

### UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

LONDON.—During the session 1917-18 Prof. John Adams, professor of education in the University, will give two courses of lectures which will be open without fee to teachers. The first course will begin on October 13, and will be on "Collective Psychology." The second course will be on "Attention," and will begin on January 19, 1918. A course of lectures on "The Practical Applications of the Study of Weather" will be given at the Meteorological Office, South Kensington, by Sir Napier Shaw, on Fridays during the second term, beginning on January 25. The fortnightly meetings of the Meteorological Office for the discussion of important contributions to current meteorology in Colonial or foreign journals will be resumed at 5 p.m. on Monday, October 22. The lectures are addressed to advanced students of the University and to others interested in the subject. Admission is free, by ticket to be obtained on application at the Meteorological Office. The following are among the public lectures in Imperial studies arranged for the first term of the session 1917-18:—*At University College*: October 8, Types of Climate in the Empire, Prof. L. W. Lyde; October 18, The Effect of the War on Municipal Engineering and Public Health, H. Percy Boulnois; October 22, Phonetics and its Value from the Imperial Standpoint, D. Jones; October 31, Scientific Methods of Language Study and their Importance to the Empire, Harold E. Palmer; six Newmarch lectures on Statistics, Economics, and some Problems of the Day, Henry Higgs, beginning on November 7. *At King's College*: October 31, The Problems of the Pacific, Basil H. Thomson; November 14, The Development of Tropical Africa (the name of the lecturer will be announced later). *At the London School of Economics*: October 12, The Commercial Geography of the Empire, Prof. A. W. Kirkaldy; October 19, Coal, Arthur F. Pease; November 2, Mineral Oil, Prof. J. S. S. Brame; November 16, The Rarer Key Minerals, Sydney J. Johnstone. Arrangements as to further lectures will be announced later. The subjects dealt with will be iron and manganese ores, artificial manures, fodder, timber, wood-pulp and paper-making materials, fibres, tea, meat, leather and tanning materials.

A MESSAGE from the New York correspondent of the *Times* states that the trustees of Columbia University have expelled Prof. H. J. L. Dana and Prof. J. McKeen Cattell, professor of psychology, whose disloyal attitude was "doing grave injustice" to the institution. Dr. Murray Butler pointed out, in a statement recently made by him, that before the entrance of the United States into the war complete freedom of expression could not be denied to members of the faculty, but after the declaration of war by Congress it became the duty of everyone either on the rolls of the faculty or on the rolls of students to support the loyal enforcement of all the laws of the United States.

A MEETING will be held in the theatre of the Institution of Civil Engineers on October 25, at 3.30 p.m., for the purpose of considering the establishment of a central organisation for improvement in, and better co-ordination of, engineering training and the appointment of a representative committee of engineering and educational interests to initiate action. Sir Maurice Fitzmaurice, C.M.G., president of the Institution of Civil Engineers, will preside, and representative engineers and educationists from all branches of these professions have signified their intention to be present. Those interested are requested to communicate with Mr. A. P. M. Fleming, British Westinghouse Co.,

Trafford Park, Manchester, or Mr. A. E. Berriman, chief engineer, Daimler Co., Coventry, who are acting as honorary organisers for the committee responsible for arranging this meeting.

THE summer course of lectures given by Prof. Conrady, on the designing and computing of telescope systems, in connection with the newly formed department of technical optics at the Imperial College of Science and Technology, South Kensington, has been a great success. Sixty-six students enrolled, of which number no fewer than forty-two came direct from the workshop. This result is especially gratifying when it is remembered that the course was an entirely new experiment, as it constituted the first attempt, it is believed, in the history of optics to deal with the subject of designing and computing in a course of public lectures. At an early date—of which due notice will be given—further courses of lectures will be given on optical designing by Prof. Conrady, and on "The Construction, Theory, and Use of Optical Measuring Instruments" by Mr. L. C. Martin.

THE number of universities and colleges in the British Isles providing training for medical men and professional chemists is now large enough to make many parents and guardians feel the need for guidance in making a selection, and they will welcome the special educational issues recently published by the *Lancet* (August 25), the *British Medical Journal* (September 8), and the *Chemical News* (September 7). In each case detailed information is given of the courses of study, the staffs, fees, and so on, at each important college, and in the case of our medical contemporaries guidance is provided as to the facilities for practical study at the more important hospitals. Descriptive articles by writers of experience also explain the steps necessary for students who desire to become practising medical men or chemists. From the *British Medical Journal* we gather that the effects of the war upon the medical profession, and especially upon medical education, have been profound and far-reaching. Last year the Army and Navy together were employing upwards of 12,000 medical men, and this number must now be much greater. Before the war some 3,300 medical officers were accredited to the Services year by year. As regards the number of medical students, between the years 1910 and 1914 the annual entry of first-year medical students averaged some 1,440. Since the war the number of these entries has increased by several hundreds a year. In May, 1916, the whole number of medical students was 6,103, including 1,379 women; in January, 1917, the whole number was 6,682, including 1,735 women. The third-year students, from whom most of the newly qualified practitioners of 1919 will come, numbered in January last only 572 men and 261 women. It is now clear that certainly in 1918 and 1919 a serious shortage of newly qualified medical practitioners must be looked for, though an increase may be expected in 1920 and 1921.

