

soluble in organic solvents. The corresponding amide crystallises in white, silky needles melting at 115°.—Fluorine in mineral waters, by M. Charles Lepierre. It is maintained, in opposition to M. Parmentier, that minute traces of fluorides have been detected in many natural waters, and that considerable quantities—equivalent to 10 or 12 milligrammes of fluorine per litre—are present in the mineral water of Gerez (North Portugal), which is much esteemed for its efficacy in diseases of the liver.—On the genesis of the iron ores of Lorraine, by M. P. Villain. Arguments are brought forward in support of the theory that the oolitic ore of Lorraine is a littoral deposit, the mineralisation of which has been effected by the action of hot springs in the bed of an ancient sea.—On a parasitic fungus in cancerous affections, by M. J. Chevalier. The author has succeeded in isolating what appears to be a specific fungus from cancerous tumours, from the blood of patients, and from the air of hospitals. A temperature of from 28° to 35° is most favourable to its growth, but it is highly resistant, the spores not being destroyed by ten minutes' heating at 100°. The parasite exists in the form of conidia, a mycelium, or spherules, according to the stage of development and the medium employed. Its specific character is confirmed by the results of inoculation experiments, but further study will be required before the causal connection between the parasite and cancerous affections is definitely established.

Theta Differential Equations and Expansions: Rev. M. M. U. Wilkin-son.—Finite Current Sheets: J. H. Jeans.—On a Congruence Theorem having reference to an Extensive Class of Coefficients; and on a Set of Coefficients analogous to the Eulerian Numbers: Dr. Glaisher, F.R.S.

FRIDAY, JUNE 9.

ROYAL ASTRONOMICAL SOCIETY at 8.  
MALACOLOGICAL SOCIETY, at 8.

BOOKS, PAMPHLET, and SERIALS RECEIVED.

BOOKS.—Handbuch der Anatomie und Vergleichenden Anatomie des Centralnervensystems der Säugetiere: Drs. E. Flatau and L. Jacobsohn, I. (Berlin, Karger).—Annales de l'Observatoire National: d'Athènes, Tome 1 (Athènes).—The Use of Lead Compounds in Pottery: W. Burton (Simpkin).—Catalogue of the Library of the Royal Botanic Gardens, Kew (London).—The Psychology of Reasoning: Dr. A. Binet (K. Paul).—An Introduction to the Study of Materia Medica: Prof. H. G. Greenish (Churchill).—La Crime, Causes et Remèdes: C. Lombroso (Paris, Schleicher).—The Coccidæ of Ceylon: E. E. Green, 2 Parts (Dulau).—The Geography of Mammals: W. L. Sclater and Dr. P. L. Sclater (K. Paul).—Animals in Motion: E. Muybridge (Chapman).—Antiquities from the City of Benin, &c., in the British Museum: C. H. Read and O. M. Dalton (London).

PAMPHLET.—Geology of the Country around Carlisle: T. V. Holmes (London).

SERIALS.—Quarterly Journal of Microscopical Science, May (Churchill). Papers read before the Engineering Society of the School of Practical Science, Toronto, No. 12, 1898-99 (Toronto).—Agricultural Gazette of New South Wales, April (Sydney).—American Geologist, May (Ginn).—Records of the Australian Museum, Vol. 3, No. 5 (Sydney).—Proceedings of the Royal Physical Society, Session 1897-98 (Edinburgh).—Himmel und Erde, May (Berlin).—Memoirs of the Geological Survey of India, Vol. 28, Part 1 (Calcutta).—Journal of Applied Microscopy, April (Rochester, N.Y.).—North American Fauna, No. 14 (Washington).—Science Gossip, June (Strand).—English Illustrated Magazine, June (Strand).—Chambers's Journal, June (Chambers).—Bulletin of the American Mathematical Society, May (New York).—Good Words, June (Isbister).—Sunday Magazine, June (Isbister).

DIARY OF SOCIETIES.

THURSDAY, JUNE 1.

ROYAL SOCIETY, at 4.—Election of Fellows. — At 4.30.—The Parent-Rock of the Diamond in South Africa: Prof. T. G. Bonney, F.R.S.—Experimental Contributions to the Theory of Heredity. A. Telegony.—I. Introductory: Prof. J. C. Ewart, F.R.S.

ROYAL INSTITUTION, at 3.—Water Weeds: Prof. L. C. Miall, F.R.S.

LINNEAN SOCIETY, at 8.—On the High Level Plants of the Andes as illustrated by the Collections of Sir W. Martin Conway, Mr. Edward Whymper, and others: W. Botting Hemsley, F.R.S.—On some Australasian Collembola: Sir John Lubbock, Bart., F.R.S.

SOCIETY OF ARTS, at 4.30.—The Port of Calcutta: Sir Charles Cecil Stevens, K.C.S.I.

