

A construction of the osculating sphere and of the radius of torsion at a point of the curve of intersection of two given surfaces.—W. H. Young: The conditions of convergence of Fourier's series.—M. Baticle: The application of the theory of integral equations to certain calculations relating to the stability of constructions.—J. Repelin: New species of Rhinocerotidae of the Oligocene of France. The Laugnac deposit discovered by Vasseur contains the remains of at least three new forms of rhinoceros. The best represented is the oldest European Teleoceras known. It appears towards the end of the Oligocene period in the middle of a fauna undoubtedly Oligocene, and may perhaps be considered as the direct ancestor of *T. aurelianense*.—J. Georgévitch: The evolutive cycle of *Ceratomyxa herouardi*.—J. Danyisz: The causes of anaphylaxis: the nature and formation of the antibodies. The antigens are substances which cannot be directly assimilated, the antibodies the substances which transform the antigens into assimilable products, and which each organism can produce specially for each antigen. This change can be compared with a digestion, and consists of two successive reactions, the formation of a precipitate, and the resolution of this precipitate. When, after a special preparation, the blood of an animal contains a sufficient quantity of this digestive reagent, the digestion is effected in the interior of the blood-vessels, and the formation of a precipitate under these conditions causes the troubles described under the name of "crisis," or anaphylactic shock. The intravascular digestion may give rise, in certain cases, to toxic by-products.—H. Judet: An attempt to reconstitute losses of substance of the long bones resulting from war wounds.

BOOKS RECEIVED.

Catalogue of the Collection of Skulls and Teeth in the Odontological Museum of the University of Birmingham. Pp. 64. (Birmingham: Cornish Bros., Ltd.)

British Agriculture: The Nation's Opportunity. By the Hon. E. G. Strutt, L. Scott, and G. H. Roberts, and a Preface and Appendix on the Reclamation of Land, by A. D. Hall. Pp. xi+168. (London: J. Murray.) 3s. 6d. net.

The Flying Machine from an Engineering Standpoint. By F. W. Lanchester. Pp. viii+135. (London: Constable and Co., Ltd.) 4s. 6d. net.

Food and Fitness, or Diet in relation to Health. By Prof. J. Long. Pp. ix+208. (London: Chapman and Hall, Ltd.) 5s. net.

The Problems of Physiological and Pathological Chemistry of Metabolism for Students, Physicians, Biologists, and Chemists. By Dr. O. von Fürth. Translated by Prof. A. J. Smith. Pp. xv+667. (Philadelphia and London: J. B. Lippincott Co.) 25s. net.

The Reality of Psychic Phenomena, Raps, Levitations, etc. By Dr. W. J. Crawford. Pp. vii+246. (London: J. M. Watkins.) 4s. 6d.

The Lack of Science in Modern Education, with Some Hints of What Might Be. By Sir Napier Shaw. Pp. 42. (London: Lamley and Co.) 1s. net.

DIARY OF SOCIETIES.

THURSDAY, JANUARY 25.

ROYAL SOCIETY, at 4.30.—The Dynamics of Revolving Fluid: Lord Rayleigh.—Spectroscopic Observations on the Active Modification of Nitrogen. V.: Hon. R. J. Strutt.—Magnetic Induction and its Reversal in Spherical Iron Shells: Prof. J. W. Nicholson and E. Wilson.—The Two-dimensional Motion of a Plane Lamina in a Resisting Medium: S. Brodetsky.

FRIDAY, JANUARY 26.

ROYAL INSTITUTION, at 5.30.—Epicurean Philosophy: Prof. G. Murray. PHYSICAL SOCIETY, at 5.—A Clock of Precision: C. O. Bartrum.—The Effect of the Water Vapour in the Atmosphere on the Propagation of Electromagnetic Waves: Dr. F. Schwars.

SATURDAY, JANUARY 27.

ROYAL INSTITUTION, at 3.—The Lakes and Mountains of Central Africa: A. R. Hinks.

