

what dreadful places the Darwinian path leads. He applies the pragmatist test: What is this hypothesis good for? and he finds that it is not good either for a man's metaphysics or for his morals. This mode of testing scientific conclusions seems a dangerous one. It brings the passions and noise of the market-place into the dispassionate and quiet walks of science. In many pages the author seems to us to be caricaturing Darwinism, and while his work may be of use in showing the danger of hastily transferring biological results into the ethical and social realm, it seems to us to be full of exaggerations and fireworks. Some well-meaning writers have done ill-service by hastily transferring to the human social realm the imperfect results of a rapidly changing biological ætiology which would be better pleased to be left to mind its own business, but it seems to us even more deplorable that an author of Max Steiner's ability should prejudice judgment on Darwinism by showing in lurid colours what *might* be the social, ethical and æsthetic consequences of certain biological doctrines or misinterpretations of these.

J. A. T.

THE STUDY OF TROPICAL DISEASES.

The Practical Study of Malaria and other Blood Parasites. By Dr. J. W. W. Stephens and S. R. Christophers. Pp. iv+414+xiv. Third Edition. (Liverpool: The University Press; London: Williams and Norgate, 1908.) Price 12s. 6d. net.

THE issue of three editions of this book in the space of five years is eloquent testimony to its usefulness, and we can well understand that, to the worker in the tropics, far away, perhaps, from libraries, laboratories, and fellow-workers, it is invaluable. The authors are both well known for their researches on tropical diseases, and Dr. Stephens is lecturer in the Liverpool School of Tropical Medicine, so that they know the needs of the research student. In the present edition various alterations have been made—trypanosomes, the Hæmamœbidæ and spirochætes are described at greater length than before, the chapter on ticks has been re-written and extended, the consideration of mosquitoes has been confined to the Anophelinæ, and the chapter dealing with Filarinæ has been omitted.

The last-named omission is, in our opinion, a mistake, for this section added much to the completeness of the volume, without enlarging it to too great an extent. The book is profusely illustrated with rough but characteristic sketches, more finished drawings, and coloured plates, which enhance its value.

The first two chapters deal with the normal and pathological cells of the blood, their enumeration, and staining. In the drawing of the megaloblast (Fig. 1, p. 2), the nucleus is depicted too deeply stained, and it is hardly correct to describe the nucleus of the large mononuclear leucocyte as irregular and much indented. The caution to use pure methyl alcohol in making up the Leishman stain might have been emphasised. Chapters iii., iv., and v., on malaria, are concise and to the point, and embody a number of useful practical "tips." We miss, however,

any reference to the term "subtertian," now commonly used to designate the malignant tertian fever. Chapters vi. to xix. deal with mosquitoes—their general structure, development, life-history, habits, and classification, methods of examination, breeding, capture, and identification. As regards killing, no mention is made of the ordinary entomologist's killing bottle, which can often be obtained or extemporised, and when at hand is one of the best methods available. As regards classification, that of Theobald is adopted, which is based largely on the characters of the scales on the wings and body. The authors are probably wise in confining their description of species almost to the Anophelinæ; these are the important ones from the point of view of medical research, and to have included much more would have occupied far more space than could be allotted. Chapter xxi. is a useful one, indicating how to make a malarial survey of a district. In chapter xxii. the clinical study of malaria is detailed, and contains much useful information. The Hæmamœbæ, hæmogregarines and Piroplasmata are next considered, and the occurrence and main characters of the important species described. We note that it is stated that Miyajima cultivated a trypanosome in blood bouillon from *Piroplasma bigeminum*, but this is an error; the species giving rise to these flagellated developmental forms was probably *P. parvum*. The consideration of ticks naturally follows that of the Piroplasmata, and a very full description of these arthropods is given; but in the classification and description of species more mention of synonyms would have been helpful. The trypanosomes are next considered in great detail, and a chapter on biting flies, e.g. *Stomoxys*, *Tabanus*, and *Glossina*, concludes the descriptive matter.

The book also includes chapters on blackwater and yellow fevers, and an appendix containing formulæ for stains and other solutions, preparations of tissues, weights and measures, &c.

We congratulate the authors on their work, which will be indispensable in all laboratories.

HUMAN PHYSIOLOGY.

Physiologie des Menschen. Von Dr. L. Luciani. Ins Deutsche übertragen und bearbeitet von Prof. Dr. S. Baglioni und Dr. Hans Winterstein. Sechste bis zehnte Lieferungen. (Jena: Gustav Fischer, 1907.)

THE issue of the sixth to tenth parts of Luciani's text-book of physiology nearly brings the work to a conclusion. Within the limits of a review it is only possible to mention the most salient features of the book.

Part vi. deals first with the excretory functions of the intestines. The description is noteworthy, not only on account of its excellence and completeness, but also because it indicates more fully than is usual in text-books of physiology the important bearing of the facts on practical medicine.

In the next chapter the chief chemical constituents of the urine are enumerated and described. In view of the large number of works entirely devoted to