

cancer is a parasitic disease.—E. Cartan: The topology of simple real continued groups.—D. V. Widder: A theorem on the series of Dirichlet.—J. J. Gergen: Some theorems in Taylor's series having generalised gaps.—André Charrueau: The surfaces of equilibrium relating to a liquid mass of revolution possessing surface tension, in uniform rotation.—Giacobini: The Paris-Winnecke comet. On April 27, at the Paris Observatory, this comet showed as an elliptical nebulosity, major axis 10" to 12", with a marked condensation at one of the foci; magnitude between 12.5 and 13.—Henri George: Two qualities of silica glass. Discussion of the effect of the presence of moisture in the powdered silica before fusion on the properties of the glass.—R. Mesny: The energy radiated by electro-magnetic networks.—Armand de Gramont: A gyroscope kept in motion by an alternating current supplied through its axes of suspension.—Josef Mikuláš Mohr: The relation between the classes of lines (of the spectrum) determined by temperature and the groups of lines determined by pressure.—F. Croze and J. Gilles: The structure of the second order spectrum of nitrogen.—C. Mihul: The electronic configurations corresponding to the emission of the third order spectrum of oxygen.—M. Lambrey and D. Chalonge: The use of the discharge in hydrogen as a source of a continuous spectrum in the ultra-violet. The discharge in hydrogen has already been used as a source of a continuous spectrum in the extreme ultra-violet, but its use has been difficult and the intensity feeble. Details are given for setting up a hydrogen tube working with perfect regularity for long periods and giving an intense continuous spectrum.—P. Gabiano: The alkaline cuprotartrates.—P. Lecomte du Noüy: An anomaly in the evaporation of solutions of sodium oleate and of digitonin at high dilutions.—F. Bourion and E. Rouyer: The boiling-point constant of aqueous solutions of potassium chloride and molecular equilibria of resorcinol in this medium.—P. Job: The substitution of ethylenediamine for ammonia in complexes in solution. In most of the complex ammonia salts one molecule of ethylenediamine can replace two molecules of ammonia. With thallium salts ammonia forms the complex ion  $Tl(NH_3)_2$ . Ethylenediamine gives the ion  $(Tl en)$  in which the ethylenediamine replaces the ammonia molecule for molecule.—A. Andant: The application of the spectrography of fluorescence to the examination of organic compounds. Results are given for olive oil, vaseline oil, and castor oil. The method is of analytical value.—Jean Bouldoires: The transformations undergone by aluminium bronzes.—G. Gilta: The isomerism of *p*-hydroxyphenylarsenic acid.—A. Demay: Hercynian strata and folds of the Massif de Maures.—R. Bureau: Anomalies of long duration in the propagation of short [Hertzian] waves.—Jacques Maheu and J. Chartier: The botanical origin of the lesser striated Ipecacuanha. This has been identified with *Manettia ignita* of the family of the Rubiaceae.—L. Maume and J. Dulac: The minimum of toxicity of a mixture of two salts with regard to plants.—Lucien Daniel: Two new grafts.—L. Carpentier and G. Thieulin: The direct measurement of the magnitude of the retinal images in the dog and cat.—Ph. Joyet-Lavergne: The proportion of glutathione reduced is a character of the sexualisation of the cytoplasm.—Th. Moreux: Solar activity and certain phenomena of vegetation.—A. Goris and L. Lachaise: The phylactic action of brucine towards strychnine. If 8 mgm. or 10 mgm. of brucine is injected into dogs and one hour later a mortal dose of strychnine, all the dogs survive.—Etienne Wolff: The adaptation of amoeba to saline solutions. Cysts without a membrane.

