

conditions under which solutions of carbon dioxide in caustic soda solutions can be titrated with accuracy.—L. J. Simon: The rôle of chromic oxide in oxidation with chromic and sulphuric acids.—Paul Bertrand: The coal flora of the Sarre coal measures.—R. Legendre: Diurnal variations of the hydrogen ion concentration of sea water near the coast. The hydrogen ion concentration of sea water taken near the coast varies during the day and passes through a maximum at about 3 P.M.—S. Metalnikow: Ten years' culture of infusoria without conjugation.—C. Delezenne and Mlle. Suzanne Ledebt: The transmission in series of the proteolytic power initially conferred on inactive pancreatic juice by enterokinase.—René Wurmser and Raymond Jacquot: The relation between the colloidal state and the physiological functions of protoplasm.—A. Pézard and F. Caridroit: Subrenal-testicular interpenetration in incompletely castrated cocks.—Edouard Chatton and André Lwoff: The evolution of the infusoria of lamellibranchs. The relations between the *Hypocoma* and *Ancistrum*. The genus *Hypocomides*.—Et. Burnet: The relations between *B. Abortus* and *Micrococcus melitensis*.—J. Dumas, D. Combiesco, and J. Baltiano: The action of the tetanic and diphtheric toxins administered by the mouth. Experimental tetanus can be produced in the guinea-pig by adding the tetanus toxin to the food, but the rabbit is resistant. On the other hand, the rabbit is more sensitive than the guinea-pig to the action of the diphtheric toxin administered in the same way. These results are not in agreement with the results of other workers, and this is explained by the author by the fact that his preparations contained more of the toxins.

Official Publications Received.

Zeitschrift für angewandte Geophysik. Unter ständiger Mitarbeit zahlreicher Fachgenossen. Herausgegeben von Dr. K. Ambronn. Band 1, Heft 1. Pp. 32. (Berlin: Gebrüder Borntraeger.)

Memoirs of the Indian Meteorological Department. Vol. 23, Part 3: Mean Monthly Characters of Upper-Air Winds deduced from the Flights of Pilot Balloons at Thirteen Stations in India during the Period 1910 to 1919. By J. H. Field. Pp. 41-136. (Calcutta: Government Printing Office.) 2 rupees; 3s.

Report of the Department of Industries, Madras, for the Year ended 31st March 1921. Pp. v+60+ii. (Madras: Government Press.)

Annals of the Transvaal Museum. Vol. 8, Part 4, containing Review of the Nomenclature of South African Birds, by A. Roberts; An Imperfect Skeleton of *Youngia Capensis*, Broom, in the Collection of the Transvaal Museum, by Dr. R. Broom. Pp. 187-276. Vol. 9, Part 1, containing Contributions to our Knowledge of the Dermaptera and Orthoptera of the Transvaal and Natal, by J. A. G. Rehn. Part 1: Dermaptera and Blattellidae. Pp. 99+4 plates. Vol. 9, Part 2, containing the Sphegidae of South Africa, by Dr. G. Arnold: New Forms of Lasiocampidae from the Transvaal Museum, by C. Aurivillius. Pp. 101-141. (Cambridge: Printed at the University Press.)

Transactions of the Rochdale Literary and Scientific Society. Vol. 14, 1919-1922. Pp. 128+xi+xi+xi. (Rochdale.)

Imperial Department of Agriculture for the West Indies. Report on the Agricultural Department, St. Lucia, 1921. Pp. iv+31. (Barbados.) 6d.

Nigeria. Annual Report on the Forest Administration of Nigeria for the Year 1921. Pp. 18. (Ibadan.)

The Botanical Society and Exchange Club of the British Isles. Vol. 6, Part 3, Report for 1921. By G. C. Druce. Pp. 261-546. (Arbroath: T. Buncle and Co.) 10s.

Shall the State throw away the Keys? An Exposition of what Fine Chemicals mean to the Nation. Pp. 32. (London: Association of British Chemical Manufacturers, 199 Piccadilly.)

Diary of Societies.

SATURDAY, NOVEMBER 25.

ASSOCIATION OF SCIENCE TEACHERS AND THE ASSOCIATION OF UNIVERSITY WOMEN TEACHERS (at University College), at 11 and 2.30.—Joint Conference on the Teaching of Science in Schools and Colleges.

MONDAY, NOVEMBER 27.

ARISTOTELIAN SOCIETY (at University of London Club), at 8.—Prof. R. F. A. Hoernlé: Notes on the Treatment of "Existence" in recent Philosophical Literature.

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ROYAL SOCIETY OF ARTS, at 8.—Prof. W. A. Bone: Brown Coal and Lignites (Cantor Lecture).
ROYAL SOCIETY OF MEDICINE (Odontology Section), at 8.—Dr. P. Watson-Williams: Infections of the Teeth and Gums in relation to the Nose, Throat, and Ear.
ROYAL GEOGRAPHICAL SOCIETY (at Æolian Hall), at 8.30.—C. Gillman: An Ascent of Kilimanjaro.

