

appear to be due to the electrostatic capacity, and cause difficulty when tuning-forks are used in multiplex telegraphy.—Diffusion of solutions and molecular weights: Michel **Yégounow**.—The atomic weight and spark spectrum of terbium: G. **Urbain**. The atomic weight was determined by estimating the amount of water in the carefully purified sulphate $Tb_2(SO_4)_3 \cdot 8H_2O$, and was found to be 159.2. The spark spectrum of terbium is rich in lines, the wave-lengths of some thirty-seven of the most characteristic being given.—The estimation of cadmium in a volatile or organic salt: H. **Baubigny**. Cadmium sulphide precipitated in the presence of hydrochloric or hydrobromic acids obstinately retains some of the haloid salt, and this, on ignition, owing to the volatility of the chloride and bromide, gives rise to serious losses. The author proposes to convert the impure sulphide into sulphate, and weigh in this form with certain necessary precautions.—Distemper in dogs: H. **Carré**. Dogs which had been kept isolated from birth remained free from distemper, but were always sensitive to inoculation with the disease, whatever mode of inoculation was used. The blood of the animal, collected when the fever is at its height, is sterile, but communicates the disease.—The Tertiary strata at Turritelles and Congeries, Panama: E. **Joukowsky**.—The phenomena of slipping in Sicily: Maurice **Lugeon** and Émile **Argand**.

DIARY OF SOCIETIES.

THURSDAY, MAY 10.

ROYAL SOCIETY, at 4.30.—On Adsorption and Occlusion: the Law of Distribution in the Case in which one of the Phases possesses Rigidity: Prof. M. W. Travers, F.R.S.—Cyanogenesis in Plants, part iv., The Occurrence of Phaseolunatin in Common Flax (*Linum usitatissimum*), part v., The Occurrence of Phaseolunatin in Cassava (*Manihot Aipi* and *Manihot Utilissima*): Prof. W. R. Dunstan, F.R.S., Dr. T. A. Henry, and Dr. S. J. M. Auld.—A Variety of Thorianite from Galle, Ceylon: Prof. W. R. Dunstan, F.R.S., and B. Mouat Jones.—The Mechanism of Carbon Assimilation in Green Plants; the Photolytic Decomposition of Carbon Dioxide *in vitro*: F. L. Usher and J. H. Priestley.—The Action of Anaesthetics on Living Tissues, part ii., The Frog's Skin: Dr. N. H. Alcock.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Long Flame Arc Lamps: L. Andrews (Adjourned Discussion).

MATHEMATICAL SOCIETY, at 5.30.—On the Substitutional Theory of Classes and Relations: Hon. B. Russell.—On Linear Differential Equations of Rank Unity: E. Cunningham.—On the Motion of a Swarm of Particles whose Centre of Gravity describes an Elliptic Orbit of Small Eccentricity about the Sun: Dr. E. J. Routh.—The Theory of Integral Equations: H. Bateman.—Singularities of Power Series in Two Variables: G. H. Hardy.

FRIDAY, MAY 11.

ROYAL INSTITUTION, at 9.—Some Astronomical Consequences of the Pressure of Light: Prof. J. H. Poynting, F.R.S.

PHYSICAL SOCIETY, at 8.—The Dead Points of a Galvanometer Needle for Transient Currents: A. Russell.—Exhibition of Lippmann Capillary Dynamo and Electromotor: Prof. H. A. Wilson.—Exhibition of an Apparatus for demonstrating the Movements of the Diaphragms of Telephonic Transmitters and Receivers and the Current flowing into and out of the Cable during Speech: W. Duddell.

ROYAL ASTRONOMICAL SOCIETY, at 5.—Observations of *Uranus* at Windsor, New South Wales: John Tebbutt.—Observations of Comet *c* 1905: Natal Observatory.—Note on the Parallax and Proper Motion of the Central Star in the Annular Nebula in Lyra: B. L. Newkirk.—On the Ratios of the Triangles in the Determination of the Elliptic Orbit from Three Observations: S. Hirayama.—Some Considerations regarding the Number of the Stars: Miss W. Gibson.—On the Ancient Eclipses of the Sun: E. Nevill.—Elements of Five Long-Period Variable Stars: A. Stanley Williams.—On the Orbit and Mass of δ Pegasi: W. Bowyer and H. Furner.—Some Points arising out of a Discussion of the Double Stars in Struve's Mensuræ Micrometricæ: T. Lewis.—Exhibition of Stereoscopic Star Charts North of 20° N. Decl., and South, if near the Milky Way: T. E. Heath.

MALACOLOGICAL SOCIETY, at 8.—Notes on the Subgenus *Malluvium*: E. A. Smith, I.S.O.—Notes on some Species of the Genus *Mitra*, with the Description of *M. Brettinghami*, n.sp.: E. A. Smith, I.S.O.—On some Land- and Fresh-water Mollusca from Sumatra, part ii.: Rev. R. Ashington Bullen.—Notes on a Collection of Nudibranchs from the Cape Verde Islands: C. Crossland and Sir Charles Eliot, K.C.M.G.—Notes on Indian and Ceylonese Species of *Glossula*: Col. R. H. Beddome.

