

the action of front and back braking on a motor-car. The latter arrests only the motion of translation of the car; in the former the brake also affects the car's movement of rotation round the vertical.—L. J. Simon and M. Frèrejacque: The action of dimethyl sulphate on salicylic acid, methyl salicylate, and methoxysalicylic acid. Sulphonation and methylation. In the absence of water, methyl sulphate and salicylic react, giving three substances, $C_6H_3(OH)(CO_2CH_3)SO_3H$, $C_6H_3(OH)(CO_2CH_3)SO_3CH_3$, and $C_6H_3(OCH_3)(CO_2CH_3)SO_3H$. The trimethyl sulphated derivative is not produced.—Ch. Courtot and A. Dondelinger: Some new secondary bases of the indene series.—Paul Dumanois: A method of air-drying. A scheme for preventing the moisture in air reaching absolute alcohol or petrol stored in bulk.—F. Vincens: The aspergillomycosis of bees.—R. Herpin: Ethology and development of *Nereis caudata*.

SYDNEY.

Royal Society of New South Wales, August 1.—Mr. R. H. Cambage, president, in the chair.—S. Dodd: Cancer of the ear of sheep: a contribution to the knowledge of chronic irritation as a secondary factor in the causation of cancer in the lower animals. Cancer of the ear is rather common in sheep in Australia. Ears from 47 sheep so affected were examined microscopically: 32 were found to be definitely epitheliomatous; 9 showed a condition of chronic inflammation only, and 6 were in a pre-cancerous stage. An affected sheep received alive was kept under observation; five months later the middle cervical gland showed signs of enlargement. Six months after receipt the sheep was killed and the autopsy showed practically the whole of the ear to be carcinomatous. The facts presented support the view that a chronic irritation, naturally occurring, may lead to cancer in the lower animals.—L. S. Cash and C. E. Fawsitt: The estimation of cineol in essential oils by the Cocking process. The method consists in mixing the oil with *o*-cresol in certain fixed proportions and finding the freezing point of the mixture. The method is more easily carried out than any of the other methods usually employed for estimating cineol. The results are at least as accurate as those obtained in other ways and the accuracy can be increased by taking into consideration the density of the oil.—H. J. Hynes: Investigations by the late C. O. Hamblin into the Helminthosporium disease of wheat. Pathogenicity tests indicated that the strain of Helminthosporium isolated from Marshall's No. 3 wheat at Cowra in November 1920 is a true parasite of the wheat plant, capable of causing a "Foot-Rot" condition and also lesions on the leaves. Seed from diseased plants when sown gave rise to healthy plants. The "Foot-Rot" condition was observed at Cowra in 1921 on 150 different wheat varieties. Spores of Helminthosporium were found on Slav rye, skinless barley, *Hordeum murinum*, *Bromus inermis*, *B. sterilis*, and spear grass.

Official Publications Received.

Mitteilungen der Naturforschenden Gesellschaft in Bern. Aus dem Jahre 1920. Pp. lx+179. Aus dem Jahre 1921. Pp. xlvii+320+12 Tafeln. Aus dem Jahre 1922. Pp. lxiv+171. (Bern: K. J. Wyss Erben.)

University of California Publications in American Archaeology and Ethnology. Vol. 13, No. 9: A Study of Bows and Arrows. By Saxton T. Pope. Pp. 329-414+plates 45-64. (Berkeley: University of California Press.)

The North of Scotland College of Agriculture. Calendar, Session 1923-24. Pp. viii+128. (Aberdeen.)

The North of Scotland College of Agriculture: County Extension Department. Report on County Extension Work, 1922-23. Pp. 50. (Aberdeen.)

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Conseil Permanent International pour l'Exploration de la Mer. Rapports et Procès-Verbaux des Réunions, Vol. 31: Rapport Atlantique: 1922 (Travaux du Comité de Plateau Continental Atlantique) (Atlantic Slope Committee). Publié avec l'aide de Dr. Ed. Le Danois. Pp. 46+16 planches. (Copenhague: A. F. Høst et Fils.)

Smithsonian Miscellaneous Collections. Vol. 76, No. 2: History of Electric Light. By Henry Schroeder. (Publication 2717.) Pp. xiii+95. Vol. 76, No. 3: On the Fossil Crinoid Family Catilloeriniidae. By Frank Springer. (Publication 2718.) Pp. 41+5 plates. Vol. 76, No. 4: Report on Co-operative Educational and Research Work carried on by the Smithsonian Institution and its Branches. (Publication 2719.) Pp. 30. (Washington: Smithsonian Institution.)

