

Official Publications Received.

Proceedings of the Lake Superior Mining Institute. Twenty-third Annual Meeting (Minnesota Ranges) held at Duluth, and Hibbing, Minnesota, August 28, 29, 30, 1923. Vol. 23. Pp. xxx+211. (Ishpeming, Mich.)

Carnegie Institution of Washington. Year Book No. 22, November 1, 1922, to October 31, 1923. Pp. xix+381. (Washington.)

Spisy vydávané Přírodovědeckou Fakultou Masarykovy University (Publications de la Faculté des Sciences de l'Université, Masaryk). Redaktor (Rédigées par) Bohuslav Hostinsky. Rok 1923, Cis 53: Sur l'influence de la pression sur la réfraction d'hydrogène. Par François Schacherl. Pp. 28. Cis 34: Uvahy o teorii kvadratických zbytků pro kmené moduly novými vztahy k teorii kvadratických forem s kmenými zápornými determinanty (Études sur la théorie des résidus quadratiques suivant un module premier. Relations nouvelles avec la théorie des formes quadratiques ayant un déterminant négatif et premier). Napsal M. Lerch. Pp. 44. Cis 35: Iter Turcico-Persicum. Pars 1: Plantarum collectarum enumeratio (Ranunculaceae, dipsacaceae). Scripsit Fr. Nábělek. Pp. 144+16 Tab. Rok 1924, Cis 36: Etude analytique de l'élément linéaire projectif d'une surface. Par Edouard Cech. Pp. 24. (Brno: Přírodovědecká Fakulta.)

Journal of the Department of Agriculture. Vol. 8, No. 2, February: Farming in South Africa. Pp. x+97-260. (Pretoria: Government Printing and Stationery Office.) 6d.

Dominion of Canada: the Honorary Advisory Council for Scientific and Industrial Research. Report No. 14: On the Utilization of the Low Grade Iron Ores of Canada, submitted by the Sub-Committee on Iron Ores of the Research Council. Pp. 55. (Ottawa: F. A. Acland.)

Report of the Administrative Chairman of the Honorary Advisory Council for Scientific and Industrial Research, for the Year ending March 31, 1923. Pp. 55. (Ottawa: F. A. Acland.)

New South Wales. Department of Mines: Geological Survey. Bulletin No. 4: Iron. By L. F. Harper. Pp. 23+6 plates. 1s. Bulletin No. 5: Antimony, Arsenic, Bismuth, Molybdenum, Tungsten. By E. J. Kenny. Pp. 47+6 plates. 3s. 6d. (Sydney: Alfred J. Kent.)

South Australia. Annual Report of the Director of Mines and Government Geologist for 1922. Pp. 14. (Adelaide: R. E. E. Rogers.)

Ministerio da Agricultura, Industria e Commercio: Directoria de Meteorologia. Boletim Meteorologico, Anno de 1920. Pp. 152. (Rio de Janeiro.)

Meddelelser fra Kommissionen for Havundersøgelser. Serie Hydrografi. Bind 2, Nr. 8: Current Measurements from Danish Lightships. Pp. 78. Serie Fiskeri. Bind 7, Nr. 2: Investigations of Plaice from the Western Baltic, June 1921-August 1922. By Kirstine Smith. Pp. 48. Bind 7, Nr. 3: On the Age and Growth of the Cod (*Gadus callarius* L.) in Icelandic Waters. By Bjarni Sæmundsson. Pp. 35. Bind 7, Nr. 4: On the Plaice Population of the Horns Reef Area in the Autumn of 1922. By Kirstine Smith. Pp. 78. (København: C. A. Reitzel.)

Report of the Rugby School Natural History Society for the Year 1923. Fifty-seventh Issue.) Pp. 47. (Rugby.)

Diary of Societies.

MONDAY, APRIL 7.

VICTORIA INSTITUTE (at Central Buildings, S.W.1.), at 4.30.—Prof. F. F. Roget: The Influence of Calvin down the Centuries on the Religious and Political Development of the Protestant Nations.

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

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—C. E. Shattock: Osteomyelitis (Demonstration).

THE SOCIETY OF ENGINEERS, Inc. (at Geological Society), at 5.30.—A. C. Ionides: Gas-Firing (Flame Control).

