

Aztecs we know that the louse was ready to play its part. In the New World the disease shows a little modification. Lastly, modern research has brought forth the disquieting fact that man himself may act as a reservoir or carrier, even as he can for typhoid.

The author closes on a note of hope, and believes that typhus will be in the end a controlled disease.

But it must be confessed that he has made one reader's flesh creep; in anticipation of a journey in foreign parts the reviewer would welcome heartily the discovery of a louse-proof unguent.

The whole book is permeated by humour, and the reader is refreshed by the author's slightly acid comments on his fellow men and their ways.

E. G.

Cleanliness First

Milk:

Production and Control. By Dr. Wm. Clunie Harvey and Harry Hill. Pp. viii+555. (London: H. K. Lewis and Co., Ltd., 1936.) 21s. net.

JUST over three hundred years ago, Sir Hugh Myddleton built his New River to furnish a better water supply to London. Like a watch tower, the Town Hall at Palmer's Green, from which the present book was written, overlooks the old New River. To-day the supplying of water to cities is a problem of quantity rather than of purity; but regarding the purity of milk we have not much to boast about: we are in the stage only of emerging from uncleanness. Provided it obtains the attention it deserves, this book should help considerably towards formulating, and indeed implementing, a positive policy of cleanliness in the production of milk.

The authors deal solely with the production and control of cows' milk, and are not concerned with cream, condensed milk or other products. It is not clear whether the purely dairying parts of the book have been written at first-hand or from knowledge acquired in other ways, but even as a compilation the work must compel admiration. It has no pretension to literary style, and there is occasional unevenness, as in the treatments of centrifuging (p. 402 and p. 424), but there are remarkably few flaws in matter. Of the few slips, the only one that need be mentioned is the recommendation to use a *clinical* thermometer (p. 421) for determining the temperature of milk at about 60° F. More space might have been given to the non-pathogenic acid-fast bacteria, possibly by sacrificing the section on water-softening. Though obviously many sources have been consulted with care, the inadequacy of the citations will annoy some readers, and the "Bibliography" is a misnomer. The index is good, as is the printing.

The poverty of the references emphasises the fact that the book has essentially a practical aim, which it thoroughly fulfils. For anyone not a research worker in dairy science, the book is

complete in itself. As a working manual, it is excellently contrived, and in the sphere of milk production is probably unrivalled, and likely to remain so. The book contains instruction on every relevant subject from the milking of cows to the design of byres; its treatment of legislation is particularly full—almost encyclopædic within its scope—and even liquid manure is considered, though the advice to pour the liquid over the solid manure appears unsound to the reviewer. The chapter headings will give some idea of the contents of the book. After a brief introduction on the composition of (cows') milk, there follow: milk and disease, the cow, the cowshed, the dairy, clean milk production, the distribution of milk, designated milks, treatment of milk by heat, laboratory and other control, and the future of the milk industry. The treatment of most of these subjects is as full as could be desired. Three appendixes contain specimen forms and record cards and some admirable specimen bulletins in popular language, suggested as propaganda to producers and others.

Pasteurisation and other modes of heat treatment are discussed in a rational manner. The authors look upon them as regrettable necessities in present conditions, but regarding the effects of heat treatment upon the nutritive properties of milk, no experiment published after 1928 is quoted. Every requisite for real cleanliness, however, finds its place, and the authors at no time 'cry for the moon'. Many farmers, believing that medical officers of health and other sanitary officials aim at converting the cowshed into something like an operating theatre, are suspicious of recommendations which they also believe to be born of ignorance of farm conditions. No such suspicion can attach to this book, for it is highly practical throughout.

The book appears to be just the right size, and the reviewer hopes that it will not be spoilt by accretion of detail in later editions. As it is, it will surely be of the highest value to all who are concerned with, or interested in, the production and distribution of good milk.

HUGH NICOL.