

netic chart of the British Isles: B. **Baillaud** and E. **Mathias**.—Observations of the sun made at the Observatory of Lyons with the 16 cm. Brunner equatorial during the fourth quarter of 1905: J. **Guillaume**. Observations were possible on thirty-three days during the quarter. The results are given in three tables showing the number of spots, the distribution of the spots in latitude, and the distribution of the faculae in latitude.—The deformation of quadrics: Luigi **Bianchi**.—The singularities of solutions to some partial differential equations of the elliptic type: Serge **Bernstein**.—The measurement of the loss of phase by reflection: A. **Perot**.—The phenomena of phosphorescence: A. **Debierre**.—Contribution to the study of selenious anhydride: Echsner **de Coninck**.—The iodomercurates of calcium and strontium: A. **Duboin**. Crystallised compounds were isolated possessing the composition $\text{CaI}_2 \cdot \text{HgI}_2 \cdot 8\text{H}_2\text{O}$ for the calcium salt, and $\text{SrI}_2 \cdot 5\text{HgI}_2 \cdot 8\text{H}_2\text{O}$ for the corresponding strontium salt.—The nature of the decomposition of an aqueous solution of copper sulphate by some alloys of aluminium: H. **Pecheux**. In a previous note these reactions have been studied from the qualitative side. The present paper is concerned with the quantitative aspect of the same reactions.—The estimation of cadmium: H. **Baubigny**.—The thermochemistry of the hydrazones and the osazones: Ph. **Landrieu**.—The condensation of benzidine-aniline, diphenyl-bidiazaminobenzene, and diphenyl-disazoaminobenzene: Léo **Vignon**.—An antimony tartrate: J. **Bougault**. It is shown that the use of alcohol in the preparation of antimony tartrate leads to an impure product; similar objections do not apply to acetone.—The chemical study of the seeds known as Java peas: Emile **Kohn-Abrest**. Determinations of the amounts of hydrocyanic acid produced by various modes of treating the seeds.—The chemical characters of the wines arising from vines attacked by mildew: E. **Manceau**.—The evolution of the *Eccrina* of *Glomeris*: L. **Léger** and O. **Duboscq**.—A natural mollusc-bearing layer in the Macta, Algeria, and the effect of the nature of the flow of this river on the growth of the molluscs: J. **Bounhiol**.—The ferments of the placenta: MM. **Charrin** and **Goupil**.—The duration of persistence of the activity of the isolated heart: M. **Lambert**.—The influence of old age on the arterial pressure: A. **Moutier**.—A Miocene volcanic chain on the eastern border of the Limagne: Ph. **Glangeaud**.—The discovery of two Cretaceous horizons in Morocco: W. **Kilian** and L. **Gentil**.—The grand cañon of Verdon, its age and formation: E. A. **Martel**.

DIARY OF SOCIETIES.

THURSDAY, MARCH 15.

ROYAL SOCIETY, at 4.30.—A Discussion of Atmospheric Electric Potential Results at Kew from Selected Days during the Seven Years 1898 to 1904: Dr. C. Chree, F.R.S.—On the Specific Heat of, Heat Flow from, and other Phenomena of the Working Fluid in the Cylinder of the Internal Combustion Engine: Dugald Clerk.

CHEMICAL SOCIETY, at 8.30.—The Interaction of well dried Mixtures of Hydrocarbons and Oxygen: W. A. Bone and G. W. Andrew.—The Explosive Combustion of Hydrocarbons: W. A. Bone and J. Drugman.—The Occurrence of Marsh Gas amongst the Decomposition Products of Certain Nitrogenous Bases as a Source of Error in the Determination of Nitrogen by the Absolute Method: P. Haas.—Studies on Comparative Cryoscopy. Part IV. The Hydrocarbons and their Halogen Derivatives in Phenol Solution: P. W. Robertson.—The Displacement of Acid Radicles. I. Displacement of the Chloride and Nitrate Radicles: A. F. Joseph.

ROYAL INSTITUTION, at 5.—The Physiology of Plants: Francis Darwin, For. Sec. R.S.

LINNEAN SOCIETY, at 8.—Discussion on the Origin of Gymnosperms: Opened by Prof. F. W. Oliver, F.R.S.

SOCIETY OF ARTS, at 4.30.—The Languages of India and the Linguistic Survey: Dr. George A. Grierson.

INSTITUTION OF MINING AND METALLURGY, at 8.—A Record of an Investigation of Earth Temperatures on the Witwatersrand Gold Fields, and their Relation to Deep Level Mining in the Locality: H. F. Marriott.—Note on the Ammonia-Copper-Cyanide Process: E. Le Gay Brereton.—The Cyanide Treatment of Cuprififerous Tailings by the Sulphuric Acid Process: W. S. Brown.

FRIDAY, MARCH 16.

ROYAL INSTITUTION, at 9.—How to Improve Telephony: W. Duddell.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Continued Discussion: Large Locomotive Boilers. G. J. Churchward.—Probable Paper: Petroleum Fuel in Locomotives on the Tehuantepec National Railroad of Mexico: L. Greaven.

