

of Germany has been proclaimed by Herr Hitler. Japan is about the size of the British islands, but only about one tenth of its area is arable. The population is 61,000,000, and is increasing by one million a year. It is scarcely necessary to look further for causes of the recent Chino-Japanese war. Because catastrophes such as those which occur in the animal kingdom do not take place every twenty or thirty years amongst human populations, the short-sighted ridicule the idea that they ever will occur, but the most superficial study of history proves that the optimists are wrong. It seems to us that the most stupendous task that lies before our rulers in England is the regulation of population; to see that no one is permitted to bring into the world children whom he cannot support, and that we should breed from the thrifty and competent and not from the idle and shriftless.

E. W. M.

Insects and Man

- (1) *Medical Entomology*. By Prof. Robert Matheson. Pp. xiii + 489. (London: Baillière, Tindall and Cox, 1932.) 29s.
- (2) *Medical Entomology: a Survey of Insects and Allied Forms which affect the Health of Man and Animals*. By Dr. William A. Riley and Dr. Oskar A. Johannsen. (McGraw-Hill Publications in the Zoological Sciences.) Pp. xi + 476. (New York: McGraw-Hill Book Co., Inc.; London: McGraw-Hill Publishing Co., Ltd., 1932.) 27s. net.

WHILE medical entomology is mainly concerned with the parts played by insects and ticks in the transmission, causation and spread of disease, its limits have to go farther afield. It needs to embrace all kinds of stinging creatures, species with vesicating and urticating properties, and other forms which function solely as intermediary hosts of human parasites. The growing subject of myiasis requires full exposition and, to-day, the utilisation of dipterous larvæ as healing agents in cases of chronic osteomyelitis can scarcely be passed over. A modern textbook will also need to discuss the rôle of Oscinid flies in connexion with conjunctivitis: the little-known diseases of turalæmia and onchocerciasis, together with the growing importance of mites (*Trombicula*, etc.), and of sand-flies in relation to obscure tropical and subtropical diseases. The literature in these diverse fields grows with such rapidity that few, excepting professed medical entomologists, can keep properly abreast of current developments. This task is rendered the more

difficult owing to the range of periodicals, monographs and government publications that have to be consulted.

(1) Dr. Matheson's book is to be commended as a handy and up-to-date manual. He has explored his subject with thoroughness and provided a clear and orderly presentation of facts and theories. He has, in fact, written a thoroughly sound and comprehensive introductory text which should appeal to the entomologist, medical man and student alike. The bibliographies at the ends of the chapters greatly enhance its value, and its two hundred or so illustrations are clear and well chosen; none of these latter is a familiar 'old stager'. The book is singularly free from omissions and misprints, but we think that its utility may be restricted owing to its somewhat high price.

(2) Messrs. Riley and Johannsen explain in the preface of their book that it is a revision of their earlier manual entitled a "Handbook of Medical Entomology", published in 1915. It differs from its predecessor in that the subject matter has been rearranged while the text has been extended and much new knowledge incorporated. In a compass of little more than 450 pages, practically every known disease or affection connected directly or indirectly with insects or other arthropods is taken into account. The essential facts respecting the etiology of such diseases are clearly presented while preventive and remedial measures are adequately discussed.

On the entomological side, very full taxonomic keys serve to identify the different species of insects, etc., that are involved, while their habits and measures of control are also dealt with. On the other hand, the book is much less informative as regards the structure and physiology of the essential parts and organs directly concerned with disease transmission by insects. The reader, for example, will have to go elsewhere for information on the mouth-parts of a mosquito, *Stomoxys* and *Glossina*. Little is said about the complex feeding apparatus of the house-fly and its allies, and a proper understanding of this subject is necessary in order to appreciate the rôle such insects play in relation to disease organisms. Apart from omissions of this kind, the book can be recommended as a sound and up-to-date exposition of its subject.

The works of a large number of authorities have been drawn upon in its preparation. It is, however, disappointing to find many names quoted are omitted from the list of references and that their spelling is not always correct. A. D. I.