Societies and Academies.

LONDON.

Royal Society, Nov. 15.[1]—**F. A. Jenkins** and **H. de Laszlo**: Structure of the violet bands of silicon nitride. The analysis shows a marked isotope effect for $Si^{28}N$, $Si^{29}N$, and $Si^{30}N$.—**R. A. Fisher**: The general sampling distribution of the multiple correlation coefficient.—**F. W. Carter**: On the stability of running locomotives. The inherent riding qualities of locomotives are discussed from the point of view of their natural tendencies, whether to seek the centre of the track or to deviate therefrom. The locomotive of one truck or axle group is generally unstable. In the locomotive of two trucks, these have regions of stability, limited by running speed and by the forces between main and auxiliary trucks.—**A. C. Menzies**: Ground terms in the spectrum of nickel II and proposed standard wave-length in the Schumann region. The method already described of obtaining spectrograms with exposures of the order of 1/100 second in the Schumann region (by fusing wires) is particularly well suited to the investigation of ground-terms, and has been applied to elucidate those of nickel II.—**J. M. Whittaker**: On the principle of least action in wave-mechanics. The connexion between Dirac's wave equations and the equations suggested by the author in a recent paper are discussed.—**H. Dingle**: The spectrum of doubly ionised fluorine (F III). Comparison of the spectrum with that of singly ionised oxygen shows close correspondence, with a few exceptions.—**J. A. V. Butler**: The equilibrium of heterogeneous systems, including electrolytes (Part 3). An equation is deduced for the variation of the adsorption of a substance dissolved in a more polar medium with the electric field at the interface.—**G. R. Goldsbrough**: The tides in oceans on a rotating globe (Part 2). The method of Part I of this paper is applied to two types of flat rotating sea; a semicircular basin, deepest in centre and shelving towards circumferential edge, and a flat semicircular basin of uniform depth.—**T. Bradshaw** and **G. H. Livens**: The formula for the optical rotatory dispersion of quartz.—**H. T. Flint**: The new metric of Einstein and the wave equation.—**A. Robertson**: The strength of tubular struts.—**G. S. Adair**: A theory of partial osmotic pressures and membrane equilibria, with special reference to the application of Dalton's law to hæmoglobin solutions in the presence of salts. The osmotic pressures of hæmoglobin solutions in equilibrium with solutions of diffusible salts have been measured and correlated with determinations of the membrane potentials, and the distribution of diffusible ions. Within certain ranges of hydrion, salt and protein concentrations, a modified form of Dalton's law of partial pressures is applicable for analysing the observed osmotic pressures in terms of the diffusible ion pressure difference, and the partial osmotic pressure of the protein ions. The value 67,000 obtained for the molecular weight hæmoglobin in physiological salt solutions agrees with that previously determined for hæmoglobin in distilled water.—**A. T. Waterman**: The effect of electric fields on the emission of electrons from conductors. An examination of the Schottky effect from the point of view of the Sommerfeld electron theory of metals. Accurate experimental data on the Schottky effect should therefore distinguish between the Sommerfeld theory and the classical.—**W. Mandell**: (1) The change in elastic properties on replacing the potassium atom of Rochelle salt by the ammonium group. The two substances are isomorphous. Their densities differ considerably, whilst smaller changes take place in the optical rotation, the refractive indices, and the size of the space-lattices and of the interfacial angles. The ammonium salt is less elastic than the potassium salt, the deformation magnitudes being fairly uniformly increased in all directions. Comparison of the elastic curves shows that the inter-atomic forces in both are very similar and that the potassium atom is a sort of 'key' atom in the molecule. (2) The determination of the piezo-electric moduli of ammonium seignette salt.—**A. M. Tyndall, L. H. Starr**, and **C. F. Powell**: The mobility of ions in air. Part 4. Investigations by two new methods. At long ages, the positive ions have mobilities distributed over a small range with a mean value of about 1·25, which is independent of the humidity of the air. There is no evidence of initial positive ions in very dry air or in pure nitrogen. If any are formed, they nearly all transform in less than 1/100 sec. The mobility of both the negative and positive ions in air containing alcohol vapour is independent of the age of the ions from 1/25 to 2/3 sec.—**A. M. Tyndall, G. C. Grindley**, and **P. A. Sheppard**: The mobility of ions in air. Part 5. The transformation of the positive ions of short ages. An air blast method was used. A small quantity of ozone produces a marked increase in the rate of transformation; this effect may explain the different results obtained by various observers using different methods. The rate of transformation is greatly retarded if, before entering the air blast, the ions are formed in an atmosphere containing the vapour of certain alcohols of the aliphatic series.—**L. J. Freeman**: The spectrum of doubly ionised nitrogen (N III).—**W. R. Dean**: Fluid motion in a curved channel. The motion of fluid forced under pressure round the space between concentric circular cylinders may become unstable for a symmetrical disturbance. In certain cases the disturbance may be that which actually ensues when steady motion breaks down. It cannot persist in a straight channel. This effect of curvature may explain why there is not in a curved pipe a sudden increase in loss of head in the neighbourhood of the critical velocity.—**H. E. Watson** and **A. S. Menon**: The electrical conductivity of thin oil films. Part 1.—**W. Kapucinski** and **J. G. Eymers**: Intensity measurements in the secondary spectrum of hydrogen.—**E. Rudberg**: Some remarks concerning the production and absorption of soft X-rays and secondary electrons. The number of photoelectrons produced for one quantum of radiation absorbed is of the order unity. This result, with efficiency measurements on soft X-ray production using the photoelectric method, shows that the yield of such radiation when metals are bombarded with electrons of a few hundred volts' energy is extremely small. A very much larger portion of the energy of the bombarding electrons reappears in smaller units as energy of secondary electrons, a great part of which are probably initially free conduction electrons of the substance.—**B. Swirles**: The internal conversion of gamma-rays. Part 2.—**R. S. Bartlett**: The increase in thermionic currents from tungsten in strong electric fields. Experimental results for the increase of thermionic currents with applied electric field at constant temperature show only general agreement with theory. Surface impurities in the cathode exert a marked effect.—**L. H. Thomas**: On the rate at which particles take up random velocities from encounters according to the inverse square law.

