

afterwards the special crops of the south are described. Succeeding chapters deal with plant diseases and insects; these, however, are written by specialists, as one man could not hope to write a useful book which would cover the whole range of the subject. Altogether the book appears to be admirably suited to the purpose for which it is intended, and it can be cordially recommended as a clear statement of the principles of the subject.

E. J. R.

*Vitality, Fasting, and Nutrition.* By Hereward Carrington. With an introduction by Dr. A. Rabagliati. Pp. xl+648. (London: Rebman, Ltd., n.d.) Price 21s. net.

THE use of food of different kinds in disease, and the need of prohibition of food either in part or *in toto*, is a necessary part of the knowledge of every medical practitioner. The author of the above work seeks to magnify the importance of fasting over prolonged periods as the sole means of curing all the ills of human flesh. Some years ago another American writer wrote a book entitled the "No Breakfast Cure," in which the omission of this very pleasant meal was lauded as the universal panacea for all illness. Mr. Carrington has, however, "gone one better," and advises the discontinuance of all meals. His book is a strange medley, and hardly merits serious consideration in a scientific journal. Among its many assertions which are unsupported throughout by any experimental evidence are the following:—All medical science is wrong *ab initio*; diseases are nature's mode of cure; the taking of the impurities called foods is the source of all evil; the germ theory of disease is a myth; the law of conservation of energy is a fiction; food is not a source of energy or strength, but of weakness; the energy of the body is derived from an internal source, a kind of vital spirit in one's interior which can only be cleansed and rendered pure by the agency of starvation.

Happily for the sake of the too easily gulled public, he relates some cases illustrative of his method of cure. The perusal of these will be quite sufficient to prevent his therapeutic methods from obtaining a wide vogue. Some of these describe the ordinary symptoms of starvation somewhat graphically, but death when it occurred as the inevitable result is attributed to something else. Photographs are given of one patient reduced to the condition of a skeleton, but purified from the dross of food with the vital flame burning without hindrance. As a proof of this patient's vigour after a fast of forty-one days, the author naively remarks:—"I helped him to undress and dress, though he could easily have done this himself."

The book is only remarkable as an instance of the lengths to which a fad can be carried.

W. D. H.

*Die Cestoden der Vögel.* By Dr. O. Fuhrmann. Zool. Jahrb., Suppl. 10, part i. Pp. 1-232. (Jena: Gustav Fischer, 1908.)

IN no group of vertebrates are cestode worms so numerous and of such varied types as among birds, and as these have hitherto been but little studied, Dr. Fuhrmann has for the last eleven years devoted a large portion of his time to their investigation, directing special attention to the tæniid, or tape-worm, group. The result is the present memoir, which bears full witness to the arduous nature of the author's labours. No fewer than sixty-four distinct generic types (many of them with numerous species) of these parasites are recognised as infesting birds, and the author has taken special pains to ascertain so far as possible the particular groups of birds to

which these various genera respectively devote their attentions. This renders the work of value and interest to the ornithologist as well as to the students of parasitology, since the results have a distinct bearing on the mutual relations of different bird-groups. He shows, for instance, that the plover group (*Limicolæ*) has no parasites common to the gulls (*Gaviæ*), which may tend to show that these groups are less intimately related than is generally considered to be the case, although, before coming to a definite conclusion, the difference in their habitats must be borne in mind. Similarly, it is found that the parasitic worms of the diurnal birds of prey (*Accipitres*) are totally distinct from those of the owls (*Striges*), despite the fact that the food of many members of the two groups is identical. In this case we have confirmation of the modern view as to the wide sundering of the *Accipitres* and the *Striges*. To follow the author further is, within the limitations of our space, impossible, and we may therefore conclude by commending his work to the best attention of both ornithologists and helminthologists.

R. L.

*Thoughts on Natural Philosophy, with a New Reading of Newton's First Law.* By A. Biddlecombe. Pp. 24. (London: Whittaker and Co., n.d.)

MANY and various are the subjects that may be included under the term "natural philosophy." The author, in a brochure of the modest length of twenty-four pages, refers to all the recent physical discoveries, over which he is enthusiastic. Radium and the theory of atomic disintegration, he says, "enabled him to jump to the apprehension of the speed theory of material combination which has formed the germ from which this sketch of a true natural philosophy has developed."

His main point seems to be that energy (or natural motion)—and the æther is considered to be material—is the original thing, and that rest is a secondary effect. He thus arrives—by "natural philosophy," shall we say?—at a point not very distant from the modern doctrine of energy, although he himself appears to consider that this point of view is unorthodox. The "speed theory" is best described in the author's own words:—

"This is the great truth, and appears to be the key to the Riddle of the Universe—viz., that the speed<sup>1</sup> and weight of granules, corpuscles, atoms, and molecules, and the peculiarities of movement resulting from that speed and weight, give to substances their distinguishing characteristics, and account for all natural phenomena."

With this as a possible point of view, none, probably, will be disposed to quarrel. Though it may be new to the philosopher, it will sound not altogether unfamiliar to the man of science.

*The Ruskin Nature Reader.* Being a Collection of Literary Extracts to Accompany a Course of Nature Study. Selected and edited by G. R. Bennett. Pp. ix+236. (London: J. M. Dent and Co., n.d.) Price 1s. 9d.

THE judicious selection of literary extracts which Mr. Bennett has made shows convincingly what a strong appeal to our great writers' natural objects and phenomena have always made. Though called after him, the reading-book is by no means confined to excerpts from Ruskin's work; indeed, there are only five such extracts among forty-four. Gilbert White, Tyndall, Izaak Walton, Darwin, and Richard Jefferies are among the writers drawn upon. If the book sends boys and girls out to observe for themselves, as Mr. Bennett hopes it will, it will have served a really useful purpose.

<sup>1</sup> Speed and movement may take many forms.