CHEMICAL SOCIETY, at 8.—The Hydrosulphides, Sulphides, and Poly-sulphides of Potassium and Sodium: W. Poppewell Bloxam.—On the Relative Efficiency of various Forms of Still-head for Fractional Distillation: Dr. Sydney Young, F.R.S.—The Salts of Dimethylpyrone, and the Tetravalence of Oxygen: Dr. J. N. Collie, F.R.S., and Thomas Tickle.

FRIDAY, JUNE 2.

GEOLOGISTS' ASSOCIATION, at 8.—The Pleistocene Deposits of the Ilford and Wanstead District: Martin A. C. Hinton.—The Pleistocene Mollusca of Ilford: A. S. Kennard and B. B. Woodward.—The Raised Beach and Rubble Drift at Aldrington, between Hove and Portslade-by-Sea, Sussex, with Notes on the Microzoa: Frederick Chapman.

SATURDAY, JUNE 3.

GEOLOGISTS' ASSOCIATION.—Excursion to Reigate. Directors: Miss M. C. Crosfield and Rev. Ashington Bullen.

MONDAY, JUNE 5.

ROYAL GEOGRAPHICAL SOCIETY, at 3.—Anniversary Meeting.

SOCIETY OF CHEMICAL INDUSTRY, at 8.—A New Method for the Analysis of Commercial Phenols: Dr. S. B. Schryver.—A Demonstration of Printing by Electricity without the aid of Rollers or Ink: Dr. S. Rideal.—Notes on Cacao Butter: Dr. J. Lewkowitzsch.—The Use of Iron as the Active Element in Primary Batteries and for Electrolysing: Colonel J. Waterhouse.

TUESDAY, JUNE 6.

ZOOLOGICAL SOCIETY, at 8.30.—An Account of a Collection of Fishes made by Mr. R. B. N. Walker on the Gold Coast: Dr. A. Günther, F.R.S.—On a Specimen of *Cervus belgrandi*, Lart. (*C. verticornis*, Dawk.) from the Forest-Bed of East Anglia: Dr. S. F. Harmer, F.R.S.—On a Few Points in the Structure of Laborde's Shark (*Euprotomicrus labordeii*, Müll. and Henle): Dr. R. O. Cunningham.

WEDNESDAY, JUNE 7.

GEOLOGICAL SOCIETY, at 8.—On the Geology of Northern Anglesey: C. A. Matley.—On an Intrusion of Granite into Diabase at Sorel Point (Northern Jersey): J. Parkinson.

ENTOMOLOGICAL SOCIETY, at 8.

THURSDAY, JUNE 8.

ROYAL SOCIETY, at 4.30.—Meeting for Discussion.—Subject: On Pre-ventive Inoculation: introduced by M. Haffkine.

MATHEMATICAL SOCIETY, at 8.—On Solitary Waves, Equivoluminal and Irrotational, in an Elastic Solid: Lord Kelvin, G.C.V.O.—On Several Classes of Simple Groups: Dr. G. A. Miller.—The Transmission of Stress across a Plane of Discontinuity in an Isotropic Elastic Solid and the Potential Solutions for a Plane Boundary: Prof. J. H. Michell.—On

CONTENTS.

PAGE

Evolution without Selection. By F. A. D. . . . .	97
Professor Tait's Collected Papers. By Prof. Horace Lamb, F.R.S. . . . .	98
Our Book Shelf:—	
Moore: "Elementary Physiology." . . . .	99
Weir: "The Dawn of Reason" . . . . .	100
Waddell: "The Arithmetic of Chemistry."—J. B. C. . . . .	100
De Tabley: "The Flora of Cheshire."—I. H. B. . . . .	100
Letters to the Editor:—	
Fourier's Series.—Prof. A. E. H. Love, F.R.S. . . . .	100
Bessel's Functions.—A. B. Basset, F.R.S. . . . .	101
"The Art of Topography."—R. H. C. . . . .	101
The Heating of the Anti-Kathode in X-Ray Work.—Dr. J. Macintyre . . . . .	101
Variation of Species.—J. W. Sharpe . . . . .	102
On Some Recent Advances in Spectrum Analysis relating to Inorganic and Organic Evolution. By Sir Norman Lockyer, K.C.B., F.R.S. . . . .	103
The Berlin Tuberculosis Congress (1899). By Dr. F. W. Tunncliffe . . . . .	108
The Jubilee of Sir George Gabriel Stokes . . . . .	109
Notes . . . . .	110
Our Astronomical Column:—	
Astronomical Occurrences in June . . . . .	114
Comet 1899 a (Swift) . . . . .	114
Tempel's Comet (1873 II.) . . . . .	114
New Variable of Algol Type . . . . .	114
Variable Radial Velocity of ζ Geminorum . . . . .	114
The Results of the <i>Valdivia</i> Expedition . . . . .	114
The Wearing Away of Sand Beaches. By W. H. Wheeler . . . . .	115
Results of the Scientific Expedition to Sokotra . . . . .	116
University and Educational Intelligence . . . . .	117
Scientific Serials . . . . .	117
Societies and Academies . . . . .	118
Diary of Societies . . . . .	120
Books, Pamphlet, and Serials Received . . . . .	120