The book is clearly written but should be read for its authors' personal outlook rather than as a balanced review. For instance, the use of Australia antigen testing in the prevention of posttransfusion hepatitis is dismissed in a few paragraphs although it is the most important practical use of their discovery.

The delay of two years between writing and publication means that the monograph is already somewhat dated. The authors recognize this problem in their Foreword and a supplementary bibliography has been included. However, this contains only a small number of references and it is almost impossible to make use of the list because it is arranged in almost random fashion.

There is no index, a defect which would be mitigated if the Table of Contents were expanded. The photographic figures have not been reproduced adequately and diagrams would have been much more helpful.

Most active workers in the field will want to own this book, despite its high price, but the general reader would be better advised to consult one of the many recent reviews of the subject.

Y. COSSART

Quantitative Problems in Biochemistry 5th ed. By Edwin A. Dawes. (Pp. xiv + 470; illustrated. £2.00.) Edinburgh and London: Churchill Livingstone. 1972.

This book has become a classic for many honours students and teachers of biochemistry, and a 5th edition has recently appeared as a paperback at the modest price of £2.00. It provides an admirable account of many aspects of physical biochemistry and includes such topics as molecular weight determinations, acid base relationships, biochemical energetics, equilibria, reaction and enzyme kinetics, manometry, bacterial growth, oxidation reduction potential, and the use of isotopes in biochemistry. The chapter on optical and photometric analysis errs on the elementary side and one might wish that chapters on the techniques and theory of electrophoresis and chromatography had been included. Valuable lists of references and suggested readings, as well as some brief appendices on the graphical solution of problems, symbols, and units, are included. The book is well produced, clearly illustrated, and lucidly written.

As well as being a teaching manual, it can be thoroughly recommended as a reference manual for research biochemists. By working through the illustrated examples in the text as well as answering the questions at the end of each chapter, it is possible to teach oneself an unfamiliar or forgotten quantitative technique.

BARBARA H. BILLING

Methods and Techniques in Clinical Chemistry By Paul L. Wolf, Dorothy Williams, Tashiko Tsudaka, and Leticia Acosta. (Pp. xiii + 417; illustrated. £4.80.) Chichester, New York, Sydney, Tokyo, and Mexico City: John Wiley and Sons. 1972.

It is always of interest to read accounts of the technical methods which well known laboratories use in their chemical pathology services. Senior people in most large laboratories will be familiar with most of the techniques, even though the details may vary slightly from method to method. Unfortunately the reasons for the choice of particular methods are not given in any detail and discussion is minimal.

Whilst the book may be of value to those setting up small laboratories it is unlikely to be of value either to scientific staff in large laboratories or those who are working for higher qualifications. There are a number of other books which are available with greater comparative studies of methodology and more discussion, which one would prefer.

M. G. RINSLER

The Laboratory Aids Series: Antibiotics and Their Laboratory Control 2nd ed. By M. C. Bryant (Pp. vii + 100; illustrated); **Blood Groups and Techniques** By J. B. Harris (Pp. viii + 71; illustrated); **Diagnostic Procedures in Clinical Bacteriology. The Specimen** By J. D. Jarvis (Pp. viii + 62; illustrated); **Essentials of Microtomy** By S. J. Gray (Pp. x + 90; illustrated); **Histological Methods for Bone** By E. A. Wallington (Pp. ix + 45; 1 figure); **Human Tissue Mucins** By H. C. Cook (Pp. viii + 61; illustrated by formulae). Price 60p each (limp). London: Butterworths. 1972.

Five more titles and a re-edition in this series, which is probably more familiar to

technicians than to pathologists, but which can be studied with interest by both, especially for example, as in 'The specimen', where personal practical knowledge is exemplified. Inevitably this standard is somewhat uneven, but there is an immense volume of knowledge packed away in these small books which can grace the shelves of any stain-etched laboratory bench.

H. E. M. KAY

Clinically Oriented Documentation of Laboratory Data Edited by E. R. Gabrieli. (Pp. xiv + 461; illustrated. \$12.50.) New York and London: Academic Press Inc. 1972.

This book contains the proceedings of a conference with the same title as that of the book. It was held in New York in May 1971. Thirty chapters, each by different authors, are contained in a well presented lithograph form. It is moderately priced at \$12.50.

The book is about communicating data between laboratory and clinician and those aspects of information science concerned with the interpretation of those data. It is concerned with clinical chemistry, haematology, and microbiology. The book shows all the signs of the results of effective editing of symposium material. Some contributions are so brief that they are virtually communicated by the title alone. Most are moderate in length. This is probably a reflection of the knowledge of the editor in communicating information.

The chapter on the information content of laboratory data written by the Editor is to my knowledge, the first original article on information science written by a pathologist for laboratory workers.

The following subjects are amongst those dealt with in the book. (1) The objectives of laboratory medicine; (2) The three levels of communication: technical, semantic, and effectiveness (in my opinion 'efficacy' is a better word than effectiveness as used in the book 'efficacy' means the power to produce an effect); (3) interpretation of multitest surveys; (4) normal range of values derived from large-scale multitest surveys; (5) evaluation of clinical laboratory computers; (6) data problems in clinical microbiology, haematology, and immunology; (7) the concern of state, community, professional societies with communication of laboratory results.

