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

European Conferences on Microcirculation dating from 1960.

Volume 1 of 'Advances in Microcirculation' is noteworthy for several articles from the Gothenburg school led by Brånemark, and of particular interest is the one on the microvascular structure and function of bone marrow. In volume 2, the paper by Krahle (Baltimore) on pulmonary arteriolar constriction and arteriovenous shunting as the underlying mechanism of the respiratory distress syndrome in the newborn, and the paper by Albrektson and Brånemark on the microvascular reactions to slow and rapid thawing of frozen tissue, had most appeal to the reviewer.

S. SEVITT

Microcirculation as Related to Shock Edited by D. Shapero and G. P. Fulton. (Pp. 257, £5 7s. 4d.) New York: Academic Press. 1968.

Emphasis of the various form of shock as low perfusion states is reflected in these proceedings of a conference held in Boston, USA in the spring of 1967. The conference set out to ask and answer questions concerning the causes of the low blood flow state, their identification and measurement, and methods to prevent and treat them. The first of the four parts of the book has eight papers on the organs and systems involved in shock, including among others excellent ones by J. B. West on the pulmonary circulation and D. E. Gregg on the coronary circulation. Other parts are concerned with special aspects of low flow states and technical matters; and the book ends with a paper by F. D. Moore on physiological indices of hypoperfusion in man and a summary by Benjamin Zweifach. Those concerned with problems related to shock will find much of interest in this volume.

S. SEVITT

Fifth European Conference on Microcirculation Edited by H. Harders. (Pp. x + 609; 307 figures and 83 tables, £19.) Basel: S. Karger AG. 1969.

This volume records the proceedings of the international conference held in Gothenburg in 1968 and consists of over 100 papers from authors from all over the world, including many of international reputation. The opening sections are concerned with the subject of flow characteristics now termed rheology, its relationship to the microcirculation, viscometry, and certain of its clinical and applied aspects. Then follow sections on capillary

transport and permeability, vascular anatomy and its ultrastructure, flow through various organs and tissues, *in vivo* microscopy in experimental animals and in man, intravascular coagulation and thrombosis, and closes with a section on methods of investigation. The reviewer was impressed by the multidisciplinary approach to many subjects, though many of the papers might have been presented at symposia concerned with anatomy, physiology, biochemistry, immunology, experimental pathology, or even clinical medicine or surgery.

S. SEVITT

Autoradiography, Techniques and Applications By R. Baserga and D. Malamud. Modern Methods in Experimental Pathology. (Pp. 293; illustrated. \$12.50.) New York, Evanston, and London: Hoeber Medical Division. 1969.

According to the authors' preface, the aim of this book is 'to divest the technique (of autoradiography) of its mysterious aura and to present it in a simple accessible form'. There is considerable need for such an account, and this gap has now been brilliantly filled. Almost half of the text is taken up with a detailed consideration of techniques. Each basic step in autoradiographic procedure is discussed critically, and particular emphasis is placed on the recognition and presentation of artefacts. More sophisticated techniques are also appraised, such as electron microscopic autoradiography, double isotopic labelling, autoradiographic histochemistry, and autoradiography of subcellular components. The second half of the book is concerned with the application of autoradiography. There is a lucid account of quantitative aspects of autoradiography and these are illustrated in subsequent chapters which deal with DNA synthesis and the cell cycle, RNA synthesis, proteins, hormones, minerals, and other materials.

The book is well illustrated, carries a full bibliography, and (rarest of all) is written with impeccable style. It is a model of its kind and is recommended to everyone interested in autoradiography and its application.

R. L. CARTER

Proceedings of the 5th International Cystic Fibrosis Conference (Pp. xv + 420; illustrated. 48s.) Cambridge: Churchill College. 1969.

This book reports a wide range of current

research largely sponsored by Cystic Fibrosis Trusts. Reports include racial incidence, physiological chemistry, metaphase in fibroblast and blood culture, lung development and function, the peculiar defect of the vas deferens, and evaluation of mist and antibiotic treatment. Critical audience comment is well selected.

Some readers may be disappointed that the diagnostic test that involves collecting gills from fresh mussels and observing ciliary reaction to serum is not yet a required laboratory procedure!

The book's production is a great credit to David Lawson and should be read by all pathologists dealing with children.

J. L. EMERY

Notices

Vacation Course in Haematology

A residential course organized by the Association of Clinical Pathologists for trainees for the final examination in Haematology of the Royal College of Pathologists will be held at the Radcliffe Infirmary, Oxford, from 22 to 27 March 1971. Accommodation will be available at St Anthony's College at a cost of 50p for dinner, bed, and breakfast. The registration fee for the course is £15.

Applications for the outline programme and registration should be sent to Dr A. A. Sharp, Department of Haematology, Radcliffe Infirmary, Oxford.

International Society of Haematology

The second meeting of the Asian-Pacific Division of the International Society of Haematology will be held at the University of Melbourne (Australia) from 24 to 28 May 1971.

The major topics covered in the scientific programme will be nutritional anaemia, blood transfusion, leukaemia and lymphoma, paediatric haematology and immunohaematology. There will also be free papers covering a wide range of subjects.

Requests for further details should be addressed to the Haematology Secretariat, PO Box 29, Parkville, Victoria, Australia 3052.