

instance, the new reef chalks are situated as high as 480 m. above the sea-level. Volcanic eruptions and elevations are evidently intimately connected in those regions.—Prof. van der Waals presented on behalf of Dr. D. F. Tollenaar, for publication in the *Proceedings*, a paper on “Deflection and reflection with two kathodes.” The phenomena occurring when two kathodes are used, and which were described in a previous paper, may be explained in a simple way if the kathode rays are assumed to consist of negatively-charged particles, which are emitted with great velocity. Adopting Schuster’s formula for the potential fall in the proximity of a kathode, the course of such a particle, near a kathode, can be calculated. In this way the following results are arrived at: (1) behind the deflecting kathode the kathode rays cut each other, and so give rise to a surrounding sheet of light; (2) if the two kathodes emit their rays towards each other, then the rays of one kathode are partly so strongly deflected by those of the other as to be reflected to the emitting kathode; (3) with each of the two kathodes these reflected rays give rise to a second enclosing sheet of light and a corresponding deflection figure; (4) if the two kathodes are made to be of different intensity, the sheet of deflection formed by these reflected rays becomes larger towards the less intense kathode. This sheet of deflection, however, is not an ordinary Goldstein macro-surface, but might be called a pseudo macro-surface.

DIARY OF SOCIETIES.

THURSDAY, NOVEMBER 25.

ROYAL SOCIETY, at 4.30.—On the Geometrical Treatment of the “Normal Curve” of Statistics, with special reference to Correlation, and to the Theory of Error: W. F. Sheppard.—Mathematical Contributions to the Theory of Evolution. IV. On the Probable Errors of Frequency Constants, and on the Influence of Random Selection on Variation and Correlation: Prof. K. Pearson, F.R.S., and L. N. G. Filon.—On Certain Natural Media for the Cultivation of the Bacillus of Tubercle: Dr. A. Ransome, F.R.S.—Further Note on the Transplantation and Growth of Mammalian Ova within a Uterine Foster-mother: Walter Heape.—Further Observations upon the Comparative Physiology of the Suprarenal Capsules: Swale Vincent.—Summary of Prof. Edgeworth David’s Preliminary Report on the Boring at Funafuti: Prof. T. G. Bonney, F.R.S.—On the Determination of the Indices of Refraction of Various Substances for the Electric Ray. II. Index of Refraction of Glass: Prof. J. C. Bose.—On the Influence of the Thickness of Air-Space on Total Reflection of Electric Radiation: Prof. J. C. Bose.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Accumulator Traction on Rails and Ordinary Roads: L. Epstein. (Continuation of Discussion.)

CAMERA CLUB, at 8.15.—Photographic Action writ large: a Kurvey-linear Conversation on Corn: Prof. Armstrong, F.R.S.

LONDON INSTITUTION, at 6.—Acetylene: Prof. Vivian Lewes.

FRIDAY, NOVEMBER 26.

PHYSICAL SOCIETY, at 5.—Upon the Failure of German Silver and Platinoid Wires: Rollo Appleyard.

SATURDAY, NOVEMBER 27.

ESSEX FIELD CLUB (at Buckhurst Hill), at 7.—The Entomostraca of Epping Forest: D. J. Scurfield.—Report on Conference of Delegates of Corresponding Societies at Toronto: Prof. R. Meldola, F.R.S.

MONDAY, NOVEMBER 29.

SOCIETY OF ARTS, at 8.—Gutta-Percha: Dr. Eugene F. A. Obach.

IMPERIAL INSTITUTE, at 8.30.—Kafiristan: Sir George S. Robertson.

INSTITUTE OF ACTUARIES, at 5.30.—Address by the President.

TUESDAY, NOVEMBER 30.

ROYAL SOCIETY, at 4.—Anniversary Meeting.

ZOOLOGICAL SOCIETY, at 8.30.—On Regeneration of the Legs in the *Blattida*: H. H. Brindley.—On a Gigantic Sea-Perch (*Stereolepis gigas*): G. A. Boulenger, F.R.S.—Description of a New Tortoise of the Genus *Sternotherus*: G. A. Boulenger, F.R.S.—Remarks upon a Mountain Reedbed from the Eastern Transvaal: F. V. Kirby.

INSTITUTION OF CIVIL ENGINEERS, at 8.—On the Law of Condensation of Steam: Hugh L. Callendar, F.R.S., and John T. Nicolson.

WEDNESDAY, DECEMBER 1.

