

NEW SOUTH WALES.

Linnean Society, November 30, 1910.—Mr. C. Hedley, president, in the chair.—Dr. R. Greig-Smith: The permanency of the characters of the bacteria of the *Bacillus coli* group. Twelve races of bacteria of this group, upon their isolation from rachitic stools, showed diverse cultural characters. They were cultivated for seven months, and again examined. The activities towards dextrose and mannit were found to be the most permanent. The permanency of the other characters was lactose, neutral-red, motility, milk, growth on gelatin, saccharose, the power of fermenting, which is easily acquired and presumably easily lost.—Dr. R. Greig-Smith: Contributions to our knowledge of soil fertility. Part i.: The action of wax solvents and the presence of thermolabile bacteriotoxins in soil. Water extracts from soil a substance which is filterable through porcelain and toxic to bacteria. The toxin is destroyed by heat, by sunlight, and by storage. It disappears from air-dried soil, and decays in aqueous solution. It is not destroyed by salts such as sodium chloride or potassium sulphate. Soils vary in the amount of toxin they contain, good soils containing less, poor soils more. The particles of soil are covered or "waterproofed" with soil-wax or "agricere," which consists of a mixture of saponifiable and unsaponifiable bodies. With the removal of the "waterproofing," the soil nutrients are more easily dissolved by soil water and attacked by bacteria.—W. W. Froggatt: Notes on fruit-flies (Trypetidae), with descriptions of new species. Fifteen species, referable to the genera *Ceratitis*, *Dacus*, and *Rioxa* (Trypeta), are treated, including seven new.—T. G. Sloane: Carabidae from Dorrigo, N.S.W. With an appendix: Tenebrionidae from Dorrigo, by J. H. Carter.—W. M. Carne: Note on the occurrence of a limestone fauna at Grose Valley, Hawkesbury district.—R. J. Tillyard: Some remarkable Australian Libellulinae. Part iii.: Further notes on *Camacinia othello*, Tillyard. The female, not before known, is described, and a figure of its wings given. The range of the species is extended from Cooktown to Torres Straits and Port Darwin. An intermediate form, from the Aru Islands, connects this species with the Malayan and East Indian *C. gigantea*, Brauer.—T. T. Flynn: Contributions to a knowledge of the anatomy and development of the Marsupialia. No. 1. The material investigated was furnished by an adult female *Thylacinus* with three advanced young in the pouch. The external features of the young are described, together with the genital organs of both the adult and the young.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 12.

ROYAL SOCIETY, at 4.30.—The Absolute Expansion of Mercury: Prof. H. L. Callendar, F.R.S., and H. Moss.—The Density of Niton (Radium Emanations) and the Disintegration Theory: Dr. R. W. Gray and Sir W. Ramsay, K.C.B., F.R.S.—The Charges on Ions in Gases, and some Effects that Influence the Motion of Negative Ions: Prof. J. S. Townsend, F.R.S.—The Distribution of Electric Force in the Crookes Dark Space: F. W. Aston.—The Measurement of End Standards of Length: Dr. E. P. Shaw.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—*Adjourned discussion*: Submarine Cables for Long Distance Telephone Circuits: Major W. A. J. O'Meara, C.M.G.

MATHEMATICAL SOCIETY, at 5.30.—A Property of the Number 7: T. C. Lewis.—A Mode of Representation of an Electromagnetic Field as due to Singularities Distributed over a Surface: Prof. H. M. Macdonald.—On the Fundamental Theorem in the Theory of Functions of a Complex Variable: Dr. W. H. Young.—On the Fundamental Theorem relating to the Fourier Constants for given Functions: Prof. E. W. Hobson.

FRIDAY, JANUARY 13.

ROYAL ASTRONOMICAL SOCIETY, at 5.—Verification of the Centre Yard and Three Centre Feet on the R.A.S. Tubular Scale: H. B. Darling.—(1) Proper Motion of Small Star near 17 Lyrae; (2) Measures of a Faint Proper Motion Star: S. W. Burnham.—Periodic Discordance between the R.A.S.'s of the Fundamental Catalogues and those of the Greenwich Standard Clock Stars: W. G. Thackeray.—Micrometrical Measures of Double Stars: Rev. T. E. R. Phillips.—Observations of Halley's Comet: J. Tebbutt.—An Adjustable Compensation for an "Invar" Pendulum: R. Inwards.—A suggested method of Determining the Stellar Brightness of a Faint Comet: H. Knox Shaw.—(1) The Magnitude Equation of the Mean Greenwich Observer, from Comparison of Greenwich Standard R.A.s. of Clock Stars for 1900 with Boss's Preliminary General Catalogue; (2) Standard Mean R.A.s. of Clock Stars for 1860, based on 12-hour Groups from Greenwich Transit Circle Observations in 1853-67: W. G. Thackeray.—*Probable Papers*: The Bearing of the Principle of Relativity on Gravitational Astronomy: W. de Sitter.—Nova Lacertae (Espin): F. A. Bellamy.

MONDAY, JANUARY 16.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—The *Michael Sars* North Atlantic Deep Sea Expedition: Sir John Murray, K.C.B., and Dr. Hjort.

TUESDAY, JANUARY 17.

ROYAL INSTITUTION, at 3.—Heridity: Prof. F. W. Mott, F.R.S.

ROYAL STATISTICAL SOCIETY, at 5.

INSTITUTION OF CIVIL ENGINEERS, at 8.—*Discussion*: (1) The Strengthening of the Roof of New Street Station, Birmingham; (2) The Reconstruction and Widening of Arpley Bridge, Warrington: W. Dawson.

WEDNESDAY, JANUARY 18.

ROYAL SOCIETY OF ARTS, at 8.—The Dutch Labour Colonies: J. C. Medd.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—Ordinary Meeting.—At 7.45 Annual General Meeting.—Presidential Address: The Present Position of British Climatology: H. Mellish.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Presidential Address: Prof. J. Arthur Thomson.

ENTOMOLOGICAL SOCIETY, at 8.

THURSDAY, JANUARY 19.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: The Action of *B. lactis aerogenes* on Glucose and Mannitol. Part II.: G. S. Walpole.—The Pharmacological Action of South African Boxwood (*Gonioma Kamassi*): Dr. W. E. Dixon.—Autoagglutination of Red Blood Cells in Trypanosomiasis: Dr. W. Yorke.—The Transformation of Proteids into Fats during the Ripening of Cheese (Preliminary Communication): M. Nierenstein.—The Action of X-rays on the Developing Chick: J. F. Gaskell.

ROYAL INSTITUTION, at 3.—Recent Progress in Astronomy: F. W. Dyson, F.R.S., Astronomer Royal.

LINNEAN SOCIETY, at 8.

ROYAL GEOGRAPHICAL SOCIETY, at 5.—Research Meeting. Neolithic Villages in Thessaly: Mes-rs. Wace and Thompson.

FRIDAY, JANUARY 20.

ROYAL INSTITUTION, at 9.—Chemical and Physical Change at Low Temperatures: Sir James Dewar, F.R.S.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Modern Electrical Dock-equipment, with Special Reference to Electrically-operated Coalhoists: W. Dixon and G. H. Baxter.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Design and Construction of Reinforced-concrete Arches: G. F. Walton.

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