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BOOKS RECEIVED.

Die Vitamine: ihre Bedeutung für die Physiologie und Pathologie. By C. Funk. Pp. viii+193+ii. plates. (Wiesbaden: J. F. Bergmann.) 8.60 marks. Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India. Sanitary Departments of the Government of India. (New Series.) No. 60. Studies on the Mouth Parts and Sucking Apparatus of the Blood Sucking Diptera. No. 4. The Comparative Anatomy of the Proboscis in the Blood-Sucking Muscidæ. By Capt. F. W. Cragg. Pp. 56+v plates. (Calcutta: Superintendent Government Printing, India.) 1s. 9d.

Recueil de l'Institut Botanique Léo Errera. By J. Massart. Tome ix. Pp. viii + 408 + iv plates.

(Bruxelles: H. Lamertin.)

The Freedom of the Press in Egypt. By K. Mikhail. Pp. xii+37. (London: Smith, Elder and Co.) is. net.

The Purpose of Education. By St. G. Lane Fox Pit. Pp. ix+83. (Cambridge University Press.) 2s. 6d. net.

Genera of British Plants. By H. G. Carter. Pp. xviii+121. (Cambridge University Press.) 4s. net. A Practical Manual of Autogenous Welding (Oxy-

Acetylene). With a Chapter on the Cutting of Metals with the Blowpipe. By R. Granjon and P. Rosemberg. Translated by D. Richardson. Pp. xxii+234.

berg. Iranslated by D. Richardson. Pp. xxii+234. (London: C. Griffin and Co., Ltd.) 5s. net. Elementary Graphic Statics. By J. T. Wright. Pp. xii+227. (London: Whittaker and Co.) 4s. net. Artificial Parthenogenesis and Fertilisation. By J. Loeb. Originally translated from the German by W. O. R. King. Supplemented and revised by the author. Pp. x+312. (Chicago: University of Chicago Press; London: Cambridge University Press.) 10s. net.

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Proceedings of the London Mathematical Society. Second Series. Vol xii. Pp. lix+488. (London: F. Hodgson.)

Elementary Practical Chemistry. Part i., General Chemistry. By Prof. F. Clowes and J. B. Coleman. Sixth edition. Pp. xvi+241. (London: J. and A. Churchill.) 3s. 6d. net.

Churchill.) 3s. 6d. net.

The Foundations of Science. By H. Poincaré.

Translated by G. B. Halsted. Pp. xi+553. (New York and Garrison, N.Y.: The Science Press.)

Social Insurance, with Special Reference to American Conditions. By I. M. Rubinow. Pp. vii+525. (New York: H. Holt and Co.) 3 dollars net.

Handbuch der vergleichenden Physiologie. Edited by H. Winterstein. 39 Lief. (Jena: G. Fischer.)

5 marks.

Handwörterbuch der Naturwissenschaften. Edited by E. Korschelt. Lief. 69 and 70. (Jena: G. Fischer.) 2.50 marks each Lief.

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