Hunter; Coal: its Origin, Method of Working, and Preparation for the Market, F. H. Wilson. *T. Fisher Unwin.*—Unwin's Technological Dictionary, three parts, in French, German, and English, edited by Dr. A. Tolhausen, revised by L. Tolhausen, with a supplement, including all modern terms and expressions in electricity, telegraphy, and telephony. *Whittaker and Co.*—Manufacture of Nitro-lignin and Sporting Powder, E. H. Durnford, illustrated; The Radio-telegraphists' Guide and Log-book: a Manual of Wireless Telegraphy for the Use of Operators, W. H. Marchant, illustrated. *J. Wiley and Sons (New York).*—Handbook of Sugar Analysis, C. A. Browne, jun.; German and American Varnish-making, Prof. Max Bottler, translated, with notes on American varnish and paint manufacture, by A. H. Sabin, illustrated; Analysis of Paint and Varnish Products, Dr. C. D. Holley.

MISCELLANEOUS.

Baillière, Tindall and Cox.—The Economics of Feeding Horses, Prof. H. A. Woodruff. *Cambridge University Press.*—The Psychology of Insanity, Dr. B. Hart; Metals, F. E. C. Lamplough; Prehistoric Britain, L. McL. Mann. *Chatto and Windus.*—A History of Babylonia and Assyria from Prehistoric Times to the Persian Conquest, L. W. King, vol. ii., illustrated. *W. Heinemann.*—Introductory Science, W. Tunna Walker. *T. C. and E. C. Jack.*—Introduction to Science, W. C. D. Whetham, F.R.S.; The Meaning of Philosophy, Prof. A. E. Taylor; Psychology, Dr. H. J. Watt. *Macmillan and Co., Ltd.*—Manual of Statistics, the late Sir R. Giffen, F.R.S. *Milner and Co.*—Dactylography: or Finger Prints in Relation to Evidence of Man's Genetic Descent, &c., H. Faulds, illustrated. *John Murray.*—Science of the Sea: an Elementary Handbook of Practical Oceanography for Travellers, Sailors, and Yachtsmen, prepared by the Challenger Society for the Promotion of the Study of Oceanography, and edited by Dr. G. Herbert Fowler, illustrated. *G. P. Putnam's Sons.*—Nature's Harmonic Unity: a Treatise on its Relation to Proportional Form, S. Colman. *J. Wiley and Sons (New York).*—Fire Prevention and Fire Protection, J. K. Freitag; Applied Methods of Scientific Management, F. A. Parkhurst, illustrated.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

CAMBRIDGE.—In a letter to the Vice-Chancellor, dated March 7, Viscount Esher states that a generous benefactor, who stipulates that his name shall not be mentioned, has placed in his hands a sum of 20,000*l.* for the purpose of endowing a professorship at Cambridge in connection with the experimental study of heredity and of development by descent. It is stipulated also that the new chair shall be called the Balfour Professorship of Genetics. The same benefactor "is willing to furnish such funds as may be necessary to provide and equip a small station at Cambridge for the use of the professor should such a course be considered desirable after careful examination of the methods likely to be most satisfactory for the purposes of research in the domain of genetics."

Lord Rayleigh, Chancellor of the University, has been nominated to represent the University on the occasion of the celebration in July next of the two hundred and fiftieth anniversary of the foundation of the Royal Society; Sir T. Clifford Allbutt, K.C.B., and Dr. Macalister, professor of anatomy, to represent the University at the bicentenary festival of the Medical School of Trinity College, Dublin, in July next; and Dr. E. W. Brown to represent the University at the centenary anniversary of the Academy of Natural Sciences of Philadelphia in the present month.

Syndicates have been appointed to obtain plans for the extension of the School of Agriculture on the Downing site, and for the erection of the building for the Forestry Department at the south-east corner of the same area, and the Vice-Chancellor has been authorised to obtain tenders for the extension of the engineering laboratory.

The next combined examination for fifty-seven entrance scholarships and a large number of exhibitions, at Pembroke, Gonville and Caius, Jesus, Christ's, St. John's, and Emmanuel Colleges, will be held on Tuesday, December 3, and following days. Mathematics, classics, natural sciences, and history will be the subjects of examination at all the above-mentioned colleges.

