereoscopic plate.—P. Le Rolland: The determination of the ratio of the times of oscillation of two pendulums. A modification of the photographic method described by Lippmann in 1897. For a period of comparison of only three minutes the ratio of the times can be determined with an accuracy of one part in a million. The photographic method possesses several advantages over the method of coincidences, especially if the difference between the times of oscillation of the two pendulums is small.—C. G. Bedreag: Electrification by the X-rays. The square of the maximum velocity of the electrons emitted is proportional to the frequency of the incident X-radiation.—G. Millochau: A new pyrometric method based on the absorption of some substances for the integral radiation. The determination of a tempera-

ture with the Féry pyrometer is extended to cases in which the image of the opening in the hot body is smaller than the blackened disc fixed to the thermoelectric couple. Readings are taken of the deviations with and without the interposition of absorptive plates of mica, glass, or celluloid.—**MM. Massol and Faucon**: The ultra-violet spectra of aqueous solutions of nitric acid, metallic nitrates, and particularly of copper nitrate.—**P. Chevenard**: The expansion of ferro-nickels over a large range of temperature. Measurements were made of the expansion between  $-195^{\circ}$  C. and  $750^{\circ}$  C., for a series of alloys containing increasing proportions of nickel. The results are given in the form of diagrams.—**B. Bogitch**: The ternary alloy of zinc, silver, and lead.—**F. Taboury**: Glucinum sulphate and its hydrates.—**J. Clarens**: The chlorometric method of Penot.—**Marcel Guichard**: A new method of determination of the atomic weight of iodine. The method is based on the use of purified iodine pentoxide, and its decomposition into iodine and oxygen by a high temperature. These elements are weighed separately. The general mean of the experiments was, for  $O=16$ ,  $I=126.92$ , identical with the value currently accepted.—**L. Tschugaëff**: A new method of preparation of the complex compounds of bivalent platinum.—**André Brochet and Maurice Bauer**: The addition of hydrogen to aliphatic compounds with ethylene linkages in presence of nickel under moderate pressure. The reactions were carried out at the ordinary temperature under hydrogen pressures of fifteen atmospheres or less. Descriptions of the reduction of *l*-octene, cinnamic acid, sodium cinnamate, methyl cinnamate, piperonylacrylic acid, eugenol, sapol, and isoeugenol are given.—**Maurice Lugeon**: The autochone strata below the Morcles layer.—**Emile Haug**: New observations on the tectonic of the valley of Saint Pons, near Gémenos (Bouches-du-Rhône).—**P. Idrac**: The irregularities of the wind.—**Julien Loisel**: The nomographic representation of the reduction of the barometer to sea-level.—**O. Lignier**: New contributions to the knowledge of the flower of the *Fumarieæ* and the *Crucifereæ*.—**Edgar Zaepffel**: The distribution of the stomata in the plantules of some graminaceous plants.—**E. Chuard and R. Mellet**: Nicotine in the by-products of the culture of tobacco. The waste products of tobacco culture contain sufficient nicotine to be of commercial value in the preparation of insecticides.—**J. Künckel d'Herculaïs**: Correlation between the mortality of *Ailanthus glandulosa* and the disappearance of *Samia cynthia*.—**Em. Bourquelot and Al. Ludwig**: The biochemical synthesis of the  $\beta$ -monoglucosides of meta- and para-xylene glycols.

#### BOOKS RECEIVED.

Monographien aus dem Gesamtgebiet der Physiologie der Pflanzen und der Tiere. Band i. Die Wasserstoffionen-Konzentration. By Prof. Dr. L. Michaelis. Pp. xiv+210. (Berlin: J. Springer.) 8 marks.

Journal of Genetics. Vol. iv. No. 1. June. Pp. 107. (Cambridge University Press.) 10s. net.

The Biochemical Journal. Vol. viii. No. 3. June. Pp. 217-280. (Cambridge University Press.) 7s. net.

Grundzüge der Mengenlehre. By Prof. F. Hansdorff. Pp. viii+476. (Leipzig: Veit and Co.) 18 marks.

Catalogue of the Ungulate Mammals in the British Museum (Natural History). Vol. iii. Artiodactyla, Families Bovidae, Subfamilies *Æpyncerotinae* to *Tragelaphinae* (Pala, Saiga, Gazelles, Onyx Group, Bushbucks, Kudus, Elands, etc.) *Antilocapridae* (Prongbuck) and *Giraffidae* (Giraffes and Okapi). By R. Lydekker. Pp. xv+283. (London: British Museum

(Natural History), and Longmans, Green and Co.) 7s. 6d.

Quarterly Journal of the Royal Meteorological Society. Vol. xl. No. 171. July. Pp. 185-256. (London: E. Stanford, Ltd.) 5s.

Botanische Jahrbücher für Systematik Pflanzengeschichte und Pflanzengeographie. Edited by A. Engler. Band li. 3 u. 4 Heft. Pp. 225-512. (Leipzig and Berlin: W. Engelmann.) 18 marks.

Gegenbaurs Morphologisches Jahrbuch. Edited by Prof. G. Ruge. Band xlix. Heft 1. Pp. 178. (Leipzig and Berlin: W. Engelmann.) 13 marks.

Zeitschrift für wissenschaftliche Zoologie. Edited by Prof. E. Ehlers. Band cix. Heft 3. Pp. 349-530. 13 marks. Band cix. Heft 4. Pp. 531-606. 11 marks. Band cx. Heft 1. Pp. 149. 15 marks.

Band cx. Heft 2. Pp. 150-301. 10 marks. (Leipzig and Berlin: W. Engelmann.)

Woburn Experimental Fruit Farm. Fourteenth Report of the Woburn Experimental Fruit Farm. Pp. 151. (London: Amalgamated Press.) 2s. 9d.

Department of Commerce. U.S. Coast and Geodetic Survey. Hypsometry. Fourth General Adjustment of the Precise Level Net in the United States and the Resulting Standard Elevations. Special Publication No. 18. By E. Bowie and H. G. Avers. Pp. 328. (Washington: Government Printing Office.)

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