ROYAL SOCIETY OF ARTS, at 8.—Dr. T. Slater Price: Certain Fundamental Problems in Photography (Cobb Lectures) (3).

SOCIETY OF CHEMICAL INDUSTRY (London Section) (at Royal Institution), at 8.—Prof. H. E. Armstrong: Sir James Dewar as an Experimental Inquirer.

ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—Capt. P. K. Boulnois: On the Western Frontier of the Sudan.

TUESDAY, APRIL 8.

ROYAL SOCIETY OF MEDICINE (Therapeutics and Pharmacology Section), at 4.30.—Annual General Meeting.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. T. McCrae: The Clinical Features of Foreign Bodies in the Bronchi (Lumleian Lectures) (2).

INSTITUTION OF PETROLEUM TECHNOLOGISTS (at Royal Society of Arts), at 5.30.—W. J. Wilson: The Crude Oils of Burma and Assam.

INSTITUTION OF CIVIL ENGINEERS (Joint Meeting with Institution of Mechanical Engineers, Institution of Electrical Engineers, Institution of Naval Architects, Institute of Marine Engineers, North-East Coast Institution of Engineers and Shipbuilders, Institution of Engineers and Shipbuilders in Scotland, Institute of Chemistry of Great Britain and Ireland, British Electrical and Allied Manufacturers' Association, and British Engineers' Association, co-operating in the work of the Special Committee on Tabulating the Results of Heat-Engine and Boiler Trials), at 6.—G. J. Wells: Standards of Comparison in connexion with the Thermal Efficiency of Internal-Combustion Engines.

INSTITUTE OF MARINE ENGINEERS, Inc., at 6.30.—P. J. Higgs: Observation Notes on a 20,000-ton Ship with Oil Engines and Electric Propulsion.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Scientific and Technical Group) (Annual General Meeting), at 7.—At 7.30.—K. C. D. Hickman: The Washing of Photographic Products. Parts III and IV. QUEKETT MICROSCOPICAL CLUB, at 7.30.—Prof. W. T. Gordon: Henry Witham and the Genius Pitius.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Dr. J. H. Hutton: The Use of Stone in the Naga Hills.

ROYAL SOCIETY OF MEDICINE (Neurology Section), at 8.30.—Annual General Meeting.

WEDNESDAY, APRIL 9.

INSTITUTION OF NAVAL ARCHITECTS (at Royal United Service Institution), at 11.—Duke of Northumberland: Presidential Address.—Sir Doveton Sturdee, Bart.: Strategic and Tactical Considerations governing Warship Design.

ROYAL METEOROLOGICAL SOCIETY, at 5.—I. D. Margary: Glaisher Stand versus Stevenson Screen. A comparison of 40 years' observations of maximum and minimum temperature as recorded in both screens at Camden Square, London.—R. Hill: A Lens for Whole Sky Photographs.—F. J. W. Whipple: The Significance of Regression Equations in the Analysis of Upper Air Observations.

GEOLOGICAL SOCIETY OF LONDON, at 5.30.—Dr. H. H. Thomas and Prof. A. H. Cox: The Roch, Trefgarn, and Sealyham Volcanic Series, Pembrokehire.—L. Hawkes: An Olivine-Rhyolite from Eastern Iceland.

THE NEWCOMEN SOCIETY for the Study of the History of Engineering and Technology (at 17 Fleet Street), at 5.30.—W. A. Young: Ambrose and John Crowley—Citizens and Ironmongers of London, 1682-1728.

RADIO SOCIETY OF GREAT BRITAIN (Informal Meeting) (at Institution of Electrical Engineers), at 6.—L. F. Fogarty and others: Discussion on the Use of Rectified Alternating Current as a Substitute for Accumulators and Dry Batteries in Receiving Circuits.

INSTITUTION OF AUTOMOBILE ENGINEERS (at Institution of Civil Engineers), at 6.30.—L. A. Legros: Traction across Rough and Roadless Country (Lecture).

ROYAL SOCIETY OF ARTS, at 8.—F. Hope-Jones: The Free Pendulum.

THURSDAY, APRIL 10.

