tively helped to restore morbid anatomy to its rightful position as a basic medical science. The early years of Turnbull's directorship were not easy : he had to fight for what he knew to be essential against apathy and the die-hards intolerant of change. His ultimate achievement was recognized beyond the confines of academic pathology, and in 1929 he received the F.R.C.P., followed by the F.R.S. in 1939 and the D.Sc. *honoris causa* from Oxford in 1945. The University of London conferred on him the title of Professor in 1919.

As a teacher Turnbull gained a following because his discourse was based upon personal observations ; it was truthful, accurate, and often in advance of the current textbooks. If obliged to quote the observations of others, he always gave his authority. He inspired others not by eloquence but by his character and work. Considerable though the volume of his work proved, it was most regrettably curtailed and interrupted by illness, particularly migraine which afflicted him from his school-days onwards. This complaint made him loth to attend meetings or to give public lectures ; hence he was not as widely known personally as would otherwise have been the case. To those who sought him out he was unfailingly helpful and generous.

In person he was tall and thin ; his face in repose was austere and thoughtful. But in conversation he was

animated and humorous, with a ready stock of jokes and anecdotes. In his relationships with others he was thoughtful, sensitive, and just, but notably shy and reserved. In the face of others' troubles he was profoundly altruistic ; his own setbacks were met with superb moral and physical courage.

Much of Turnbull's work was incorporated in the publications of his pupils and colleagues, and to these he gave a large proportion of his time. He displayed little urge to publish under his own name, although his passion for research was undiminished to the end. His rigorous self-criticism permitted little of this research to reach editorial hands. And his hope of completing much of his work, especially in bone pathology, during the years of retirement was defeated by ill-health. He will, however, be remembered by the studies on metabolic bone-disease, done with Donald Hunter, by his early discovery of post-vaccinal encephalomyelitis, and by his classical study of arterial disease (*Quart. J. Med.*, 1915). We may hazard that he will be remembered even longer as the man of vision who set a high standard for morbid anatomy in this country at the start of the century and educated others up to it.

He married, in 1916, Catherine Nairne Arnold Baker, who died in 1933 : they are survived by one daughter and three sons.

D. S. R.

BOOK REVIEWS

Cancer : Race and Geography. First edition. By Paul E. Steiner. (Pp. xiv+364 ; 50 tables, 73 figures. 38s. 6d.) London : Baillière, Tindall & Cox. 1954.

This is a timely and commendable book by which the author, justifiably, hopes to stimulate research and new ideas on aetiology, and to concentrate thought on the control of cancer through prevention. Despite its great potentialities, the ethnic and geographic study of malignant disease has been relatively neglected in cancer research. Here, by analysing his own material, drawing together the available literature and pointing out its deficiencies, Professor Steiner indicates paths along which such research may be pursued. He admits the quantitative inadequacy of some of the material on which his study is based, and anticipates the displeasure of some biostatisticians, but he feels that the aetiology of cancer is too pressing a problem to postpone till perfect data are available.

Necropsies at the Los Angeles County Hospital between the years 1918 and 1947 provided the material for statistical analysis. Of the total of 35,293, there were 6,072 cancer cases. These are classified according to racial groups : Caucasoids 5,120, Mexicans 590, Negroids 284, and Mongoloids 78 (composed of Japanese 58, Philipinos 11, Chinese 9), tumour site (carcinomas), or type, sex, and age. The varieties of tumours are listed under 54 headings, but, because most of the groups are not large enough, only the 20 commonest (91.2% of the total) are dealt with in detail, a chapter being devoted to each. All the information is thoroughly analysed,

there being no fewer than 123 tables and figures ; summaries are profuse and there is a good, full index.

So far as published figures allow, comparison is made between the racial groups in their native and other countries (sedentes versus migrants) to determine whether differences in frequency of some forms of cancer are due to environmental or hereditary factors. Racial biological differences other than frequency are also reviewed in each chapter. From this information an attempt is made to arrive at aetiological implications.

The author concludes that, in general, racial differences in cancer are due to environmental rather than hereditary factors, that geographical differences tend to be environmental rather than racial, and that hereditary differences tend to be explained by cultural rather than genetic factors.

J. W. WHITTICK.

The Skin : A Clinicopathologic Treatise. By Arthur C. Allen. (Pp. xv+1,048 ; 495 full-page illustrations. £9 7s. 6d.) London : Henry Kimpton. 1954.

The publication of this book has been eagerly awaited by those who knew of the project, as the author has had extensive experience in histopathology of the skin, both in the Armed Forces Institute of Pathology and at the Memorial Cancer Centre. The collaboration of Sophie Spitz, wife of the author, in work on naevi and malignant melanomas has resulted in Allen's recognition as one of the chief present-day protagonists in the epidermal-neurogenetic controversy regarding the origin of these

conditions. Undue prominence has, perhaps, been given to Allen's views on this subject, and dermatologists for the most part prefer the theory of Masson.

