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,

but one doubts whether it is appropriate to take five pages of text to describe the workings of the electro-microscope, which only a small number of specialists can use. Similarly three pages of photographs of ultracentrifuges seem unnecessary.

I wonder how good the evidence was that "measles virus has been recovered from the brain" (p. 146) and there is even less reason to give physicians and students any reason to think rabbits and guinea-pigs are of value in the study of measles. I would also question the wisdom of making the unqualified statement that "measles virus can be grown on the chorio-allantois of the developing embryo or in tissue culture."

In spite of these few adverse comments, I should hasten to say that this is a useful adjunct to the growing number of books on viruses and rickettsiae. Sixty-five pages on poliomyelitis are a good indication of the increasing interest in this disease throughout the world, and this chapter is supported by extensive references. The detailed chapter on rabies should also be very useful to those faced with the problem of investigating suspected cases. There are numerous useful tables, and detailed instructions on such subjects as the control of poliomyelitis, and quarantine regulations for yellow fever and maps showing distribution of several diseases.

F. O. MACCALLUM.

Blood Groups in Man, 2nd ed. By R. R. Race and Ruth Sanger. (Pp. 400. 30s.) Oxford: Blackwell Scientific Publications. 1954.

When the first edition of this book was published it was immediately recognized as the standard work of reference on the genetical aspects of blood groups. Another four years' accumulation of knowledge has been built into this new edition, which is one-third as long again but costs no more.

It is astonishing that the authors manage to present such a plethora of blood group statistics without depressing the reader. The secret is that in almost all cases they succeed in fitting the facts into a reasonable scheme and manage to give the reader the feeling that blood groups follow orderly patterns.

In the few places where the authors present data that they have not themselves digested, the reader is immediately aware of the difference. Examples can be found on pages 198 to 202, where there is an attempt to reconcile the evidently irreconcilable data on the fractionation of Rh antisera; and on pages 34 to 36, where observations on the physico-chemical nature of the B- β combination are presented, which evidently baffle the authors as much as the ordinary reader.

There are a few conclusions which the authors seem to have arrived at on rather slender evidence. as when they say "blood survives a postal journey best in the form of a clot." For the rest one has the impression on page after page that the authors are writing on a subject which they know intimately, and one cannot help being delighted by the mastery of their subject which they constantly display. A particularly satisfying

example occurs on page 251, where the amounts of Fy^a antigen within the genotype Fy^aFy^b are shown to fit an approximately normal distribution.

It is fascinating to learn on page 307 that, of 132 people working at the Lister Institute, 126 had combinations of blood groups which distinguished them from all their colleagues. "The day, foreseen long ago by Landsteiner, when blood would be known to be as individual as finger prints is now so close that it can be foreseen by ordinary people."

No laboratory seriously engaged in blood grouping, in whatever part of the world it is situated, can do without this book.

W. M. MOLLISON.

Pathology in Surgery. By Edwin F. Hirsch. (Pp. xvii + 474; 388 photographs. 76s. 6d.) London: Baillière, Tindall & Cox. 1953.

Pathological atlases appear to be popular in the United States, as a similar atlas of surgical histology published by the same firm is advertised on the dust jacket of this book. So long as these atlases are used for reference only and not regarded as a short cut to histological diagnosis they can be quite valuable adjuncts, but no photographs or photomicrographs can replace the study of the actual specimen or section.

In this book the photographs are good and the photomicrographs are clear and representative. Occasionally the photomicrographs are repetitive; for example, there are four almost identical pictures of seminoma testis. Unfortunately the text does not reach the high standard of the illustrations. The language gives the impression of a poor translation and the arrangement of organs under systems is quite haphazard. Chapter 2 on the digestive system begins with a short summary of lesions of the lips and face and includes the tonsils, while the liver, gall bladder, bile ducts, and pancreas are dealt with quite separately in Chapter 7. Descriptions of both macroscopic and microscopic appearances are short and staccato and give the reader the feeling of being bombarded by so many facts that it is impossible to differentiate the important from the less important. Certain aspects of surgical pathology too are stressed which would not be considered in an English textbook. For example, in his general comments on bile ducts the author states:

"Perhaps the most fundamental element in the pathologist's fund of information covering the pathology of the common bile duct is his ability to recognize the duct as a tissue when he is confronted with a segment accidentally removed." Again in general comments on the liver there is a similar statement: "Unless a surgeon for some unusual reason, or by mistake, removes all or a large part of the liver, the tissues of the liver observed in surgical pathology are small biopsies."

It is not a book that can be recommended to students, but may be useful as a book of reference for surgical pathologists.

M. GILLESPIE.