that the elimination of one histological type of tumour characteristic of an early age period allows another type to develop at a later age. Does this mean that all our attempts to solve the cancer problem are doomed to failure?

In conclusion, allow me to make three final comments about the book. The clinical pathologist will find much useful information in chapter 24 on steroid hormone metabolism in cancerous subjects which he can ill afford to neglect in these days of adventurous surgery and hormone therapy. So, too, he cannot ignore the fine summary by Dr. Hueper of environmental, especially industrial, factors in human cancer. He will also discover that most of his enquiries are anticipated in the excellent accounts of diagnostic tests (chapter 28), radiation therapy (chapter 31), and isotopes (chapter 32). I hope that I shall be forgiven if I express my disappointment that serious consideration is not given to metastasis, which is not even mentioned in the index. And may I ask, What does "physiopathology of cancer" mean? I, for one, am no wiser after using this book, though I know a good deal more about the aetiology, pathogenesis, and investigation of cancer.

G. R. CAMERON.

Fundamentals of Neuropathology. By William Brooks Dublin. (Pp. 697; 786 illustrations. £6 13s. 6d.) Oxford: Blackwell Scientific Publications; Springfield, Illinois: Charles C. Thomas. 1954.

Within recent years several books have appeared with the object of bringing neuropathology into line with general pathology. Dr. Dublin is to be congratulated on having succeeded in this endeavour, for the present weighty volume is an important and serious contribution to the subject of neuropathology: it is, however, based almost entirely on the American literature.

Neuropathology, explains the author, is but general pathology extended, and he sees no justification for the retention in our medical vocabulary of several terms which have grown up with this subject. Early on in this book occurs the statement, which will be regarded by many as heretical, that "Nissl stains, although traditionally important, contribute nothing." It is laudable to attempt the diagnosis of neuropathological conditions with paraffin sections stained with haematoxylin and eosin, but such statements as the above are sweeping in character and he would be a rash man who would deny the importance of celloidin preparation and the Nissl stain in many fields of neuropathology.

The various subjects are treated on conventional lines and the early chapters deal with the neuron, the glia, and their development. In the chapter on congenital abnormalities the author draws attention to the possible importance during the period of gestation of streptococcal pharyngitis in the mother and other forms of upper respiratory tract infection.

Inflammation is treated in a very broad way, for it includes such conditions as toxic encephalitis, diffuse sclerosis, and the Pelizaeus-Merzbacher disease. Disseminated sclerosis is classified as an "inflammation

possibly allergic." The subject of allergic inflammation is well explained, particular attention being paid to the rheumatic group of diseases. He follows Rich (1946) in believing that the various disorders normally listed in this category represent varying types of reaction to different stimulating agents on a basis of allergic hypersensitivity. Cranial arteritis is regarded as a variant of polyarteritis nodosa. Dr. Dublin holds that both clinical, as well as pathological, distinction of primary from post-infectious encephalitis may be difficult or impossible owing to overlap of lesions of the two categories and to the appearance of combined forms, and that primary viral meningoencephalitis occurs more often than is generally realized.

The section on tuberculosis is comprehensive, for such "sub-varieties" as chronic granulomatous meningitis, which the author states may extend over a period of months or even one or two years, and meningoencephalitis *sine bacterium* are dealt with in detail.

The section on tumours is good, even if the presentation of the gliomas is unconventional and somewhat provocative. The familiar medulloblastoma, for instance, is listed as a neuroglioma grade 4.

But Dr. Dublin nobly grasps the bull by the horns when he includes arteriosclerosis and senile dementia among the metabolic disorders, although there are many who will regard the inclusion of Pick's disease within this category as premature. With some justification he holds that cerebral phlebosclerosis is of unappreciated frequency and importance.

In the chapter on injuries the author stresses the role of liberated enzymes, while the importance of fibrolytic degeneration of the dura (listed as a metabolic disease) in the aetiology of subdural haematoma is explained.

The technical section is good so far as it goes, but such standard methods as phosphotungstic acid, haematoxylin and Hortege's silver carbonate are not included, while the method of Holzer is not even mentioned.

This book has many illustrations, the majority of which are good. They are all well chosen and instructive. It is salutary, for instance, to be reminded that death because of cerebellar coning may and does follow lumbar puncture and that the orbital surface of the frontal lobe runs a risk of being seriously damaged during exploration of pituitary tumours.

W. McMENEMEY.

An Introduction to Pathology. Second edition. By G. Payling Wright. (Pp. xii+636; 47 plates. 40s.) London: Longmans, Green. 1954.

When the first edition of Professor Payling Wright's *Introduction to Pathology* appeared in 1950 it was clear that it was in every sense a new book and no mere re-writing of the traditional texts. The book is based upon the author's undergraduate teaching course, but few even among senior pathologists will read it without both benefit and enjoyment. Although purporting to cover only the principles of the subject, the author makes such liberal use of examples that in fact many subjects are covered in considerable detail.

