had no clear idea which group he was dealing with, with the result that there are many pages in which a purely bacteriological aspect is taken without being adequately balanced by a clinical appraisal.

There are three chapters on chemotherapy which illustrate the somewhat different approach of our transatlantic colleagues to the problem, but on the whole the information and advice given are very sound. Chapter 29 on obscure generalized diseases seems to be too brief to be of any particular value, and likewise the chapter on poisoning is too short and superficial to be of great use.

There are many misprints in this book, some of which are more than a nuisance inasmuch as it is not obvious exactly what is meant. For example, on p. 523 the ratio of ester to total cholesterol should be ester to free cholesterol. Another irritating habit of the printer is to break a word up at the end of the line in an unusual manner—for example, methemalbumin is recorded as methe-malalbumin. On the credit side there are many references at the end of each chapter. These show a welcome spread into other areas besides America, and other continents are well represented.

It is rather difficult to give an overall impression of this book. Some parts are excellent. An author of the reputation and experience of Professor Wolman could hardly write a book of this length without including much of value for any reader. However, unless the American clinicians have more time for reading long books than their British counterparts, it is difficult to see how a clinician can gain enough from this book to warrant reading it from cover to cover. If used as a reference book for help in specific problems it is inadequate in too many parts for this purpose, but it will give the needed references. The clinical pathologist can undoubtedly learn much from it which would be helpful in dealing with his younger clients, but he will often find he has to consult some other source for the actual information he needs.

W. W. PAYNE.

Connective Tissue: A Symposium Organized by the Council for International Organizations of Medical Sciences. Established under the joint auspices of UNESCO and WHO. Edited under the direction of R. E. Tonbridge. (Pp. xii+371; illustrated. 42s.) Oxford: Blackwell Scientific Publications. 1957.

This comprehensive symposium was held in London in 1956, and the book summarizes the carefully evaluated work of some 30 participants on the biochemistry of connective tissue, with particular reference to the correlations between biochemistry and structure. The subjects cover a wide field and clearly illustrate the progress that has followed the application of x-ray diffraction analysis, new biochemical techniques, and electronmicroscopy, with its inherent difficulties.

The monograph will be of great value to the pathologist who has been studying the biology of connective tissue or is interested in the technique and methods applied. He will be fascinated by the complexity of the connective tissue system and its three main components, the cells, ground substances, and fibres. The correlation between biochemistry and structure, with the help of the electronmicroscope, has made some progress, but there remain many problems to be solved. The main difficulty, as emphasized by several authors in this symposium, lies in the fact that the procedures of extraction might greatly affect the final result. Moreover, as in other fields, definitions and terminological difficulties may hamper understanding. This is reflected both in the masterly introduction of W. T. Astbury and in the Chairman's summing-up by R. E. Tunbridge. To quote from the latter, "the complexities of the structure, composition, and function of collagens and allied fibrils, remain all too apparent, but a much greater understanding of one another's difficulties and objectives has resulted from this symposium."

I. FRIEDMANN.

Microtechniques of Clinical Chemistry for the Routine Laboratory. By Samuel Natelson. (Pp. xv+484; 160 figures. 82s. 6d.) Oxford: Blackwell Scientific Publications; Springfield, Illinois: Charles C. Thomas. 1957.

Dr. Natelson is well known in the United States for the leading part he has played in the development of small-sample analysis in clinical chemistry. This manual contains methods for determining some 70 constituents of blood or urine, requiring in most cases no more than 0.01–0.1 ml. of material. There are sections on general principles of technique in this field, and on apparatus such as micropipettes, microburettes, and balances used for measuring with precision the small quantities involved. Nearly all these are of American manufacture. An appendix contains, among other things, a critical evaluation of laboratory error and an account of absorption spectrophotometry.

The methods have been well tried in the author's laboratory and have proved reliable and easy to perform. On the whole they are up to date, but a few of the older techniques, e.g., icterus index and the Folin and Wu blood sugar method, would have been better omitted. It is a surprise to find a serological test for syphilis included. Helpful comments on procedure are given, but the principles of the methods are not always stated clearly, and the normal range is sometimes omitted. It is apparent that the book is intended to be used in conjunction with and to supplement standard technical manuals, for little is said about precautions in collection of specimens, function tests, etc. Sometimes alternative methods are described in detail, and as many as 20 to 30 references to other methods are given for each constituent, making this a good bibliographical source of chemical pathology technique, micro or otherwise.