## Official Publications Received.

## BRITISH.

- List of Members of the British Astronomical Association, September 1926. Pp. 37. (London.)  
 The Lister Institute of Preventive Medicine. Report of the Governing Body, 1927. Pp. 28. (London.)  
 Institute of Marine Engineers, Incorporated. Session 1926. Vol. 38: Thirty-eighth Annual Report and Financial Statement and Minutes of Annual Meeting held on Friday, March 11th, 1927, at 6.30 p.m. in the Institute Premises, the Minorities, Tower Hill, London, E.1. Pp. cxxvii. (London.)  
 Proceedings of the London Mathematical Society. Second Series. Vol. 25. Pp. ii+546. (London: Francis Hodgson.)  
 Irrigation in the Empire. Memorandum and Questionnaire by Dr. B. A. Keen. Pp. 8. (London: Empire Marketing Board.)  
 Ceylon Journal of Science, Section B: Zoology and Geology. Spolia Zeylanica. Vol. 14, Part 1, April 30th. Edited by Dr. Joseph Pearson. Pp. 133+12 plates. (Colombo: Colombo Museum; London: Dulau and Co., Ltd.) 3 rupees.  
 The Scientific Proceedings of the Royal Dublin Society. Vol. 18 (N.S.), No. 34: The Production of the Resting-Spores of *Phytophthora infestans* on Potato Tubers. By Dr. Paul A. Murphy. Pp. 407-412+1 plate. 1s. Vol. 18 (N.S.), No. 35: Some Further Cases of the Production of Diseased Shoots by Potato Tubers attacked by *Phytophthora infestans*, and a Demonstration of Alternative Sources of Foliage and Tuber Infection. By Dr. Paul A. Murphy and Robert M'Kay. Pp. 413-422+1 plate. 1s. 6d. Vol. 18 (N.S.), No. 38: Methylene-Blue (Reductase Test) in Milk Grading. By Dr. M. Grimes, H. S. Boyd Barrett and Dr. J. Reilly. Pp. 437-441. 6d. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.)  
 Western Australia: Geological Survey. Bulletin No. 87: A Geological Reconnaissance in the Central and Eastern Divisions between 122° 30' and 123° 30' E. Longitude and 25° 30' and 28° 15' S. Latitude. By H. W. B. Talbot. Pp. 30+5 plates. Bulletin No. 93: The Geology of portions of the Kimberley Division, with special reference to the Fitzroy Basin and the Possibilities of the Occurrence of Mineral Oil. By T. Blatchford. Pp. 56+8 maps. (Perth: Fred. Wm. Simpson.)  
 Abstracts of Dissertations approved for the Ph.D., M.Sc. and M.Litt. Degrees in the University of Cambridge for the Academic Year 1925-1926. Published by Authority. Pp. 74. (Cambridge: Printed at the University Press.)  
 Aeronautical Research Committee: Reports and Memoranda. No. 1044 (Ae. 231): Full Scale Pressure Plotting Experiments on Hull and Fins of H.M.A.R. 33. By Lieut.-Col. V. C. Richmond. Pp. 26+30 plates. 1s. 9d. net. No. 1073 (Ae. 255): Full Scale Measurement of Lift and Drag of a Bristol Fighter with Slotted Upper Wings and Standard Lower Wings. By J. K. Hardy. (A.2.b. Stability-Full Scale Experiments, 44.—T. 2386.) Pp. 3+3 plates. 4d. net. No. 1050: Reports and Memoranda of the Aeronautical Research Committee published between the 1st January 1925 and the 28th February 1927. Pp. 8. 4d. net. No. 1071: Wind Tunnel Tests of Aerofoil R.A.F. 34. By H. Davies. (A.3.a. Aerofoils-General, 171.—T. 2364.) Pp. 5. 4d. net. (London: H.M. Stationery Office.)  
 University of Reading: The National Institute for Research in Dairying. Annual Report for the Year ending 31st July 1926. Pp. 62. (Reading.)

