

distillation of one hundred grams of the barium salt.—Solubility of ecgonine, by M. Echsner de Coninck. The solubility of ecgonine is given for twenty-five organic solvents.—Comparative study of the changes in the respiratory quotients of fruits during ripening, by M. C. Gerber.—On the denaturation of alcohol, by M. Ernest Barillot. It is shown that the method of Dr. Lang employed in Switzerland for the denaturation of alcohol is of little use, since a simple treatment with a bisulphite, followed by a fractional distillation, is sufficient to recover 70 per cent. of the alcohol in a pure state.—On the embryonic shell of the Lamellibranchs, by M. Félix Bernard.—Disease of the branches of the mulberry in Turkey, by MM. Prillieux and Delacroix. The disease is caused by the attack of a parasite, *Sclerotinia libertiana*.—The subterranean hydrography of the Devouly, by M. E. A. Martel.—Trophic troubles following the section of the posterior medullary roots, by M. J. P. Morat.—Influence of the stretching weight upon the heat disengaged by muscle during contraction, by Mlle. M. Pompilian.—On the antiquity of tattooing as a mode of treatment, by M. Fouquet.—Medico-legal appreciation of traumatic lesions and determination of individual identity by the X-rays, by M. Foveau de Courmelles.—On the three French balloon ascents and the third international experiment, by MM. Hermite and Besancon.—On the formation of acetic acid in a gas battery, by M. Gaudet.—On a means of stopping a leak from the outside of a ship, by M. Bural.

DIARY OF SOCIETIES.

THURSDAY, JUNE 3.

ROYAL SOCIETY, at 4.—Election of Fellows.—At 4.30.—The Sensitiveness of the Retina to Light and Colour: Captain Abney, F.R.S.—On the Mechanism by which the First Sound of the Heart is produced: Sir R. Quain, F.R.S.—Mathematical Contributions to the Theory of Evolution. On the Relative Variation and Correlation in Civilised and Uncivilised Races: Miss Alice Lee and Prof. K. Pearson, F.R.S.—An Investigation on the Variability of the Human Skeleton, with special reference to the Naquada Race, discovered by Prof. Flinders Petrie in his Explorations in Egypt: E. Warren.—On the Brains of Two Sub-Fossil Malagasy Lemuroids: C. I. Forsyth Major.—(1) On the Dielectric Constants of certain Frozen Electrolytes, at and above the Temperature of Liquid Air; (2) On the Dielectric Constants of Pure Ice, Glycerine, Nitrobenzol, and Ethylene Dibromide, at and above the Temperature of Liquid Air: Prof. Fleming, F.R.S., and Prof. Dewar, F.R.S.—Preliminary Communication on the Nature of the Contagium of Rinderpest: A. Edington.
 LINNEAN SOCIETY, at 8.—Observations on Termites: Dr. G. D. Haviland.—On the Genus *Ramulina*: Prof. T. Rupert Jones, F.R.S., and F. Chapman.
 CHEMICAL SOCIETY, at 8.—On the Thermo-chemistry of Carbohydrate Hydrolysis; On the Thermal Phenomena attending the Change in Rotatory Power of Freshly-prepared Solution of certain Carbohydrates, with some Remarks on the Cause of Multitrotation: Horace J. Brown, F.R.S., and Spencer Pickering, F.R.S.—Optical Inversion of Camphor; Derivatives of Camphoric Acid. Part II. Optically Inactive Derivatives; Racemism and Pseudo-racemism: Dr. F. S. Kipping and W. J. Pope.—On some New Gold Salts of the Solanaceous Alkaloids: Dr. H. A. D. Jowett.

FRIDAY, JUNE 4.

ROYAL INSTITUTION, at 9.—Signalling through Space without Wires: W. H. Preece, C.B., F.R.S.
 GEOLOGISTS' ASSOCIATION, at 8.—The Origin of the High-Level Gravel with Triassic Débris adjoining the Valley of the Upper Thames: H. J. Osborne White.

SATURDAY, JUNE 5.

GEOLOGISTS' ASSOCIATION—Excursion to Cheltenham and Stroud. Leave Paddington at 10.32 a.m.

TUESDAY, JUNE 8.

ROYAL INSTITUTION, at 3.—The Heart and its Work: Dr. E. H. Starling.
 ANTHROPOLOGICAL INSTITUTE, at 8.30.—Newly-discovered Stone Implements from Somaliland, and from the Lost Flint Mines of Egypt: H. W. Seton-Karr.—Anthropology in Brittany: Dr. Topinard.—Physical Anthropology of the Isle of Man: A. W. Moore and Dr. John Beddoe, F.R.S.—*Probable Papers*: The Walloongurra Ceremony: R. H. Mathews.—Prehistoric Diamond Fields: W. H. Penning.—The Capping Ceremony in Korea: Dr. E. B. Landis.
 ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Photographic Surveys: C. J. Fowler.

WEDNESDAY, JUNE 9.

GEOLOGICAL SOCIETY, at 8.

THURSDAY, JUNE 10.

MATHEMATICAL SOCIETY, at 8.—Models of the Regular Convex and Star Solids: W. W. Taylor.—The Calculus of Equivalent Statements (Sixth Paper): H. MacColl.

FRIDAY, JUNE 11.

