

introducing new concepts of knowledge and omitting important but generally known information.

Since the publication of the second edition of this book in 1964, major advances have been made in our knowledge of the metabolic hormonal changes in diabetes, of the role of renin and angiotensin in hypertension, the roles of long acting thyroid stimulator and of free and protein-bound tri-iodothyronine and thyroxine in thyroid disease, of the immunoglobulins, diseases of bone and connective tissue, as well as the ever increasing list of inborn errors of metabolism, such as amino acidurias, lipidoses, and mucopolysaccharidoses to mention only a few. There is also the increased knowledge due to improved techniques such as immunoassay and gas liquid chromatography which have permitted more accurate characterization of the gastrointestinal peptide hormones and of the prostaglandins respectively.

The authors have met this formidable challenge well and although some individuals have not lengthened their contributions, many have found the increased information impossible to compress. The editors and press have dealt admirably with this difficulty by a careful reduction in the size of many of the tables and figures and by choosing a smaller print without decreasing legibility thereby enabling the present edition to be a few pages shorter than the earlier version.

New authors have been responsible for contributions on the diseases of the gastrointestinal tract, on the anaemias, on the glycogen storage diseases and galactosaemia, and on diabetes mellitus and hypoglycaemia; other authors are either unchanged or have collaborated with new coauthors, but there is a new chapter on the biochemistry of malignant disease. It would be invidious and impossible in a brief review to indicate the relative merits of the various contributions, which in general are of very high standard. The whole provides a substantial book which is not just a book of reference but is also eminently readable. It is probably too long for the average medical student but will be essential for the aspiring chemical pathologist or clinical biochemist as well as for the clinician interested in the metabolic diseases. Its excellence and modest price should ensure that it will be bought rather than borrowed. Some of the numerous references are as recent as 1969.

C. H. GRAY

Clinical Chemistry for the Small Hospital Laboratory By M. D. Reynolds. (Pp. 196. \$9.75.) Springfield, Illinois: Charles C. Thomas. 1969.

This book is seemingly aimed at technicians working without adequate supervision in small hospitals and private laboratories that apparently still flourish in the USA and other parts of the world but are mercifully disappearing from the scene in Britain.

After a brief introduction covering 40 pages in which basic equipment such as blood pipettes and the elementary theory of colorimetry is described, there are 21 chapters giving 'best Mrs Beaton style cook-book methods' for measuring the clinical biochemistry 'top twenty'.

In most cases Dr Reynolds describes her own personal practice in the laboratory of a 48-bed general hospital in Vermont. In the main she uses prepacked commercial reagents and specifies the suppliers whose addresses are usefully given in the appendix. These are not generally represented in Britain and would dissuade me from recommending this book to British clinical biochemists; even if it were desirable in other respects. The book is beautifully produced and well written. The tragedy is not that a book published in 1969 should, for example, advocate the use of a commercial kit for measuring serum sodium 'chemically' (true only when a flame photometer is not available!) but that there is apparently a need for such a book in so highly a developed a country as the United States.

V. MARKS

Biochemistry for Medical Students 9th ed. By W. V. Thorpe, H. G. Bray, and S. P. James. (Pp. 512; illustrated. £3.) Oxford and Edinburgh: Blackwell Scientific Publications.

The appearance of a ninth edition of this well known book in a period of 32 years obviously indicates a continuing need for a book of this kind and the continuing popularity of this particular example. The book follows in general the line of previous editions and although the number of pages is slightly smaller the larger size of page is an improvement and gives a better display of diagrams and formulae.

The general standard of writing is very high and the subject coverage is certainly adequate for the average medical student. Indeed, if all medical students entering

a clinical course were familiar with the contents of this book, it would simplify the task of teachers in chemical pathology very considerably. The standard of production is excellent and very few errors have been detected. However, on page 128 the wording suggests that thiouracil interferes with the action rather than with the synthesis of thyroid hormones and on page 205 figures 23 and 24 appear to be transposed.

The book can be confidently recommended to all medical students, both during their second year and for subsequent revision. It could also be read to advantage by all interested in metabolic medicine. By modern standards it represents extremely good value for money.

N. F. MACLAGAN

The Distribution of the Blood Groups in the United Kingdom By A. C. Kopeć. (Pp. xi + 146; illustrated. £8.50) London: Oxford University Press. 1970.

To the pathologist blood groups are extremely important because of their relationship to blood transfusion but, as will be seen in this book, they do have a much wider application.

The author derives her information from data made available by all British Regional Blood Transfusion Centres. Provided with more than half a million cards, one for each donor, Dr Kopeć has extracted the ABO and Rh groups for each individual as well as their current postal address. These findings she has assembled so that she knows the frequencies of ABO and Rh blood group in towns or postal districts, each of which contains at least 100 individuals. Those units containing less than 100 donors are combined with adjacent areas so that, in all, information is available from no less than 1,156 unit-areas.

In a large series of tables, ABO and Rh phenotype and gene frequencies are recorded for each of these 1,156 areas. The findings are then collected into each of the regions into which the British Transfusion Service is divided and each region is illustrated by a map showing where each individual area is situated. It follows therefore, that an immense amount of information is available.

Dr Kopeć's main aim has been to provide the facts, though she does discuss her findings in some detail. As would be expected, the increase in the O frequency accompanied by a fall in A as one goes