Proceedings of the Aristotelian Society. New Series, Vol. 23: Containing the Papers read before the Society during the Forty-fourth Session, 1922-1923. Pp. ii+289. (London: Williams and Norgate.) 25s. net.

Diary of Societies.

MONDAY, OCTOBER 15.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Prof. Shattock: Necrosis.

INSTITUTE OF MARINE ENGINEERS, INC., at 6.30.—Extraordinary General Meeting.

TUESDAY, OCTOBER 16.

ROYAL SOCIETY OF MEDICINE, at 5.—General Meeting.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—J. G. Marshall: The Back Page of a Newspaper.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 8.15.—Prof. E. Newberry and others: Discussion on The Origin of Cultivated Plants.

WEDNESDAY, OCTOBER 17.

ROYAL METEOROLOGICAL SOCIETY, at 5.—Discussion on a paper by Sir Napier Shaw and Capt. D. Brunt: Towards a Basis of Meteorological Theory—Thirty-nine Articles of Condition for the Middle Atmosphere.

ENTOMOLOGICAL SOCIETY OF LONDON, at 8.

ROYAL MICROSCOPICAL SOCIETY, at 8.—W. F. Charles: Peculiarities in the Development of the Ant's Foot.—M. T. Denne: A New Variable Light Screen for Use with the Microscope.—Prof. Ekendranath Ghosh: Monocystides from the Earthworms of Calcutta.

THURSDAY, OCTOBER 18.

ROYAL AERONAUTICAL SOCIETY (at Royal Society of Arts), at 5.30.—Squadron Leader R. M. Hill: The Manœuvres of Inverted Flight.

CHILD-STUDY SOCIETY (at Royal Sanitary Institute), at 6.—Dr. F. S. Boas: Some Aspects of the Departmental Report on English.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—Dr. A. Russell: Presidential Inaugural Address.

CHEMICAL SOCIETY, at 8.—R. G. W. Norrish: Studies of Electrovalency. Part III. The Catalytic Activation of Molecules and the Reaction of Ethylene and Bromine.

SOCIETY FOR CONSTRUCTIVE BIRTH CONTROL AND RACIAL PROGRESS (at Essex Hall), at 8.—Dr. Marie Stopes: Medical Contradictions and Mistakes in Evidence in her Recent Case (Presidential Address).

FRIDAY, OCTOBER 19.

ROYAL COLLEGE OF SURGEONS OF ENGLAND, at 5.—Sir Arthur Keith: Hereditary Formations of Developmental Origin which occur along the Alimentary and Respiratory Tracts.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Sir John Dewrance: Presidential Address.

ROYAL PHOTOGRAPHIC SOCIETY OF GREAT BRITAIN, at 7.—A. Pereira: In a Kinema Studio.

JUNIOR INSTITUTION OF ENGINEERS, at 7.30.—F. W. Dye: The Gas Boiler (or Circulator) and its Application.

PUBLIC LECTURES.

SATURDAY, OCTOBER 13.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Capt. W. H. Date: Wireless Telephony—a Popular Exposition.

UNIVERSITY COLLEGE, LONDON, at 5.—Miss I. C. Ward: The Application of Phonetics to the Curing of Speech Defects.

TUESDAY, OCTOBER 16.

UNIVERSITY COLLEGE, LONDON, at 5.30.—Prof. A. V. Hill: The Present Tendencies and Future Compass of Physiological Science.

GRESHAM COLLEGE, at 6.—Sir Robert Armstrong-Jones: Physic. (Succeeding Lectures on October 17, 18, and 19.)

WEDNESDAY, OCTOBER 17.

UNIVERSITY COLLEGE, LONDON, at 3.—Prof. E. G. Gardner: Problems of the *Inferno* (Barlow Lectures). (Succeeding Lectures on October 24, 31; November 7, 14, and 21.)

ROYAL INSTITUTE OF PUBLIC HEALTH, at 4.—A. Greenwood: Cancer and the British Empire Cancer Campaign.

KING'S COLLEGE, LONDON, at 5.30.—Prof. A. Dendy: The Biological Foundations of Society. (Succeeding Lectures on October 24, 31; November 7, 14, 21, 28; December 5 and 12.)

THURSDAY, OCTOBER 18.

KING'S COLLEGE, LONDON, at 5.30.—Prof. J. A. K. Thomson: The Function of Scholarship.

SATURDAY, OCTOBER 20.

HORNIMAN MUSEUM (Forest Hill), at 3.30.—Miss M. A. Murray: Tutankhamen and his Times.