The book fully justifies the pre-publication claims of an important work. It represents, in fact, a tremendous feat of industry, and, although it may suffer some disadvantage from single authorship, on balance the many advantages are obvious.

The preface sets out the aims of the author, concluding with the hope that the book will accelerate "the wastefully delayed fraternization between dermatologists and pathologists, and between these and other practitioners of medicine." The work under review should serve this purpose well and lead the author to "regard the effort as having been worth while."

The book is a large one, measuring 12 in. $\times$ 8½ in. $\times$ 2 in. thick, and contains 1,023 pages of art paper, making for considerable weight and rendering the work suitable for reference use rather than as a handbook. There are 495 full pages of illustrations, often with four or more on a page, so that the total number of photographs, clinical and pathological, is over 2,000. Practically all the illustrations are excellent, especially the photomicrographs, but it is to be regretted that the magnification of the latter is not recorded—apparently an increasing practice in the United States.

The index is most complete, containing some 1,700 headings in addition to sub-headings. This means that there are very few conditions which are not listed and for the most part dealt with in the text. However, the Borst Jadassohn intra-epidermal epithelioma is mentioned in the index and referred to page 58, but the reader finds that the condition is merely listed under eponyms. On page 794, however, there is a caption to an illustration of the condition, and it is strange, therefore, that there should be no further reference in the text. A similar remark concerns plate 443, which includes six photographs of tumours of tendon sheaths to which again no reference is made in the text. The list of eponyms already referred to is a useful feature of the book, especially for pathologists who may feel lost among the manifold names given to a clinical entity by dermatologists.

The reviewer has used this book in the laboratory for many months, making frequent reference to it. This has shown that the book covers an enormous field and that very little has been omitted, whether it be the radiation effects of the atom bomb, the bite of the Black Widow spider, cat-scratch disease, or post-mastectomy lymphosarcoma—all find due reference.

Dermatologists will not be in agreement with Allen's view's on the bullous dermatoses, and will be surprised by his rejection of the importance of acantholysis. Pathologists may be a little surprised at the author's dogmatic pronouncements on Kaposi's varicelliform eruption.

The tumour section is well illustrated and is complete, but the classification used by Allen will not prove acceptable to the majority of pathologists, who will view with surprise the inclusion of *Molluscum contagiosum* and of cysts as neoplastic conditions. The condition known widely in this country as *Molluscum sebaceum*

(or kerato-acanthoma) receives no mention as such, possibly because the recognition of this condition as a clinical entity has been slow in the United States. As this self-healing condition may otherwise be regarded as a low-grade malignant tumour its true nature is of great importance in the correct assessment of "cure" in treated cases. However, these are relatively minor criticisms when such excellent sections as those on melanomas and mycosis fungoides are considered.

In view of the excellence of production the cost, though high, is certainly not excessive, and the work can be highly recommended to all those who engage in a study of the pathology of the skin.

JOHN O. OLIVER.

The Diagnosis and Treatment of Haemophilia and its Related Conditions. By R. G. Macfarlane and Rosemary Biggs. Issued by the Medical Research Council as Memorandum No. 32. (Pp. 23. 2s. 6d.) London: H.M. Stationery Office. 1955.

This memorandum attempts to provide a brief, yet comprehensive, review of the present knowledge of the disorders of coagulation. The authors discuss both the clinical and laboratory approach to the problem of diagnosis and provide a relatively simple scheme for distinguishing the various disorders.

The technical section details their methods of performing the tests advised and of preparing the reagents required. Their use of ammonium sulphate in one-third saturation as a test for fibrinogen in plasma appears to require qualification, since this concentration is sufficient to precipitate some of the globulins in the plasma. Now that the thromboplastin generation test is coming into use as a routine laboratory test, it is a pity that the authors do not advise here the modification one of them has already suggested elsewhere (Biggs, Eveling, and Richards, 1955) of omitting the early samples of the incubation mixture. The first and second minute samples add much to the technical difficulties of the test and yield little, if any, information of value. More detail as to the timing of the test in relation to the collection of the blood samples would be helpful, as it is advised that the serum be kept overnight before use. Presumably the authors collect serum and platelets on one day and plasma on the next in view of the labile nature of the factor V and anti-haemophilic globulin. It would be interesting to know whether significant errors can arise from the common practice of collecting blood samples in the early morning and performing the tests in the late afternoon.

The final section on treatment is good apart from the absence of advice on the treatment of haemarthrosis. In view of the disagreement which exists on the value of aspiration, some clear guidance would be welcome.

These minor criticisms should not be allowed to cloud the author's achievement in presenting a very fine review of a difficult subject. This memorandum should be in every laboratory and will be of value to the clinician as well as to the laboratory worker.

C. A. HOLMAN.

REFERENCE

Biggs, R., Eveling, J., and Richards, G. (1955). *Brit. J. Haem.* 1, 20.