BOOK REVIEWS.

Sternal Puncture, by A. Piney, M.D., M.R.C.P. and J. L. Hamilton-Paterson, M.D., M.R.C.S. 4th edition. Pp. 89. Price 15/- London: William Heinemann. 1949.

The primary aim of the authors is avowedly to present the essential features of the bone marrow in health and disease.

The first chapter is headed 'The Myelogram' and deals with the various cells which are to be found in the bone marrow. The most primitive blood cell present in and recognisable in marrow is said to be the haemohistioblast although it is admitted that it is not at all clear that haemohistioblasts are anything more than compressed and ruptured haemocytoblasts, myeloblasts, or very immature precursors. The next cell considered is the haemocytoblast. It is described briefly and its exact status is not unreasonably left undefined. The myeloblast is then regarded as more or less dismissed, its being 'difficult to decide on what morphological criteria myeloblasts are to be distinguished from haemocytoblasts.' Premyelocytes, myelocytes and metamyelocytes are then considered at some length. Monocytes are said to appear to rise from the haemohistioblasts through the stages of monoblast and promonocyte, although it is admitted that the monoblast may not be easily distinguishable from the myeloblast and lymphoblast. Plasma cells and megakaryocytes are also described and their significance discussed briefly.

In this approach to the problems of marrow cytology as exemplified by the descriptions of the most primitive elements and the precursors of the white cells of the blood, the authors must inevitably cause confusion and much depression among myelologists. It is not that the authors do not finally admit the difficulty of identification of the primitive cells of the bone marrow, but rather that they do not say so at the beginning in a sufficiently dogmatic fashion and without waste of words.

Some confusion must also arise in relation to what is said regarding red cell precursors in the marrow. It is stated that it is now almost universally assumed that all red cells, both normoblasts and megaloblasts, arise from a common ancestor—the haemocytoblast. Yet later the megaloblast series is said to be regarded as arising from the haemocytoblast and as being capable of giving rise to normal red corpuscles, if a sufficiency of the haemopoietic factor is present in the body. More clearly it might have been said that the megaloblast series would not be seen at all in these conditions and that it is the proerythroblast which is capable of behaving in this fashion. A serious omission from the practical point of view is the absence of an accurate description of the nucleus of the megaloblast and upon which its identification entirely depends.

The first chapter ends with a short statement on the normal myelogram, and the statement that it is impossible to make accurate total cell counts on the bone marrow is welcomed.

The second chapter on the marrow in leukaemia emphasises the importance of correlating the marrow with the blood changes and reference is made to the granular background which is a common feature of the marrow in these diseases. In this section the difficulty of nomenclature is unduly apparent and simplification would lead to greater appreciation of the facts.

Chapter 3 deals with neoplastic and allied conditions of the bone marrow. Robb-Smith's classification of the reticuloses is adopted and the various entities described briefly. With the exception of the plasma cell myeloma they are not illustrated. Brief mention is made of the occurrence of metastatic tumour in the marrow. Carcinoma of bronchus is not mentioned among the primary tumours which frequently spread to bone.

Chapter 4 is concerned with the anaemias. They are dealt with under the headings haemorrhagic, haemolytic, toxic, and dysnaemopoietic rather than from the practical immediate separation of marrows into normoblastic and megaloblastic. The 'megalocytic anaemias associated with disease of the liver' are said to be of the same type as pernicious anaemia, but are rarely severe and will respond to liver therapy. Later however in considering Banti's syndrome it is stated that in the later stages of the condition with severe macrocytic anaemia and cirrhosis of the liver . . . there is marked increase in the number of immature normoblasts.'

Chapter 5 deals with erythraemia and allied states; Chapter 6 with infective diseases. Chapters 7 and 8 deal with hypoplasia and aplasia, and protozoal diseases respectively.
The final chapter is concerned with the technique of sternal puncture. The manubrium is regarded as the site of choice. The description of the method is adequate but no mention is made in this section of the desirability of making smears from the granules of marrow which the authors consider to be found relatively seldom in the aspirated material. In Chapter I however it is stated that a hyperplastic marrow contains many small white granules of marrow substance. The term microscopic is used in this connection, but this must surely be a mistake.

Marrow cytology is a difficult subject and good illustrations are essential to supplement verbal descriptions however good these may be. Unfortunately in the present volume although there are fourteen colour plates very few are of any real value. The best is Plate 7 of plasma cells, while that on the various forms of erythropoiesis is not at all helpful in differentiating between normoblastic and megaloblastic red cell production.

**Varicose Veins**, by R. Rowden Foote. PP. 226. Price 32/6. London: Butterworth & Co. (Publishers) Ltd. 1949.

This book attempts to collate the many recent advances in the treatment of varicose veins. The author appears to think that this is a neglected subject but it has received much attention in the last five years, and most general surgeons are fully aware of the problems involved. There is little original work presented and all the statistics are quoted from other clinics.