Physical Society, Oct. 26.—**Allan Ferguson** and **Jas. P. Andrews**: An experimental study of the anticlastic bending of rectangular bars of different cross-sections. A method is described for the survey of the

[1] Continued from p. 829.

surface of a beam bent by couples, with special reference to the study of the curvatures in and perpendicular to the plane of bending.—**B. S. Smith** and **F. D. Smith**: An instrument for the production of known small high-frequency alternating electromotive forces. A portable instrument for the production of known electromotive forces, variable in frequency from 10 to 50 kilocycles and in magnitude from 0·0076 to 15,000 microvolts, is described. It is intended for the calibration of amplifiers and the measurement of the strength of wireless signals of long wave-length.

Mineralogical Society, Nov. 6.—**F. A. Bannister**: The so-called 'thermokalite,' and the existence of sodium bicarbonate as a mineral. The composition of a large collection of saline incrustations collected by Dr. Johnston-Lavis about 1889, has been investigated. He labelled them 'thermokalite,' but they are found to be a mixture of trona, thermonatrite, thenardite, and free sodium bicarbonate; no potassium salts are present. The name nahcolite is proposed for naturally occurring sodium bicarbonate. These incrustations were found lining the walls of a cuniculus near the Stufe di Nerone, Baia, Naples, Italy; their mode of occurrence is discussed from a physical-chemical point of view.—**W. A. Wooster**: The piezo-electric effect of diamond. The effect has been investigated by a delicate method using magnetic attraction to apply pressure to the diamond. The result shows that the effect, if it exists, is less than $\frac{1}{200}$ of the effect observed in quartz cut perpendicular to the electric axis.

CAMBRIDGE.