CALENDARS and prospectuses continue to reach us from colleges and technical institutions in different parts of the country, and the particulars they provide for the forthcoming session show that the authorities have spared no pains to meet the need for scientific and technical education in the districts for which they are responsible. The character of the work carried on at Birkbeck College, London, is indicated by the fact that thirty members of the staff are recognised teachers of the University of London, sixty-eight students passed University examinations during last session, of whom twenty-three graduated in arts and science, and four war degrees also were conferred. The usefulness of the college is much curtailed by its limited accommodation. The pressing need is for in-

creased space, and it may be hoped that ere long the governing body will be provided with sufficient funds to make it possible to secure college buildings worthy of the excellent work which has been accomplished here. The work at Armstrong College, Newcastle-upon-Tyne, is being done under difficulties. The college buildings have been in the occupation of the War Office since August, 1914, and the various departments are housed temporarily in different buildings. Pass and honours degrees are awarded, on the conditions laid down in the prospectus, in both pure and applied science. Candidates who have qualified for the pass degree of B.Sc. may proceed, with the approval of the Board of the Faculty of Science, with the course of study in the honours school, and in applied science can take up one of the following subjects:—Agriculture, mechanical, marine, civil, or electrical engineering, naval architecture, mining, metallurgy. The Edinburgh and East of Scotland College of Agriculture, which was founded in 1901 to provide for agricultural education and research in the central and south-eastern counties of Scotland, has arranged classes in conjunction with the science faculty of Edinburgh University, constituting a full course of theoretical and practical teaching in agriculture and the allied sciences. The services of the college staff are at the disposal of farmers who are investigating new conditions or special problems arising out of farming operations. Full particulars can be obtained from the offices of the college, 13 George Square, Edinburgh.

### SOCIETIES AND ACADEMIES.

#### PARIS.

**Academy of Sciences, September 17.**—M. Camille Jordan in the chair.—A. Lacroix: The peridotites of the Pyrenees and the other intrusive non-felspathic rocks which accompany them. Descriptions of the lherzolites, cortlandites, ariegites, and hornblendites, together with complete chemical analyses of twenty-one specimens.—M. Petrovitch: A new method of numerical evaluation of the coefficients of series.—C. Benediks: A new thermo-electric effect. The author's results are contrary to the law of Magnus, and show that in a homogeneous metallic circuit an asymmetrical distribution of temperature may give rise to an electromotive force.—J. B. Tauleigne and G. Mazo: The method of monocular stereoscopy especially applicable to radiography.—M. Mazères: A new method of extraction with the radioscopic screen: the method of concordances.—D. Keilin: A new Nematode, *Aproctonema entomophagum*. The new species was found as a parasite in the larvæ of *Sciara pullula*.—E. Roubaud: Can French Anopheles transmit malaria in non-marshy regions? *A. maculipennis* from the Paris district has been proved to be capable of transmitting malaria (*Plasmodium vivax* and *P. praecox*), and do not possess any special refractory properties. Since malarial cases are being introduced from the Eastern front, it is obvious that special precautions against the spread of the disease are indicated.—A. Laveran: Remarks on the preceding communication of M. Roubaud. An account of the measures which have been taken in France to prevent the spread of malaria from infected soldiers.

### BOOKS RECEIVED.

Survey of India. General Report, 1915-16. From October 1, 1915, to September 30, 1916. (Calcutta.) 2s. 8d.  
Memoirs of the Geological Survey of India. Vol. xlii., part 2. Vol. xlv., part 1. (Calcutta.) Each 4s.

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Composition and Nutritive Value of Feeding Stuffs. By Prof. T. B. Wood. (Cambridge: At the University Press.) 1s. net.

Memoirs of the Geological Survey, England and Wales. Explanation of Sheet 329. The Geology of the Country around Bournemouth. Second edition. By H. J. O. White. Pp. vi+79. With separate map. (London: H.M.S.O.) 2s. net.

The Discovery of America, 1492-1584. Edited by P. F. Alexander. Pp. xviii+212. (Cambridge: At the University Press.) 3s. net.

Insetti delle Case e dell' Uomo e Malattie che Diffondono. By Prof. A. Berlese. Pp. xii+293. (Milano: U. Hoepli.) 4.50 lire.

Celestial Objects for Common Telescopes. By the Rev. T. W. Webb. Sixth edition, thoroughly revised by the Rev. T. E. Espin. Two vols. Vol. i., pp. xx+253; vol. ii., pp. viii+320. (London: Longmans and Co.) Each 7s. 6d. net.

The Elements of Refrigeration. By Prof. A. M. Greene, jun. Pp. vi+472. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 18s. 6d. net.

Alternating-Current Electricity and its Applications to Industry. Second Course. By W. H. Timbie and Prof. H. H. Higbie. Pp. ix+729. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 13s. 6d. net.

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