The general lay-out is good though perhaps marred by several irrelevant sections and by considerable repetition.

The chapter on thrombosis and embolism is complicated by the use of the term 'thrombophlebitis' throughout so that it is difficult to decide whether the author means active inflammation or 'phlebothrombosis'.

The illustrations are excellent apart from Fig. 42 which shows no obvious lesion (as the author himself points out) and Plate II which is really unnecessary. One is somewhat irritated by the reflections on professional colleagues implied in the captions to Figs. 106-112. On p. 150, Mrs. H. Payling Wright surely deserves a feminine pronoun.

To the surgeon who is interested in varicose veins this book has little to offer apart from confirmation of the fact, which he well knows, that treatment of this disease requires minute attention to detail and that no two cases are alike. To the student or general practitioner, it offers a comprehensive survey which, although rather dogmatic and one-sided, may serve to give most modern trends.

**An Introduction to Clinical Surgery**, by Charles F. M. Saint, C.B.E., M.D., M.S., F.R.C.S.(Eng.), Hon.F.R.A.C.S., Hon.F.G.S.S. 2nd edition. Pp. 383. Price 45/-. Capetown and Johannesburg: Juta & Co. Ltd. 1949.

The second edition of this useful book contains a large number of good clinical photographs but not all of these are good illustrations. An attempt is made to explain the whys and wherefores of surgical clinical note taking based on the author's own wide clinical experience. The result is likely to appeal more to the junior clinical teacher than to the undergraduate, who will continue to find the standard British work on this subject easier to read and assimilate. Most of the pathology discussed refers to South Africa and the natives thereof and not all is strictly applicable to British clinical surgery, e.g. syphilis is not a common precursor of epithelioma of the tongue in this country.

The text is very full and it is not always easy to extract the essentials, e.g. on the subject of abdominal emergencies—rectal examination, the sentence 'This also should never be omitted unless the diagnosis is obvious without it' is seven words too long, for the undergraduate at any rate.

These are minor criticisms of a very good attempt to compress a wealth of learning into reasonable space.
Bacterial Metabolism, by Marjory Stephenson, Sc.D., F.R.S. 3rd edition. Pp. 398. Price 30/- London: Longmans, Green & Co. Ltd. 1949.

It is not uncommon for a book to become a memorial to its author, and Marjory Stephenson, whose death in December, 1948, robbed the scientific world of its best known worker in chemical microbiology, could have wished none better than this present volume. It expresses so completely the author's own philosophy, her concern for scientific facts rather than the elaboration of theories that it must remain an outstanding landmark in her own particular field. That she was able to complete this comprehensive review of the modern knowledge of enzymes (their origin in bacteria is merely incidental) before her death is something for which we should all be profoundly grateful. The present volume has been almost entirely rewritten and it is interesting to note how frequently questions propounded in previous editions have been answered only to reveal fresh perplexities, how often detailed descriptions of the unconfirmed findings of early workers can now be summarized in a few lines, and yet how much there is still to find out. In some ways the alterations in this edition emphasize the development of the author's interests beginning with bacterial respiration and the long and fruitful phase of investigation into single enzyme action to her later uncompleted work on nucleic acid metabolism, a transition in her own words from the Katabolic to the Anabolic. The present edition follows the general plan of its predecessors but the difference in emphasis can be best exemplified by the alteration in the title of Chapter VII from 'Nutrition and Growth' to 'Growth and Nutrition.' Although Marjory Stephenson was not primarily interested in disease producing bacteria yet the fundamental nature of her observations has provided a clue to the pathogenesis of much infective disease and the increasing importance of the chemistry of bacterial metabolism in this field is reflected in the notable increase of references to the action of pathogenic organisms.

The author's crisp and lucid style requires no commendation to those who have been privileged to read her previous publications.

BOOKS RECEIVED.

Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death. Geneva: World Health Organisation.

International Digest of Health Legislation. Geneva: World Health Organisation.

British Empire Cancer Campaign: Annual Report 1948.

The Nuffield Foundation: Fourth Report. The Oxford University Press.

The Mental and Physical Effects of Pain, by V. C. Medvei, M.D., M.R.C.P. Edinburgh: E. & S. Livingstone Ltd. 1949.

Hints on Prescribing, by J. B. Primmer, M.B., Ch.B., D.P.H., J.P. Price 3/6 net. London: Research Books Ltd. 1949.

University of Liverpool: The Sherrington Lectures. 1. Sensory Integration, by E. D. Udrian, O.M., M.D., F.R.C.P., F.R.S. Liverpool: University Press of Liverpool.

The Advertising, Labelling and Composition of Food. Report by the Ministry of Food. Pp. 81. Price 1/6 net. London: H.M. Stationery Office. 1949.