THE new hygiene and physiology laboratories of the Battersea Polytechnic will be opened on Monday, April 22, by the Master of the Worshipful Company of Drapers, his honour Judge Benson, who will deliver an address and distribute prizes and certificates.

PROF. A. WILLEY, F.R.S., and Dr. W. F. N. Woodland have been elected fellows of University College, London. Dr. Woodland, who is assistant professor of zoology at the college, has been appointed to the chair of zoology at the Muir Central College, Allahabad, India.

THE London County Council has arranged for maintenance grants of 5500*l.*, 11,460*l.*, and 11,610*l.*, respectively, to be paid to the University of London for the years 1911–12, 1912–13, and 1913–14. In each year 1000*l.* is intended for home science at King's College for Women, 1500*l.* for libraries, 500*l.* for the physiological laboratory, and 500*l.* for advanced lectures; 2000*l.* each year is intended for general university purposes. In each of the years 1912–13 and 1913–14 5400*l.* is intended for the university professoriate and for the encouragement of French and other Romance languages.

IN the *Popular Science Monthly* for February, Prof. A. F. Chamberlain directs attention to some interesting characteristics of the modern English language, which he considers may conduce towards English becoming the universal language of the future. These characteristics include the power of importing and assimilating foreign words when required for the exigencies of intercommunication without subordination to grammatical categories and merely formal canons; the formation of hybrid words, the use of prefixes and suffixes, and the reduction of long words by abbreviated forms. The author quotes the word "remacadamising" as an instance built up from five different languages—Latin, Gaelic, Hebrew, Greek, and English. He considers that no other language in the world possesses the same qualities, which, by the way, somewhat reflect England's qualities as a free-trade colonising nation, and may be intimately connected with our national characteristics.

IN the House of Commons on March 6 Sir Philip Magnus asked the Prime Minister whether the Government has made itself responsible for the housing of the University of London throughout its history; whether he was aware that in the Treasury minute of February 16, 1899, the liability to provide a suitable home for the University is acknowledged;

and what steps the Government proposes to take in the matter, in view of the unsatisfactory accommodation for the University disclosed in the report of the Royal Commission on University Education in London? In reply, Mr. Asquith said the Government has provided accommodation for the London University throughout its history. The minute cited was written before the removal of the old University to South Kensington, and refers to the possibility of an arrangement between the authorities of the Imperial Institute and the Treasury. It must not be construed as admitting liability on the part of the Government to provide for all possible requirements of the University in the future. The report of the Royal Commission points out that the University must depend to a large extent upon private endowments for its full development. The Government does not think that it would be opportune to take any steps in connection with the matter before the final report of the Commission is published.

SOCIETIES AND ACADEMIES.

LONDON.