EPIDEMIOLOGICAL SOCIETY, at 8.30.—Evolution in Relation to Disease: Dr. J. T. C. Nash.

NO. 1898, VOL. 73]

SATURDAY, MARCH 17.
ROYAL INSTITUTION, at 3.—The Corpuscular Theory of Matter: Prof. J. J. Thomson, F.R.S.

MONDAY, MARCH 19.
SOCIETY OF ARTS, at 8.—Fire, Fire Risks, and Fire Extinction: Prof. Vivian B. Lewes.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—The Economic Geography of Australia: Prof. J. W. Gregory, F.R.S.

VICTORIA INSTITUTE, at 4.30.—The Early Celtic Church of Britain and Ireland: Eleanor H. Hull.

TUESDAY, MARCH 20.
ROYAL INSTITUTION, at 5.—The Influence of Geology on Scenery: Dr. J. E. Marr, F.R.S.

ZOOLOGICAL SOCIETY, at 8.30.
ROYAL HORTICULTURAL SOCIETY, Scientific Committee, at 4.—Mendelian Laws of Inheritance: Charles C. Hurst.

INSTITUTION OF CIVIL ENGINEERS, at 8.—The Outer Barrier, Hodbarrow Iron Mines, Millom, Cumberland: H. Shelford Bidwell.

MINERALOGICAL SOCIETY.—On the Occurrence of Linarite and Caledonite in Co. Wicklow: Arthur Russell.

WEDNESDAY, MARCH 21.
SOCIETY OF ARTS, at 8.—Motor Boats: Bernard B. Redwood.

GEOLOGICAL SOCIETY, at 8.—The Chalk and Drift in Møen: Rev. Edwin Hill.—On the Relations of the Chalk and Boulder-clay near Royston (Hertfordshire): Prof. T. G. Bonney, F.R.S.—Brachiopod Homöomorphy: Pygope, Antinomia, Pygites: S. S. Buckman.

ENTOMOLOGICAL SOCIETY, at 8.
ROYAL MICROSCOPICAL SOCIETY, at 8.—A Contribution to our Knowledge of the Rotifera of South Africa: C. F. Rousselet.—On the Resolving Limits for the Telescope and the Microscope: E. M. Nelson.

ROYAL METEOROLOGICAL SOCIETY, at 7.30.—South Africa as seen by a Meteorologist: Dr. H. R. Mill.

THURSDAY, MARCH 22.
ROYAL SOCIETY, at 4.30.—Bakerian Lecture: Recent Advances in Seismology: Prof. J. Milne, F.R.S.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Electrical Equipment of the Aberdare Collieries of the Powell Duffryn Co.: C. P. Sparks.—Electric Winding considered Practically and Commercially: W. C. Mountain.

ROYAL INSTITUTION, at 5.—Internal Combustion Engines: Prof. B. Hopkinson.

FRIDAY, MARCH 23.
ROYAL INSTITUTION, at 9.—Imperial Defence: Lord Roberts.

PHYSICAL SOCIETY (University College), at 5.—On Unilateral Electric Conductivity over Damp Surfaces: Prof. F. T. Trouton, F.R.S.—The Construction and Use of Oscillation Valves for Rectifying High Frequency Electric Currents: Prof. J. A. Fleming, F.R.S.—On the Use of the Cymometer for the Determination of Resonance Curves: G. B. Dyke.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Waves: F. K. Stevens.

SATURDAY, MARCH 24.
ROYAL INSTITUTION, at 3.—The Corpuscular Theory of Matter: Prof. J. J. Thomson, F.R.S.

CONTENTS.

	PAGE
Text-Books on Plain and Reinforced Concrete Work	457
Chemistry for Schools. By W. R. H.	459
Certain Modern Views on Pathology. By Prof. Wm. St. C. Symmers	460
Our Book Shelf:—	
Rohr: "Die optischen Instrumente"	461
Hart: "Second Year Chemistry, a Handbook for Laboratory and Class Work."—A. S.	461
Varigny: "La Nature et la Vie"	462
Letters to the Editor:—	
A Plea for Absolute Motion.—Prof. Arthur Schuster, F.R.S.	462
The Diffusion of Solids.—John H. Howell	464
Earth Tremors in India.—Prof. W. Galloway	464
Peculiar Ice Formation.—James Foulds	464
Cooperation between Scientific Libraries.—Prof. Grenville A. J. Cole	464
Sounding Stones.—O. F. Wheeler Cuffe	464
An Inquiry for Books.—G. Hammam	464
A New County Bird-Book. (Illustrated.) By O. V. Aplin	465
The Adulteration of Butter. By C. Simmonds	466
A Remarkable Discovery in Egypt	468
Notes. (With Diagram.)	468
Our Astronomical Column:—	
Comet 1905c	473
Comet 1906b	474
Remarkable Variation in the Spectrum of ζ Bootis	474
A Brilliant Fireball	474
Observations of Phœbe during 1905	474
The Leeds Astronomical Society	474
New Magazines of Biological Chemistry	474
Forestry in the United States. (Illustrated.)	475
Forthcoming Books of Science	476
University and Educational Intelligence	478
Societies and Academies	479
Diary of Societies	480