lengthy article deals with the question, 'What are toxicologists?' This book will be of interest to all those concerned with drug therapy, with the diagnosis of adverse reactions to drugs, or with the experimental approach to drug toxicity.

A. E. CLAIREAUX

Forensic Medicine 6th ed. By K. Simpson. (Pp. viii + 361; 138 figures. 60s.) London: Edward Arnold. 1969.

Every medical student in England since the war must have read this classic little textbook. A new edition appears every three to five years, the last in 1964, and one of Professor Simpson's greatest achievements is to contain its growth so that today's 361 pages compares with 335 pages of the first edition in 1947. Re-reading the book after 20 years one is struck by its relaxed, if somewhat pop style, which makes for very easy reading. For such a small handbook it is remarkable how the author's enormous enthusiasm for his subject comes through in almost every line. The book is aimed at medical students and lawyers, and is therefore fairly simple and non-controversial, but every pathologist engaged in medico-legal work finds it useful at times.

Since the last edition the law relating to medicine, which has changed a good deal in the last few years, has been brought up to date. Newer topics such as the battered baby are included, and recent potentially toxic drugs receive attention.

A. C. HUNT

Cell and Tissue Culture 4th ed. By J. Paul. (Pp. xi + 430; 60 figures and 21 tables. 45s.) Edinburgh and London: E. and S. Livingstone. 1970.

The foundation of modern virology on tissue culture techniques, and its increasing use elsewhere around the fringes of clinical pathology, has revealed the need for a good practical manual on the subject. John Paul's book is the answer. The fourth edition is larger and contains an abundance of new and detailed advice which answers almost every practical question that may arise. It demonstrates above all that there is no particular magic or green fingers in growing cells but simply an unremitting attention to detail.

For the clinical pathologist it is a pity that not more is said about growing blood lymphocytes and that a standard widely used technique is not quoted. Also it may be suspected that the preference for

glycerol to DMSO as a freezing protective may be because the need to add DMSO at 0°-4°C is not emphasized. But these are minor points and should not deter the tissue grower from acquiring this essential book.

H. E. M. KAY

Autoimmunization and the Autoimmune Hemolytic Anaemias By B. Pirofsky. (Pp. xiii + 537. £9.) Edinburgh: E. and S. Livingstone. 1969.

Although autoimmune haemolytic anaemia is not usually considered to be a common disorder, the author has studied 234 cases over an eight-year period in a population of approximately 2.3 million in the Pacific Northwest of the United States. This book is a personal account of his wide experience in the recognition and management of this disorder, together with a review of the theoretical aspects of autoimmunity and a detailed account of the serology of autoimmune haemolytic anaemia. The text includes 102 case histories selected to illustrate practical aspects of diagnosis and management, and these serve to remind the reader of the complexity of this group of disorders.

A surprising feature of the analysis of the case material is that only 18.2% of patients were considered to be suffering from idiopathic or primary autoimmune haemolytic anaemia, the remainder being classified as examples of secondary or symptomatic autoimmune haemolytic anaemia. The frequency of idiopathic cases is much less than those reported in other series, and suggests the use of different criteria in the classifications or selection in the referral of patients. As would be expected, neoplastic disorders of the reticulo-endothelial system are the largest subdivision of the secondary group, but how should one classify autoimmune haemolytic anaemia occurring in association with hepatic cirrhosis, rheumatoid arthritis, or ulcerative colitis? Dr. Pirofsky considers these associated diseases to be 'immunologically oriented' and classifies the anaemia as secondary or symptomatic. This broad clinical approach to autoimmune haemolytic anaemia is valuable since it encourages the clinician to search for associated diseases which, if found, support the author's thesis that an immune event involving the red cell is usually only one aspect of a more profound disturbance in the immunological mechanisms. Certainly if one is confronted with a patient with autoimmune haemolytic

anaemia and another disease, this book will indicate whether the association has been noted previously.

There is an interesting section on genetic predisposition, one family in particular including three siblings with autoimmune haemolytic anaemia. The chapter on treatment is up to date and well balanced, although it is of interest that splenectomy was performed in only nine of the author's 234 patients. This approach seems to be altogether too conservative, and the author concedes that many patients were sustained in partial remission by prolonged administration of high doses of corticosteroids and they would probably have benefited from splenectomy.

The book is well presented, easy to read, and free of typographical errors. Although expensive, it is warmly recommended to haematologists, serologists, and those particularly interested in immunological disorders.

W. R. PITNEY

Thrombosis Edited by S. Sherry, K. M. Brinkhous, E. Genton, and J. M. Stengle. (Pp. x + 762; illustrated. \$12.50.) Washington: National Academy of Sciences. 1969.

This volume is a collection of papers presented at a meeting of invited experts held in Washington in November 1967. The outstanding feature of the book is the quality of the editing of the contributions which is enhanced by the excellence of book production, particularly noticeable in the diagrams and photomicrographs.

The book follows the pattern of the meeting in being divided into six sections. The clinical spectrum of thrombus, the epidemiology, nature of a thrombus, pathogenesis, hypercoagulability, and therapy. Each of the 55 papers contains a review and bibliography in addition to the original material. It is useful to have these diverse papers together under the same cover, and for many workers this will mean a considerable saving in time and trouble searching the journals.

