

iron boats containing lithium, and collect argon over mercury at the exit end of the apparatus.—On the spectra of selenium and some natural selenides, by M. A. de Gramont. The minerals examined are: Berzélium  $Cu_2Se$ , Zorgite ( $PbCu_2$ ) Se, Clausthalite  $PbSe$ , Eucairite  $Cu_2Se$ ,  $Ag_2Se$ , Guanajuatite or Frenzelite  $Bi_2Se_3$ .—On the estimation of thiophene in benzene, by M. G. Denigès. Two methods are given, both depending on the use of the mercury reagent previously described. In aqueous solution the reagent precipitates the compound  $(SO_4)_2Hg(OH)_2 \cdot C_4H_4S$  when heated with the impure benzene in a closed flask at  $100^\circ$  for about fifteen minutes with frequent shaking. In methyl alcohol solution the precipitate  $SO_4(HgO)_2 \cdot Hg \cdot C_4H_4S$  is produced; in this case the benzene is miscible with the reagent, and hence the reaction is much facilitated.—On the action of potassium permanganate on various organic substances, by M. E. Maumené.—On the calcium phosphate of milk, by M. L. Vaudin. The conclusions are drawn that: (1) Milk contains citric acid as alkaline citrate, which aids in keeping its calcium phosphate in solution. (2) This solution occurs owing to the effect of lactose in preventing the precipitation of calcium citrate from solution. (3) Every influence modifying or destroying the molecular equilibrium of the salts dissolved in milk, tends to precipitate tricalcium phosphate together with calcium citrate.—The sandstone of Taveyannaz and its relationships with the "fysch," by MM. L. Duparc and E. Ritter.—On the calcium carbonate of lake-waters, by M. André Delebecque.—On the connection of latitudinal displacements of lines of barometric maxima with the movements in declination of the moon, by M. A. Poincaré. The mean atmospheric conditions are powerfully and regularly influenced by the moon at each tropical revolution, and at each revolution of the node.

## DIARY OF SOCIETIES.

LONDON.

THURSDAY, APRIL 18.

LINNEAN SOCIETY, at 8.—Observations on the Lorantheæ of Ceylon; F. W. Keeble.

FRIDAY, APRIL 19.

QUEKETT MICROSCOPIC CLUB, at 8.  
MALACOLOGICAL SOCIETY, at 8.

SATURDAY, APRIL 20.

GEOLOGISTS' ASSOCIATION (Cannon Street Station, at 2.30.—Excursion to Charlton. Director: T. V. Holmes.

MONDAY, APRIL 22.

MEDICAL SOCIETY, at 8.30.

TUESDAY, APRIL 23.

ROYAL INSTITUTION, at 9.—Alternating and Interrupted Electric Currents: Prof. G. Forbes, F.R.S.  
INSTITUTION OF CIVIL ENGINEERS, at 8.  
ROYAL HORTICULTURAL SOCIETY, at 1.—Conference on Primulas.  
ROYAL STATISTICAL SOCIETY (Royal United Service Institution), at 5.—Progress of Friendly Societies and similar Institutions during the Ten Years 1884-94: E. W. Brabrook.—Some Illustrations of Friendly Society Finance: Rev. J. Frome Wilkinson.  
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, at 8.30.  
ROYAL PHOTOGRAPHIC SOCIETY, at 8.  
SOCIETY OF ANTIQUARIES, at 2.

WEDNESDAY, APRIL 24.

INSTITUTION OF MECHANICAL ENGINEERS (Royal United Service Institution), at 7.30.—Discussion of the Governing of Steam-Engines by Throttling and by Variable Expansion: Captain H. K. Sankey.—Third Report to the Alloys Research Committee: Prof. W. C. Roberts-Austen, C.B., F.R.S.

GEOLOGICAL SOCIETY, at 8.—On the Shingle Beds of Eastern East Anglia: Sir Henry H. Howorth, M.P., F.R.S.—An Experiment to illustrate the Mode of Flow of a Viscous Fluid: Prof. W. J. Sollas, F.R.S.—Supplementary Notes on the Systematic Position of the Trilobites: H. M. Bernard.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.

SOCIETY OF ARTS, at 8.

THURSDAY, APRIL 25.

ROYAL SOCIETY, at 4.30.

ROYAL INSTITUTION, at 3.—The Liquefaction of Gases: Prof. J. Dewar, F.R.S.

CAMERA CLUB, at 8.15.—Photo-etching Printing: Leon Warnerke.