Royal Society, February 29.—Sir Archibald Geikie, K.C.B., president, in the chair.—Dr. A. **Harden** and Dorothy **Norris**. The bacterial production of acetylmethylcarbinol and 2 : 3-butylene glycol.—II. Péré considered that glyceraldehyde was produced during the bacterial fermentation of sugars, and advanced the hypothesis that all sugars undergoing such decomposition were primarily broken down to glycerose. The authors have repeated his experiments, and find that the volatile, reducing, and lævorotatory substance which he considered to be glyceraldehyde is in reality acetylmethylcarbinol. Hence the above hypothesis cannot be considered as proved. A quantitative examination has been made of the products formed by the action of *B. lactis aërogenes* (Escherich) on glycerol under anaërobic conditions. These consist of ethyl alcohol and formic acid, comprising 60 per cent. of the whole, together with smaller quantities of acetic, lactic and succinic acids and 2 : 3-butylene glycol, carbon dioxide, and hydrogen.—H. S. **Ryland** and B. T. **Lang**: An instrument for measuring the distance between the centres of rotation of the two eyes. The apparent position of a pin fixed at a known distance in front of a scale is taken with each eye singly. The operation is repeated with the pin at a different distance, the other conditions remaining unaltered. From the data thus obtained the distance between the centres of rotation of the two eyes can be calculated. The result is independent of variations in the distance between the pupils, and the process can be applied in cases of squint. In an alternative method three pins in a row parallel to the scale are used.—J. F. **Gemmill**: The locomotor function of the lantern in Echinus, with remarks on other allied lantern activities. (1) *Locomotion out of water* (reference is made to previous accounts by Romanes and Ewart).—The urchin raises itself from time to time on the tips of its teeth in preparation for a forward "step" or lurch. The "step" is then brought about (*a*) by strong pushing or poling on the part of the lantern, (*b*) by similar but weaker action on the part of the spines, (*c*) by the influence of gravity acting at a certain stage. Active progression by lantern alone is possible in small and medium-sized urchins. Progression by spines alone is very limited indeed. An urchin can travel with the help of its lantern even when loaded to the extent of half a pound or more. There is usually some rotation as well as progression, but the two are not associated as cause and effect. The causes of rotation are discussed, and an analysis is given of the lines or curves of progression in relation to rotation. Other points to which attention is directed are:—muscles involved; strength of effort; change of direction; inversion; equatorial section; recording surfaces of plasticene and other substances; the inertia and momentum of the rhythmic action. (2) *Locomotion under water*.—Here the lantern is not needed for ordinary locomotion, particularly over more or less horizontal surfaces. There are, however, various circumstances, normal and experimental, in which it is employed with effect—for example, when the urchins are loaded or travelling up a slope on certain surfaces, or only partially immersed, or mounting rapidly up a vertical surface. (3) The locomotor action of the lantern is a particular manifestation of a rhythmic functional activity which can also subserve feeding (no doubt the most important function), boring, and "forced respiration."—Captain A. D. **Fraser** and Dr. H. L. **Duke**: The relation of wild animals to trypanosomiasis. (1) *Trypanosoma uniforme* was the only species of trypanosome obtained as the result of examination of wild animals, including thirty-two Lake-shore antelopes. (2) The available evidence points to bush-pig, crocodile, monitor, frog, and fowls being refractory to *T. gambiense*. (3) The edible rat, which is susceptible to *T. gambiense*, can, by virtue of its habits, be of little importance in considering the question of a reservoir.—Dr. H. L. **Duke**: The transmission of *Trypanosoma nanum* (Laveran). This trypanosome can be transmitted by *Glossina palpalis*, the proportion of positive flies obtained being relatively large, and indicating that this fly may play an important part in the spread of the disease in Uganda.—E. H. **Ross**: The development of a leucocytozoon of guinea-pigs. The paper describes an investigation of some remarkable structures found in the mononuclear leucocytes (lymphocytes) of the blood of guinea-pigs; they are known as "Kurloff's bodies." There has been considerable controversy regarding the nature of these bodies, some authorities describing them as vacuoles containing secretion products, some as symbiotic structures, as chlamydozoa, as cytoryctes, as parasites, and as spurious parasites. By a new technique for *in vitro* staining, known as the jelly method, the minute structure of these bodies can be seen, while the lymphocytes which contain them are stained alive. The method shows conclusively that Kurloff's bodies are living parasites. The method also shows how the bodies develop within the lymphocyte host, for the chromatin within them stains in the various phases, and the whole development can be followed from the earliest Leishmania-like inclusion in the leucocytes until ultimately the leucocytozoon is seen to contain a mass of spirochæte-like bodies which have been likened to *gametes*. The blood of such guinea-pigs shows, when examined with the dark-ground illumination, free-swimming spirochætes, and these have been fixed and stained. The details of the jelly method are described.

March 7.—Sir Archibald Geikie, K.C.B., president, in the chair.—Sir William **Crookes**: The devitrification of silica glass. A clear and transparent tube of silica glass with a bulb blown at one end was exhausted to a high vacuum. It was heated in an electric resistance furnace in such a manner that the bulb was exposed to the greatest heat while the lower part of the tube was comparatively cool. After being kept at a temperature of 1300° C. for twenty hours the bulb and upper part of the tube had devitrified, becoming white and translucent like frosted glass. The tube was resealed, exhausted, and exposed to 1300° for eleven hours. On cooling, the point of the tube was broken under mercury, and from the