clinical microbiology. Apart from a too ready acceptance of standards as though they are god-given absolutes (is this an opportunity to use the word "data" in its true sense?), there is much food for thought. Chapters 23 and 24 are disappointing. An account of paediatric bacteriology (Chapter 23) of any profundity is probably impossible; for a variety of reasons, the gap between the laboratory and the clinician is probably at its widest here. Accounts of techniques such as ELISA (Chapter 24) are dull because they are of interest only to those who actually practice them at the bench, once the theoretical basis has been grasped. Chapter 25, on trends in organisms isolated and their antibiotic sensitivity, is a classic ending—"not with a bang but a whimper". The plain fact is that over the past decade almost nothing has changed. *Escherichia coli* and *Staphylococcus aureus* still rule despite the threats of more exciting contenders, and little of note has happened to antibiotic resistance despite ominous rumblings.

My overall feeling is that the book provides useful source material for aspirants to the membership of the Royal College of Pathologists and the like, as well as for their examiners. If it were half as long and less irritatingly insular it would behoove (*sic*: OED—obsolete except in North America) any practising clinical microbiologist to read it. As it is, perseverance with at least some of the chapters would be rewarded.

I. PHILLIPS

Handbook of medical parasitology

By VIGAR ZAMAN and LOH AH KEONG. 1982. Wright PSG, Bristol. Pp. v and 218. £17.00.

This is a paperback book with 218 pages and 334 illustrations, including 32 life-cycle diagrams. It is arranged in four sections, on protozoa, helminths, arthropods and diagnostic techniques. There is a very limited reading list of 18 items. The preface tells us that the book is written especially with students in mind and that "illustrations are the back bone of good teaching".

There is no doubt that there is a need for a book on Medical Parasitology, suitable for students and for teachers of lower level parasitology courses. One of the major problems with this book is that the black and white plates are obviously taken from the coffee-table colour atlas previously published by the senior author and have suffered greatly from being considerably reduced in size and being reproduced from colour originals. Some have lost all recognizable qualities, and the reviewer had some amusement from covering up the text and asking experts in the field to identify the more ridiculous examples. In many cases, the pathologist could not even identify the tissues. One would also have expected a textbook on parasites of man to have some pictures of patients showing the more bizarre clinical manifestations of parasitoses. On the whole, the line drawings of life-cycles are useful but occasionally are a little difficult to disentangle, especially where there is a zoonotic component in the life-cycle. The world maps with symbols showing distribution are a good idea—even if occasionally one is misled by adventitious spots on the maps—with only occasional inaccuracies. More careful editorial work might have had the line drawings more closely associated with the relevant text.

The text represents less than half the book. Most sections start with a useful list of definitions, although the authors define a parasite in terms that cover a lion and a cow! Although little space is devoted to any one parasite the information is very clearly presented and is usually accurate. One could nit-pick through the text but this is hardly productive at this late stage; minor errors could have been identified by a suitable referee at the proof stage. Final judgement of the book must take into account the statement of the authors that the book was written "especially with students in mind". The text, whilst brief, must receive a good mark, but the half-tone figures ought to have been severely pruned so that the more useful ones could have been larger. What might put most students off is the price of the book; at £17, it is very expensive. A cheap textbook on Medical Parasitology for students is still needed.

D. A. DENHAM

Cell wall-deficient bacteria—basic principles and clinical significance

Edited by G. J. DOMINGUE. 1982. Addison-Wesley Publishers Ltd, London. Pp. xi and 595. £16.45.

The difficulty and contentiousness of this subject are highlighted by the contents of this book.

The first few chapters on basic principles—biology, immunology, induction, and relationship to mycoplasmas—are plain sailing. Furthermore, the account of the association of cell wall-deficient bacteria (CWDB) with renal disease is often plausible, much of the work having been published before. Unfortunately, all this is the calm before the storm. All hell is let loose as the chapters on the relationship of CWDB to various other diseases unfold. Tuberculosis, sarcoidosis, leprosy, a variety of skin diseases, recurrent aphthous stomatitis (RAS), Whipple's disease, Crohn's disease, various gonococcal infections, septicaemias, rheumatic carditis and uveitis come in for consideration. It all adds up to a proverbial quagmire of, for the most part, unbelievable observations. How have the authors isolated or detected the organisms? Have CWDB been induced by the culture process? Do they really exist in the tissues? What is the evidence that they cause disease? These are questions I found myself asking constantly as I read through the various chapters, and I was not helped by illustrations which, often, are awful. At the end I was no wiser but a lot sadder. How could fellow microbiologists perpetrate so much that is poorly written, sometimes irrelevant and usually uncritical. The chapters on RAS and rheumatic fever don't deserve such criticism and the studious and well written chapter on the relationship between CWDB and mycoplasmas provides one spark of hope. This was a subject of the greatest contention not long ago but doesn't seem to be any more. Hopefully, in another decade it will be possible to say the same for the relationship of CWDB to disease. Maybe the advent of better bacteriology, e.g., the use of monoclonal antibodies, will help to resolve the mess in which those working with CWDB find themselves. Is the book worth buying? Obviously, many ought to be deterred by what I have written. However, for those who are developing an interest in the field and need references before doing something about it—and something needs to be done—it could be valuable; but not otherwise.

D. TAYLOR-ROBINSON

The destruction of the bacterial spore

By A. D. RUSSELL. 1982. Academic Press, London and New York. Pp. xi and 333. £19.20.

The high resistance of the bacterial endospore to most inimical agents is the main factor governing the application of sterilising processes. This book provides a welcome source of information on the complex behaviour of spores exposed to stress from physical and chemical agents.

Current knowledge of spore structure and the physiology of sporulation, activation and germination is covered briefly in the first chapter, to provide the background to the topic. The following chapters give detailed quantitative information on the effects of the well established sterilising methods of moist heat, dry heat and ionising radiation; other agents are covered under the headings of ultraviolet radiation, liquid phase antibacterial agents, vapour phase bactericidal agents, hydrostatic pressure and combined treatments, the last being a topic of increasing interest. The final chapter deals with the recovery and revival of injured spores, which is important in the assessment of sterilising processes. The most pertinent data and associated references are assembled into tables and each chapter has an extensive list of references. The complexity of the subject makes an ideal grouping of topics difficult to achieve and it is, therefore, perhaps inevitable that information relevant, for example, to the low temperature steam and formaldehyde process is distributed between the chapters on the vapour phase, liquid phase and combined treatments.

The evolution and application of sporicidal processes in different fields has caused the associated terminology to become confusing. Definitions and descriptions of the use of these terms are therefore welcome. There are, however, traps for those unfamiliar with inactivation kinetics in the treatment of the mathematical aspects of some of these terms because, unfortunately, a number of errors have crept in. Some examples are: $\ln k$ (not k , p. 36) should be used in the Arrhenius plot, k is normally $2.303/D$ (not $1/D$, p. 40) and printing $D = U/(\log N_0 - \log N_u)$ would be less liable to misinterpretation than the form used ($D = U/\log N_0 - \log N_u$, p. 40, p. 92 and, for similar equation, p. 116).

It is however, valuable to have so much information from the literature of bacteriology, food