NUMISMATIC SOCIETY, at 7.

CHEMICAL SOCIETY, at 8.—The Action of Nitrosyl Chloride on Amides: Prof. Tilden, F.R.S., and Dr. M. O. Forster.—The Action of Nitrosyl Chloride on Asparagine and Aspartic Acid: Lævo-rotatory Chlorosuccinic Acid: Prof. Tilden, F.R.S., and H. J. Marshall.—On a Property of the Non-luminous Atmospheric Coal Gas Flame: L. T. Wright.—A Constituent of Persian Berries: A. G. Perkin and J. Geldard.—Potassium Nitrosulphate: E. Divers, F.R.S., and T. Haqa.—Diortho-substituted Benzoic Acids: Dr. J. J. Sudborough.—Hydrolysis of Aromatic Nitriles and Acid-amides: Dr. J. J. Sudborough.—Action of Sodium Ethylate on D-oxybenzoin: Dr. J. J. Sudborough.

INSTITUTION OF ELECTRICAL ENGINEERS (the Society of Arts), at 8.—A Magnetic Tester for Measuring Hysteresis in Sheet Iron: Prof. J. A. Ewing, F.R.S.

FRIDAY, APRIL 26.

ROYAL INSTITUTION, at 9.—The Effects of Electric Currents in Iron on its Magnetisation: Dr. John Hopkinson, F.R.S.

PHYSICAL SOCIETY, at 5.—A Theory of the Synchronous Motor: W. G. Rhodwell.—Note on a Simple Graphic Interpretation of the Determinantal Relation of Dynamics: G. H. Bryan.

CLINICAL SOCIETY, at 8.30.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Brine Pumping: Bernard Godfrey.

INSTITUTION OF MECHANICAL ENGINEERS (Royal United Service Institution), at 7.30.

EPIDEMIOLOGICAL SOCIETY, at 8.—Immunity: Dr. Washbourn.

SATURDAY, APRIL 27.

ROYAL INSTITUTION, at 3.—English Music and Musical Instruments of the Sixteenth, Seventeenth, and Eighteenth Centuries: Arnold Dolmetsch.

GEOLOGISTS' ASSOCIATION (St. Pancras Station), at 9 a.m.—Excursion to Brigstock, Geddington, &c. Directors: B. Thompson and W. D. Crick.

ROYAL BOTANIC SOCIETY, at 3.45.

## BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—Field-Path Rambles: W. Miles, series 8 (Taylor).—Alembic Club Reprints—No. 11: Essays of Jean Rey (Edinburgh, Clay).—Results of Rain, River, and Evaporation Observations made in New South Wales during 1893: H. C. Russell (Sydney, Potter).—Progressive Revelation: E. M. Caillard (Murray).—The Schott Methods of the Treatment of Chronic Diseases of the Heart: Dr. W. B. Thorne (Churchill).—Wayside and Woodland Blossoms: E. Step (Warne).—Economic Classics: T. R. Malthus (Macmillan).—Problems and Solutions in Elementary Electricity and Magnetism: W. Slingo and A. Brooker (Longmans).—Lepidoptera of the British Isles: C. G. Barrett, Vol. 2 (L. Reeve).—Hydraulic Motors: G. R. Bodmer, 2nd edition (Whittaker).—Queen's College, Galway, Calendar for 1894-95 (Dublin, Ponsonby).—Stephen's Catechism of Practical Agriculture, new edition (Blackwood).—A Handbook to the Carnivora. Part 1: Cats, Civets, and Mongooses: R. Lydekker (Allen).—Science Readers: V. T. Murché, Books 1, 2, 3 (Macmillan).

PAMPHLETS.—Bacteriological Test of the Purity of Water: E. H. Hankin (Agra).—The Early Relations between Maryland and Virginia: J. H. Latané (Baltimore).—Report of the Rugby School Natural History Society, 1894 (Rugby).—Report of the Manchester Museum, Owens College, 1894 (Manchester).

SERIALS.—Engineering Magazine, April (Tucker).—Journal of the Royal Statistical Society, March (Stanford).—Journal of the Chemical Society, April (Gurney).—Journal of the Federated Institutes of Brewing, Nos. 1 and 2 (Harrison).—American Journal of Science, April (New Haven).—Journal of the Sanitary Institute, April (Stanford).—Science Progress, April (Scientific Press, Ltd.).—Buletins de la Société d'Anthropologie de Paris, No. 9, 1894 (Paris, Masson).—Astrophysical Journal, April (Chicago).

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