

shall always be detected therein if they are present. Culture is advocated for diagnosis if the thick film prove negative and doubt still remains, thus following Sinton, in whose hands it has in these conditions been successful, the amount of blood usable amount to 1 c.cm. A fifth coloured plate illustrates the normal and abnormal cells which may be found in a stained blood film.

Very convincingly, Knowles unfolds the argument against 'parthenogenesis' in Plasmodium, but, unfortunately, it is not, as he writes, "now as dead as mutton"; it has recently been sponsored by a great French scientific society in considered advice to the French Government.

The line of treatment inclined to is Sinton's alkaline quinine mixture, but as regards total dosage sufficient stress seems scarcely to be laid on the difference in reaction to the cinchona alkaloids which is shown by a recent and by an 'established' infection, both conveyed by the mosquito. Perhaps for the book's purpose such stress is useless, in view of the unlikelihood of detecting a new early infection in those who have been infected in, and have relapsed or been reinfected since, childhood. The cinchona alkaloids other than quinine, and the mixture known as cinchona febrifuge, are considered. The very strong reasons against giving quinine by the intra-muscular route are fairly marshalled, the invariably resulting necrosis is stressed, and some of the appalling consequences illustrated. After all, seeing that the Indian sub-assistant surgeon does give intravenous injections of tartar emetic for kala-azar at the rate of about two a minute in Assam, there is little excuse by any one to avoid the sure and rapid intravenous route for quinine, where the oral route is contraindicated.

Senior-White describes the making of a malarial survey, and the design, construction, and maintenance of anti-malarial measures, and furnishes appendices. These comprise the breeding places and distribution of Indian anopheles, and a key for the identification of the imagines. A corresponding key for the mature larvæ is accompanied by a sketch of the entire larva with its anatomical parts named; an idea which will, no doubt, be extended to the imago in another edition. Both keys are usefully illustrated throughout. The last appendix consists of a copy of the specification which has been found so valuable for the construction of subsoil underdrains in the Federated Malay States. A considerable bibliography follows. The book fills well the limited function for which it is intended.

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Our Bookshelf.

Comets and the Sun: New Theories regarding their Structure. By Dr. John W. Weir. Pp. xvi + 72. (London: Longmans, Green and Co., Ltd., 1927.) 12s. 6d. *not*

THIS book is very well illustrated; it contains reproductions of photographs and drawings of Halley's and other comets, made at the principal observatories, also photographs of sunspots and the corona, and a large coloured drawing of a solar prominence. A considerable part of the text is taken up with quotations from the writings of well-known astronomers; some of the passages quoted were, however, written before the recent advances in atomic physics, and are now somewhat out-of-date.

Cometary physics are very difficult to explain in a perfectly satisfactory manner, and it is unwise to be too dogmatic in condemning any suggestion as being certainly unsound; some of the author's suggestions are, however, rather difficult to accept. Thus he suggests that the tails of comets are bounded by an envelope, which he appears to picture as a sort of membrane. It must be admitted that the well-known drawing by Gen. G. H. Willis of the great comet of 1882 lends some support to the suggestion; yet it is difficult to reconcile it with our knowledge that the tail is not at rest with respect to the head, but is continually being driven outward by powerful forces. Again, the author invokes currents in the interplanetary medium to explain some features of the tail. The study of cometary movements clearly shows that the medium offers no sensible retardation to the motion of the comet as a whole; still less could its differential action between different parts of the comet be sensible. There are similar difficulties in some other suggestions; still we may admire the author's enthusiasm for his subject, and his desire to throw new light upon it, even if we are unable to accept all his ideas.

A. C. D. C.

A Text-Book of Geology. By Philip Lake and R. H. Rastall. Fourth edition. Pp. xiv + 520 + 33 plates. (London: Edward Arnold and Co., 1927.) 21s. *not*

THE fourth edition of the deservedly popular "Lake and Rastall" remains unaltered in plan, but a considerable number of minor changes and a few brief additions have been made. For the most part these are insufficient to indicate to the student the remarkable developments in geological interpretations that are at present in full swing. It may be that the authors feel that the time is not yet ripe for the incorporation of modern advances into the scheme of an elementary text. Certainly it would be difficult to introduce the newer outlook into any already existing text-book. Nevertheless, more attention might have been given to isostasy; the structure of the crust as revealed by earthquake records; the work of the Carnegie Institution of Washington on the nature of volcanic activity; and the far-reaching consequences of the recognition