in a percolator with glacial acetic acid or with absolute alcohol, it after a time changes to a green colour. Dilute solutions of indigo in acetic acid or of sulphindigolic acid fade much more quickly than solutions of the coral blue of equal depths of colour.

AMSTERDAM.

Royal Academy of Sciences, January 28.—Prof. Van de Sande Bakhuyzen in the chair.—Prof. Martin read a paper on brackish-water deposits, occurring in the interior of Borneo, especially in the basin of the Kapooas. They came to the author's knowledge chiefly from the Mĕlawi (a tributary of the Kapooas). In that locality they contain species of *Arca*, *Cyrena*, *Corbula*, *Melania* and *Paludomus*, not one of which is known to have been found in other localities. Among these the occurrence of the genus Paludomus, two species of which have been found, both closely allied to still living Bornean species, is of particular importance. The deposits of the Mĕlawi must be of more recent date than the "intertrappian beds" of India, but still they belong in all probability to the Eocene period. Brackish-water deposits also occur along the Silat (another branch of the Kapooas), containing, however, a different fauna, chiefly characterised by the presence of two species of *Vivipara*. Perhaps these Silat sediments may prove to be older than the Mĕlawi sediments, but they certainly are not older than the Cretaceous formation.—Prof. Van Bemmelen on the isotherms (c, p) at 15° of dehydration, rehydration and re-dehydration of the hydrogel of Fe_2O_3 (c = percentage of water, p = vapour pressure), and presented on behalf of Mr. B de Bruyn a paper on the equilibrium of systems of three substances, two of which are liquids.—Prof. Cardinaal made a communication concerning Sir R. H. Ball's theory of screws, showing the application of Caporali's method of representation to screws, belonging to a system of the fourth order. Screws in a plane, or passing through a point, were chiefly discussed.—Prof. Lorentz on the vibrations of electrified systems, placed in a magnetic field. A contribution to the theory of the Zeeman-effect.—Prof. Jan de Vries on trinodal quartics. As is well known, the six points in which a trinodal quartic is cut by the lines that touch it in the nodes, lie in a conic, and there is a second conic, containing the points of tangency of the six tangents, that may be drawn from the nodes to the quartic. The author proved that these two conics have two residual points in common. In connection with the theorems, found by Brill (*Math. Ann.*, xii. 106, and xiii. 182), according to which the six points of inflexion are on a conic, which cuts the first-mentioned conic on the quartic, the residual points therefore belong to the three remarkable conics. The author also proved that the quartic contains three systems of inscribed quadrangles, so that in the case of each system the intersections of opposite sides coincide with the intersections of two bitangents.—Prof. Van der Waals presented a paper by Mr. J. J. Van Laar, of Utrecht, entitled, "Calculations of the second correction on the magnitude b of Van der Waals's phase equation."

DIARY OF SOCIETIES.

THURSDAY, MARCH 23.

SOCIETY OF ARTS, at 8.—London Water Supply: Walter Hunter.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Hissing of the Electric Arc: Mrs. Ayrton. (Illustrated by Experiments.)

FRIDAY, MARCH 24.

ROYAL INSTITUTION, at 9.—Transparency and Opacity: Lord Rayleigh, F.R.S.

PHYSICAL SOCIETY, at 5.—On the Criterion for the Oscillatory Discharge of a Condenser: Dr. Barton and Prof. Morton.—The Minor Variations of the Clark Cell: A. P. Trotter.

SATURDAY, MARCH 25.

ROYAL INSTITUTION, at 3.—The Mechanical Properties of Matter: Lord Rayleigh, F.R.S.

ESSEX FIELD CLUB (at Municipal Technical Institute, Stratford), at 6.30.—Annual Meeting.—Presidential Address: Life Problems in Modern Science: David Howard.—Life-History of the Tiger-Beetle (*Cicindela campestris*): Fred. Enock.

