

—On the rational estimation of gluten in wheat flour : **E. Fleurent**. It is shown that by taking certain precautions as to the temperature and lime contents of the wash water, and fixing the time of washing, it is possible to obtain results by the mechanical method which agree well with the chemical method.—Physicochemical researches on hæmolysis : **Victor Henri**.—The comet *e* 1904, discovered December 28, 1904, at the Observatory of Marseilles : **M. Borrelly**.—The provisional elements of the new Borrelly comet (1904 December 28) : **G. Fayet** and **E. Maubant**.—On the isochronism of the pendulum in the astronomical clock : **Ch. Féry**. For an amplitude between $2^{\circ} 13'$ and $2^{\circ} 29'$, that is, for a variation of amplitude of about 9 mm., the variation of the rate was nil, or there was a minimum for the time of oscillation. This result is probably due to a want of isochronism of the escapement.—On the value of the magnetic elements on January 1 : **Th. Moureaux**.—Osmotic communication in fishes between the internal and external media : **Jean Gautrelet**. Referring to a recent paper by **M. Quinton**, the author directs attention to a paper of his bearing on the same subject published in 1902.—On the infection of *Padda oryzivora* by *Trypanosoma paddae* and by *Halteridium Danilewskyi* : **M. Thiroux**.

INDIA.

Asiatic Society of Bengal, December 7, 1904.—The lizards of the Andamans, with the description of a new gecko and a note on the reproduced tail in *Ptychozoon homocephalum* : **N. Annandale**. Out of the nine geckos recorded from the Andamans, five or possibly six would seem to have been carried thither by man. The remaining three are indigenous. One of the three is very nearly related to forms on the nearest mainland, the second has Malabar affinities, and the third Madagascan. The author describes *Gonatodes Andersonii*—a new species. The scales of the reproduced part of the tail, dorsal and ventral surfaces, of *Ptychozoon homocephalum* are slightly smaller than those of the uninjured part, and the dorsal tubercles are absent; also the loose membrane is narrower, asymmetric, and not lobed. This last point is important, as Müller had thought the lobes of specific importance.—The occurrence of an aquatic glow-worm in India : **N. Annandale**. A glow-worm larva of aquatic habit has been found in a tank in the neighbourhood of Calcutta. The only other aquatic glow-worm recorded was found in Lower Siam.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 19.

ROYAL SOCIETY, at 4.30.—The Dual Force of the Dividing Cell. Part i : The Achromatic Spindle Figure illustrated by Magnetic Chains of Force : **Prof. M. Hartog**.—Note on the Effects produced on Rats by the Trypanosomata of Gambia Fever and Sleeping Sickness : **H. G. Plimmer**.—Further Histological Studies on the Localisation of Cerebral Function. The Brains of Felis, Canis, and Sus, compared with that of Homo : **Dr. A. W. Campbell**.—Experiments on the Nature of the Oponic Action of the Blood Serum : **Dr. W. Bulloch** and **E. E. Atkin**.
 LINNEAN SOCIETY, at 8.—Botanical Collecting : **Dr. A. Henry**—On the Cranial Osteology of the Families Osteoglossidæ, Pantodontidæ, and Phractolæmidæ : **Dr. W. G. Ridewood**.

SOCIETY OF ARTS, at 4.30.—The Gates of Tibet : **Douglas W. Freshfield**.

FRIDAY, JANUARY 20.

ROYAL INSTITUTION, at 9.—New Low Temperature Phenomena : **Sir J. Dewar, F.R.S.**

EPIDEMIOLOGICAL SOCIETY, at 8.30.
 INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Some Impressions of American Workshops : **A. J. Gimson**.—Waterworks Pumping Engines in the United States and Canada : **J. Barr**.—Some Features in the Design and Construction of American Planing Machines : **A. Kenrick, Jun.** : Engines at the Power Stations, and at the St. Louis Exhibition : **A. Saxon**.

MONDAY, JANUARY 23.

SOCIOLOGICAL SOCIETY, at 8.—Civics : as Applied Sociology, Part ii : **Prof. Patrick Geddes**.

ROYAL GEOGRAPHICAL SOCIETY, at 8.30.—The Great Zimbabwe and other Ancient Ruins in Rhodesia : **R. N. Hall**.

SOCIETY OF ARTS, at 8.—Reservoir, Stylographic and Fountain Pens : **J. P. Maginnis**.

TUESDAY, JANUARY 24.

ROYAL INSTITUTION, at 5.—The Structure and Life of Animals : **Prof. L. C. Miall, F.R.S.**

INSTITUTION OF CIVIL ENGINEERS, at 8.—Notes on the Working of the Shone System of Sewerage at Karachi : **J. F. Brunton**.—The Sewerage of Douglas, Isle of Man : **E. H. Stevenson** and **E. K. Burstal**.

