

giving the greatest variation of resistance when exposed to the Hertzian waves.—The application of thermal galvanometers to the study of electric waves, by M. L. de Broglie.—The tubes of force of the magnetic field rendered visible by means of the kathode rays, by M. H. Pellat. In an intense magnetic field, the bundle of kathode rays which escapes from a kathode in the form of a plateau corresponds exactly to the tube of magnetic force having for its base the surface of the kathode.—On the condensation of true acetylenic hydrocarbons with aldehydes: the synthesis of secondary acetylene alcohols, by MM. Ch. Moureu and H. Desmots. The sodium derivatives of the acetylene hydrocarbon react readily with aldehydes in ethereal solution at  $-5^{\circ}\text{C}$ . The method is perfectly general, and ten new alcohols of this type are described.—On some iodophenols, by M. P. Brenans.—The action of crystallised arsenic acid upon pinene, by M. P. Genvresse. Arsenic acid does not act as an oxidising agent towards pinene as was expected, the principal products being either pinene possessing a different smell from the original or a terpinene, according to the proportion of arsenic acid employed.—The vascularisation of the suprarenal bodies in the dogfish, by M. Ed. Grynfeldt.—On *Menabea venenata* the roots of which furnish the *Tanghin de Menabe*, or *Sakalaves*, the poison of the ordeal, also called *Kissoumpa* or *Kimanga* in Madagascar, by M. Ed. Heckel.—On the effects of commensalism of an *Amylomyces* and of a *Micrococcus*, by M. Paul Vuillemin. The association of *Mucor rouxianus* and a *Micrococcus* feeding on sugar allows of the development of the bacterium on potato.—The discovery of a new horizon of a lacustral fossiliferous limestone interposed between the Miocenes of Ariège, by M. G. Vasseur.—On the alkaline granite of Filfila, Algiers, by M. Pierre Termier.—A new method of local anæsthesia in dentistry, by MM. L. R. Regnier and Henry Didsbury. The researches of M. d'Arsonval on the anæsthetic effects produced by currents of high frequency and high intensity have been applied with success to the purposes of practical dentistry.—An apparatus for the blind, by M. Dussaud.

GÖTTINGEN.

Royal Society of Sciences.—The *Nachrichten* (physico-mathematical section), part ii., 1902, contains the following memoirs communicated to the Society:—

July 20, 1901.—A. von Koenen: on the correlation of the North-German Lower Chalk.—J. Orth: contributions from the Göttingen Pathological Institute: (a) ætiology of caseous pneumonia; (b) tubal gravidity; (c) the lower jaw in so-called agnathia; (d) pseudo-tuberculosis; (e) soft cutaneous nævi; (f) epidermal ingrowths in cancer; (g) pericardial cicatrices; (h) renal degeneration after cœliotomy; (i) the testicular elastic tissue in tuberculosis and syphilis; (j) angiomatous changes in the liver after poisoning by coumarin.—J. Orth: histology and ætiology of pulmonary phthisis.

November 8, 1901.—W. Kaufmann: electric and magnetic deflexion of the Becquerel rays, and the apparent mass of electrons.—A. Brill: on the representation of an algebraic tortuous curve by one equation.

DIARY OF SOCIETIES.

THURSDAY, FEBRUARY 20.

ROYAL SOCIETY, at 4.30.—On Pure Cultures of a Uredine *Puccinia dispersa* (Erikss): Prof. H. M. Ward, F.R.S.—On the Physics and Physiology of Protoplasmic Streaming in Plants: Dr. A. J. Ewart.—On a Pair of Ciliated Grooves in the Brain of the Ammocoete, apparently serving to promote the Circulation of the Fluid in the Brain-Cavity: Prof. A. Dendy.—On the Interpretation of Photographic Records of the Response of Nerve obtained with the Capillary Electrometer: G. J. Burch, F.R.S.—Note on the Anomalous Dispersion of Sodium Vapour: Prof. W. H. Julius.

LINNEAN SOCIETY, at 8.—(1) On some Gasteropoda (*Linnotrochus* and *Chitra*) from Lake Tanganyika, with the Description of a New Genus; (2) On the Nyassa Vivipara and its Relationship to Neothauma: Miss L. Digby.—On the Fruit of *Melocarina bambusoides*, an Exalbinous Grass: Dr. A. Stapf.—On a West Indian Sea Anemone, *Bunodoopsis globulifera*: Dr. J. E. Duerden.

FRIDAY, FEBRUARY 21.

ROYAL INSTITUTION, at 9.—Musical and Talking Electric Arcs: W. Duddell.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Annual General Meeting. Followed by discussion on Modern Machine Methods, with Reply by the Author, H. L. F. Orcutt, and, time permitting, Fencing of Steam- and Gas-Engines: H. D. Marshall.—Fencing or Guarding Machinery used in Textile Factories: S. R. Platt.—Protection of Lift-Shafts, and Safety Devices in connection with Lift-Doors and Controlling Gear: H. C. Walker.—Guarding Machine Tools: W. H. Johnson.

GEOLOGICAL SOCIETY, at 3.—Annual General Meeting.  
EPIDEMIOLOGICAL SOCIETY, at 8.30.

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SATURDAY, FEBRUARY 22.

ROYAL INSTITUTION, at 3.—Some Electrical Developments: Lord Rayleigh, F.R.S.

ESSEX FIELD CLUB (at Essex Museum of Natural History, Stratford), at 5.30.—George Edwards, the Stratford Naturalist: John Avery.—Protective Resemblance, Warning Colours and Mimicry, some New Illustrations of well-known Principles: Prof. E. B. Poulton, F.R.S.

MONDAY, FEBRUARY 24.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—The Voyage of the Antarctic Ship *Discovery*: The President; G. Murray, F.R.S.; and Dr. H. R. Mill. SOCIETY OF ARTS, at 8.—Personal Jewellery from Prehistoric Times: Cyril Davenport.

IMPERIAL INSTITUTE, at 8.30.—British Columbia: Hon. J. H. Turner. INSTITUTE OF ACTUARIES, at 5.30.—Some Notes on the Net Premium Method of Valuation, as affected by recent Tendencies and Developments: S. G. Warner.

TUESDAY, FEBRUARY 25.

ROYAL INSTITUTION, at 3.—The Temperature of the Atmosphere: W. N. Shaw, F.R.S.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Paper to be further discussed: Electrical Traction on Railways: W. M. Mordey and B. M. Jenkin. SOCIETY FOR THE PROMOTION OF HELLENIC STUDIES, at 5.—Humour in Greek Art: A. H. Smith.

WEDNESDAY, FEBRUARY 26.

SOCIETY OF ARTS, at 8.—Recent Inventions in Weaving Machinery: Prof. Roberts Beaumont.

GEOLOGICAL SOCIETY, at 8.—On some Gaps in the Lias: E. A. Walford.—The Origin of the River-System of South Wales and its Connection with that of the Severn and Thames: A. Strahan.

THURSDAY, FEBRUARY 27.

ROYAL SOCIETY, at 4.30. SOCIETY OF ARTS at 4.30.—The Industrial Development of India: Nilkanth B. Wagle.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Electric Shock and Legislation thereon: Major-General C. E. Webber, C.B., R.E.—Electric Shocks: F. B. Aspinall.—Electric Shocks at 500 volts (illustrated by a Demonstration of 500 volts): A. P. Trotter.

FRIDAY, FEBRUARY 28.

ROYAL INSTITUTION, at 9.—Gold Mining in Klondyke: Prof. H. A. Miers, F.R.S.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Indicating High-Speed Steam-Engines: A. M. Arter.

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