TUESDAY, MAY 15.

ROYAL INSTITUTION, at 5.—Glands and their Products: Prof. William Stirling.

UNIVERSITY OF LONDON, at 5.—The Atmospheric Circulation and its Relation to Weather: Dr. W. N. Shaw, F.R.S.

ZOOLOGICAL SOCIETY, at 8.30.

FARADAY SOCIETY, at 8.—The Electrolysis of Fused Zinc Chloride in Cells Heated Externally: Julius L. F. Vogel.—Sensitiveness of the Platinum Electrode: H. D. Law.

NO. 1906, VOL. 74]

WEDNESDAY, MAY 16.

SOCIETY OF ARTS, at 8.—The Development of Watermarking in Hand-made and Machine-made Paper: Clayton Beadle.

ROYAL MICROSCOPICAL SOCIETY, at 8.—Exhibition of Pond Life.

ROYAL METEOROLOGICAL SOCIETY, at 4.30.—An Instrument for Testing and Adjusting the Campbell-Stokes Sunshine Recorder: Dr. W. N. Shaw, F.R.S., and G. C. Simpson.—The Development and Progress of the Thunder Squall of February 8, 1906: R. G. K. Lempfert.

THURSDAY, MAY 17.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: Determinations of Wave-length from Spectra obtained at the Total Solar Eclipses of 1900, 1901 and 1905: Prof. F. W. Dyson, F.R.S.—Some Stars with Peculiar Spectra: Sir Norman Lockyer, K.C.B., F.R.S., and F. E. Baxandall.—An Apparent Periodicity in the Yield of Wheat for Eastern England, 1885–1905: Dr. W. N. Shaw, F.R.S.—Some Physical Constants of Ammonia, a Study of the Effect of Change of Temperature and Pressure on an Easily Condensable Gas: Dr. E. P. Perman and J. H. Davies.

CHEMICAL SOCIETY, at 8.30.—The Relation between Absorption Spectra and Chemical Constitution, part vi., The Phenyl Hydrazones of Simple Aldehydes and Ketones: E. C. C. Baly and W. B. Tuck.—Aromatic Compounds obtained from the Hydroaromatic Series, part ii., The Action of Phosphorus Pentachloride on Trimethyldihydroresorcin: A. W. Crossley and J. S. Hills.—Studies of Dynamic Isomerism, part v., Isomeric Sulphonic-derivatives of Camphor: T. M. Lowry and E. H. Magson.—Studies on Basic Carbonates, part i., Magnesium Carbonates: W. A. Davis.

ROYAL INSTITUTION, at 5.—The Influence of Ptolemaic Egypt on Græco-Roman Civilisation: Rev. J. P. Mahaffy.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Notes on Overhead Equipment of Tramways: R. N. Tweedy and H. Dudgeon.

FRIDAY, May 18.

ROYAL INSTITUTION, at 9.—International Science: Prof. A. Schuster F.R.S.

SATURDAY, MAY 19.

ROYAL INSTITUTION, at 3.—The Old and New Chemistry: Sir James Dewar, F.R.S.

CONTENTS.

PAGE

The Cell in Modern Biology. By Prof. J. B. Farmer, F.R.S.	25
Appreciations of Haeckel	26
Practical Geography By Geo. G. Chisholm	27
Folklore and Medicine of the Zulu-Kafir. By Sir H. H. Johnston, K.C.M.G.	28
Our Book Shelf:—	
“Sociological Papers.”—F. W. H.	29
Watson: “The Heart of a Garden”	29
Flatters: “Methods in Microscopical Research—Vegetable Histology.”—Prof. R. T. Hewlett	29
Letters to the Editor:—	
The San Francisco Earthquake of April 18.—Dr. T. J. See	30
Interpretation of Meteorological Records.—Dr. John Aitken, F.R.S.	30
Recent Publications of the Bureau of American Ethnology. (<i>Illustrated</i> .) By Dr. A. C. Haddon, F.R.S.	30
The Education and Training of the Engineer. By A. T. S.	33
Balloons and Kites in the Service of Meteorology. By W. H. Dines, F.R.S.	35
The Bicentenary Celebration of the Birth of Benjamin Franklin. By Sir G. H. Darwin, K.C.B., F.R.S.	36
Notes	37
Our Astronomical Column:—	
The Expected Return of Holmes's Comet	41
The Luminosity of the Brighter Stars	41
The Variable Radial Velocity of ϵ Aurigæ	41
Early Observations of Eros	42
Observations of Satellites in 1904 and 1905	42
New Variable Stars in Orion	42
Recent Advances in Seismology. (<i>Illustrated</i> .) By Prof. John Milne, F.R.S.	42
German Congress of Experimental Psychology. By Dr. C. Spearman	45
The Milan International Exhibition	46
University and Educational Intelligence	46
Societies and Academies	47
Diary of Societies	48