Philosophical Society, Oct. 29.—**P. A. M. Dirac**: The basis of statistical quantum mechanics. Neumann's method of describing a Gibbs' ensemble of systems in quantum mechanics by a matrix is very closely analogous to the classical description. The matrix may be regarded as a function of the co-ordinates and momenta and is then the analogue of the classical density of distribution of representative points in phase space. An equation of motion for the quantum density is obtained, of the same form as the classical one, and a justification is provided for the usual assumptions of *a priori* probability in quantum theory.—**L. H. Gray**: The absorption of penetrating radiation. When an electroscope is shielded from all local radiations, and its natural activity has been allowed for, there remains a small residual ionisation which increases with altitude. One hypothesis attributes this ionisation to ultra-gamma radiation. Assuming a homogeneous isotropic radiation at the top of the earth's atmosphere, an approximate calculation is made of the ionisation to be expected at different heights and the relative contributions to the ionisation of the radiation of longer wave-length produced by the Compton scattering process from the primary radiation. As the altitude increases, the apparent absorption coefficient at first increases and then decreases.—**N. A. de Bruyne**: Note on the effect of temperature on the auto-electronic discharge. The auto emission is independent of temperature up to approximately 2000° and the apparently contradictory experimental results of Millikan are explained.—**J. Hargreaves**: The dispersion electrons of lithium. An attempt is made to estimate the number of electrons of dispersion (+) for the lines of the principal series of lithium, and the value of df/dv for the continuous spectrum, using a 'self-consistent' field, and Hartree's method of integration. Owing to polarisation effects the 'self-consistent' field does not, however, give the correct term-values. General normalised solutions of the wave-equation with continuous *eigenwerte* are given, and the normalised solution for the zero *eigenwert* is deduced by a limiting process.—**E. E. Watson**: Current measurement with a Compton quadrant electrometer. By using the rate of deflection method with a Compton quadrant electrometer, a current of 10^{-14} amp. can be measured in a minute. The rate of deflection of the electrometer spot is proportional to the current right up to the fastest measurable speed, 5 cm. per sec.

PARIS.

Academy of Sciences, Oct. 8.—**Ch. Depéret** and **J. Viret**: The discovery of the fauna of Burdigalian mammals of the Orléanais sands in Haut-Armagnac. Excavations near the village of La Romieu have given the more or less complete debris of 16 species of mammals, a list of which is given.—**Georges Claude**: The extraction of krypton and xenon from air and from gases dissolved in water. The aim of the work described was to obtain xenon and krypton, not from air specially treated for the purpose, but as a by-product from a commercial process. Special rectifying apparatus designed to prevent mechanical losses of krypton and xenon has given a continuous stream of gas containing 0·1 per cent of xenon, and krypton at about one-half of the amount present in the air treated. Removal of oxygen by combustion in hydrogen raised the proportion of the two rare gases to 2 per cent. This mixture is further concentrated by means of silica cooled in liquid oxygen. About 10 litres of krypton and 800 c.c. of xenon per day can be thus prepared.—**Léon Guillet** and **Ballay**: The influence of the composition and cold hardening on corrosion and the increase of the size of the grain in aluminium. The influence of cold hardening is more marked in 98·81 per cent aluminium than with pure aluminium (99·87 per cent).—**Maurice Fréchet**: The existence of an index of desirability of indirect benefits.—**Bertrand Gambier**: Remarkable configurations of four right tangents to certain curves.—**Georges Bouligand**: The order of measurement of a closed ensemble.—**A. Buhl**: The function $E(y)$ of Mittag-Leffler and developments in series intervening in mathematical physics.—**P. Myrberg**: Discontinuous groups of biuniform transformations.—**J. Guéron**: The electro-chemical study of the action of acids on the solutions of some salts of zinc.—**Mme. and M. M. Lemarchands**: The quantitative separation of barium and calcium. The increase of solubility caused by the presence of hydrochloric acid is emphasised.—**V. Auger** and **Al. Yakimach**: The phosphates and arsenates of quadrivalent manganese. The preparation and properties of some crystallised compounds of tetravalent manganese are described, including $((NH_4)H\cdot PO_4)_2\ MnO$, $Mn(H_2AsO_4)_4$, and $((NH_4)HAsO_4)_2MnO$. All these compounds contain active oxygen, and with hydrogen peroxide in acid solution evolve oxygen.—**Lespieau**: 1·12-Dodecanediol. Pentamethylene bromide, reacting with magnesium, gives not only the normal $(CH_2)_5(MgBr)_2$, but also a series of condensation products of the general formula $(CH_2)_{5n}(MgBr)_2$. The glycol $CH_2(OH)\cdot(CH_2)_{10}\cdot CH_2OH$ has been prepared from one of the latter products.—**Mlle. L. Remy**: Mutation in mosaic.—**M. Bridel** and **Mlle. S. Grillon**: The glucoside from *Gaultheria procumbens*, giving rise to methyl salicylate, is monotropitoside. The identity of this glucoside with monotropitoside from *Monotropa Hypopitys*, *Betula lenta* and other species is definitely proved.—**Mlle. M. L. Verrier**: The peculiarities of the mitochondrial apparatus of some cecidia.—**Motoi Sakurai**: The tracheal gland of some insects.—**Mme. N. Dobrovolskaïa-Zavadskaïa**: A strain of mice presenting an unusual mutability of the tail.—**Et. Burnet**: Biochemical modifications impressed on cultures of *B. abortus* with the view of using it in giving immunity against Maltese fever.

