

That the present system of prison administration has elasticity and progressiveness is shown by the policy towards these offenders at Birmingham and other centres, where special arrangements have been made for the observation and examination of any prisoner whose mental capacity seems impaired, by trained and efficient medical men. Here, after a period of detention on remand, where the offender is carefully observed, his previous history ascertained, and his psychology investigated, on the report or evidence of the medical observer, sympathetic justices dispose of the case in a manner which is most suitable to the circumstances of the individual, and not on the old stereotyped method of sentence following crime. In regard to Borstal institutions also, which at one time held out so much promise, the study of the individual offender is all-essential, and, though this is now done by the officials responsible, it is a matter of great doubt whether it can be carried out at all efficiently in a place where some 400 or 500 youthful offenders are congregated.

Dr. Gordon's book generally is well worthy of perusal, although we cannot accept all her conclusions or remedial methods on the subject of crime and criminals.

Our Bookshelf.

- (1) *Microbiology*. Edited by Prof. C. E. Marshall. Third edition revised and enlarged. Pp. xxviii+1043+1 plate. (London: J. and A. Churchill, 1921.) 21s. net.
- (2) *Laboratory Manual in General Microbiology*. Prepared by the Laboratory of Bacteriology and Hygiene, Michigan Agricultural College. Second edition. Pp. xxii+472+1 chart. (New York: J. Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1921.) 21s. net.
- (3) *Die Anaphylaxie*. By Prof. Ch. Richet. Autorisierte Übersetzung von Dr. med. J. Negrin y López. Pp. iv+221. (Leipzig: Akademische Verlagsgesellschaft m.b.H., 1920.) n.p.
- (4) *A Treatise on the Transformation of the Intestinal Flora, with Special Reference to the Implantation of Bacillus Acidophilus*. By Prof. L. F. Rettger and H. A. Cheplin. Pp. vii+135+viii plates. (New Haven: Yale University Press; London: Oxford University Press, 1921.) 12s. 6d. net.
- (5) *Diagnosis of Protozoa and Worms Parasitic in Man*. By Prof. R. W. Hegner and Prof. W. W. Cort. Pp. 72. (Baltimore, Maryland: The Johns Hopkins University, School of Hygiene and Public Health, 1921.) n.p.

(1) PROF. MARSHALL'S volume is a text-book of general and applied microbiology. The morphology, cultivation, and physiology of micro-organisms are first dealt with, and an excellent account of these subjects is given. If any chapter were to be selected for special commendation, we should choose Chapter II., partly perhaps, because of its novelty in a work of this kind, in which the physical forces involved in biological

activities are described. An admirable summary is here given of such subjects as ionisation and dissociation, surface tension, adsorption, diffusion, and osmosis, colloids, and crystalloids—all of which are of fundamental importance for the understanding of biological activity. The second half of the book is devoted to applied microbiology, and accounts are given of micro-organisms in relation to air, water and soil, milk and foods, fermentations and disease, including the microbial diseases of plants and insects as well as those of man and animals. Twenty-five specialists in their various subjects contribute to the making of the book, and Prof. Marshall has edited and co-ordinated the whole. We know of no other book which in so limited a space gives such an excellent account, general and special, of micro-organisms in all their aspects. The text contains numerous illustrations.

(2) The second book on our list deals with micro-organisms from the practical laboratory standpoint. All the procedures employed for the study of micro-organisms are adequately described, and a series of class exercises for the study of organisms is detailed. The book forms a valuable practical laboratory manual, particularly useful for the teacher.

(3) Prof. Richet's book on the difficult subject of anaphylaxis is well known, and the volume before us is a translation from the French. The phenomena of the condition are fully described, the hypotheses of its causation are detailed, and a considerable bibliography is appended.

(4) The account of work accomplished in the Sheffield Laboratory of Bacteriology, Yale University, constitutes a valuable monograph, and will be indispensable to all those working on the microbial flora of the intestinal canal. An excellent historical review of the subject is given in the opening pages, a copious bibliography is appended, and the technique employed by the authors is described. The theme investigated is the transformation and simplification of the ordinary mixed intestinal bacterial flora through the diet, in conjunction with the oral administration of cultures of bacteria. This was claimed by Metchnikoff to be possible by the administration of milk soured with the *Bacillus bulgaricus*; but the authors state they invariably failed to accomplish this. By the use, however, of *Bacillus acidophilus* in place of *B. bulgaricus*, the required transformation seemed to be attained.

(5) Profs. Hegner and Cort have produced a useful little book which gives a brief, and on the whole accurate, account of the commoner protozoan and helminthic parasites of man so far as is required for diagnostic purposes; in this respect the several illustrations are a useful adjunct. It is just the book for the clinical laboratory and the medical practitioner.

R. T. HEWLETT.

Insect Pests of the Horticulturalist: Their Nature and Control. By K. M. Smith and J. C. M. Gardner. Vol. 1: *Onion, Carrot, and Celery Flies*. Pp. vi+76+plates. (London: Benn Brothers, Ltd., 1922.) 7s. 6d. net.

THE three pests described in this work are among the most serious enemies with which the commercial grower has to contend. Unfortunately, no really adequate measures for controlling any one of them have so far been discovered. The celery-fly, in its