Professor Payling Wright brings a historical approach to his subject. With each of the main pathological processes sufficient account is given for the student to be able to picture how the modern views have evolved, and to see also the lines along which current research is progressing. Throughout the book emphasis is laid on functional pathology rather than on morbid appearances, and this is particularly notable in the nine chapters devoted to infection and inflammation. The whole book maintains a remarkable level of scholarship (especially for a one-man production), but the sections on infection, thrombosis, and neoplasia are perhaps deserving of special mention. A most useful feature to the more senior reader is a carefully selected bibliography conveniently placed as footnotes throughout the text.

In the new edition the whole text has been overhauled and references to recent works have been incorporated, but the main change is the addition of two new chapters on "Inflammation in Allergic Reactions" and "Tissue Reactions to Ionizing Radiations." These additions complete what is a quite outstanding exposition of the principles underlying present-day pathology and its application to the practice of medicine.

There may well be some who will feel that Professor Payling Wright has put too much into this book for the undergraduate, and that the introduction of so much historical and controversial matter may tend to obscure the more factual matter required for examination purposes. It is certainly true that the book's appeal will be more to the thoughtful student than to the one interested only in acquiring a minimum of facts for his examinations. To the postgraduate and to the young teacher of pathology it is an invaluable asset. It constitutes a most notable addition to the British literature on pathology.

T. CRAWFORD.

Practical Clinical Biochemistry. By Harold Varley. (Pp. viii+551; 70 figures. 42s.) London: William Heinemann. 1954.

The author's aim in writing this book is not clear. In the first paragraph of the preface he describes the book as a survey of the whole field of clinical biochemistry from the standpoint of workers in hospital laboratories. In the next paragraph we are told that the purpose of the book is essentially practical, but that it was felt that summaries of the findings in health and disease would add considerably to its value. If "clinical biochemistry" means anything, it means the application of biochemistry to the investigation and treatment of the patient; a survey of the subject demands more than summaries of the results of various tests in health and disease. Chemical pathologists and hospital biochemists will find this book valuable as a work of reference on technical matters. It is less suitable for use as a textbook.

Major criticisms are few. In the discussion of albuminuria in pregnancy the reader is left to infer that mild albuminuria in pregnancy is unimportant. There

is no general discussion of error in the laboratory and little attempt is made to consider the accuracy of the various methods described.

Many minor matters invite comment. Some names are mis-spelt. The description of the breakdown of bile-pigments in the bowel is over-simplified and, since chemical formulae are quoted, incorrectly set out. It is to be regretted that the Biochemical Society's abbreviation for milli-equivalents (m.-equiv.) is not used. The work of Cole and Lathe on the van den Bergh reaction deserves mention. The steroids are only referred to by trivial names although the adoption of a systematic nomenclature (e.g. Ciba nomenclature) would be to the benefit of everybody. Androst-5-ene-3 β -ol-17-one is not the only 17-ketosteroid with a double bond. The author does not always set his matter out clearly: in discussing the interpretation of the blood cholesterol level, the distinction between blood values and serum values becomes a little blurred and the calculations of the urea clearance seem to be needlessly complicated.

The book concludes with appendices containing useful information. In a hospital laboratory it might be more helpful to know the number of milligrams in a grain (which is not given) than the number of square metres in a square yard (which is). The ounce, which contains 28.35 grams, should be described as the ounce avoirdupois and the apothecaries ounce might well be included; I have yet to find a medical student who knows the difference between the weight of an ounce of sugar and of an ounce of strychnine.

In spite of these criticisms most hospital laboratories will wish to have a copy of this book because of its invaluable collection of methods.

ARTHUR JORDAN.

Textbook of Virology for Students and Practitioners of Medicine. 2nd ed. By A. J. Rhodes and C. E. van Rooyen. (Pp. xvi+562; 79 figures. 61s. 6d.) London: Baillière, Tindall & Cox. 1953.

The first edition of this book, which contained 312 pages, appeared in 1949. The second edition now has 527 pages, a fair indication of the amount of new information which has been published, although it must be pointed out that owing to the delays of publication the latest references given are 1951. However, much of the material which the authors have included in a didactic fashion is of more recent vintage. Because so much of our knowledge is of recent origin, the authors have tried to cater for practising physicians, who probably had no instruction in virology while students, as well as for postgraduate and undergraduate students. The layout makes it easy to read, and the subdivision into diseases of the different anatomical systems has much to favour it. However, in the eyes of the reviewer, the authors and publisher, in their desire for completeness, have produced a book which is excessively expensive for students, particularly when our knowledge of the subject is altering so rapidly. The photographs of virus particles as seen in the electron microscope are very good,