

three-fourths of the way toward the female has been obtained.—Raymond Pearl and S. W. Patterson: The degree of inbreeding which exists in American Jersey cattle. American Jersey cattle are about one-half as intensely inbred when eight generations are taken into account, as would be the case if continued brother x sister breeding had been followed. In general, register of merit animals are less intensely inbred than the ordinary population.—G. A. Miller: Upper limit of the degree of transitivity of a substitution group. The degree of transitivity of a substitution group of degree n which does not include the alternating group of this degree is always less than $5/2\sqrt{n}-1$.—F. D. Adams and W. J. Dick: The extension of the Montana phosphate deposits northward into Canada. An account of the explorations carried out to ascertain whether phosphate-bearing rocks extend northward from Utah, Idaho, and Montana into Canada. In some places such an extension has been found.

BOOKS RECEIVED.

Royal Botanic Gardens, Kew. Bulletin of Miscellaneous Information. Additional Series ix. The Useful Plants of Nigeria. Part iii. Pp. 343-536. (London: H.M.S.O.; Wyman and Sons, Ltd.) 3s. 6d.

The Investigation of Rivers. By Dr. A. Strahan, N. F. MacKenzie, Dr. H. R. Mill, and Dr. J. S. Owens. Final Report. Pp. 93. (London: Royal Geographical Society.) 3s. 6d. net.

The Universe and the Atom. By M. Erwin. Pp. 314. (London: Constable and Co., Ltd.) 8s. 6d. net.

Madras Government Museum. The Foote Collection of Indian Prehistoric and Protohistoric Antiquities. Catalogue Raisonné. By R. B. Foote. Pp. vii + 262. (Madras: Government Press.) 3s.

Madras Government Museum. Catalogue of the Prehistoric Antiquities from Adichanallur and Penumbair. By A. Rea. Pp. xiii + 49 + plates xiii. (Madras: Government Press.) 2s. 3d.

Hopwood's Living Pictures. By R. B. Foster. New edition. Pp. x + 377. (London: The Hatton Press, Ltd.) 6s. net.

Memoirs of the Geological Survey. Special Reports on the Mineral Resources of Great Britain. Vol. i., Tungsten and Manganese Ores. By H. Dewey and C. E. N. Bromehead. Pp. iv + 59. Vol. ii., Barytes and Witherite. By R. G. Carruthers and others. Pp. iv + 93. Vol. iii., Gypsum and Anhydrite, and Celestine and Strontianite. By Dr. R. L. Sherlock and B. Smith. Pp. 57. (London: H.M.S.O.; E. Stanford, Ltd.) 1s., 1s. 6d., and 1s. respectively.

DIARY OF SOCIETIES.

THURSDAY, FEBRUARY 24.

ROYAL SOCIETY, at 4.30.—Mathematical Contributions to the Theory of Evolution. XIX. Second Supplement to a Memoir on Skew Variation: Prof. Karl Pearson.—The Relative Combining Volumes of Hydrogen and Oxygen: F. P. Burt and E. C. Edgar.—Speed Effect and Recovery in Slow-speed A ternating Stress Tests: W. Mason.—The Ignition of Gases by Impulsive Electrical Discharge: W. M. Thornton.

ROYAL INSTITUTION, at 3.—The Milky Way and Magellanic Clouds: Sir F. W. Dyson.

CHILD STUDY SOCIETY, at 6.—Psychological Problems arising out of the War: C. Burt.

INSTITUTION OF MINING AND METALLURGY, at 5.30.—The Conplomerates of the Witwatersrand: E. T. Mellor.—A Pioneer Bucket Dredge in Northern Nigeria: H. F. Nicholls.—Antimony Production in Hunan Province, South China: A. S. Wheler.

FRIDAY, FEBRUARY 25.

ROYAL INSTITUTION, at 5.30.—The Commerce of Thought: Sir A. Quiller Couch.

SATURDAY, FEBRUARY 26.

ESSEX FIELD CLUB (at the Essex Museum, Stratford), at 3.—Grasses: J. Groves.

TUESDAY, FEBRUARY 29.

ROYAL INSTITUTION, at 3.—The Plant and the Soil—Nature's Cycle: Dr. E. J. Russell.

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WEDNESDAY, MARCH 1.

ENTOMOLOGICAL SOCIETY, at 8.—Specific and Mimetic Relationships in the Genus *Heliconius*, L.: Dr. Harry Eltringham.

SOCIETY OF PUBLIC ANALYSTS, at 8.—The Manufacture of English Chemical Filter Paper: E. J. Bevan and W. Bacon.—Pink Colour on the Surface of Margarine: A. W. Knapp.—A Rapid Method for the Estimation of Fat in Powders: S. B. Phillips.—A New Colour Reaction for Aloes: C. E. Stacy.

INSTITUTION OF ELECTRICAL ENGINEERS (Students' Section), at 7.45.—Suggested Applications of Science to Warfare: R. E. Dickinson.

THURSDAY, MARCH 2.

ROYAL SOCIETY, at 4.30.—*Probable Papers*: The Antiseptic Action of Substances of the Chloramine Group: J. B. Cohen, H. D. Dakin, M. Dausfresne and J. Kenyon.—The Structure of the Dicyndodont Skull: I. J. B. Sollas and Prof. W. J. Sollas.—Analyses of Agricultural Yield. Part III. The Influence of Natural Environmental Factors upon the yield of Egyptian Cotton. W. L. Balls.—The Function of Chlorophyll, Carotin and Xanthophyll: A. J. Ewart.

ROYAL INSTITUTION, at 3.—Recent Excavations in Mesopotamia—The Northern Capitals, Nineveh and Asshur: Prof. L. W. King.

CHILD STUDY SOCIETY, at 6.—The Danish Child at School: A. E. Hayes.

LINNEAN SOCIETY, at 5.—Exhibit of *Giardia (Lamblia) intestinalis* from cases of Diarrhoea in Soldiers, the Infections being contracted in Flanders: Dr. Annie Porter.—Larval and Post-Larval Stages of *Janus lalandii*: Dr. J. D. F. Gilchrist.—The Angust Heleoplankton of some North Worcestershire Pools: B. Millard Griffiths.—The Distribution of the Box-tree, *Buxus sempervirens*: Dr. Otto Stapf.

FRIDAY, MARCH 3.

ROYAL INSTITUTION, at 5.30. Corona and other Forms of Electric Discharge: Prof. S. P. Thompson.

GEOLOGISTS' ASSOCIATION, at 7.30.—The Oil-fields of Trinidad: V. C. Illig.

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Editorial and Publishing Offices:

MACMILLAN & CO., LTD.,

ST. MARTIN'S STREET, LONDON, W.C.

Advertisements and business letters to be addressed to the Publishers

Editorial Communications to the Editor.

Telegraphic Address: PHUSIS, LONDON.

Telephone Number: GERRARD 8830.