## FOREIGN.

- Havsforskningsinstitutets Skrift. No. 23: Översikt av isarna vintern 1919-20. Av Risto Jurwa. Referat: Översikt der Eisverhältnisse im Winter 1919-20 an den Küsten Finnlands. Pp. 30+15 plates. 20 Fmk. No. 37: Översikt av isarna vintern 1914-15. Av Gunnar Granquist. Referat: Översicht der Eisverhältnisse im Winter 1914-15 an den Küsten Finnlands. Pp. 45. 20 Fmk. No. 38: Regelmässige Beobachtungen von Temperatur und Salzgehalt des Meeres im Jahre 1924. Von Gunnar Granquist. Pp. 46. 20 Fmk. No. 39: Die thalassologische Terminfahrt im Jahre 1925. Von Erik Palmén. Pp. 22+1 plate. 10 Fmk. No. 40: Översikt av isarna vintern 1915-16. Av Gunnar Granquist. Referat: Översicht der Eisverhältnisse im Winter 1915-16 an den Küsten Finnlands. Pp. 56. 22 Fmk. No. 41: Havsforskningsinstitutets värksamhet under år 1925. Redogörelse avgiven av Rolf Witting. Pp. 21. 5 Fmk. No. 42: Översikt av isarna vintern 1917-18. Av Gunnar Granquist. Referat: Översicht der Eisverhältnisse im Winter 1917-18 an den Küsten Finnlands. Pp. 40. 18 Fmk. No. 43: Dagliga vattenståndsuppgifter 1924. Av Henrik Renquist. Referat: Tägliche Wasserstandsangaben 1924. Pp. 48. 9 Fmk. No. 44: Översikt av isarna vintern 1924-25. Av Gunnar Granquist. Referat: Översicht der Eisverhältnisse im Winter 1924-25 an den Küsten Finnlands. Pp. 48. (Helsingfors.)  
 Akademie der Wissenschaften in Wien: Mathematisch-naturwissenschaftliche Klasse. Anzeiger. Jahrgang 63, 1926. Pp. viii+208. (Wien.)  
 Journal of the College of Agriculture, Hokkaido Imperial University, Sapporo, Japan. Vol. 17, Part 3: Studies on the Correlations between Morphological Characters, Chromosome-number and Resistance to *Puccinia triticina* in Pentaploid-Bastards of Wheat. By Yoshihiko Tochiani and Hitoshi Kihara. Pp. 133-161. (Sapporo.)  
 Svenska Linné-Sällskapetets Årsskrift. Årgång 10, 1927. Pp. v+173. (Uppsala: Almqvist and Wiksells Boktryckeri-A.-B.)  
 Proceedings of the United States National Museum. Vol. 70, Art. 9: A Review of the South American Two-winged Flies of the Family Syrphidae. By Raymond C. Shannon. (No. 2658.) Pp. 34+1 plate. Vol. 70, Art. 22: Richmond Faunal Zones in Warren and Clinton Counties, Ohio. By George M. Austin. (No. 2671.) Pp. 18. Vol. 71, Art. 3: On a Collection of Orthopteroide Insects from Java made by Owen Bryant and William Palmer in 1909. By A. N. Caudell. (No. 2675.) Pp. 42. Vol. 71, Art. 9: The Digger Wasps of North America of the Genus *Podalonia* (Psammophila). By H. T. Fernald. (No. 2681.) Pp. 42+2 plates. (Washington, D.C.: Government Printing Office.)

Bergens Museums Aarbok, 1926. Hefte I. Naturvidenskabelig Række. Pp. 21+17+19+10+28+56. (Bergen: A.-S. John Griegs Boktrykkeri.)  
Bergens Museum. Aarsberetning 1925-1926. Pp. 90. (Bergen: A.-S. John Griegs Boktrykkeri.)

Conseil Permanent International pour l'Exploration de la Mer. Rapports et procès-verbaux des réunions. Vol. 43, Rapports (Mai 1927). Pp. 50. Bulletin hydrographique pour l'année 1926. Pp. 53. Bulletin hydrographique. Appendice d'observations de l'Allemagne pour 1913-1925 et de la Lettonie pour 1925 et 1926. Pp. 20. (Copenhague: Andr. Fred. Høst et fils.)