SOCIETY OF ARTS, at 8.—The American Bicycle—the Theory and Practice of its Making: Dr. Leonard Waldo.

GEOLOGICAL SOCIETY, at 8.—A Revindication of the Llanberis Unconformity: Rev. J. F. Blake.—The Geology of Lambay Island, Co. Dublin: C. I. Gardiner and S. H. Reynolds.

ENTOMOLOGICAL SOCIETY, at 8.

THURSDAY, DECEMBER 2.

LINNEAN SOCIETY, at 8.—On the Anatomy of *Candina coriacea*: Prof. Arthur Dendy.—On some Desmids from the United States: W. West and G. S. West.—Exhibitions: Specimens of Galls of *Cecidomyia*: Prof. J. B. Farmer.—An Egg of *Echidna*: Martin Woodward.

CHEMICAL SOCIETY, at 8.—Ballot for the Election of Fellows.—On Collie’s Space-Formula for Benzene: Dr. F. E. Matthews.

CAMERA CLUB, at 8.15.—Photomicrography: Dr. Spitta.

FRIDAY, DECEMBER 3.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Permanent Way: its Construction and Relaying: Grote Stirling.

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BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Agricultural Chemistry: R. H. Adie and T. B. Wood, 2 vols. (K. Paul).—La Face de la Terre: Prof. E. Suess; traduit E. de Margerie, Tome 1 (Paris. Colin).—Leitfaden für Aquarien- und Terrarienfrenunde: Dr. E. Zernecke (Berlin, Schmidt).—Die Moorbrücken im Thal der Sorge auf den Grenze Zwischen Westpreussen und Ostpreussen: H. Conwentz (Danzig, Bertling).—The Story of a Red Deer: Hon. J. W. Fortescue (Macmillan).—The Gallinaceous Game Birds of North America: D. G. Elliot (Suckling).—Practical Forestry: Prof. C. E. Curtis, 2nd edition (Lockwood).—The Hope Reports: edited by Prof. Poulton, Vol. 1 (Oxford).—Recherches Experimentales sur quelques Actinomètres Electrochimiques: Dr. H. Rigollot (Paris, Masson).—Le Culture des Mers en Europe: G. Roché (Paris, Alcan).—Sixteenth Annual Report of the Bureau of American Ethnology (Washington).—The Foundations of Scientific Agriculture: Prof. S. Cooke (Longmans).—A Text-Book of General Botany: Dr. C. C. Curtis (Longmans).—With Nature and a Camera: R. Kearton (Cassell).—La Tuberculose et son traitement hygienique: P. Merklen (Paris, Alcan).—Pflanzenphysiologie: Dr. W. Pfeffer, Zweite Auflage i. Band (Leipzig, Engelmann).—Kollektivmasslehre: G. T. Fechner, herausgegeben von G. F. Lipps (Leipzig, Engelmann).—Tabeln und Tabellen zur Darstellung der Ergebnisse Spectroskopischer und Spectrophotometrischer Beobachtungen: Prof. T. W. Engelmann (Leipzig, Engelmann).—Observations on the Coloration of Insects: H. von Wattenwyl, translated by E. J. Bles (Leipzig, Engelmann).—Beschreibung der Hauptmethoden welche bei der Bestimmung der Verbrennungswärme: W. Longuine (Berlin, Friedländer).—Elementary Drawing: E. M. Hallowell (Macmillan).—Zoological Record, 1896 (Turney).—First Book of Physical Geography: Prof. R. S. Tarr (Macmillan).—Compositions d’Analyse, Cinématique, Mécanique et Astronomie: Prof. E. Villié, troisième partie (Paris, Gauthier-Villars).—Laboratory Tables for Qualitative Analysis, 2nd edition (Manchester, J. E. Cornish).

PAMPHLETS.—Das Wachstum des Menschen: Dr. F. Daffnir (Leipzig, Engelmann).—Observations on a Collection of Papuan Crania: G. A. Dorsey (Chicago).—A Discussion of the Rainfall of South Africa during the Ten Years 1885-94: Dr. A. Buchan (Cape Town).

SERIALS.—Journal of the Franklin Institute, November (Philadelphia).—Science Progress, October (Scientific Press).—Journal of the Academy of Natural Sciences of Philadelphia, 2nd edition, Vol. xi. Part 1 (Philadelphia).—Bulletin de l’Académie Impériale des Sciences de St. Pétersbourg, 1896 October-December, 1897 April-June (St. Pétersbourg).—Chambers’s Journal, Christmas (Chambers).—Himmel und Erde, November (Berlin).

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