

conditions of hypnotic trance and in a specially contrived darkened cabinet, she is said to exude, chiefly from the natural orifices of her body, a plastic, amorphous substance which assumes (as Hamlet said of his father's ghost) a questionable shape, usually a face or a hand. The shape is three-dimensional, and the author of this book, who has studied the case at first hand and under his own conditions in his own laboratory, tells us that he has himself touched it and even felt the bones beneath its skin. The exuded substance, notwithstanding its assumption of this solid shape, is invariably, and generally expeditiously, re-absorbed by the lady, and the suggestion is that it could not be detached or amputated without serious, if not fatal, injury to the lady.

The theory expounded in this book is that these two phenomena, the histolysis of the insect and the materialisation of the lady, are fundamentally and essentially identical, and the study of them has led the author to formulate a new principle, which he names dynamo-psychism. This, he claims, is a scientific principle which finally solves all the problems of life and evolution. As a philosophy it has had, he tells us, its forerunners in Schopenhauer's theory of will and in von Hartmann's theory of the unconscious; but the great merit which is claimed for the new formulation is its overcoming of the pessimism inherent in those theories.

H. W. C.

(1) *The Copernicus of Antiquity (Aristarchus of Samos)*. By Sir Thomas Heath. (Pioneers of Progress. Men of Science.) Pp. v+59. (London: S.P.C.K.; New York: The Macmillan Co., 1920.) 2s. 6d. net.

(2) *Kepler*. By W. W. Bryant. (Pioneers of Progress. Men of Science.) Pp. 62. (London: S.P.C.K.; New York: The Macmillan Co., 1920.) 2s.

(1) THE first of these two little books is the work of a master-hand. Sir Thomas Heath published in 1913 a valuable edition of the only extant writing of Aristarchus, preceded by an introduction of more than 300 pages, in which he gave a critical history of Greek cosmology up to the time of Aristarchus. In the present little book he also begins by giving a rapid sketch of the various systems of the world proposed by Greek philosophers. The statements of ancient writers are next quoted, proving beyond dispute that Aristarchus really put forward the heliocentric hypothesis. We could have wished that it had been shown in more detail how Aristarchus may have been led to propose this way of "saving the phenomena." Lastly, there is an account of the contents of the treatise of Aristarchus on the sizes and distances of the sun and moon, which is of considerable mathematical interest.

(2) Mr. Bryant's account of Kepler's life and work, though very readable, is not altogether satisfactory. The description of how the first two laws of Kepler were found is not clearly expressed and is incorrect in many details. When allud-

ing to Kepler's ideas on gravity it should have been pointed out that his force was tangential to the orbit and not directed to the sun. Of the work on the harmony of the world we are told that "the fifth book contains a great deal of nonsense." That Kepler distinctly states that the harmony is only a mathematical conception, and that there is not really any music of the spheres, is not mentioned. The portrait given as a frontispiece is not of Kepler.

*Cocoa and Chocolate: Their Chemistry and Manufacture*. By R. Whympster. Second edition, revised and enlarged. Pp. xxi+568+xv plates. (London: J. and A. Churchill, 1921.) 42s. net.

THE first edition of this book appeared in 1912, and quickly established for itself a reputation as a useful book of reference, especially in connection with the problems of cocoa and chocolate manufacture, as distinct from those of cacao cultivation and preparation. The second edition has been largely rewritten and brought up to date—a considerable task in view of the important changes which have taken place in cacao production and chocolate manufacture since 1912.

The book is divided into three parts: (1) the history, botany, and agriculture of cacao; (2) the manufacture of chocolates and cocoa powders; and (3) the chemistry of cacao and its products. The few defects of the first edition were nearly all in part 1, and have been remedied, so that the book is now a reasonably complete account of the whole industry. It is well produced, and is provided with a good index and numerous carefully selected illustrations. Presenting, as it does, a broad survey of the whole subject, it should be particularly useful at the present time, when chocolate manufacture, at any rate in this country, is at a somewhat critical period in its history.

*Mathematical Papers for Admission into the Royal Military Academy and the Royal Military College and Papers in Elementary Engineering for Naval Cadetships and Royal Air Force for the Years 1911-1920*. Edited by R. M. Milne. (London: Macmillan and Co., Ltd., 1921.) 10s. 6d.

ALL the papers described in the title which have been set during the last ten years are here collected in a single convenient volume. The answers to the questions, where necessary, have been provided by the editor at the end of the book. To those who are engaged in preparing candidates for Army examinations this publication will be extremely useful.

*Scurvy: Past and Present*. By Prof. Alfred F. Hess. Pp. vii+279. (Philadelphia and London: J. B. Lippincott Co., 1920.) 18s. net.

PROF. HESS gives in this work the results of an exhaustive study of scurvy in all its aspects—its history, pathology, causation, symptomatology, diagnosis, and treatment. The bibliography is most complete. The work is very convincing.