

Book reviews

AN INTRODUCTION TO DIAGNOSTIC ENZYMOLOGY By J. H. Wilkinson. (Pp. viii + 288; 60 figures. 45s.) London: Edward Arnold. 1962.

Diagnostic enzymology is perhaps the area of chemical pathology in which the most striking recent expansion has taken place. This has resulted partly from advances in methodology and instrumentation, and partly from a deliberate search for more specific means of identifying the diseased organ. The result has been to present the clinician with a bewildering variety of available enzyme tests to choose from and to interpret, and the clinical biochemist with the problem of deciding which tests to offer so that his laboratory may provide a complete and modern service. The solution to this problem has had to be sought in original papers, in review articles dealing with particular enzyme tests, and in texts on chemical pathology as a whole: books in English devoted entirely to clinical enzymology have been very few indeed. Thus there exists a very definite gap in the literature of chemical pathology which Dr. Wilkinson's book fills admirably.

After a concise summary of the principles of enzyme chemistry, chapters follow devoted to the principal classes of enzymes of diagnostic significance—digestive enzymes, phosphatases, transaminases, dehydrogenases, glycolytic enzymes, and cholinesterases—with further chapters on enzymes in inherited metabolic disease and on a number of enzymes of at present limited applicability. These sections provide a readable account of the current status of the enzymes discussed, with in each case an up-to-date list of references. A short but interesting chapter assesses the relative merits of several enzyme tests in the diagnosis of myocardial infarction and of liver disease: many readers would no doubt have welcomed the extension of this particular discussion to include suggestions as to what range of tests a general hospital laboratory might undertake so as to provide a good coverage of other diagnostic problems also.

Dr. Wilkinson and his publishers are to be congratulated on the short interval of time which has evidently elapsed between the writing of the book and its appearance in print: such recent topics, for example, as the potential diagnostic value of lactate dehydrogenase isoenzymes are well covered. The book is attractively produced, and by modern standards, reasonably priced.

D. W. MOSS

CLINICAL CHEMISTRY IN PRACTICAL MEDICINE, 6th. ed. By C. P. Stewart and Sir Derrick Dunlop. (Pp. vii + 359; 31 figures. 27s. 6d.) Edinburgh and London: E. and S. Livingstone. 1962.

This is the sixth edition of this work by two distinguished authors. It is addressed to the senior student, the house physician, and the practitioner, and there can be no doubt that they would all be better doctors if they studied the book. There is a criticism to be made. In the early days chemical pathology was largely empirical: the result of a

particular investigation gave a high result in this condition and a low result in that. This edition has not always got away from this attitude as much as existing knowledge would permit; what the student or the doctor needs is an understanding of the biochemical and physiological disturbances which cause the abnormal results.

Some changes in detail would improve the undoubted excellence of the book. The word 'base' is used in a strictly correct way but will confuse some medical readers who are not chemists: it would be better to avoid the word. On pages 178 and 179 the word 'hepatogenous' is used on two occasions with slightly different meanings. In the chapter dealing with the thyroid gland and the basal metabolic rate, the latest work on the calculation of the body surface, the probable relation of the basal metabolic rate to the lean mass rather than to the body surface, and the Robertson-Reid standards are all ignored. The effect of age on the normal ranges of some investigations is not referred to.

A valuable feature of the book is the presence of a section on simple statistics in their application to chemical pathology.

This section would be improved by completely omitting any mention of the probable error and by some explanation of the standard error, some understanding of which is essential to the comprehension of the use and misuse of statistics in medical journals today.

About an eighth of the book is devoted to an appendix on methods, including some which are purely haematological. This appendix is introduced because of the needs of certain courses in Edinburgh. The book would be better—and presumably cheaper—without the appendix.

The book is to be recommended. The price is the same as for the previous edition.

ARTHUR JORDAN

UREMIA By George E. Schreiner and John F. Maher. (Pp. xvi + 487. 73 figures. 128s.) Springfield, Illinois: Charles C. Thomas: Oxford: Blackwell Scientific Publications. 1961.

The title of this book 'Uremia' might lead the possible reader to think of it as dealing with a narrower field than it does. The definition of uraemia given (p. 15) is 'a generalized symptom complex due to a dynamic imbalance between the organism's current metabolism and the appropriate renal functions. It is marked by aberrations in the volume and composition of body fluid, pathology in several important membranes, and an array of pathophysiological mechanisms, still in the process of being defined'.

The contents are divided into five sections: (1) An introduction, discussing what is uraemia, and the role of haemodialysis in the understanding of clinical uraemia, (2) the biochemical changes occurring in uraemia, (3) the pathology and clinical effects on various organs, (4)