Annuaire de l'Observatoire Royal de Belgique. 95<sup>me</sup> année, 1928. Par P. Stroobant. Pp. iii+291. (Bruxelles.)

Publicazioni della R. Università degli Studi di Firenze. Fascicolo N. 43: Osservazioni e memorie del R. Osservatorio Astrofisico di Arcetri. Pp. 51. Immagini spettroscopiche del bordo solare osservate a Catania e Zurigo nel 1922-23. (Appendice al Fascicolo N. 40 della Osservazioni e memorie del R. Osservatorio Astrofisico di Arcetri.) Pp. 8+6 tavole. (Firenze.)

#### CATALOGUE.

The Indian Empire: being a Catalogue of Books, Paintings and Engravings relating to India, Ceylon, Tibet, Burma, Persia and Afghanistan. (No. 497.) Pp. 78. (London: Francis Edwards.)

### Diary of Societies.

#### SATURDAY, JUNE 11.

ROYAL SOCIETY OF MEDICINE (Laryngology and Otolaryngology Sections) (Summer Meeting).—Otolaryngological Session (Clinical Meeting), at 10.—Dr. G. Portmann: The Sacculus Endolymphaticus and an Operation for Draining the same for the Relief of Vertigo.—Cases and Specimens by Dr. A. R. Friel, A. R. Tweedie, Dr. T. B. Jobson, N. Barnett, E. B. Barnes, and others.—Demonstration of Stereoscopic Transparencies of Specimens of the Temporal Bone, by Dr. A. Gray.  
BIOCHEMICAL SOCIETY (in Biochemical Department, The Museum, Oxford), at 3.—V. B. Wigglesworth: The Digestion of Carbohydrates in the Cockroach.—P. C. Raiment: (a) The Oxidation of Uric Acid by Hydrogen Peroxide; (b) The Estimation of Oxalic Acid in Urine; (c) The Estimation of Oxaluric Acid in Urine.—P. Eggleton and M. G. Eggleton: The Chemistry of Phosphagen.—C. R. Harington and W. McCartney: The Erlenmeyer Amino-acid Synthesis.—F. Hawking: Synthesis of Vitamin B (Torulin) by Yeast.—H. W. Kinnersley and R. A. Peters: Use of Norite in the Concentration of Torulin.—P. G. Marshall and H. D. Kay: The Presence of a Nucleotide in Milk.—R. M. Beck and R. K. Cannon: The Peptic Digestion of Gelatin.—J. T. Irving: Metabolism of Glucose by Kidney Tissue in Vitro.—Demonstrations:—A Colorimetric Method for the Determination of the pH of Minute Amounts of Fluid, by V. B. Wigglesworth.—Synthesis of a Bacterial Growth Factor by Meningococcus, by J. Orr Ewing and V. B. Reader.—A Simple Fluorophotometer, by J. H. Jeffrey and B. T. Squires.

#### MONDAY, JUNE 13.

ROYAL IRISH ACADEMY, at 4.15.  
VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Dr. A. T. Schofield: Time and Eternity (Annual Address).  
INSTITUTE OF ACTUARIES (Annual General Meeting), at 5.  
ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—H. E. Hurst: The Hydrology of the Nile.  
BRITISH PSYCHOLOGICAL SOCIETY (Medical Section) (jointly with the Education Section) (at Royal Society of Medicine), at 8.30.—Dr. S. Ferenczi: The Psychology of the Pre-School Child.  
MEDICAL SOCIETY OF LONDON.—Prof. H. Cushing: Annual Oration.

