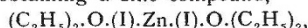


melting point, electrical resistance, and breaking load are given.—The action of potassium permanganate on salts of hydroxylamine: L. J. **Simon**. A study of the oxidation of the nitrate, phosphate, and arsenate of hydroxylamine.—On quadrivalent oxygen: E. E. **Blaise**. The author has succeeded in obtaining a zinc compound,



crystallising in fine prisms, and corresponding in composition to the magnesium compound previously described. The bearing of this compound on the theory of quadrivalent oxygen is discussed.—On the decomposition of orthonitrobenzyl alcohol under the influence of aqueous and alcoholic soda: P. **Carré**.—On the comparative assimilability of ammonia salts, amines, amides, and nitriles: L. **Lutz**. Experiments with *Aspergillus* and *Penicillium* show that of all nitrogenous compounds amides are the most easily assimilated; ammonia salts come next, then amines and nitriles.—The distribution of estragol and terpene compounds between the various parts of an annual plant: Eug. **Charabot** and G. **Laloue**.—On the so-called physicochemical analysis of arable earth: H. **Lagatu**. A description of a graphical mode of representing the analysis into three proximate constituents of an arable earth.—On some facts relating to the development of the kidney in Elasmobranchs: I. **Borcea**. A detailed study, illustrated with four diagrams, of the development of the renal system of *Acanthias vulgaris*.—On a form of scales peculiar to the Pandalidae: H. **Coutière**.—On some anomalous forms of amitosis in the epithelium of mammals: M. **Pacaut**.—On some diseases of the tobacco plant: Georges **Delacroix**.—An experimental study of the conditions which determine the penetration of the vapours of chloroform into the blood during chloroformic anaesthesia, and on the influence of the variations of the pulmonary ventilation on this penetration: J. **Tissot**. It is shown that, contrary to the view generally accepted, during anaesthesia with mixtures containing between 7 and 12 per cent. of chloroform there is no possibility of establishing an equilibrium between the blood and the mixture, since this equilibrium would correspond to a fatal dose of chloroform. The variable equilibrium which is actually produced depends largely on the pulmonary ventilation.—On the secreting power of the kidney: Henri **Lamy** and André **Mayer**.—The spectroscopic study of oxyhaemoglobin: M. **Piettre** and A. **Vila**.—The action of ammoniacal salts on the nitrification of sodium nitrite by the nitric ferment: E. **Boullanger** and L. **Massol**.—On the distemper of dogs: H. **Carré**.—On a geological section of the High Atlas in the region of Glaoui, Morocco: Paul **Lemoine**.—Examination of the fossils brought from the Yunnan by the Lantenois expedition: H. **Mansuy**. The study of these fossils confirms the analogies previously recognised between the primary and secondary fauna of the Indo-Chinese region and the synchronic fauna of India and Central Asia.—The Bishop's circle of Mt. Pelée, Martinique: F. A. **Forel**.

DIARY OF SOCIETIES.

THURSDAY, MARCH 16.

ROYAL SOCIETY, at 4.30.—A New Radio-active Element, which evolves Thorium Emanation. Preliminary Communication: Dr. O. Hahn.—A Determination of the Amounts of Neon and Helium in Atmospheric Air: Sir William Ramsay, K.C.B., F.R.S.—A Preliminary Note upon the Question of the Nutrition of the Early Embryo: E. Emrys-Roberts.—On the Absence or Marked Diminution of Free Hydrochloric Acid in the Gastric Contents, in Malignant Disease of Organs other than the Stomach: Prof. B. Moore (with W. Alexander, R. E. Kelly, and H. E. Roaf).—On the Occurrence of certain Ciliated Infusoria within the Eggs of a Rotifer, considered from the Point of View of Heterogenesis: Dr. H. C. Bastian, F.R.S.—On the Dimorphism of the English Species of Nummulites, and the Size of the Megalosphaera in Relation to that of the Microsphaera and Megalosphaera Tests in this Genus: J. J. Lister, F.R.S.—Observations on the Brains of Man and Animals with Trypanosome Infection. Preliminary Note: Dr. F. W. Mott, F.R.S.

