

pathology of painters. From a comparative study of painters divided into two groups, one using paints containing lead and the other working with lead-free paints, the authors conclude definitely that it is not turpentine but lead and its compounds which are the cause of renal lesions and hypertension in painters.

Official Publications Received.

Abstract-Bulletin of the Nela Research Laboratory, National Lamp Works of General Electric Company, Cleveland, Ohio. Vol. 1, No. 3, October. Pp. ix+303-521. (Cleveland.)

Summary of the Annual Report of the Naval Observatory for the Fiscal Year 1921. (Appendix No. 2 to the Annual Report of the Chief of the Bureau of Navigation.) Pp. 53. (Washington: Government Printing Office.)

Nauka Polska: jej Potrzeby, Organizacja i Rozwój. (Polish Science: its Needs, Organisation and Progress.) III. (Year-Book of the Mianowski Institution for the Promotion of Scientific Research Work.) Pp. vi+250. (Warszawa.) 150 marks.

Report of the Department of Mines for the Fiscal Year ending March 31, 1922. (Sessional Paper No. 15.) Pp. iii+48. (Ottawa.) 5 cents.

Department of the Interior: United States Geological Survey. Mineral Resources of the United States in 1921 (Preliminary Summary). Pp. iv+102A. (Washington: Government Printing Office.)

Crichton Royal Institution, Dumfries. Eighty-third Annual Report, for the Year 1922. Pp. 49. (Dumfries.)

National Museum of Wales. Fifteenth Annual Report (1921-22) presented by the Council to the Court of Governors at a Meeting held in Cardiff on the 27th October 1922. Pp. 35+6 plates. (Cardiff.)

Diary of Societies.

SATURDAY, FEBRUARY 17.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Ernest Rutherford: Atomic Projectiles and their Properties (1).

MONDAY, FEBRUARY 19.

ROYAL GEOGRAPHICAL SOCIETY (at Lowther Lodge, Kensington Gore), at 5.—Dr. R. L. Sherlock: The Influence of Man as an Agent in Geographical Change.

INSTITUTION OF ELECTRICAL ENGINEERS (Informal Meeting), at 7.—F. P. Sexton and others: Discussion on *Esprit de Corps*.

ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—H. V. Lanchester: Architecture and Architects in India.

ARISTOTELIAN SOCIETY (at University of London Club), at 8.—C. E. M. Joad: The Problem of Free Will in the Light of Recent Developments in Philosophy.

FARADAY SOCIETY (at Chemical Society), at 8.—Prof. A. W. Porter and J. J. Hedges: The Law of Distribution of Particles in Colloidal Suspensions with Special Reference to Perrin's Investigations, Part II.—D. B. McLeod: A Relation between the Viscosity of a Liquid and its Coefficient of Expansion; The Viscosity of Liquid Mixtures showing Maxima; A Relation between Surface Tension and Density.—M. Cook: Crystal Growth in Cadmium.—F. H. Jeffery: Electrolysis with an Aluminium Anode, the Anolyte being (1) Solutions of Sodium Nitrite, (2) Solutions of Potassium Oxalate.—S. D. Muzaffer: Electric Potential of Antimony-Lead Alloys.

ROYAL SOCIETY OF ARTS, at 8.—Dr. H. P. Stevens: The Vulcanisation of Rubber (Cantor Lectures) (3).

TUESDAY, FEBRUARY 20.

ROYAL STATISTICAL SOCIETY (at Royal Society of Arts), at 5.15.—J. Hilton: Statistics of Unemployment derived from the Working of the Unemployment Insurance Acts.

INSTITUTE OF TRANSPORT (at Institution of Electrical Engineers), at 5.30.—F. Bushrod and J. F. S. Tyler: Modernisation of Passenger Railway Stations.

ZOOLOGICAL SOCIETY OF LONDON, at 5.30.—The Secretary: Report on the Additions to the Society's Menagerie during the Month of January 1923.—Prof. H. M. Leffroy: Exhibition of Cinematograph Films of the Household.—Dr. N. S. Lucas: Reports on the Deaths which have occurred in the Society's Gardens during 1922.—Prof. E. Lönnberg: Remarks on some Palearctic Bears.—E. W. Shabi: The Embryonic Development of the Porbeagle-Shark, *Lamna cornubica*.—R. Gurney: Some Notes on *Leander longirostris*, M.-Edwards, and other British Prawns.

INSTITUTION OF CIVIL ENGINEERS, at 6.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Scientific and Technical Group), at 7.—A. S. Newman: The Causes of Static Trouble in the Kinematograph, and Means for its Elimination.

ILLUMINATING ENGINEERING SOCIETY (at Royal Society of Arts), at 8.—W. J. Jones, E. A. Marx, Jr., and others: Discussion on the Projection of Light.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—P. E. Newberry: The Bebe Sed Festival of Ancient Egypt.

SOCIOLOGICAL SOCIETY (at Royal Society), at 8.15.—Prof. J. A. Thomson: Biological Contributions to Sociology.

WEDNESDAY, FEBRUARY 21.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. A. C. Pearson: Greek Civilisation and To-day (2), Progress in the Arts.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—R. L. Braithwaite: The Flow of Lymph from the Ileo-Caecal Angle and its possible bearing on (1) the formation of Gastric and Duodenal Ulcer, and (2) the cause of other types of Indigestion.