MONDAY, JANUARY 29.

ROYAL SOCIETY OF ARTS, at 4.30.—Town Planning and Civic Architecture: Prof. A. Beresford Pite.

TUESDAY, JANUARY 30.

ROYAL INSTITUTION, at 3.—The Old Brain and the New Brain, and their Meaning: Prof. C. S. Sherrington.

ROYAL SOCIETY OF ARTS, at 4.30.—Imperial Industries after the War: O. C. Beale.

WEDNESDAY, JANUARY 31.

ROYAL SOCIETY OF ARTS, at 4.30.—The Work of the Y.M.C.A. in France: Miss Ella C. Sykes.

ROYAL SANITARY INSTITUTE, at 4.30.—Discussion: The Physical Welfare of Children after Infancy from the National, Social, and Public Health Standpoints, to be opened by Dr. W. Leslie Mackenzie.

THURSDAY, FEBRUARY 1.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: An Application of the Theory of Probabilities to the Study of *a priori* Pathometry. Part II.: Sir Ronald Ross and Miss H. P. Hudson.—An Investigation into the Periodicity of Measles Epidemics in London from 1703 to the present day by the Method of the Periodogram: Dr. J. Brownlee.—The Causes responsible for the Developmental Progress of the Mammary Glands in the Rabbit during the latter part of Pregnancy: Capt. J. Hammond.—The Post-ovulatory Changes occurring in the Generative Organs and Mammary Glands of the Non-pregnant Dog: F. H. A. Marshall and E. T. Halnan. ROYAL INSTITUTION, at 3.—The Mechanism of Chemical Change: Prof. F. G. Donnan.

CHEMICAL SOCIETY, at 8.—Chromium Phosphate: A. F. Joseph and W. N. Rae.—The Detection of Traces of Mercury Salts in Toxicological Work: K. C. Browning.—"Stepped" Ignition: R. V. Wheeler.—The Catalytic Bleaching of Oils, Fats, and Waxes: H. Rai.—Alkaloidal Derivatives of Mercuric Nitrite: P. C. Rây.—Synthesis of a Derivative of the Lowermost Homologue of Thiophene: P. C. Rây and M. L. Dey.—The Detergent Action of Soap: S. U. Pickering.—The Occlusion of Iron by the Phospho-molybdate Precipitate: E. H. Archibald and H. B. Keegan.

MATHEMATICAL SOCIETY, at 5.30.

FRIDAY, FEBRUARY 2.

ROYAL INSTITUTION, at 5.30.—The Supply of Gaseous Energy: Dr. C. Carpenter.

SATURDAY, FEBRUARY 3.

GEOLOGISTS' ASSOCIATION, at 3.—President's address: The Study of the Archaean Rocks, with Special Reference to Scotland: G. Barrow.

CONTENTS.

	PAGE
Shakespeare and Precious Stones	405
Identification of Stars. (<i>With Diagram.</i>)	406
An Arabic Algebra. By G. B. M.	406
Our Bookshelf	407
Letters to the Editor:—	
A Plea for a Scientific Quadruple Entente.—Prof. Eugenio Rignano	408
Stability in Flight.—Prof. D'Arcy W. Thompson, C.B.	409
An Explosion Effect.—C. Welborne Piper	409
The Influence of Phosphorus and Sulphur on the Mechanical Properties of Steel. By Prof. H. C. H. Carpenter	410
Work of the Government Laboratory	411
The Scarcity of Wasps. By Prof. Geo. H. Carpenter	413
Notes	413
Our Astronomical Column:—	
Eclipses of Jupiter's Satellites	417
Peculiar Stellar Spectra	417
The Total Solar Eclipse of 1916, February 3	418
Paris Academy of Sciences.—Programme of Prizes for 1918	418
Workshop Methods of Optical Testing	419
Scientific Research in Relation to Industries. By Dr. C. P. Steinmetz	420
University and Educational Intelligence	421
Societies and Academies	422
Books Received	424
Diary of Societies	424

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