

four hours with an alkyl-magnesium compound. Yields of acetal amounting to about 75 per cent. of the theoretical are obtained. These acetals are readily hydrolysed to the corresponding aldehydes by dilute sulphuric acid. These aldehydes, on treatment with hydroxylamine, do not give oximes, but isoxazols, several of which are described.—The differences of histological structure and secretion between the anterior and posterior kidney in male elasmobranchs: I. **Borcea**.—On the respective functions of the two parts of the adductor muscles in the lamellibranchs: F. **Marceau**.—On the adaptation of the plant to the intensity of light: M. **Wiesner**.—On the permeability of the tegument of certain dried seeds to the atmosphere: Paul **Becquerel**. If the tegument is carefully dried, it is absolutely impermeable to the gases of the atmosphere. In the presence of moisture, however, these gases pass through. Hence the complete suspension of all the phenomena of respiration of the seed is only realised in the absence of moisture.—On the spontaneous radiations of *Sterigmatocystis versicolor*: Paul **Vuillemin**.—A case of the emission of the *n*-rays after death: Augustin **Charpentier**.—The lipolytic property of the cytoplasm of the castor-oil seed is not due to a soluble ferment: Maurice **Nicloux**.—On an albumen extracted from the eggs of the frog: J. **Galimard**.—On the condition of the starch in stale bread: E. **Roux**.—The motive action of the pneumogastric nerve on the biliary vesicle: D. **Courtade** and J. F. **Guyon**.—On the toxicity of the chlorhydrate of amylen: L. **Launoy** and F. **Billon**.—Contribution to the study of Bence-Jones albumosuria: G. **Patein** and Ch. **Michel**.—The amount of albuminoid material necessary in human diet: H. **Labbe** and M. **Morchoisne**.—On ten cases of arterial hypertension treated by d'Arsonvalisation: A. **Moutier**. In all the cases the arterial pressure was reduced to the normal. At the same time, in some of the cases, the symptoms of arterio-sclerosis disappeared in great part.

DIARY OF SOCIETIES.

THURSDAY, JUNE 9.

ROYAL SOCIETY, at 4.30.—Notes on the Statolith Theory of Geotropism. (1) Experiments on the Effects of Centrifugal Force. (2) The Behaviour of Tertiary Roots: F. Darwin, For.Sec.R.S., and Miss D. F. M. Pertz.—The Fossil Flora of the Culm Measures of North-West Devon, and the Palaeobotanical Evidence with Regard to the Age of the Beds: E. A. Newell Arber.—On the Structure and Affinities of Palaeodiscus and Agelacrinus: W. K. Spencer.—On the Ossiferous Cave-Deposits of Cyprus, with Descriptions of the Remains of *Elephas cybriotes*: Miss D. M. A. Bate.—On the Physical Relation of Chloroform to Blood: Dr. A. D. Waller, F.R.S.—Contributions to the Study of the Action of Sea-Snake Venoms: Sir Thomas R. Fraser, F.R.S., and Major R. H. Elliot, I.M.S.—On the Action of the Venom of *Bungarus coraelus* (the Common Krait): Major R. H. Elliot, I.M.S., W. C. Sillar, and G. S. Carmichael.—On the Combining Properties of Serum-Complements and on Complementoids: Prof. R. Muir and C. H. Browning.

MATHEMATICAL SOCIETY, at 5.30.—The Application of Poisson's Formula to Discontinuous Disturbances: Lord Rayleigh.—Some Expansions for the Periods of the Jacobian Elliptic Functions: H. Bateman.—Types of Covariants of any Degree in the Coefficients of Each of any Number of Binary Quantics: P. W. Wood.

INSTITUTION OF ELECTRICAL ENGINEERS, at 5.—Annual General Meeting.

FARADAY SOCIETY, at 8.—The Hard and Soft States in Metals: G. T. Beilby.—The Electric Furnace; its Origin, Transformations, and Applications: Adolphe Minet.

FRIDAY, JUNE 10.

ROYAL ASTRONOMICAL SOCIETY, at 5.—The Rotation Period of Saturn: W. F. Denning.—Analyses of Errors of Moon's Longitude for Inequalities of Longer Periods; Methods and Results: P. H. Cowell.—Note on the Gyroscopic Collimator of Admiral Fleuriat: M. E. J. Gheury.—Variation in Latitude of the Greater Sun-Spot Disturbances, 1881-1903: Rev. A. L. Cortie.—The Mass of Jupiter, and Corrections to the Elements of the Orbits of the Satellites, from Helimeter Observations made at the Cape, 1901 and 1902: Bryan Cookson.—The Parallax Inequality—a Reply: P. H. Cowell.—Promised Papers: Solar Parallax from Observations of Eros: A. R. Hinks.—Note on the Distribution of Sun-Spots in Heliographic Latitude: E. W. Maunder.—Micrometric Measures of Double Stars made with the 28-in. Refractor in 1903: Royal Observatory, Greenwich.—Sir David Gill will give an Account of the New Clock of the Cape Observatory.