VIENNA.

Academy of Sciences, July 5.—**E. Hartmann and J. Zellner**: The chemistry of the higher fungi. (19) *Polyporus pinicola*. An ally of the larch fungus containing a dozen different compounds.—**N. Fröschl and J. Zellner**: The chemistry of the higher fungi. (20) *Omphalia Campanella, Marasmius Scorodonius, Boletus cavipes, Calocera viscosa*.—**J. Zellner**: Contributions to the comparative chemistry of plants. (21) Chemistry of plants with latex.—**J. Pollak and F. v. Meissner**: The constitution of the disulpho-acids of meta-xylol.—**J. Pollak and E. Riess**: Oxy-thiophenols.—**E. Riess**: The oxidation products of 4, 4-dichlor-2, 2-dinitro-diphenyl-sulphide and disulphide.—**K. Brunner**: Determination of the constitution of β-resorci-dicarboxylic acid.—**A. Kohaut**: Thermo-electric forces in wires partially covered with another metal.—**F. Bartl**: The compressibility of liquids. A formula is proposed which seems to connect the molecular weight, the density and the number of atoms in the molecule with the compressibility; also a table showing observed and calculated results for 25 different liquids, including mercury, ether, alcohol, and water.—**F. Raaz**: The electric conductivity of lithium silicates in the solid state. In contrast to other silicates, the lithium silicates show a marked conductivity at higher temperatures, and the orthosilicate a greater conductivity than the metasilicate.

Official Publications Received.

BRITISH.

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1151 (Ae. 317): The Characteristics of a Karman Vortex Street in a Channel of Finite Breadth. By H. Glauert. (T. 2573.) Pp. 14+1 plate. (London: H.M. Stationery Office.) 9*d*. net.

The Calendar of the Pharmaceutical Society of Great Britain 1928–1929. Pp. 242. (London.) 3*s*. 6*d*.

Madras Fisheries Department. Administration Report for the Year 1926–27. By Dr. B. Sundara Raj. (Report No. 1 of 1928, Madras Fisheries Bulletin, Vol. 22.) Pp. iii+99+3 plates. (Madras: Government Press.) 1 rupee.

New Zealand. Department of Lands and Survey: Scenery-Preservation. Report for the Year ended 31st March 1928, together with Statement of Accounts and Schedule of Lands acquired and reserved during the Year under the Scenery Preservation Act. Pp. 12+3 plates. (Wellington, N.Z.: W. A. G. Skinner.) 9*d*.

Public Library, Museum and Art Gallery of South Australia. Records of the South Australian Museum. Vol. 4, No. 1. Pp. 144. (Adelaide.) 10*s*. 6*d*.

Government of the Gold Coast. Report on the Survey Department for the Period April 1927–March 1928. Pp. 31+3 plates. (Accra: Colonial Secretariat; London: The Crown Agents for the Colonies.) 3*s*.

The Kent Incorporated Society for Promoting Experiments in Horticulture. Annual Report (Fourteenth and Fifteenth Years) 1926 and 1927. Supplement 2. Pp. 171+29 plates. (East Malling: East Malling Research Station.) 5*s*. 6*d*.

Commonwealth of Australia: Council for Scientific and Industrial Research. Pamphlet No. 8: Methods for the Examination of Soils. By Prof. J. A. Prescott and C. S. Piper. Pp. 52. Bulletin No. 36: Kimberley Horse Disease (Walk-about Disease). By D. Murnane and Prof. A. J. Ewart. Pp. 61. (Melbourne: H. J. Green.)

The Royal Aeronautical Society, with which is incorporated the Institution of Aeronautical Engineers. List of Members. Pp. 55. (London.)

British Cast Iron Research Association. Seventh Annual Report for the Year ending June 30th, 1928. Pp. 24. (Birmingham.)

