

Agafnoff. No sort of parallelism appears to exist between transparency to ultra-violet rays and the Röntgen rays, the sulphates, for example, being nearly opaque to the latter, although very transparent to the former. The reverse of this occurs with most crystallised organic compounds.—On dark light, by M. Perrigot. The results obtained by M. G. Le Bon, stated by him to be due to special rays, the "dark light," are shown to be capable of another explanation, the ebonite sheet used being itself slightly transparent to white light.—On the separation of chlorine and bromine, by MM. H. Baubigny and P. Rivals. In presence of an excess of copper salts (sulphate), bromides are totally decomposed in neutral solutions at the ordinary temperatures. The application of this method to test mixtures of chlorides and bromides gave satisfactory results.—Separation of nickel, cobalt, and iron, and of cobalt and aluminium, by M. E. Pinera. Chloride of nickel is quite insoluble in ether saturated with hydrogen chloride, the chlorides of cobalt and iron, on the other hand, being easily soluble in this reagent. The method is sufficiently sensitive to detect the presence of nickel and iron in the "pure" cobalt chloride of commerce, and cobalt and iron in the nickel chloride sold as pure.—On cholesterine, by M. Ch. Cloëz.—On the grafting of *Helianthus annuus* and *Helianthus latisiflorus*, by M. L. Daniel.—The proper motion of the sun, by M. Delauney.—On a new gas battery, serving as an accumulator, by M. C. Gaudet.

DIARY OF SOCIETIES.

THURSDAY, APRIL 29.

ZOOLOGICAL SOCIETY, at 4.—Annual Meeting.
 CHEMICAL SOCIETY, at 8.—Monochloridoparacetic Acid and some Condensations: Dr. H. C. Myers.—On the Decomposition of Iron Pyrites: W. A. Caldecott.
 CAMERA CLUB, at 8.15.—The Automatic Telephone: S. B. Apostoloff.

FRIDAY, APRIL 30.

ROYAL INSTITUTION, at 9.—Kathode Rays: Prof. J. J. Thomson, F.R.S.
 EPIDEMIOLOGICAL SOCIETY, at 8.—Some Observations on the Infectivity of Diphtheria, and its Relation to School Closure: Dr. Louis Parkes.

SATURDAY, MAY 1.

ROYAL INSTITUTION, at 5.—Annual Meeting.
 GEOLOGISTS' ASSOCIATION.—Excursion to Cookham. Leave Paddington 1.40 p.m.; arrive Cookham 2.30 p.m. Director: L. Treacher.
 LONDON GEOLOGICAL FIELD CLASS.—Excursion to Leith Hill. Lower Greensand. Leave London Bridge, 2; arrive Holmwood, 3.17.

MONDAY, MAY 3.

SOCIETY OF ARTS, at 4.30.—Design in Lettering: Lewis Foreman Day.
 SOCIETY OF CHEMICAL INDUSTRY, at 8.
 VICTORIA INSTITUTE, at 4.30.—Nippur: its Inscriptions.
 CAMERA CLUB, at 8.15.—Opening Address: Captain W. de W. Abney.—Photography at Sea: Captain Wilson Barker.

TUESDAY, MAY 4.

ROYAL INSTITUTION, at 3.—Volcanoes: Dr. Tempest Anderson.
 SOCIETY OF ARTS, at 4.30.—The Arctic and Antarctic: Aubyn Trevor-Battye.
 ZOOLOGICAL SOCIETY, at 8.30.—On the General Zoological Results of the Tanganyika Expedition of 1895-96: J. E. S. Moore.—On some European Slugs of the Genus *Arion*: Walter E. Collinge.—Field-Notes on the Antelopes of the Mau District, British East Africa: Frederick J. Jackson. With Notes by P. L. Sclater.
 ROYAL VICTORIA HALL, at 8.30.—Mountains of Skye: Dr. T. K. Rose.
 GRESHAM COLLEGE (Basinghall Street), at 6.—Planets Saturn, Uranus, and Neptune: Rev. Edmund Ledger.

WEDNESDAY, MAY 5.

SOCIETY OF ARTS, at 8.—The Railway to India: C. E. D. Black.
 ENTOMOLOGICAL SOCIETY, at 8.—Homöochromatic Groups of Butterflies: Mr. Blandford.
 SOCIETY OF PUBLIC ANALYSTS, at 8.—The Value of the Nitrogen Factor in the Analysis of Decomposed Milks: Alfred Smetham and J. B. Ashworth.—Notes on the Influence of Boric Acid upon the Action of Digestive Ferments: R. A. Cripps.
 GRESHAM COLLEGE (Basinghall Street), at 6.—Planets Saturn, Uranus, and Neptune: Rev. Edmund Ledger.

THURSDAY, MAY 6.

ROYAL INSTITUTION, at 3.—Liquid Air as an Agent of Research: Prof. J. Dewar, F.R.S.
 SOCIETY OF ARTS, at 4.30.—Kafiristan: its Manners and Customs: Sir George Scott Robertson, K.C.S.I.
 LINNEAN SOCIETY, at 8.
 CHEMICAL SOCIETY, at 8.—A Bunsen Burner for Acetylene: A. E. Munby.—On the Reactions between Lead and the Oxides of Sulphur: H. C. Jenkins and A. E. Smith.—Ballot for Election of Fellows.
 GRESHAM COLLEGE (Basinghall Street), at 6.—Planets Saturn, Uranus, and Neptune: Rev. Edmund Ledger.

