

of the fishes in acidified solutions: the nature of the acid has also an important influence.—Aug. Michel: Caudal regeneration in *Polygordius neapolitanus*.—H. Barthélémy: The maturation *in vitro* and the activation by puncture of the ova of *Rana fusca* at the moment of discharge from the frog.—M. Charcot: Preliminary report on the voyages of the *Pourquoi-Pas?* in 1922.—A. Desgrez and H. Bierry: A mode of action of Vichy waters.

WASHINGTON.

National Academy of Sciences (Proc. Vol. 8, No. 11, November 1922).—J. A. Marshall: Bactericidal properties of the products of radium emanation. Old radium emanation tubes which have undergone disintegration in respect of γ -ray content are crushed under Ringer's solution in a sterile mortar. The radioactive solution obtained is conveyed immediately to the infected areas by sterile dressings; in the case of abscesses at the roots of teeth, it is injected through the pulp canal. This treatment gives better results than other antiseptic agents.—H. S. Washington: The jades of Middle America. The jades investigated are from a sacred natural well in the ancient Maya city of Chichen Itza, in northern Yucatan. The dominant colours are grey and green. They are jadeite jades of American origin, and differ from Asiatic jadeite in the large amount of diopside in the pyroxene they contain and the presence of much albite. Analyses are given.—Carl Barus: On a comparison of the relative sensitiveness of telephones. An interferometer U-gauge is connected by a quill tube to the telephone mouthpiece and a relation is obtained between the fringe movements and the constants of the instrument.—Carl Barus: The equilibrium positions of the vacuum gravitation needle in 1921 and 1922. From the curves given, the variations of the position of equilibrium in the lapse of time are of a different order in 1922 from their approximate constancy, in the given scale, in 1921. This may be due to the difference in the vacua obtained. All observations have a period of 24 hours, indicating solar radiation as the origin of the variations.—W. W. Coblentz: Further measurements of stellar temperatures and planetary radiation. (See NATURE, December 30, p. 886.) H. A. Lorentz: Proof of a theorem due to Heaviside. The theorem in question is: "The whole work done by impressed forces suddenly started exceeds the amount representing the waste by Joule-heating at the final rate (when there is any), supposed to start at once, by twice the excess of the electric over the magnetic energy of the steady field set up."—A. J. Lotka: The stability of the normal age distribution. There is an age distribution which, in certain circumstances, perpetuates itself when once set up in a population. An analytical method is used to show that this distribution is stable and that a population spontaneously reverts to it if the age distribution be displaced.

Official Publications Received.

Journal of the Indian Institute of Science. Vol. 5, Part 4: Induction Motors used as Synchronous Machines. By S. V. Ganapati and R. G. Parikh. Pp. 37-46+9 plates. 1.8 rupees. Vol. 5, Part 5: The Relation between the Iodine Values and Refractive Indices of some hardened Vegetable Oils. By J. J. Sudborough, H. E. Watson, and D. Y. Athawale. Part 1. Pp. 47-69+3 plates. 1.8 rupees. (Madras: Indian Institute of Science.)

Imperial Department of Agriculture for the West Indies. Report on the Agricultural Department, Dominica, 1921-22. Pp. iv+32. (Barbados.) 6d.

The British Mycological Society. Transactions. Vol. 8, Parts 1 and 2, December. Pp. 111. (London: Cambridge University Press.) 15s. net.

Leeds University. Eighteenth Report, 1921-22. Pp. 190. (Leeds.) Ministère de l'Instruction publique et des Beaux-Arts. Enquêtes et documents relatif à l'enseignement supérieur. 117: Rapports sur les observatoires astronomiques de Province. Année 1921. Pp. 127. (Paris: Imprimerie Nationale.)

Diary of Societies.

SATURDAY, JANUARY 6.

ASSOCIATION OF WOMEN SCIENCE TEACHERS (at University College) at 2.30.—Dr. Dorothy Wrinch: Relativity.
ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. H. H. Turner: Six Steps up the Ladder to the Stars (5). Two Great Streams of Stars (Juvenile Lectures).
GILBERT WHITE FELLOWSHIP (at 6 Queen Square, W.C.1), at 3.—G. J. B. Fox: A Visit to Pompeii.

MONDAY, JANUARY 8.

INSTITUTION OF ELECTRICAL ENGINEERS (Informal Meeting), at 7.—E. W. Moss, and others: Discussion on the Protection of Inventions by Letters Patent.
ARISTOTELIAN SOCIETY (at University of London Club, 21 Gower Street), at 8.—Rev. Leslie J. Walker: A New Theory of Matter.
SURVEYORS' INSTITUTION, at 8.—F. W. Hunt: Zoning in the Control of Large Cities.