#### TUESDAY, JUNE 14.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Electrical Engineers), at 10 A.M.—J. Wilkinson: Presidential Address.—Seventeenth Report of the Gas Investigation Committee.—Examination of Products of Combustion from Typical Gas Appliances.—Part II. Gas Fires.—At 3.15.—T. Carmichael: Modern Carbonising Economics as exemplified by Results and Working Costs at the Works of the Portsmouth Gas Company.—Eighteenth Report of the Gas Investigation Committee—Studies in Carbonisation.—Part II. Size of Coal, Admixture, Inorganic Compounds.  
ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Sir Frederick Gowland Hopkins: The Task of Biochemistry (Croonian Lectures).  
MINERALOGICAL SOCIETY, at 5.30.—A. F. Hallimond: On the Atomic Volume Relations in Certain Isomorphous Series.—Dr. P. K. Ghosh: Petrology of the Bodmin Moor Granite (Eastern Part).—Prof. P. G. H. Boswell: On the Distribution of Purple Zircon in British Sedimentary Rocks.—Dr. J. Drugman: On  $\beta$ -quartz Twins from Cornwall.—E. V. Holt and Dr. H. F. Harwood: The Separation of Manganese in Rock Analysis.—Dr. L. J. Spencer: Corundum Twins from Transvaal.  
LONDON NATURAL HISTORY SOCIETY (at 40 Winchester House, E.C.), at 6.30.—Sir Frank Baines: Westminster Hall: its History, Architectural Design and Preservation.  
QUEKETT MICROSCOPICAL CLUB, at 7.30.—Prof. H. Graham Cannon: The Feeding Mechanisms of Crustacea.  
RÖNTGEN SOCIETY (Royal Society of Medicine), at 8.30.—Sir J. J. Thomson: The Structure of the Atom and Radiation (Silvanus Thompson Memorial Lecture).  
INSTITUTION OF ELECTRICAL ENGINEERS (Summer Meeting) (at North-Eastern Centre).

#### WEDNESDAY, JUNE 15.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Electrical Engineers), at 10 A.M.—G. M. Gill: Ovens as a Gas-Works Carbonising Plant.—Report of the Institution Gas Fellowship on

Influence of the Ash Constituents in the Carbonisation and Gasification of Coal.—Part III. Gasification of Special Cokes: (a) In Steam, J. A. Sutcliffe and Prof. J. W. Cobb; (b) In Carbon Dioxide, W. R. Branson and Prof. J. W. Cobb; (c) In Oxygen, F. J. Dent and Prof. J. W. Cobb.—At 3.15.—J. P. Leather: The Dry Cooling of Coke.—Report of the Refractory Materials Joint Committee.

SOCIETY OF GLASS TECHNOLOGY (in University, Sheffield), at 2.30.—R. Wigginton: Gaseous Fuels for Furnace Heating.—Prof. W. E. S. Turner and F. Winks: The Thermal Expansion of Some Boric Oxide Glasses and some Remarks on the Influence of the Inhomogeneity of the Glass.

ROYAL METEOROLOGICAL SOCIETY, at 5.—J. Edmund Clark, I. D. Margary, and R. Marshall: Report on the Phenological Observations in the British Isles, December 1925 to November 1926.—Dr. G. C. Simpson: Past Climates.—H. M. Treloar: The Variation of Eddy Viscosity with Wind Velocity and Season. A Study based on Pilot Balloon Observations at Melbourne.

GEOLOGICAL SOCIETY OF LONDON, at 5.30.—J. E. Richey: The Structural Relations of the Mourne Granites (Ireland).—Dr. W. F. Whittard: The Stratigraphy of the Valentian Rocks of Shropshire: The Main Outcrop.  
FOLK-LORE SOCIETY (at University College), at 8.—Miss Eleanor Hull: Female Deities in the British Isles.

ELECTROPLATERS' AND DEPOSITORS' TECHNICAL SOCIETY (at Northampton Polytechnic Institute), at 8.15.—E. Downs: Electro-refining of Silver.  
EUGENICS SOCIETY (at Royal Society), at 8.30.—Miss Evelyn Lawrence: Intelligence of Institution Children.