One major criticism must be, however, that the production of a report of a meeting two years after the event must inevitably mean that most of the original material has already been published elsewhere. A second criticism which will be appreciated by those who attended the meeting, is that, although there was much stimulating discussion following the papers, none of this has been included. Dr Simon Sevitt's useful comments on the inadequacy

of the coagulation defect in the report of the Medical Research Council's trial of anticoagulants in acute myocardial infarction presented for the first time at this meeting are thus not recorded. Likewise, Professor Mitchell's outspoken comments on computerized data, which was one of the focal points of the session, are lost.

The wisdom of publication in full of papers presented at meetings is always questionable, but the editors and distinguished contributors to this volume have produced a publication which ranks as one of the best of its class.

L. POLLER

Ultrastructure of Synovial Joints in Health and Disease Edited by F. N. Ghadially and S. Roy. (Pp. v + 186; illustrated. £5). London: Butterworths and Co. Ltd. 1969.

This is an atlas for pathologists with a practical knowledge of the limitations of electron microscopy, and interested in academic aspects of joint disease. It is well produced and carefully annotated but must clearly remain of limited appeal to the practising clinical pathologist, both on account of its specialized nature and its price.

D. L. GARDNER

Tumours of Bone By W. Kark. (Pp. 156; illustrated. 40s.) Bristol: John Wright and Sons.

The subject of bone tumours is often regarded as complicated as well as unfamiliar. The present paperback volume is therefore to be welcomed as it gives a brief, but very dependable account of the subject in 156 pages. It will be much appreciated by the student, whether undergraduate or postgraduate, who wants a short summary of the subject for the purposes of an examination. It is, however, devoid of radiographic and histological illustrations which are usually a feature of books of this kind, and it will therefore not be much help to the pathologist who has a difficult case and who wishes to have practical guidance in diagnosis.

H. A. SISSONS

Bone Tumours in Man and Animals By L. N. Owen. (Pp. 201; 117 figures. 70s.) London: Butterworths and Co. Ltd. 1970.

This essay deals with the author's experience of bone tumours in domestic and laboratory animals using, as a basis for discussion and classification, the available

knowledge of the abundant systematized and well studied human tumours with which they are comparable. There are also sections on tumours induced by radiation and other methods. It is an introduction to the subject for the general reader with veterinary interests rather than a supplement to the well known major texts on bone tumours available for specialists. There is a compendious bibliography. The radiographs and clinical pictures of animal tumours are of high quality and likely to be unfamiliar to medical, as opposed to veterinary, pathologists.

A. LEVENE

Progress in Proctology By J. Hofenchter. (Pp. 247; illustrated. DM48-00, \$13-20.) Berlin, Heidelberg, and New York: Springer-Verlag.

This book is a record of the proceedings of the 3rd International Congress of Hedrologicum Conolegium, an unnecessarily obscure neologism for proctology.

It contains little of interest to pathologists, being mainly concerned with the surgical treatment of diseases of the colon and rectum. However, there is one chapter on the classification of fistula in ano which throws light on a subject which is largely ignored in textbooks of pathology. The section on the relationship of intestinal polyps and cancer adds nothing new to a controversy which seems endlessly bogged down in a confused nomenclature and misinterpretation of histological appearances. It is doubtful whether a book of this kind is helpful, even to surgeons, because the quality of the papers varies from the very good to the very bad and many of them are little more than summaries of existing knowledge laced with personal opinions of a kind which can hardly be described as progressive. The speciality of proctology has a growing scientific basis to which this volume does not make any significant contribution.

B. C. MORSON

Mutation as Cellular Process Edited by G. E. W. Wolstenholme and M. O'Connor. A Ciba Foundation Symposium. (Pp. xi + 244; illustrated. 60s.) London: J. and A. Churchill. 1969.

This symposium is an exchange of information and discussion between geneticists, chemists, cell biologists, and others who are engaged in the study of mutation. The theme was to examine in what way cellular metabolism and cellular events

are involved in mutation. The hope was to see if a link could be forged between the simplicity of the chemists' view of the primary molecular events of gene mutation and the biologists' ideas on the complexity of the cellular events leading to their expression and detection.

Analysis of mutation in a variety of microorganisms induced by chemicals and ultraviolet irradiation and their repair mechanism is described; the biochemical aspects of the problem are discussed in depth. It is the high precision of microbiological genetics, using enzyme markers, that has contributed greatly to the rapid advances in molecular biology. On the other hand, progress is far slower in the understanding of mutation in higher organisms.

This book is highly specialised, using technical language that may be difficult to follow by those not engaged in this type of research. The expert will find many interesting articles in the book, but the general reader will, no doubt, find it heavy going. It is unfortunate that the Chairman's opening remarks, which are a clear-cut, easily understood statement, could not have been followed by a masterly summary. The value of the books of this type would be greatly enhanced if they contained a chapter where an attempt is made to draw attention to the more important facts and opinions that have emerged during the conference.

EDWARD H. COOPER

Advances in Microcirculation Edited by H. Harders. Vol. 1 (Pp. iv + 160; 89 figures. 98s.) Basel: S. Karger AG. 1968. Vol. 2 (Pp. iv + 103; 59 figures. 65s.) 1969.

Since the whole circulation as well as the oxygenation and nutrition of virtually all tissues and organs depends on the conditions of flow through the various minute vessels, the microcirculation had always attracted the attention of many research workers though not previously as a special subject. The recent tendency to separate its study from other specialties has led to the danger of isolation, which is a great pity. With the passage of time the novelty no doubt will wear off; the subject should then revert to its proper place in physiology and pathology, bequeathing a number of useful techniques especially the development of improved cinemicrophotography whereby flow changes at the capillary level can be visualized *in situ*. The volumes reviewed were preceded by others recording the Proceedings of the