the termites found in the Territory collect the great bulk of the earth and sand used in their termitaria, upon the surface.—T. Steel: The feeding-tracks of Limax maximus, Linn.

CAPE TOWN.

Reyal Society of South Africa, May 19.—Dr. L. Péringuey, president, in the chair.—A. Brown: The equivalent mass of a spring vibrating longitudinally. The paper deals with the allowance to be made for the mass of a spring when a weight attached to it is oscillating under gravity and the tension of the spring. The fraction one-third of the spring's mass is correct for great added weights; for very small weights the fraction is a little over two-fifths. The variation of this fraction is considered theoretically, and data supplied to give its value for any weight. Experiments are described confirming the theoretical results.—A. W. Rogers: The occurrence of dinosaur bones in Bushmanland. Dinosaur bones were found in a well in Bushmanland at 112 ft. below the surface. well is in an old valley cut in gneiss and filled in with local débris. It seems probable that the climate became dry while the dinosaurs lived there, and that since then the valley has been steadily filled up.-S. H. Haughton: Description of the dinosaur bones from Bushmanland. The bones discovered by Dr. Rogers consist of a maxillary tooth and portions of the hind limbs and caudal vertebra of a medium-sized Ornithopodous Dinosaur. They are described under the name Kangnasaurus Coetzeei n.g. et sp., which is shown to have affinities with Camptosaurus and its allies, and with Mochlodon and Hypsilophodon. The form is certainly younger than Camptosaurus, but no estimate of its exact age is given—the evidence being considered to be insufficient.—C. K. Brain: The Coccidæ of South Africa. The paper, which is the first contribution to a catalogue of the Coccidæ of South Africa, deals with five subfamilies, viz.:-Pseudococcinæ, Orthesiinæ, Coccinæ, Monophlebinæ, and Margarodinæ. Sixty-three species and two varieties are described, of which number thirty-two are here dealt with for the first time.—J. S. v. d. Lingen: A note on the molecules of liquid crystals. The object of the paper is to show the effect of bi-prisms on the Laue spots. Experiments carried out with prisms of NaCl show that the spots are "fluted," and that the central spot is elliptic instead of circular. 60° and 179° bi-prisms show this phenomenon, especially when they are rotated through a small angle.—J. S. v. d. Lingen: The "lines" within Röntgen interference photographs. The author holds that these lines are due to the ruptured surface, which will most probably re-semble an echelon grating. Sodium chloride, quartz, silicon, and magnesium hydroxide photographs are described. These show "irregular spots" under certain conditions.

## BOOKS RECEIVED.

Arithmetic. By C. Godfrey and E. A. Price. Parts i., ii., and iii. Complete. With Answers. Pp. xiii+467. (Cambridge: At the University Press.) 4s.

Typical Flies: a Photographic Atlas of Diptera, including Aphaniptera. By E. K. Pearce. Pp. xii+47. (Cambridge: At the University Press.) 5s. net.

(Cambridge: At the University Press.) 55. net. Citizens To Be: a Social Study of Health, Wisdom, and Goodness. By M. L. V. Hughes. Pp. xvii+331. (London: Constable and Co., Ltd.) 4s. 6d.

The Natural History of the State: an Introduction to Political Science. By Prof. H. J. Ford. Pp. viii + 188. (Princeton, U.S.A.: University Press; London: Oxford University Press.) 4s. 6d. net. Ship Form, Resistance and Screw Propulsion. By

NO. 2385, VOL. 95

G. S. Baker. Pp. vii + 245. (London: Constable and Co., Ltd.) 12s. 6d. net.

Plain and Reinforced Concrete Arches. By Prof. J. Melan. Translated by Prof. D. B. Steinman. Pp. x+161. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 8s. 6d. net.

A History of British Mammals. By G. E. H. Barrett-Hamilton and M. A. C. Hinton. (London: Gurney and Jackson.) 2s. 6d. net.

Introduction to Heat. By A. R. Laws and Dr. G. W. Todd. Boon.) 2s. 6d. Pp. x + 212. (London: Mills and

Scottish National Antarctic Expedition. Report on the Scientific Results of the Voyage of s.y. Scotia during the Years 1902, 1903, and 1904, under the Leadership of Dr. W. S. Bruce. Vol. iv. Zoology. Parts ii.-xx. Vertebrates. Pp. xii+505+plates. (Edinburgh: The Scottish Oceanographical Laboratory.) 50s.

Plane Geometry. By G. St. L. Carson and Prof. D. E. Smith. Part i. Pp. vi+266. Part ii. Pp. vi+259-482. (London and Boston: Ginn and Co.)

2s. 6d. each part. Elements of Algebra. By G. St. L. Carson and Prof. D. E. Smith. Part ii. Pp. v+325-538. (London and Boston: Ginn and Co.) 2s. 6d.

CONTENTS. PAGE 532 The Physical Basis of Geography. By Dr. Arthur 534 534 Our Bookshelf Letters to the Editor:-The Use of Cotton for the Production of Explosives. -W. Lawrence Balls; "The Writer of the Article" The Great Aurora of June 16, 1915--Prof. E. E. Barnard The Magnetic Storm and Solar Disturbance of June 17, 1915.—Rev. A. L. Cortie, S.J. . . 537 Use of Tyrosine in Promoting Organic Growth.—
Dr. H. Charlton Bastian, F.R.S.

Napoleon and the University of Pavia.—Prof. D. 537 Fraser Harris

A New Tsetse-Fly from Zululand.—E. C. Chubb

Munition Metals. By Prof. H. C. H. Carpenter

The Products of Coal Distillation 541 The Manchester Meeting of the British Association. By S. J. H. . . . . . . . . . . . . . . . . 543 The Structure of the Universe . . . The Nebulous Region near Omicron Persei . . . . Work at the Lowell Observatory . . . . . . . . 548 The Museums Association
The Daylight Fireball of July 5 By W. F. Denning
The Material Basis of Evolution University and Educational Intelligence . . . . . Books Received . . . . . . . . . . . . . . . . . . SUPPLEMENT. Members of Scientific Staffs of Universities, Colleges, and Other Institutions on Active Service with H.M. Forces . . . . . . . . . . . . . . . . . iii

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.