

Our Bookshelf.

Fever, Heat Regulation, Climate and the Thyroid-Adrenal Apparatus. By Dr. W. Cramer. Pp. ix + 153 + 40 plates. (London: Longmans, Green and Co., Ltd., 1928.) 15s. net.

IN this interesting little volume the author adduces evidence in favour of his view that heat regulation in warm-blooded animals is mainly under the control of the sympathetic nervous system, and that since the adrenal and thyroid glands are controlled by this system, the mechanism involved is both nervous and humoral. The activities of the two glands have been followed by the histological method: in the adrenal, fixation by means of osmic acid vapour discloses the presence in the resting medullary cell of fine black granules, which, from their absence from other cells and from their disappearance under conditions known to result in a secretion of adrenalin, are considered to indicate the presence of the base. In the case of the thyroid, conclusions are drawn from the appearance of the colloid and cells lining the alveoli. The numerous illustrations of drawings of actual microscopic sections show clearly the marked differences observable in the gland picture following exposure of the animal to heat or cold or injection of various compounds.

An essential part of the author's thesis is the consideration of the glycogen in the liver as a secretion rather than as a simple store of surplus carbohydrate; the presence or absence of glycogen is not a measure of the activity of the glycogenic function, since the amount present depends solely on the balance between production and secretion from the cell; increased glycogen means hyperactivity of the liver on the storage, inactivity on the secretory conception.

In general, the author throws a new light on, or gives a new interpretation of, established facts, and thereby clarifies several problems; in one or two cases, however, the foundations of the thesis appear insecure, owing to the experiments on which he relies being unconfirmed or not generally accepted; as an example may be mentioned the question of the influence of the sympathetic nervous system upon the metabolism of skeletal muscle. In his concluding chapters the author considers the relationships of climate and various pathological conditions to the heat-regulating mechanism. This is a most stimulating book, and should be read by all physicians, pathologists, and psychologists.

Allgemeine Biologie: eine Einführung in die Lehre vom Leben. Von Dr. Max Hartmann. Zweiter Teil: *Formwechsel und Reizerscheinungen.* Pp. v + 263-756 + ix. (Jena: Gustav Fischer, 1927.) 25 gold marks.

WHILE some of the material in this book is years out-of-date, there are so many beautiful figures and descriptions from the works of the last generation of Continental zoologists, that the book will prove a very valuable addition to the library of the teaching zoologist. Some of the work of Bělař especially, which is incorporated, is extremely

fine. The protozoological and cytological treatment is naturally very well done, if, as the reviewer has mentioned, a little behind the times. It is possibly somewhat tiresome to have served up to one the descriptive cytology and protozoology of the Bouin's fluid and Schaudinn's fluid epoch. The author would have done well if before finishing he could have read Wilson's "The Cell," but it would be cavalier to expect in a book of this size a treatment of various cytological subjects on the masterly lines of Wilson. There is a quite fine chapter on developmental physiology, written, as indeed is the rest of the book, concisely and clearly. The reviewer recommends teachers of zoology to obtain a copy of this work, because, in the absence of a good library, it will provide something from the work of the Continental protozoologists and cytologists. The author is to be congratulated on the manner in which he has brought forward a great mass of material, and condensed it into a splendid work of seven hundred pages.

J. BRONTÉ GATENBY.

Man a Machine: in Answer to a Romantical and Unscientific Treatise written by Sig. Eugenio Rignano and entitled "Man not a Machine." By Joseph Needham. (Psyche Miniatures, General Series, No. 12.) Pp. 111. (London: Kegan Paul and Co., Ltd., 1927.) 2s. 6d. net.

THE author has revived the title of a discourse which appeared in 1748 under the authorship of M. de la Mettrie, a Paris physician, who interpreted the nature of life on a basis of experiment and scientific observation. So materialistic a view was bound to call forth many replies—for example, "Man More than a Machine," of unknown authorship, in 1750—most of which were based on anti-materialistic ideas, more especially relating to the soul.

The controversy between the materialism of natural philosophy and the vitalism of the metaphysicians continues to experience periodic waves of revival; and again, in 1926, there appeared in this series of miniatures a philosophic presentation of Rignano's interpretation of life under the resuscitated title of "Man not a Machine." The booklet now under review is a reply to Rignano, in which the author presents scientific data, chiefly of a physico-chemical and embryological character, as being more directly related to his own work. Readers interested in a rational interpretation of living processes will find here some of the points at which the gradual encroachment of scientific method is continuously making inroads into the sacred preserves of vitalism.

The Earth: its Nature and History. By Dr. Edward Greenly. (The Forum Series.) Pp. ix + 54. (London: Watts and Co., 1927.) 1s. net.

THE publishers of the Forum Series are gradually building up a library of cheap books of which they may well be proud. Prof. Julian Huxley and Sir Arthur Keith are among the earlier contributors, and now comes Dr. Edward Greenly with a fascinating