

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

north is clearly shown. ABO groups vary markedly throughout Britain and apart from the expected changes just mentioned there are a number of areas in which there are sharp variations which cannot be accidental and which require further explanation. The Rhesus data show that if regional variation does occur it must be small but it does seem that the D-negative frequency among the Welsh and Irish is lower than elsewhere.

Blood donors might be selected for their ABO and Rh groups and it could be argued that any conclusions reached in a study such as this could not be accurate for the population as a whole. The author has taken steps to overcome this possible source of error and had compared her results for blood donors with those available for RAF recruits, people who would have been selected in a totally different manner. Having divided the RAF personnel according to their home addresses Dr Kopeć compared their blood groups with those of donors living in the same areas and obtained, for the most part, a very good correlation between the two series.

Despite her wide knowledge of genetics and anthropology, Dr Kopeć, as a statistician, has based her analysis on a statistical approach. She has provided the facts and left it to the reader, be he a geneticist, anthropologist, historian, demographer, or sociologist, to interpret them as he will. This book is therefore a research tool to be used by investigators in a wide range of ways. Dr Kopeć is to be congratulated on accomplishing a task of such magnitude while both publishers and printers deserve great credit for their part in producing such a handsome volume.

K. L. G. GOLDSMITH

**Laboratory Guide to Disordered Haemostasis** By T. A. Harper. (Pp. 200; illustrated. £2.10) London: Butterworths and Co. Ltd. 1970.

Following his monograph on the peripheral blood film, Dr Harper has now turned to the difficult field of haemostasis. Although readable and well produced, the book is oversimplified and has too many misleading statements, errors and omissions, eg, the therapeutic range with the one-stage prothrombin test is stated to be 2-2.25%; factors VII, IX, and X are independently listed as being reduced instead of increased in pregnancy; undue

reliance is placed on the partial thromboplastin time in the diagnosis of mild haemophilia. The test is stated to detect factor VIII levels below 50% whereas recent views are that the unmodified test is only sensitive to depression of factor VIII to 20% of the normal population average; Dr Harper is wrongly under the impression that a comparison of prothrombin results at different laboratories can be made by comparing the shape of the saline dilution curves; the modified Lee and White clotting time described in the text is incorrectly referred to as the original technique dating from 1913.

Most of the book consists of laboratory methods. These are taken from widely available sources with little guidance or attempt to assess their relative reliability and value. Some antiquated procedures, eg, the capillary and lead-shot clotting times, which have been discarded, appear alongside new unassessed techniques. In this section criticism can also be made of the use of anhydrous calcium chloride and 3.8% sodium citrate; omission of the need for a strict low-temperature technique in fibrinolytic tests; the recommendation to dilute serially in saline dilution curves which is inaccurate and cannot avoid contact activation. The statement that plasma obtained from a patient 24 hours after coumarin therapy is used for a factor VII assay substrate needs much more qualification. The scheme of investigation of haemostatic failure is hopelessly impractical and illogical, and it would be dangerous to rely on the summary of findings table presented in the appendix. Omissions include developments in coagulation knowledge since Macfarlane's cascade, enzyme kinetics, PIVKA, etc.

L. POLLER

**Clinical Investigations by Means of Haematology** By F. A. Ward. (Pp. vii + 164. £1.40) London: Butterworths and Co. Ltd. 1970.

In his preface the author states that 'nothing original is claimed of this book except the presentation of subject matter. It is essentially a case book. The cases are chosen with the object of illustrating and stressing certain points in clinical medicine. After a short clinical history and a minimum of laboratory data the reader is challenged with a number of questions. Here is his opportunity to show his erudi-

tion and mental ingenuity. The questions are then discussed on the following page. Because of the author's modest goal it can be said that he has attained it. In 73 case reports a wide range of diagnostic problems has been covered and the reader gets an introduction, albeit superficial, into clinical haematology. Dr Ward has perhaps taken his brief of using only simple laboratory investigations rather too rigidly; in even the simplest laboratory today it should be possible to have a relatively reliable platelet count and reticulocyte count included in a routine investigation of a patient with a blood dyscrasia.

The author works in Durban, South Africa, and it is intriguing to have clinical histories which include details of patients visiting witchdoctors or being given herbal medicines. This does not detract from the value of the book in less exotic medical environments and it can be recommended as a very simple introduction to clinical haematology for those taking their first steps in this subject. Factually there is little to fault but more alert proof reading would have corrected a relatively large number of typographical errors.

S. M. LEWIS

**General Pathology** 3rd ed. By J. B. Walter and M. S. Israel. (Pp. x + 1,116; illustrated. £7.50) London: J. and A. Churchill. 1970.

The third edition of this textbook aims, like its predecessors, to provide an account of the fundamental processes of pathology. It transcends the traditional boundaries between the main branches of pathology and indeed trespasses freely into the fields of physiology and clinical medicine. All this is excellent and serves to provide the student, be he under- or postgraduate, with an excellent basis for his subsequent study of special pathology. Revision from the previous edition has been thorough and especially the rewriting of the sections on immunology, blood transfusion, amyloid, and the plasma proteins. The authors are to be congratulated on achieving this with the addition of a mere 70 pages to the text. This now constitutes one of the main British textbooks of general pathology and can be thoroughly recommended to young trainees both in pathology and in other specialties.

T. CRAWFORD