Our present problems in the clinical laboratory may appear, on the surface, to be completely technological, and solutions to such problems can be expected and forecast. Solutions to the problems inherent in handling the data produced by technological activities are not as easily envisaged. This is the first book to present such problems in detail and point to the methods of solution.

Any attempt to be critical of any part of the book may detract from that which is good. Your reviewer strongly recommends its purchase.

T. P. WHITEHEAD

Haematology: Rudimental, Practical and Clinical By F. Nour-Eldin. (Pp. xi + 385; illustrated. £5.20.) Butterworths. 1972.

The author, referring to the recent expansion of haematology and its 'unprecedented interrelation with diverse sciences' feels that a new book is necessary to provide 'systematic information for those preparing for the various degrees in haematology'. Hence, in some 320 pages of text, he has attempted a condensation of the current literature, interspersed with references to his own experiences. Whilst it is difficult to judge for whom this volume is best intended, its production clearly represents a lot of hard work.

Unhappily the quality of illustration is poor—of the 30 or so photomicrographs only two or three achieve their objective of imparting information and several are so badly printed as to be almost indecipherable in the review copy: it is also a pity that careless misprints and typographical errors were not corrected in proof. Thus, under the heading 'Neutrophilia' we are introduced to *Leishmania icterohaemorrhagica* and *Clostridium diptheriae*.

The disadvantages of condensation are only too apparent in the section devoted to clinical haematology; generalizations such as, 'Judging from recently published surveys, the present therapeutic situation of leukaemia appears almost stagnant' do not promote knowledge, and the advice that in some cases of tuberculosis of the spleen 'complete relief of symptoms has followed splenectomy' can scarcely fail to raise more questions in the mind of the reader.

The chapters on thrombosis and the bleeding diatheses, with a more than passing reference to the 'bridge anti-coagulant', reveal the author's en-

thusiasms, though the text is marred by minor misspellings.

This seems, primarily, to be a book for the novice, who may not be in a position to detect the errors, but should glean a superficial understanding of the subject, sufficient to stimulate further reading. At £5.20 some may regard this volume as an expensive investment.

JOHN STAFFORD

Tissue Interactions in Carcinogenesis Edited by D. Tarin. (Pp. xvii + 483; illustrated. £8.80.) London and New York: Academic Press Inc. 1972.

Dr Tarin's book is a cogently argued reminder that tumours need to be studied as tissues and not merely as unorganized collections of neoplastic cells. Some will object that such an approach is self-evident, others that we still lack enough information to present it except in the vaguest terms. Neither is true; and the contributors to the book make it abundantly clear that important advances are being made in our understanding of morphogenesis and tissue interactions, both in normal development and in neoplasia. Many readers will be particularly interested in the new developments in embryology described in the first two chapters—the new techniques for studying animal tissues and the masterly account of tissue inducers. Tissue interactions in neoplasms are discussed in subsequent chapters, mainly in relation to the development of tumours of the skin and oral cavity. Both human and experimental lesions are discussed and the common ultrastructural changes associated with their development are stressed. A more detailed account of human basal cell tumours would have been welcome but, for compensation, the combined clinical and experimental account of the oral leukoplakias is outstanding. Two chapters are devoted to the various transplantation studies aimed at defining the role of epidermo-dermal interactions in skin carcinogenesis—an intriguing and still unsolved problem. There is an excellent account of changes in collagen during experimental carcinogenesis, and a chapter on collagenases.

Much valuable information has been drawn from a variety of sources and put together with notable success; a most stimulating book has emerged which is warmly recommended.

RICHARD CARTER

Books received

The Principles of Transurethral Resection and Haemostasis By J. P. Mitchell (Pp. xii + 262; illustrated. £6.00.) Bristol John Wright & Sons. 1972.

1972 Year Book of Pathology and Clinical Pathology Edited by William B. Wartman. (Pp. 455; illustrated. £6.55.) Chicago: Year Book Medical Publishers Inc. Distributed in the UK and Europe by Lloyd-Luke (Medical Books), London. 1972.

Experimental Leukemogenesis (Japanese Cancer Association GANN Monograph on Cancer Research No. 12) Edited by Tadashi Yamamoto and Haruo Sugano. (Pp. viii + 321; illustrated. \$34.00.) Baltimore, London, Tokyo: University Park Press. 1972.

Subcellular Components. Preparation and Fractionation 2nd ed. Edited by G. D. Birnie. (Pp. 320 + 8 pp. of Prefaces, etc. illustrated. £6.50.) London: Butterworth. Baltimore: University Park Press. 1972.

Physiology and Disorders of Hemoglobin Degradation Edited by Rudi Schmid, Ernst R. Jaffé, and Peter A. Miescher. (Pp. vii + 141; illustrated. £10.00.) New York and London: Grune and Stratton. 1972.

Notice

Disorders of Lipid Metabolism

The proceedings of the symposium on 'Disorders of lipid metabolism' organized by the Association of Clinical Pathologists and held in November 1972 is published as a supplement to the *Journal of Clinical Pathology*, price £2.00 including postage. Members of the Association of Clinical Pathologists receive this automatically but members of the Royal College of Pathologists and subscribers to the *Journal of Clinical Pathology* can buy the supplement at the concessionary price of £1.75 including postage. Copies may be obtained from the Publishing Manager, *Journal of Clinical Pathology*, BMJ Publishing House, Tavistock Square, London WC1H 9JR.