MONDAY, MARCH 27.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—Illustrations of Waves: Vaughan Cornish.

INSTITUTE OF ACTUARIES, at 5.30.—Some Notes on Sinking Fund Assurances: J. E. Faulks.

TUESDAY, MARCH 28.

ANTHROPOLOGICAL INSTITUTE, at 8.—Mitla (State of Oaxaca, Mexico): a Study of its Ancient Ruins and Remains: Wm. Corner. (With Lantern Illustrations, Maps, Plans, Drawings, and Antiquities).—Mr. Corner will also exhibit a Collection of Recent Photographs of North American Indians, taken by Rinehaut, Omaha, Neb., U.S.A.

ROYAL HORTICULTURAL SOCIETY.—Prof. Henslow's Demonstration.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Alloys of Iron and Nickel: Robert Abbott Hadfield.

ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Ozotype with Carbon Tissues, a New Method of Pigment Printing: T. Manly.

WEDNESDAY, MARCH 29.

CHEMICAL SOCIETY, at 3.—Anniversary Meeting.—Election of Officers and Council.—President's Address.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Report of the Seventh Meeting of the Australasian Association held at Sydney, 1898 (Sydney).—Botanische Untersuchungen: S. Schwendener (Berlin, Borntraeger).—In the Guiana Forest: J. Rodway, new edition (Unwin).—Astronomical Observations and Researches made at Dunsink, Part 8 (Dublin, Hodges).—Energy and Heat: J. Roger (Spon).—The Entropy Diagram and its Applications: Prof. J. Boulvin, translated by B. Donkin (Spon).—The Administrative Control of Tuberculosis: Sir R. Thorne Thorne (Baillière).—Haunts and Hobbies of an Indian Official: M. Thornhill (Murray).—Funafuti: Mrs. E. David (Murray).—Queen's College, Galway, Calendar for 1898-99 (Dublin, Ponsonby).—Karl Ernst von Baer und Seine Weltanschauung: Prof. R. Stölzle (Regensburg, National Verlagstanstalt).—Report of the U.S. National Museum, 1896 (Washington).—The Dawn of Reason: Dr. J. Weir, jun. (Macmillan).—Allgemeine Erdkunde, iii. Abteilung (Wien, Tempsky).—The Lepidoptera of the British Islands: C. G. Barrett, Vol. v. (L. Reeve).—Examination of Water: Prof. W. P. Mason (Chapman).—The Microscopy of Drinking-Water: G. C. Whipple (Chapman).—Ichthyologia Ohiensis, or Natural History of the Fishes inhabiting the River Ohio and its Tributary Streams: C. S. Rafinesque and Dr. R. E. Call (Cleveland, Burrows).—Organoterapia: E. Rebuschini (Milan, Hoepli).—On Centenarians and the Duration of the Human Race: T. E. Young (Layton).—Sitzungsberichte der K. V. Gesellschaft der Wissenschaften. Math. Naturw. Classe, 1898 (Prag).

PAMPHLETS.—Address delivered by James Stuart, M.P., on the Occasion of his Installation as Lord Rector of the University of St. Andrews, January 23, 1899 (Macmillan).—The Chinch Bug (Washington).—The Water Supply of Sussex from Underground Sources: W. Whitaker and C. Reid (London).—Royal Geographical Society Year-Book and Record, 1899 (1 Savile Row).—Report of the Meteorological Council for the Year ending March 31, 1898, to the President and Council of the Royal Society (London).

SERIALS.—American Journal of Science, March (New Haven).—Himmel und Erde, March (Berlin).—Bibliography of the more Important Contributions to American Economic Entomology, Pt. 6 (Washington).—Journal of the Institution of Electrical Engineers, March (Spon).—Proceedings of the Royal Society of Edinburgh, Vol. xxii. pp. 249-360 (Edinburgh).—American Naturalist, March (Ginn).—Popular Astronomy, March (Northfield, Minn.).—Zoologist, March (West).

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