Empire Grown Sisal and its Importance to the Cordage Manufacturer: Memorandum prepared by the Imperial Institute with the co-operation of its Advisory Committee on Vegetable Fibres, and issued by the Empire Marketing Board. (E.M.B. 10.) Pp. 25. (London: H.M. Stationery Office.) 6*d*. net.

The Scientific Proceedings of the Royal Dublin Society. Vol. 19 (N.S.), No. 11: The Action of Aromatic Amines on Nitric Esters. By Dr. Hugh Ryan and Michael T. Casey. Pp. 101-111. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 1*s*.

FOREIGN.

Det Kongelige Departement for Handel, Sjøfart, Industri, Handverk og Fiskeri: Norges Svalbard- og Ishavs-Undersøkelser. Skrifter om Svalbard og Ishavet. Nr. 13: The Micromycetes of Svalbard. By J. Lind. Pp. 61+3 plates. 6.00 kr. Nr. 15: Geology of Bear Island, with special reference to the Coal Deposits, and with an Account of the History of the Island. By Gunnar Horn and Anders K. Orvin. Pp. xi+152+10 plates. 15.00 kr. Nr. 16: Déterminations astronomiques pour Norges Geografiske Opmaling. Par Hans S. Jelstrup. Pp. 28. 2.00 kr. Nr. 17: Beiträge zur Kenntnis der Kohle von Svalbard (Spitsbergen und der Bäreninsel). Von Gunnar Horn. Pp. 60+5 Tafeln. 5.50 kr. (Oslo: Jacob Dybwad.)

Proceedings of the Academy of Natural Sciences of Philadelphia, Vol. 80. Agalines and Allies in North America, I. By Francis W. Pennell. Pp. 339-449. (Philadelphia, Pa.)

Hamburger Sternwarte in Bergedorf. Index der Sternörter 1900–1925. Herausgegeben von R. Schorr und W. Kruse. Band 1: Der nördliche Sternhimmel. Pp. ii+308. Band 2: Der südliche Sternhimmel. Pp. ii+291. (Bergedorf.)

Hamburger Sternwarte in Bergedorf. Erstes Bergedorfer Sternverzeichnis 1925·0 enthaltend die mittleren Örter von 4983 Sternen nach Beobachtungen am Repsoldschen 19 cm.-Meridiankreis in den Jahren 1913 bis 1926. Von Dr. Franz Dolberg. Pp. xxviii+108+2 Tafeln. (Bergedorf.)

Japanese Journal of Astronomy and Geophysics: Transactions and Abstracts. Vol. 6, No. 1. Pp. iv+69+37. Japanese Journal of Geology and Geography: Transactions and Abstracts. Vol. 6, Nos. 1-2. Pp. ii+62+7+12 plates. (Tokyo: National Research Council of Japan.)

Argeologiese Navorsing van die Nasionale Museum, Bloemfontein. Deel 1, Eerste Stuk: Die Koningse Kultuur. 1: Die Koningse Industrie. Deur Dr. Ir. E. C. N. van Hoepen. Pp. 11+4 plates. (Bloemfontein.)

Department of Commerce: Bureau of Standards. Bureau of Standards Journal of Research. Vol. 1, No. 4, October. Pp. 487-684. 25 cents. Research Paper No. 18: Mutual Inductance of any Two Circles. By Chester Snow. Pp. 531-542. 5 cents. Research Paper No. 22: The International Temperature Scale. By George K. Burgess. Pp. 635-640. 5 cents. Research Paper No. 23: Tables of Theoretical Zeeman Effects. By C. C. Kiess and W. F. Meggers. Pp. 641-684. 15 cents. (Washington, D.C.: Government Printing Office.)

New York Academy of Sciences. Scientific Survey of Porto Rico and the Virgin Islands. Vol. 7, Part 3: Paleobotany of Porto Rico. By Arthur Hollick. Pp. ii+177-393+plates 51-88. (New York City.)

Department of Commerce: Bureau of Standards. Bureau of Standards Journal of Research. Vol. 1, No. 5, November. Pp. 685-866. (Washington, D.C.: Government Printing Office.) 25 cents.

Diary of Societies.

FRIDAY, NOVEMBER 30.