INSTITUTION OF AUTOMOBILE ENGINEERS (at Institution of Mechanical Engineers), at 7.30.—Informal Meeting.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Col. E. Gold and others: Discussion on Reform of the Calendar, by C. F. Marvin.—Dr. S. Fujiwara: The Growth and Decay of Vortical Systems.—Dr. S. Fujiwara: The Mechanism of Extratropical Cyclones (Third memoir on Vortical Phenomena).

ROYAL SOCIETY OF ARTS, at 8.—C. Ainsworth Mitchell: Handwriting and its Value as Evidence.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Sir William Maddock Bayliss: Microscopic Staining and Colloids.—A. Mallock: Note on the Resolving Power and Definition of Optical Instruments.

THURSDAY, FEBRUARY 22.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. B. Melville Jones: Recent Experiments in Aerial Surveying (2).

ROYAL SOCIETY, at 4.30.—G. I. Taylor and C. F. Elam: The Distortion of an Aluminium Crystal during a Tensile Test (Bakerian Lecture).

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. W. G. Savage: Canned Foods in Relation to Health (Milroy Lectures) (1).

INSTITUTION OF STRUCTURAL ENGINEERS, at 7.30.—E. Godfrey: Shear Resistance.

CHEMICAL SOCIETY (at Institution of Mechanical Engineers), at 8.—Principal J. C. Irvine: Some Constitutional Problems of Carbo-hydrate Chemistry.

CAMERA CLUB, at 8.15.—E. R. Ashton: Picturesque India.

FRIDAY, FEBRUARY 23.

ASSOCIATION OF ECONOMIC BIOLOGISTS (in Botanical Theatre, Imperial College of Science and Technology), at 2.30.—Sir John Russell, H. G. Thornton, and others: Discussion on Partial Sterilisation of Soil: Present Views as to its Effects and their Causes.

PHYSICAL SOCIETY OF LONDON, AND RÖNTGEN SOCIETY (at Imperial College of Science and Technology), at 3.—Demonstrations: Major C. E. S. Phillips: A Method of Measuring X-ray Intensity.—E. J. Evans: Intermittent Discharge from Sectorless Winshurst Machine.—L. H. Clark: An X-ray Balance.—H. B. Gough: Ionometer.—W. E. Schall: Spectrometer for Measuring End-radiation.—Dr. F. L. Hopwood: The Onoscope.

EUGENICS EDUCATION SOCIETY (at Royal Society), at 5.—Dr. L. Hogben: Intersexuality and Sex Reversal.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—E. R. Flint: Abnormalities of the Hepatic and Cystic Arteries and Bile Ducts.

PHYSICAL SOCIETY OF LONDON, AND RÖNTGEN SOCIETY (at Imperial College of Science and Technology), at 5.—Discussion on The Measurement of X-rays.—Sir William H. Bragg: Introductory Address.—Prof. S. Russ: The Measurement of X-ray Intensity and the Necessity for an International Method.—P. I. Harlow and E. J. Evans: The Quality of X-rays produced by Various Types of High-tension Generators and an Incandescent X-ray Bulb.—Dr. M. Berry: Practical Measurements for Medical Purposes.—Dr. G. W. C. Kaye and Dr. E. A. Owen: X-ray Protective Materials.

JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—A. J. Tracey: Characteristics, Operation, and Maintenance of Underground Cables.

ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. A. S. Eddington: The Interior of a Star.

SATURDAY, FEBRUARY 24.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Sir Ernest Rutherford: Atomic Projectiles and their Properties (2).

BRITISH PSYCHOLOGICAL SOCIETY (at Bedford College), at 3.—Prof. T. H. Pear: An Examination of some Current Beliefs concerning Muscular Skill.—Miss M. MacFarlane: The Use of Mental Tests in American Schools and Clinics.

PUBLIC LECTURES.

SATURDAY, FEBRUARY 17.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Dr. F. A. Bather: A Limestone Cliff and the Animals that built it.

MONDAY, FEBRUARY 19.

KING'S COLLEGE, at 5.30.—Dr. W. Brown: Psychology and Psychotherapy (1). (Succeeding Lectures on February 26 and March 5.)

TUESDAY, FEBRUARY 20.

LONDON SCHOOL OF ECONOMICS, at 5.—S. P. Vivian: Statistics, before, during, and after the War: Population.

SCHOOL OF ORIENTAL STUDIES, at 5.—Dr. T. G. Bailey: The Sansis, or Thieves of India; their Language, History, and Customs.

KING'S COLLEGE, at 5.15.—Dr. J. H. Orton: The Bionomics of Marine Animals (1). (Succeeding Lectures on February 22 and February 23).—At 5.30.—Prof. H. Wildon Carr: Physical Causality and Modern Science (1). (Succeeding Lectures on February 27, March 6, 13, 20, and 27).—Prof. A. J. Toynebee: The Expansion of Europe Overland (1). (Succeeding Lectures on February 27, March 6, 13, 20, and 27.)

WEDNESDAY, FEBRUARY 21.

INSTITUTION OF ELECTRICAL ENGINEERS, at 5.15.—Prof. Miles Walker: The Control of the Speed and Power Factor of Induction Motors (1). (Succeeding Lectures on February 26, March 14 and 21.)

KING'S COLLEGE, at 5.30.—Prof. F. Soddy: A Physico-Chemical Theory of the Instability of Western Civilisation.

SATURDAY, FEBRUARY 24.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—S. H. Warren: The Interplay of Land and Sea.