INSTITUTION OF ELECTRICAL ENGINEERS (Summer Meeting) (at North-Eastern Centre).

#### THURSDAY, JUNE 16.

INSTITUTION OF GAS ENGINEERS (Annual General Meeting) (at Institution of Electrical Engineers), at 10 A.M.—J. H. Canning: Some Experiences of Gas Service.

ROYAL SOCIETY, at 4.30.

ROYAL SOCIETY OF MEDICINE (Dermatology Section), at 5.—Dr. Parkes Weber: Early Angioma Serpiginosum, with Another Early Case (previously shown) for Comparison.—Dr. G. B. Dowling: Rare Seborrhoids of the Face (Pringle). Acne Agminata.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Sir Frederick Gowland Hopkins: The Task of Biochemistry (Croonian Lectures).

CHEMICAL SOCIETY, at 8.—L. Vogel: Syntheses of Cyclic Compounds. Part I. Ethyl  $\beta$ -dimethyl Butane  $\alpha\alpha\delta$ -tetracarboxylate and Some Cyclobutane Compounds Derived Therefrom.—B. Cavanagh: A New Method of (Absolute) Potentiometric Titration.

ROYAL SOCIETY OF TROPICAL MEDICINE AND HYGIENE (at 11 Chandos Street, W.) (Annual General Meeting), at 8.15.—Induction of New President, Prof. J. W. W. Stephens. Presentation of Chalmers Medal to H. L. Duke.—D. L. Fabian Hirst: Rat Flea Surveys and their Use as Plague Preventive Measures.

NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING AND TECHNOLOGY (Summer Meeting).

INSTITUTION OF ELECTRICAL ENGINEERS (Summer Meeting) (at North-Eastern Centre).

#### FRIDAY, JUNE 17.

ROYAL SOCIETY OF MEDICINE (Obstetrics and Gynaecology Section), at 8.—Dr. R. A. Gibbons: The Cause of the Onset of Labour.

OXFORD UNIVERSITY JUNIOR SCIENTIFIC CLUB (in Department of Zoology and Comparative Anatomy, Oxford), at 8.15.—W. T. Griffiths: Nickel and its Alloys.

ASSOCIATION OF ECONOMIC BIOLOGISTS (at South-Eastern Agricultural College, Wye).

NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING AND TECHNOLOGY (Summer Meeting).

INSTITUTION OF ELECTRICAL ENGINEERS (Summer Meeting) (at North-Eastern Centre).

#### SATURDAY, JUNE 18.

NORTH OF ENGLAND INSTITUTE OF MINING AND MECHANICAL ENGINEERS, at 2.30.

PHYSIOLOGICAL SOCIETY (at Middlesex Hospital).

ASSOCIATION OF ECONOMIC BIOLOGISTS (at South-Eastern Agricultural College, Wye).

NEWCOMEN SOCIETY FOR THE STUDY OF THE HISTORY OF ENGINEERING AND TECHNOLOGY (Summer Meeting).

#### PUBLIC LECTURES.

##### SUNDAY, JUNE 12.

GUILDHOUSE (Eccleston Square, S.W.), at 3.30.—Dr. R. E. M. Wheeler: Some of the Ancient Civilisations of Britain.

##### TUESDAY, JUNE 14.

EAST LONDON COLLEGE, at 5.—Sir Frank Dyson: The Eclipse of the Sun.

UNIVERSITY COLLEGE, at 8.30.—Prof. J. A. Fleming: A Hundred Years of Electrical Engineering.

##### SUNDAY, JUNE 19.

GUILDHOUSE (Eccleston Square, S.W.), at 3.30.—C. L. Woolley: Recent Discoveries at Ur.

#### CONGRESS.

JUNE 16 AND 17.

CONGRESS OF THE INTERNAL COMBUSTION ENGINE (at Padua).