FRIDAY, MAY 7.

INSTITUTION OF MECHANICAL ENGINEERS, at 7.30.—Experiments on Propeller Ventilating Fans, and on the Electric Motor driving them: William G. Walker.
 GEOLOGISTS' ASSOCIATION, at 8.—Coral Islands: W. W. Watts.
 GRESHAM COLLEGE (Basinghall Street), at 6.—Planets Saturn, Uranus, and Neptune: Rev. Edmund Ledger.

NO. 1435, VOL. 55]

SATURDAY, MAY 8.

ROYAL BOTANIC SOCIETY, at 4.
 GEOLOGISTS' ASSOCIATION.—Excursion to Southborough and Tunbridge Wells. Director: G. Abbott. Leave Charing Cross Station (S.E.R.) 9.22 a.m.; arrive Southborough 10.50 a.m.
 LONDON GEOLOGICAL FIELD CLASS.—Excursion to Caterham to Redhill, via Godstone. Upper Greensand. Leave Cannon Street 2.17; arrive Caterham 3.12.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Queen's College, Galway, Calendar for 1896-97 (Dublin, Ponsonby).—Royal University of Ireland, Exam. Papers, 1896 (Dublin, Ponsonby).—Les Transformateurs de Tension a Courants Alternatifs: F. Loppé (Paris, Gauthier-Villars).—A Treatise on Practical Plane and Solid Geometry: T. J. Evans and W. W. F. Pullen (Chapman).—Società Reale di Napoli. Atti della Reale Accademia delle Scienze Fisiche e Matematiche. Serie seconda, vol. viii. (Napoli).—Respiratory Proteids: Dr. A. B. Griffiths (L. Reeve).—Tea: a Text-book of Tea-planting and Manufacture: D. Crole (Lockwood).—The Materials of Construction: Prof. J. B. Johnson (New York, Wiley; London, Chapman).—Festschrift zum Siebenzigsten Geburtstag von Carl Gegenbaur, Dritter Band (Leipzig, Engelmann).—Royal University of Ireland, Calendar 1897 (Dublin, Thom).—The Pamirs and the Source of the Oxus: G. N. Curzon (Royal Geographical Society).

PAMPHLETS.—Fünfter Jahres-Bericht des Sonnblick-Vereines für das Jahr 1896 (Wien).—The Street Railway System of Philadelphia: Prof. F. W. Speirs (Baltimore).

SERIALS.—Proceedings of the Physical Society, April (Taylor).—Journal of the Institution of Electrical Engineers, April (Spon).—Journal of the Chemical Society, March (Gurney).—Lloyd's Natural History. British Birds: Dr. R. B. Sharpe, Parts x. and xi. (Lloyd).—American Naturalist, April (Philadelphia).—Journal of the Franklin Institute, April (Philadelphia).—Terrestrial Magnetism, March (Cincinnati). Bulletin de la Société Impériale des Naturalistes de Moscou, 1896, No. 3 (Moscou).—Beiträge zur Geophysik, 3 Band, 2 Heft (Leipzig, Engelmann).—Journal of the Sanitary Institute, April (Stanford).—Zeitschrift für Physikalische Chemie, xxii. Band, 3 Heft (Leipzig, Engelmann).—Studien über Dampfspannungsmessungen, 2 Abthg. 1 Hälfte (Basel, Schwabe).—Lean's Royal Navy List, April (Witherby).—English Illustrated Magazine, May (108 Strand).—Good Words, May (Isbister).—Sunday Magazine, May (Isbister).—Astronomical Journal, April (Chicago).—Longman's Magazine, May (Longmans).—Quarterly Review, May (Murray).

CONTENTS.

PAGE

The Life and Work of Charles Pritchard	601
Water and its Purification. By Joseph Lunt	602
The Land of the Lamas. By P. K.	603
Our Book Shelf:—	
Hurdis: "Rough Notes and Memoranda relating to the Natural History of the Bermudas."—R. L.	604
Vogt: "Das Wesen der Electricität und des Magnetismus auf Grund eines einheitlichen Substanzbegriffes."—J. S. T.	604
Somerville: "Farm and Garder Insects"	605
Woolcott: "Geology of North-east Durham"	605
Letters to the Editor:—	
Rate of Racial Change that accompanies Different Degrees of Severity in Selection.—Francis Galton, F.R.S.	605
The Effect of Röntgen Rays on Liquid and Solid Insulators.—Prof. J. J. Thomson, F.R.S.	606
The Theory of Dissociation into Ions.—W. C. Dampier Whetham	606
Mosquito Bites.—W. F. Sinclair	607
The Natural History of Worms. (Illustrated.)	607
India-rubber and Gutta-percha, and their Sources. By John R. Jackson	610
The Resources and the Needs of Cambridge University	612
Notes	613
Our Astronomical Column:—	
Peculiar Stellar Spectra	616
The Planet Mercury	617
Nova Aurigæ	617
The Simplon Tunnel	617
On the Colour and Colour-Patterns of Moths and Butterflies. By A. R. W.	618
The Primate Brain. By Dr. W. B. Benham	619
Lecture-Room Demonstration of Orbits of Bodies under the Action of a Central Attraction. (Illustrated.) By R. W. Wood	620
University and Educational Intelligence	621
Societies and Academies. (Illustrated.)	621
Diary of Societies	624
Books, Pamphlets, and Serials Received	624