ROYAL INSTITUTION, at 9.—Diamonds: W. Crookes, F.R.S.
 ROYAL ASTRONOMICAL SOCIETY, at 8.
 PHYSICAL SOCIETY, at 5.—The Effect of Sea-water on Induction Telegraphy: C. S. Whitehead.—A New Definition of Focal Length, and an Instrument for its Determination: Thomas H. Blakesley.—On the De-

composition of Silver Salts under Pressure: Dr. J. E. Myers and Dr. F. Braun.—On a New Way of determining Hysteresis in Straight Strips: Dr. Fleming, F.R.S.
 MALACOLOGICAL SOCIETY, at 8.

SATURDAY, JUNE 12.

ROYAL BOTANIC SOCIETY, at 4.
 LONDON GEOLOGICAL FIELD CLASS.—Excursion—Coulston to Mersham. Lower Chalk. Leave Cannon Street, 2.17; arrive Coulston, 2.59.

BOOKS, PAMPHLETS, and SERIALS RECEIVED

BOOKS.—The Induction Coil in Practical Work: Lewis Wright (Macmillan).—Report on the Working and Results of the Woburn Experimental Fruit Farm since its Establishment: the Duke of Bedford and S. U. Pickering (Eyre).—An Essay on the Foundations of Geometry: B. A. W. Russell (Cambridge University Press).—Hypnotism and its Application to Practical Medicine: Dr. O. G. Wetterstrand, translated by Dr. H. G. Petersen (Putnam).—Abel's Theorem and the Allied Theory, including the Theory of the Theta Functions: H. F. Baker (Cambridge University Press).—A Manual of Botany: Prof. J. R. Green, Vol. 1, new edition (Churchill).—Illustrative Cloud Forms: Captain C. D. Sigsbee (Washington).—Among British Birds in their Nesting Haunts: O. A. J. Lee, Part 4 (Edinburgh, Douglas).—Lessons in Elementary Practical Physics. Vol. 3, Part 1, Practical Acoustics: C. L. Barnes (Macmillan).—Einführung in der Theorie der Analytischen Functionen einer Complexen Veränderlichen: Prof. H. Burkhardt (Leipzig, Veit).—Africa, Antropologia della Stirpe Camitica: G. Sergi (Torino, F. Bocca).—Twelve Charts of the Tidal Streams near the Channel Islands and neighbouring French Coast: F. H. Collins (Potter).—Cours Supérieur de Manipulations de Physique: Prof. A. Witz, deux édition (Paris, Gauthier-Villars).—Guide to the Genera and Classification of the North American Orthoptera found North of Mexico: S. H. Scudder (Cambridge, Mass., Wheeler).—Telepathy and the Subliminal Self: Dr. R. O. Mason (K. Paul).—Electric Movement in Air and Water, with Theoretical Inferences: Lord Armstrong (Smith, Elder).—The Outlines of Physics: Prof. E. L. Nichols (Macmillan).—Formation de la Nation Française: Prof. G. de Mortillet (Paris, Alcan).

PAMPHLETS.—Längenänderung und Magnetisierung von Eisen und Stahl: G. Klingenberg (Berlin, Simion).—Über den Gebrauch der von Prof. E. v. Federow, herausgegeben Stereographischen Netze (Leipzig, Engelmann).—Homogene Structures: Barlow (Leipzig, Engelmann).

SERIALS.—Botanische Jahrbücher, &c., Vierundzwanzigster Band, 1 Heft (Leipzig, Engelmann).—Proceedings of the Royal Society, Edinburgh, Session 1896-97, Vol. xxi. No. 4, pp. 249-312 (Edinburgh).—Humanitarian, June (Hutchinson).—Natural Science, June (Page).—Chambers's Journal, June (Chambers).—Contemporary Review, June (Isbister).—National Review, June (Arnold).—Century Magazine, June (Macmillan).—Astrophysical Journal, May (Chicago).—Notes from the Leyden Museum, Vol. xviii. Nos. 2, 3, 4 (Leyden).—Scribner's Magazine, June (S. Low).

CONTENTS.

PAGE

Rock-Weathering	97
Mechanism and Biology	98
The Examination of the Blood in Disease	100
Our Book Shelf:—	
Bailey: "The Forcing-Book: a Manual of the Cultiva-	
tion of Vegetables in Glasshouses"	101
Stewart: "The Birds of Our Country"	101
Curzon: "The Pamirs and the Source of the Oxus"	101
"The Journal of the Essex Technical Laboratories"	101
Letters to the Editor:—	
Effect of Change in Temperature on Phosphorescent	
Substances. (With Diagram.)—Ralph Cusack	102
Sinistral Screws.—W. F. Sinclair	102
Luminous Phenomena observed on Mountains.—	
Arthur P. Jenkin	102
The Designation of Wave-Clouds.—A. H. S. Lucas	102
The Bakerian Lecture.—On the Mechanical Equiva-	
lent of Heat. By Prof. Osborne Reynolds, F.R.S.,	
and W. H. Moorthy	102
The International Geological Congress in Russia.	
By H. B. W.	104
The New Laboratories at Guy's Hospital	105
Notes	106
Our Astronomical Column:—	
The Rotation Period of Jupiter's Satellite III.	109
Automatic Photography of the Corona	109
The Gegenschein or Zodiacal Counterglow	109
Periodic Variations of Rainfall in India. By J. E.	110
The Institution of Civil Engineers	115
The Population of Russia	117
University and Educational Intelligence	117
Societies and Academies	118
Diary of Societies	120
Books, Pamphlets, and Serials Received	120