

## UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

IN connection with the London County Council addresses to teachers on recent developments in science, Dr. W. Bateson will give a lecture on biology at King's College, Strand, W.C.2, on Saturday, January 24, at 11 a.m. The chair will be taken by Dr. S. Russell Wells, Vice-Chancellor of the University of London.

A WHITE Paper (Cd. 221, 1919) just issued sets forth the proposed text of the Order in Council by which, subject to the approval of Parliament, certain powers and duties in relation to public libraries, museums, and gymnasiums, formerly exercised by the Local Government Board and latterly by the Ministry of Health, are to be transferred to the Board of Education. This forms part of the proposal made by the Reconstruction Committee on Adult Education, to which, as we have previously recorded (NATURE, October 9, 1919), exception was taken by the museum officials and librarians. On the face of it, however, the proposed Order seems unobjectionable and, indeed, natural. The powers in question relate to the making of various by-laws and to the sales of buildings or land, and there can be no ground for supposing that they will be exercised in other than a liberal spirit conducive to the best ends of the institutions concerned. The questions of financial control, apportionment of rates, and general management do not seem to fall within the scope of this Order, and nothing is said in it about bringing museums and libraries under the control of the local education authorities. At the same time, the present step may be regarded as only the first of a contemplated series, and as, in any case, the necessary preliminary to those more fundamental changes concerning which opinions differ.

## SOCIETIES AND ACADEMIES.

## LONDON.

**Faraday Society**, December 15, 1919.—Prof. A. W. Porter, vice-president, in the chair.—A. G. Tarrant: The measurement of physical properties at high temperatures. An account is given of experiments made upon refractory materials with the view of measuring certain physical properties at high temperatures, particular attention being paid to thermal expansion, tensile strength, and thermal conductivity.—Lieut. W. A. Macfadyen: An aspect of electrolytic iron deposition. The experiments detailed were carried out in seeking the best conditions for obtaining thick, hard, adherent deposits of iron on steel-mechanism parts which had been machined too much or worn down in a few places, and thus rendered useless, so as to enable the scrapped parts to be replaced in use after treatment.—J. G. Williams: The electrolytic formation of perchlorate. It is pointed out that present practice in electrolytic preparation of perchlorate uses much higher temperature of liquor and current density than is given in text-books.—Prof. A. W. Porter: The vapour pressure of binary mixtures. In order to remove difficulties in connection with the proof of the Duhem-Margules formula for the vapour pressures of binary mixtures, a simplified proof is given which makes clear the extent of the usual approximations in each step of the proof.—Prof. E. D. Campbell: The solution theory of steel and the influence of changes in carbide concentration on the electrical resistivity. Baly's force-field theory is applied to the case of the solid solution of the non-ferrous elements in steel. The experimental portion of the paper describes a research on the influence of the decarburisation by means of hydrogen of a series of alloy steels on the electrical resistivity, when the

metal is in both the annealed and hardened condition.—S. Horiba: Some relations between the solubilities of solutes and their molecular volumes.—Dr. E. J. Hartung: (1) An accurate method for the determination of vapour pressure. (2) Some properties of copper ferrocyanide.

## PARIS.

**Academy of Sciences**, December 15, 1919.—M. Léon Guignard in the chair.—H. Douvillé: The annular Foraminifera (Cyclostegnes) of Orbigny. The annular development taken by Orbigny as a basis of classification is the result of a particular mode of growth, and is a secondary character.—G. Bonnier: Comparative culture of seedlings at high altitudes and in the plain. After experiments, lasting thirty or thirty-five years, low-level plants grown on the same soil at different altitudes acquire completely the form and structure of plants of the same species growing naturally at the higher altitude. Detailed examples are given.—E. Ariès: A new improvement of the equation of state of fluids.—V. Grignard, G. Rivat, and Ed. Urbain: The chloro-derivatives of methyl formate and carbonate.—G. Friedel: The calculation of the intensity of X-rays diffracted by crystals.—M. Louis Lumière was elected a member of the division of the applications of science to industry.—M. Plancherel: The method of integration of Ritz.—J. Drach: Determination of the first integrals of the differential equation of geodesic lines, rational with respect to the first differential of the unknown function.—Ed. Fouche: A characteristic equation for atmospheric air.—P. Jolibois: A new method of physico-chemical analysis of precipitates. Application to the study of the calcium phosphates. A. Recoura: A new complex form of chromic sulphate.—A. Kling, D. Florentin, A. Lassieur, and E. Schmutz: The properties of the chloromethyl chloroformates.—M. Godchot and F. Taboury: Some new bicyclic ketones. Further applications of the reaction between ketones and calcium hydride.—L. Bertrand and A. Lanquine: The relations between chemical composition, microscopic structure, and the ceramic qualities of clays. The usual method of calculating the proportion of mica in clay from the chemical analyses can be shown by microscopic examination to be erroneous. The chemical composition of a clay is an insufficient guide to its ceramic properties.—R. Anthony: The determination of the lobulation of the kidney in mammals.—A. Pézard: Alimentary castration in cocks submitted to an exclusively carnivorous diet. A strictly carnivorous diet sets up a slow intoxication to which the genital glands are peculiarly sensitive. The latter are either atrophied or do not develop.—R. Bayeux: The urinary toxicity and its modifications by hypodermic injections of oxygen during a prolonged stay at the Mont Blanc Observatory.—F. Bordas: Milk contamination. Remarks on the importance of reducing infant mortality, with especial reference to tuberculosis produced by dirty milk.—P. Achalme and Mme. Phisalix: The preservation of vaccine.

## BOOKS RECEIVED.

The Child's Unconscious Mind. By Dr. W. Lay. Pp. vii+329. (London: Kegan Paul and Co., Ltd.) 10s. net.

The Elements of Analytical Conics. By Dr. C. Davison. Pp. vii+238. (London: At the Cambridge University Press.) 10s. net.

A Geographical Bibliography of British Ornithology from the Earliest Times to the End of 1918. By W. H. Mullens, H. Kirke Swann, and Rev. F. C. R. Jourdain. Part ii. Pp. 97-192. (London: Witherby and Co.) 6s. net.