TUESDAY, JANUARY 9.

ROYAL INSTITUTION OF GREAT BRITAIN, at 3.—Prof. H. H. Turner: Six Steps up the Ladder to the Stars (6). The Size of a Star. (Juvenile Lectures).
SOCIETY FOR THE STUDY OF INEBRIETY (at Medical Society of London), at 4.—Dr. H. Campbell and others: Discussion on The Pathology and Treatment of Morphia Addiction.
INSTITUTION OF PETROLEUM TECHNOLOGISTS (at Royal Society of Arts), at 5.30.—Dr. W. R. Ormandy and E. C. Craven: Further Investigations into the Physico-Chemical Significance of Flash-Point Temperatures.
MINERALOGICAL SOCIETY (at Geological Society), at 5.30.—A. Brammall and H. F. Harwood: Dartmoor Granite: (a) Rutile, Brookite, and Anatase: Genesis. (b) Varieties of Zircon: their significance.—Dr. A. Hutchinson: A Graphical Method of Correcting Specific Gravity Determinations.—Dr. L. J. Spencer, with microscopical determinations by W. Campbell Smith, and chemical analyses by E. D. Mountain: A Davyne-like Mineral and its Pseudomorphs from St. John's Island, Egypt.
INSTITUTION OF CIVIL ENGINEERS, at 6.—H. W. H. Richards: Twelve Years' Operation of Electric Traction on the London, Brighton, and South Coast Railway.
INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—H. Campbell: Gas Engines, and Gas Producer Plants.
ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN (Scientific and Technical Group), at 7.—H. W. Greenwood: The Manufacture of Paper for Photographic Purposes. Historical—Hand-made Paper—Machine-made Paper—Raw Materials—Preparation—Beating—Sizing—Making—Finishing and Baryta Coating. Faults of Manufacture and their Effect on Emulsions—Testing for Faults, Impurities, etc.
QUEBKETT MICROSCOPICAL CLUB, at 7.30.—Various members: Notes on Mounting.
CIRCLE OF SCIENTIFIC, TECHNICAL, AND TRADE JOURNALISTS (at Institute of Journalists), at 8.15.—Sir Richard Gregory and others: Discussion on Reviews and Reviewers.

WEDNESDAY, JANUARY 10.

ROYAL SOCIETY OF ARTS, at 3.—C. R. Darling: The Spectrum, its Colours, Lines, and Invisible Parts, and some of its Industrial Applications (Dr. Mann Juvenile Lectures) (2).
GEOLOGICAL SOCIETY OF LONDON, at 5.30.
INSTITUTION OF ELECTRICAL ENGINEERS (Wireless Section), at 6.—C. F. Elwell: Design of Radio Towers and Masts: Wind Pressure Assumptions.
INSTITUTION OF AUTOMOBILE ENGINEERS, at 7.30.—Col. P. H. Johnson: Improvements in Efficiency of Roadless Vehicles.

THURSDAY, JANUARY 11.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 3.—R. A. Frazer: Testing Model Scaplanes (Juvenile Lecture).
OPTICAL SOCIETY (at Imperial College of Science and Technology), at 7.30.—C. Davidson: The Amount of Displacement in Gelatine Films shown by Precise Measurements of Stellar Photographs.—J. E. Barnard: The Use of Ultra-violet Light in Microscopy.—F. W. Preston: Pitch.—T. Y. Baker: A Prismatic Astrolabe.
INSTITUTE OF METALS (London Section), (at Institute of Engineers, Inc.), at 8.—W. E. Hughes: Some Aspects of Electro-deposition.
CAMERA CLUB, at 8.15.—J. S. Wells: Criticism of Members' Prints.

FRIDAY, JANUARY 12.

ROYAL ASTRONOMICAL SOCIETY, at 5.—Prof. A. S. Eddington and A. V. Douglas: The Progression of Stellar Velocity with Absolute Magnitude.—J. Evershed: Note on the Corona of 1908.
MALACOLOGICAL SOCIETY (at Linnean Society), at 6.
INSTITUTION OF HEATING AND VENTILATING ENGINEERS, INC. (at Engineers' Club, Coventry Street), at 7.—Dr. B. R. Wingfield: Automatic Temperature Control.
JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—S. A. Stigant: Transient Phenomena arising in Transformers from Switching Operations.
ROYAL SOCIETY OF MEDICINE (Ophthalmology Section), at 8.30.—H. Butler: Some Unusual Cataract Operations.—C. Killick: The Treatment of Conical Cornea.

SATURDAY, JANUARY 13.

GILBERT WHITE FELLOWSHIP, at 2.15.—Visit to the Geological Museum, Jermyn Street.