TUESDAY, NOVEMBER 28.

ROYAL HORTICULTURAL SOCIETY, at 3.—M. B. Crane: Self-Sterility and the Pollination of Fruit Trees.
ROYAL SOCIETY OF MEDICINE (Medicine and Ophthalmology Sections).—Dr. B. Shaw, F. Moore, and others: Discussion on the Differentiation and Prognosis of Arterio-Sclerotic and Renal Retinitis.
INSTITUTION OF CIVIL ENGINEERS, at 6.—E. O. Forster-Brown: Underground Waters in the Kent Coalfield, and their incidence in Mining Development. (Continued discussion.)
INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—Film illustrative of the Conquest of Oil. Anglo-American Oil Co.
ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—J. E. Saunders: Off the Beaten Track at the Ipo.
SOCIOLOGICAL SOCIETY (at Royal Society), at 8.15.—H. Belloc: Factors of Historical Changes in Society.

WEDNESDAY, NOVEMBER 29.

NEWCOMEN SOCIETY (Annual General Meeting) (at Iron and Steel Institute), at 5.—At 5.30.—R. Jenkins: Notes on the Early History of Steel-making in England.
ROYAL SOCIETY OF ARTS, at 8.—Major W. S. Tucker: The Hot Wire Microphone and its Applications.

THURSDAY, NOVEMBER 30.

ROYAL SOCIETY, at 4.—Anniversary Meeting.
LINNEAN SOCIETY, at 5.—Dr. R. J. Tillyard: The Wing-venation of the Order Plectoptera, or May-flies.—D. M. S. Watson and E. L. Gill: The Structure of certain Paleozoic Dipnoi.
ROYAL SOCIETY OF MEDICINE, at 5.—Sir Almoth Wright: New Principle in Therapeutic Immunisation (Occasional Lecture).
CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Dr. A. F. Tredgold: Some Problems relating to Mental Deficiency.
INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—W. A. Gillott: Domestic Load Building: a Few Suggestions upon Propaganda Work.
OPTICAL SOCIETY (at Imperial College of Science and Technology), at 6.—A. Whitwell: The Design of Spectacle Lenses.—Dr. M. von Rohr: On the Available Means for Correcting Considerable Cases of Anisometropia.—A. Whitwell: The Best Form of Spectacle Lenses for the Correction of Small Amounts of Anisometropia.—Dr. M. B. Dobson: Notes on the Non-operative Treatment of Squint.—O. Raphael: Standards of Accuracy for Ophthalmic Prescriptions.—W. A. Dixey: Some Recent Developments in Spectacle Lenses.—J. H. Gardiner: Sir William Crookes' Anti-glare Glasses.—H. S. Ryland: Methods used in the Manufacture of Gold-filled Spectacles and Clips.
CAMERA CLUB, at 8.15.—C. Robbins: A Peep at Prehistoric Man.
ROYAL SOCIETY OF MEDICINE (Urology Section), at 8.30.—Dr. Langdon Brown and others: Discussion on the Factors in Uræmia.

FRIDAY, December 1.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Dr. T. E. Stanton: Some Recent Researches on Lubrication (Thomas Hawksley Lecture).
JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—H. G. Brown: Machines used in Magnetic Separation.

PUBLIC LECTURES.

SATURDAY, NOVEMBER 25.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—F. Balfour-Browne: British Water-beetles.

MONDAY, NOVEMBER 27.

UNIVERSITY COLLEGE, at 5.30.—Miss E. Jeffries Davis: The Evolution of London. Succeeding Lectures on December 4 and 11.
CITY OF LONDON Y.M.C.A. (186 Aldersgate Street), at 6.—Col. Sir William H. Willcox: Rheumatism and how to avoid it.

TUESDAY, NOVEMBER 28.

SCHOOL OF ORIENTAL STUDIES, at 5.—Sheikh M. H. Abd el Razeq: The Study of Moslem Civilisation in Europe.

THURSDAY, NOVEMBER 30.

KING'S COLLEGE, at 5.30.—N. P. Jopson: The Distribution and Inter-relations of the Slavonic Peoples and Languages.
UNIVERSITY COLLEGE, at 5.30.—Dr. C. Pellizzi: Platone e l'Umanesimo (in Italian).

FRIDAY, DECEMBER 1.

ROYAL INSTITUTE OF PUBLIC HEALTH, at 5.—Prof. T. Madsen: Specific and Unspecific Antitoxin Production (Harben Lecture).
BEDFORD COLLEGE FOR WOMEN, at 5.30.—Miss E. Jeffries Davis: Roman London.

SATURDAY, DECEMBER 2.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Dr. E. Marion Delf: Vitamins and Health.