ROYAL INSTITUTION, at 5.—Recent Astronomical Progress: Prof. H. H. Turner, F.R.S.

SOCIETY OF ARTS, at 4.30.—Manipur and its Tribes: T. C. Hodson.

LINNEAN SOCIETY, at 8.—Contributions to the Flora of Liberia: Dr. Otto Stapf.—Exhibitions: Penguins and other Birds from the Falkland Islands, and Scratched Rocks from a Rockhopper's Rookery: R. Valentin.

FRIDAY, MARCH 17.

EPIDEMIOLOGICAL SOCIETY, at 8.30.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—First Report to the Steam-Engine Research Committee: Prof. David S. Capper.

SATURDAY, MARCH 18.

ROYAL INSTITUTION, at 3.—Electrical Properties of Radio-active Substances: Prof. J. J. Thomson, F.R.S.

MONDAY, MARCH 20.

SOCIETY OF ARTS, at 8.—Telephony: H. L. Webb.

VICTORIA INSTITUTE, at 4.30.—The Nebular and Planetary Theories of the Earth's Origin: Warren Upham.

TUESDAY, MARCH 21.

ROYAL INSTITUTION, at 5.—Engineering Problems: Prof. W. E. Dalby.

ROYAL STATISTICAL SOCIETY, at 5.

ZOOLOGICAL SOCIETY, at 8.30.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Discussion: Shipbuilding for the Navy: Lord Brassey, K.C.B.—Paper: Coolgardie Water-Supply: C. S. R. Palmer.

WEDNESDAY, MARCH 22.

GEOLOGICAL SOCIETY, at 8.—An Experiment in Mountain-Building Part II.: Lord Avebury, P.C., F.R.S.—The Rhatic Rocks of Monmouthshire: L. Richardson.

SOCIETY OF DYERS AND COLOURISTS, at 7.30.—The Dyeing and Finishing of Leather for Bookbinding; with remarks on Preparatory Manufacturing Processes: F. W. Colin Robinson.—A Dyeing Drum Door, removable and replaceable without stopping the Drum: H. W. Ley.

THURSDAY, MARCH 23.

ROYAL SOCIETY, at 4.30.—Bakerian Lecture: The Reception and Utilisation of Energy by the Green Leaf: Dr. Horace T. Brown, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Report of Experiments carried out at the National Physical Laboratory: On the Effect of Heat on the Electrical and Mechanical Properties of Dielectrics, and on the Temperature Distribution in the Interior of Field Coils: E. H. Rayner.

—Discussion: On Temperature Curves and the Rating of Electrical Machinery: R. Goldschmidt.

ROYAL INSTITUTION, at 5.—The Reasonableness of Architecture: Thomas G. Jackson.

FRIDAY, MARCH 24.

ROYAL INSTITUTION, at 9.—A Pertinacious Current: Sir Oliver Lodge, F.R.S.

PHYSICAL SOCIETY, at 5.—Note on the Voltage Ratios of an Inverted Rotary Converter: W. C. Clinton.—On the Flux of Light from the Electric Arc with varying Power Supply: G. B. Dyke.—The Application of the Cymometer and the Determination of the Coefficient of Coupling of Oscillation Transformers: Prof. J. A. Fleming, F.R.S.—Exhibition of Cymometers and other Instruments.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Wanki to Victoria Falls Section; Victoria Falls Railway: C. T. Gardner.—Design of a Double-Line Plate-Girder Railway-Bridge: H. S. Coppock.

SATURDAY, MARCH 25.

ROYAL INSTITUTION, at 3.—Electrical Properties of Radio-active Substances: Prof. J. J. Thomson, F.R.S.

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