PHYSICAL SOCIETY, at 8.—Projection of the Indicator Diagrams of a Petrol Motor: Prof. Callendar, F.R.S.—A Model Illustrating the Propagation of a Periodic Electric Current in a Telephone Cable, and the Simple Theory of its Operation: Prof. Fleming, F.R.S.—Exhibition of a Gyroscopic Collimator: M. E. J. Gheury.

MALACOLOGICAL SOCIETY, at 8.—On *Damayantia smithi*, Godwin-Austen and Collinge: Lt.-Col. H. H. Godwin-Austen.—Descriptions of Twenty-nine Species of Gastropoda from the Persian Gulf, Gulf of Oman, and Arabian Sea, dredged by Mr. E. W. Townsend, 1903-4: J. Cosmo Melvill.—*Conus Coromandelicus*, Sin, its Probable Affinities and Systematic place in the family Conidae: J. Cosmo Melvill.—Descriptions of New Marine Shells from the Collection of the late Admiral Keppel: G. B. Sowerby.—Note on *Voluta brazieri*, Cox: E. A. Smith,

I.S.O.—On *Doris planata* of Alder and Hancock: Sir C. Eliot, K.C.M.G.—Description of a Helicoid Land Shell from Central Australia: J. H. Ponsoby.—On Some Semi-fossil Land Shells found in the Hamakua District, Hawaii: C. F. Ancey.

MONDAY, JUNE 13.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—Western Uganda: Rev. A. B. Fisher.

TUESDAY, JUNE 14.

ROYAL PHOTOGRAPHIC SOCIETY, at 8.—A New Principle in Photographic Lens Construction: Conrad Beck.

WEDNESDAY, JUNE 15.

ROYAL MICROSCOPICAL SOCIETY, at 8.—A Direct Proof of Abbe's Theorems on the Microscopic Resolution of Gratings: Prof. J. D. Everett, F.R.S.—Report on the Recent Foraminifera of the Malay Archipelago, Part xvi: F. W. Millett.—Lecture on Nature's Protection of Insect Life, with Lantern Illustrations: F. Enock.

ROYAL METEOROLOGICAL SOCIETY, at 4.30.—Effects of a Lightning Stroke at Earl's Fee, Bowers Gifford, Essex, April 13, 1904: Rev. C. F. Box.—An Instrument for Determining the True Direction and Velocity of the Wind at Sea: A. Lawrence Rolch.

CHEMICAL SOCIETY, at 5.30.—(1) The Mechanical Analysis of Soils, and the Composition of the Fractions resulting Therefrom; (2) The Effect of the Long-continued Use of Sodium Nitrate on the Constitution of the Soil: A. D. Hall.—(1) The Decomposition of Oxalates by Heat. (2) Some Alkyl Derivatives of Sulphur, Selenium, and Tellurium: A. Scott.—The Ultra-violet Absorption Spectra of certain Enol-keto-tautomerides. Part I: Acetylacetone and Ethyl Acetoacetate: E. C. C. Baly and C. H. Desch.—The Action of Acetyl Chloride on the Sodium Salt of Diacetylacetone and the Constitution of Pyrone Compounds: J. N. Collie.—Our Present Knowledge of the Chemistry of Indigo: W. P. Bloxam.

THURSDAY, JUNE 16.

ROYAL SOCIETY, at 4.30.—Probable Papers: The Decomposition of Ammonia by Heat: Dr. E. P. Perman and G. A. S. Atkinson.—On Flame Spectra: C. de Watteville.—On the Origin and Growth of Ripple-Marks: Mrs. H. Ayrton.—The Influence of Rainy Winds on Phthisis: Dr. W. Gordon.

LINNEAN SOCIETY, at 8.—Variations in the Arrangement of Hair in the Horse: Dr. Walter Kidd.—An Account of the Jamaican Species of Lepanthes: W. Fawcett and Dr. A. B. Rendle.—On the Blaze-currents of Vegetable Tissues: Dr. A. D. Waller, F.R.S.—British Freshwater Rhizopoda: James Cash.—Notes on the "Sudd" Formation of the Upper Nile: A. F. Brown.—The Place of Linnæus in the History of Botany: P. Olsson-Seffon.

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