INSTITUTION OF NAVAL ARCHITECTS (at Royal United Service Institution), at 11.—A. Hurd: The Future of Sea Transport.—Comdr. C. D. Burney: Development of the Airship, with Special Reference to Transport.—Sir Alfred Read: Sea-borne Coastal Trade.—At 3.—M. P. Payne: Results of some Rolling Experiments on Ship Models.—Prof. K. Suyehiro: The Drift of Ships caused by rolling among Waves.—At 8.—R. W. Allen: Application of Steam Turbines to Auxiliary Machinery.—F. G. Martin and A. T. Wall: High Elastic Limit Mild Steel and its General Applications.

ROYAL SOCIETY, at 4.30.—Prof. T. H. Havelock: Optical Dispersion and Selective Reflection, with application to Infra-red Natural Frequencies.—J. H. Jones: The Quantum Theory and the Dielectric Constant.—A. M. Mosharrafa: Half-Integral Quantum Numbers in the Theory of the Stark Effect and a General Hypothesis of Fractional Quantum Numbers.—E. A. Fisher: The Discontinuity of the Drying Process.—S. F. Grace: A Spherical Source in a Rotating Liquid.

ROYAL SOCIETY OF MEDICINE, at 5.—Dr. Rajchman: The Health Organisation of the League of Nations.

ROYAL COLLEGE OF PHYSICIANS OF LONDON, at 5.—Dr. T. McCrae: The Clinical Features of Foreign Bodies in the Bronchi (Lumleian Lectures) (3).

ROYAL INSTITUTION OF GREAT BRITAIN, at 5.15.—Dr. E. J. Allen: Scientific Research on Sea Fisheries (2).

INSTITUTION OF MINING AND METALLURGY (at Geological Society), at 5.30.—Annual General Meeting.

CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Prof. T. P. Nunn: The Philosophy of Gentile.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—S. C. Bartholomew: Power Circuit Interference with Telegraphs and Telephones.

OPTICAL SOCIETY (at Imperial College of Science and Technology), at 7.30.—H. Dennis Taylor: The Feasibility of Cinema Projection from a Continuously Moving Film.—E. W. Taylor: A New Perfectly Anallactic Internal Focussing Telescope.

INSTITUTE OF METALS (London Local Section) (at Institute of Marine Engineers, Inc.), at 8.—Dr. G. H. Gulliver: Failures in Metals and Alloys.

FRIDAY, APRIL 11.

INSTITUTION OF NAVAL ARCHITECTS (at Royal United Service Institution), at 11.—Eng.-Comdr. R. Beeman: Further Experimental Work on Diesel Engines.—H. W. Nicholls: Vibration of Ships.—G. Vedeler: The Torsion of Ships.—At 3.—J. L. Kent: The Effect of Wind and Waves on the Propulsion of Ships.—Dr. T. E. Stanton and Miss D. Marshall: The Effect of Length on the Skin Friction of Flat Surfaces.—A. Shigemitsu: Skin Friction Resistance and the Law of Comparison.—J. Tutin: The Analysis of Ship Resistance.

ROYAL ASTRONOMICAL SOCIETY, at 5.—E. Nevill: The Critical Ancient Eclipses of the Sun.—Dr. W. J. S. Lockyer: Recent Observations of some Bright-Hydrogen-Line Stars.—S. D. Tscherny: Determination of the Relative Parallax of a Ursa Minoris.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Sir Arthur Keith: Irregularities in the Growth of the Palate and of Eruption of the Teeth (Demonstration).

MALACOLOGICAL SOCIETY (at Linnean Society), at 6.

INSTITUTE OF MECHANICAL ENGINEERS, at 6.

INSTITUTE OF MARINE ENGINEERS, Inc., at 6.30.—Annual General Meeting.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—J. H. Vickers: The Photography of Wild Birds and Animals.

JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—Discussion on Paper by L. M. Jockel on Water-tube Boilers.

ROYAL INSTITUTION OF GREAT BRITAIN, at 9.—Prof. Jocelyn Thorpe: Colours, Stains, and Dyes.

SATURDAY, APRIL 12.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Dr. C. Singer: Leonardo da Vinci as a Man of Science.