ANTHROPOLOGICAL INSTITUTE, at 8.30.—Annual General Meeting. President's Address, &c.

WEDNESDAY, JANUARY 25.

SOCIETY OF ARTS, at 8.—London Electric Railways : **Hon. Robert P. Porter**.

THURSDAY, JANUARY 26.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: On the Boring of the Simplon Tunnel, and the Distribution of Temperature that was Encountered : **Francis Fox**.—On the Comparison of the Platinum Scale of Temperature with the Normal Scale at Temperatures between 444° and -190° C., with Notes on Constant Temperatures below the Melting Point of Ice : **Prof. M. W. Travers, F.R.S.**, and **A. S. C. Gwyer**.—On the Modulus of Torsional Rigidity of Quartz Fibres, and its Temperature Coefficient : **Dr. F. Horion**.—On a Method of Finding the Conductivity for Heat : **Prof. C. Niven, F.R.S.**—Exterior Ballistics. "Error of the Day" and other Corrections to Naval Range-Tables : **Prof. G. Forbes, F.R.S.**—The Theory of Symmetrical Optical Objectives. Part ii : **S. D. Chalmers**.—On the Drift produced in Ions by Electro-magnetic Disturbances, and a Theory of Radio-activity : **G. W. Walker**.—Coloration of Glass by Natural Solar and other Radiations : **Sir William Crookes, F.R.S.**—On the "Blaze-Currents" of the Gall Bladder of the Frog : **Mrs. Waller**.

INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—Fuel Economy in Steam Power Plants : **W. H. Booth** and **J. B. C. Kershaw**. (Conclusion of discussion.)

FRIDAY, JANUARY 27.

ROYAL INSTITUTION, at 9.—The Life-History of the Emperor Penguin : **Dr. Edward A. Wilson**.

PHYSICAL SOCIETY, at 5.—Action of a Magnetic Field on the Discharge through a Gas : **Dr. R. S. Willows**.—Action of Radium on the Electric Spark : **Dr. R. S. Willows** and **J. Peck**.—The Slow Stretch in India-rubber, Glass, and Metal Wires when subjected to a Constant Pull : **P. Phillips**.—Determination of Young's Modulus for Glass : **C. A. Bell**.—Some Methods for Studying the Viscosity of Solids : **Dr. Boris Weinberg**.

INSTITUTION OF CIVIL ENGINEERS, at 8.—Concrete-Making on the Admiralty Harbour Works, Dover : **T. L. Matthews**.

CONTENTS.

PAGE

Zoological Books from Germany. By J. A. T.	265
An American Text-Book of Geology. By A. H.	267
The Topography of British India	268
Physical and Physiological Aspects of Light. By Dr. Reginald Morton	269
A Book on Ink. By C. Simmonds	269
Our Book Shelf :—	
Driesch : "Naturbegriffe und Naturerteile"	270
Stewart : "Higher Text-book of Magnetism and Electricity"	270
Hibbert : "Life and Energy—Four Addresses"	271
Knox : "Glossary of Geographical and Topographical Terms"	271
"Blackie's Handy Book of Logarithms"; "Vier- und fünfstellige Logarithmentafeln"	271
Theobald : "Second Report on Economic Zoology : British Museum (Natural History)"	272
Letters to the Editor :—	
The Heterogenetic Origin of Fungus-germs.— Dr. H. Charlton Bastian	272
Compulsory Greek at Cambridge.— John C. Willis .—Polyhedral Soap-films.— W. F. Warth	273
Reversal of Charge from Electrical Induction Machines.— V. Schaffers	274
The Construction of Simple Electroscopes for Experiments on Radio-activity. (Illustrated.) By Dr. O. W. Richardson	274
Geological Survey of Canada	276
Recent Exploration in the Mentone Caves. (Illustrated.)	276
The Scientific Exploration of Lake Tanganyika	277
Notes	278
Our Astronomical Column :—	
Observations of Comets 1904 <i>d</i> and 1904 <i>e</i>	281
Ephemeris for Comet Tempel, 1904 <i>c</i>	282
Seasonal Development of Martian Canals	282
Variable Stars and Nebulous Areas in Scorpio	282
Report of the Natal Observatory	282
The Jesuit Observatory at Belen, Havana	282
The Discovery of Jupiter's Sixth Satellite. By W. E. R.	282
Atmospheric and Oceanic Carbon Dioxide. By Dr. A. Harden	283
Conference of Public School Science Masters. By Wilfred Mark Webb	284
Prize Awards of the Royal Society of Edinburgh	285
University and Educational Intelligence	285
Societies and Academies	287
Diary of Societies	288