TEXTILE INSTITUTE (Manchester), at 1.15.—E. E. Canney: Rational Development in the Organisation of the Cotton Industry.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS (Associates' and Students' Section) (Newcastle-upon-Tyne), at 2.30.—J. H. M. Cragg: Notes on an Electric Heading Machine.—*Papers open for discussion*:—Bore-holes and their Purposes, W. S. Armstrong; Diamond Boring applied to Tapping Drowned Areas Underground, F. E. Smyth.

ROYAL SOCIETY (Anniversary Meeting), at 4.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Prof. W. E. Dalby: The Possible Vibration of a Ship's Hull under the Action of an Unbalanced Engine (Thomas Lowe Gray Lecture).

NORTH-EAST COAST INSTITUTION OF ENGINEERS AND SHIPBUILDERS (at Mining Institute, Newcastle-upon-Tyne), at 6.—Dr. E. V. Telfer: Frictional Resistance and Ship Resistance Similarity.

INSTITUTE OF TRANSPORT (Manchester, Liverpool, and District Section) (at Manchester), at 6.30.—J. F. Leeming: Civil Air Transport.

ROYAL SANITARY INSTITUTE (at Town Hall, Manchester), at 7.—Dr. G. S. Coleman: The Training of a Sanitary Inspector.—F. W. Platt: Some Aspects of the Housing Problem.

ENGINEERING AND SCIENTIFIC CLUB (Wolverhampton), at 7.—Prof. D. Smith: Cutting Tools, their Treatment and Performance.

TEXTILE INSTITUTE (jointly with Leigh Municipal College Textile Section) (at Leigh), at 7.15.—W. Bailey; Various Methods of Winding Artificial Silk Yarns.

JUNIOR INSTITUTION OF ENGINEERS (Informal Meeting), at 7.30.—C. W. Harvey: The Manufacture of Decorative Metal Work.

INSTITUTION OF PRODUCTION ENGINEERS (at 83 Pall Mall), at 7.30.—Dr. G. H. Miles: Psychology as an Aid to Production.

INSTITUTION OF AUTOMOBILE ENGINEERS (Scottish Graduates' Branch) (at 51 West Regent Street, Glasgow), at 8.—W. P. Kirkwood: Brakes.

ROYAL AERONAUTICAL SOCIETY (Yeovil Branch).—W. Lind-Jackson: Napier Aero Engines.

SATURDAY, DECEMBER 1.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Dr. W. C. Whittaker: The Violin Sonatas of William Young (17th Century).

MONDAY, DECEMBER 3.

ROYAL SOCIETY OF ARTS (Indian Meeting), at 4.30.—Sir James MacKenna: The Sugar Industry of India.

ROYAL SOCIETY OF EDINBURGH, at 4.30.—Dr. T. A. Stephenson: Contribution to Actinian Morphology: the Genera *Phellia* and *Sagartia*.—Miss S. M. Manton: On Some Points in the Anatomy and Habits of the Lophogastrid Crustacea.—Prof. H. Graham Cannon and Miss S. M. Manton: On the Feeding Mechanism of the Syncarid Crustacea.—B. P. Wiesner and Prof. F. A. E. Crew: The Preparation of ρ Factors: their Physiological Action upon the Immature, Mature, and Senile Gonad.

VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Dr J. A. Fleming: Matter, Energy, Radiation, Life, and Mind.

ROYAL INSTITUTION OF GREAT BRITAIN, at 5.—General Meeting.

INSTITUTION OF ELECTRICAL ENGINEERS (South Midland Centre) (at University, Birmingham), at 7.—F. H. Rosencrants: Practice and Progress in Combustion of Coal as applied to Steam Generation.

SOCIETY OF CHEMICAL INDUSTRY (Yorkshire Section) (at Leeds), at 7.15.—Dr. H. W. Davies and Prof. B. A. McSwiney: Poisoning and Disease in Industry. (1) Carbon Monoxide Poisoning.

HUNTERIAN SOCIETY OF LONDON, at 7.30.—C. S. Lane-Roberts and A. McAlister: Discussion on The Artificial Termination of Pregnancy.

EUGENICS SOCIETY (at Linnean Society), at 8.—Dr. H. Campbell, Dr. Ryle, and others: Discussion on Public Health and the C3's.

ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—Capt. B. S. Thomas: The South-East Borderland of the Rub 'Al Khali.

SOCIETY OF CHEMICAL INDUSTRY (London Section).—Dr. L. A. Jordan: Scientific Aspects of Paint Technology.