

diseases—depends upon early diagnosis; and prevention of them is no less dependent on this. The general practitioner therefore mans the front-line observation post upon which the artillery of preventive medicine relies. He will find in this compact and authoritative volume an invaluable source of the accurate information which he must have.

In this fifth edition no change has been made in the plan and scope of the book; its size has not been increased; it is, in fact, a few pages smaller; but many pages have been entirely rewritten, especially the chapters on malaria, kala-azar, trypanosomiasis, the fevers of the typhus group, leprosy and the dietetic diseases. Although the results of much modern work have been included, the book evidently went to press just too early for the inclusion of any reference to the remarkable success of D.D.T. for the control of the lice which transmit epidemic typhus fever (cf. *Nature*, 154, 600; 1944). Possibly much more information than can at present be released about the uses of D.D.T. will be available for a post-war edition in which it will, we may hope, be possible to include also valuable data obtained during the War which is not yet available for general publication. The possible value of penicillin for the treatment of typhus fever and other Rickettsial diseases is mentioned in the addendum on the treatment of louse typhus at the end of the book. Incidentally, the chapter on the febrile diseases caused by Rickettsia bodies is one of the most clearly stated short accounts that we possess of the essential differences between epidemic and endemic, louse-borne typhus (including Brill's disease) on one hand and, on the other, the non-epidemic, zootic typhus fevers (murine endemic flea-borne typhus, tick-borne Rocky Mountain spotted fever, the mite-borne Japanese river fever which is also called tsutsugamushi or scrub-typhus and the other types of tick-borne and mite-borne fevers which resemble typhus).

The section on dietetic diseases is introduced by a chapter on dietetic errors in the tropics which should be read by all who contemplate going there. These chapters on the dietetic diseases and the chapter on the effects of such climatic factors as sunlight and heat, with the wise advice given on the methods of combating the tropical climate by means of clothing, modern methods of cooling and so on, should enable visitors to the tropics to avoid lowering their resistance to tropical disease or becoming victims of the direct action of climatic factors themselves. Only those who have lived in the tropics can appreciate the importance of this kind of personal and general hygiene. Another valuable chapter, by Sir Leonard Rogers, compares the incidence in Calcutta and London of general diseases which are encountered all over the world, so that the reader can form an idea of what he is to expect apart from tropical diseases themselves. The importance in the tropics of these non-tropical diseases is often underestimated. The extreme importance of the problem of tuberculosis in India, for example, has been only recently realized. Sir John Megaw adds a section which amplifies the conclusions drawn by Sir Leonard Rogers. He discusses beriberi, pellagra, and nutritional anaemias, epidemic dropsy and other conditions due to faulty nutrition. One small paragraph in this section reveals the need for vigorous action for the betterment of the nutrition of tropical peoples. Dietetic malnutrition, Sir John considers, is the most important of all the tropical diseases. It causes lifelong disablement of hundreds of millions of people, and is indirectly

responsible for millions of deaths every year. It is so common in some parts of the tropics that it is regarded as the normal condition of the people. The extensive planning of world civilization in the future which is now going on should make sure of the removal of this kind of underlying cause of disease. It is, as the careful rationing system in Britain during this War has shown, by no means confined to the tropics.

Many general practitioners will find useful the final chapters on the use of the microscope and on diagnosis. If they add to this book the study, suggested by its authors, of the *Tropical Diseases Bulletin*, they should be well supplied with up-to-date information. For the abstracts of world literature printed in the *Tropical Diseases Bulletin* are unique in that they are the critical work of experts, among whom are the authors of this book, so that they form a supplementary text-book which is continually being brought up to date.

G. LAPAGE.

CHEMISTRY OF MILK AND MILK PRODUCTS

A Textbook of Dairy Chemistry

By Edgar R. Ling. Second and revised edition. Vol. I: Theoretical. Pp. vii+196. (London: Chapman and Hall, Ltd., 1944.) 13s. 6d. net.

JUNIOR students of dairy science are at present ill-provided with competent, up-to-date text-books. The War has doubtless been responsible for the lag in getting the results of the considerable advances of recent years into a form useful for the younger student.

In dairy chemistry the situation is now much easier than in dairy physiology or dairy husbandry. We have the thorough revision (1942) of Richmond's "Dairy Chemistry" by Elsdon and Walker, a valuable text with a strong analytical flavour, and now the volume under review, written by one of our most experienced teachers of agricultural chemistry. The present edition is a fairly complete revision of the theoretical part of his 1930 volume.

It is a straightforward, sensible handbook for students of intermediate grade, is well documented and demands no more than a fair elementary acquaintance with chemistry. Careful thought has clearly been given to providing a simple yet accurate, readable and up-to-date presentation.

Nevertheless, in one or two places revision has faltered. The table on p. 55 purporting to show the vitamin content of various types of milk and dairy products certainly requires overhaul. Instead of indicating vitamin content by vague adjectives such as 'good', 'fair', 'slight', etc., use should be made of the range of quantitative data now available (in μ gm. or in international units) for most, though not yet all, dairy products. One could also have wished that the paragraph on the effect of heat on milk had been brought closer to date and that recent sources had been quoted, though the author does in fact reach the right conclusion in his final sentence (p. 109). These small blemishes are perhaps the more evident since the background is generally so well informed.

The book can confidently be recommended to dairy diploma students and to those engaged in the dairy industry who require a sane and dependable chemistry text-book.

H. D. KAY.