BOOK REVIEWS

Clinical Bacteriology. By E. Joan Stokes. (Pp. vii+288. 20s.) London: Edward Arnold. 1955.

The work of the hospital bacteriologist has increased considerably in volume and complexity during recent years, due mainly to the widespread use of chemotherapy and the increasing recognition of the many opportunities for cross-infection in the hospital environment. A wide range of bacteria may be encountered and the methods of investigation often present a serious problem, particularly to the inexperienced worker. There is consequently much scope for the introduction of unsatisfactory techniques, which provide misleading information and so bring discredit on the clinical pathologist.

These dangers are obviously appreciated by Dr. Joan Stokes, who, in this book, reviews the field of clinical bacteriology and then describes methods which have proved satisfactory in routine hospital practice. General principles receive well-merited attention, and, while it is emphasized that each investigation should be treated as an individual problem, the importance of an early report is recognized. The value of microaerophilic and anaerobic techniques is repeatedly stressed and it is surprising that Brewer's medium is not specifically mentioned. The chapter on the identification of bacteria suffers from the attempt to condense this wide and complex subject into 48 pages; some clinical bacteriologists will be surprised, and probably distressed, to find that members of the *Salmonella*, *Shigella*, *Proteus*, and *Pseudomonas* groups are included in the term "coliforms," which is often used in a more restricted connotation. The technique of the serological tests is given in some detail, but the interpretation of the results, which often presents a serious problem to the bacteriologist, receives only brief mention. There is a short account of the pathogenic fungi, but the investigation of the virus diseases is not discussed. The laboratory aspects of chemotherapy are considered at some length, but the sulphonamide sensitivity tests could, with advantage, be treated separately as these are more difficult to perform and to interpret than the antibiotic tests. As might be expected, there is an excellent section on hospital cross-infection.

While some details of the different techniques may not receive general approval, this book contains much useful advice and information. It can be recommended for general guidance to all clinical pathologists and senior bacteriological technicians.

R. W. FAIRBROTHER.

An Introduction to Medical Laboratory Technology. By F. J. Baker, R. E. Silvertown, and Eveline D. Luckcock. (Pp. x+330; one colour plate, 108 text figures. 30s.) London: Butterworth & Co. 1955.

The authors are members of the technical staff of the Brompton Hospital laboratory, and the text reflects

their extensive experience. It provides the technical information required for the Intermediate Examination of the Institute of Medical Laboratory Technology. Apparatus is clearly described and illustrated, and the technical methods are well set out with all necessary detail. The contents include useful chapters on glass-blowing, microscopy, and the care of animals. Those concerned with teaching student-technicians will sympathize with the authors' attempt to remedy the defects of school science education by the inclusion of a chapter on the elementary laws of chemistry and the gas laws. The account of logarithms in this chapter seems in need of expansion if the uninitiated are to calculate successfully.

In an appendix on first aid, advice is given to the student unfortunate enough to swallow a culture, but little is said throughout the book about the less obvious ways in which a technician may infect himself or his colleagues. The precautions to be observed in dealing with potentially infected specimens should be impressed on the student from the beginning, and it is a pity that the authors do not give more attention to this point.

There is a very good glossary in which prefixes are sensibly included, and the production is excellent. This book deserves a good reception from students—and their teachers. Since it provides for their needs under one cover, it is not unreasonably priced.

A. J. MCCALL.

Studies on Fertility. Edited by R. G. Harrison. (Pp. ix+151; illustrated. 21s.) Oxford: Blackwell Scientific Publications. 1954.

This well-produced book contains a selection from the papers presented at the Sixth Annual Conference of the Society for the Study of Fertility, which exists to bring together all those whose work is concerned with some aspect of reproduction, whether medical, veterinary, or purely scientific. In this review it is only possible to indicate the subjects of the papers.

The veterinary side is represented only indirectly in the present volume. Professor R. G. Harrison, the editor, contributes an anatomical study of the effects on the vascularization of the testis when bulls of English breeds are subjected to South African climatic conditions. Bishop reviews the physiological reaction of bull spermatozoa to different types of diluent used in the storage of semen.

The scientific papers include three on the physiological, anatomical, and histological effects of various experimental treatments on the reproductive system of the rat (Clegg, Macdonald and Harrison, and MacMillan), two on the physiological action of spermicidal substances (Mann, Parkes, *et al.*), and one on the chemical composition of the fluid in the rabbit blastocyst and its relation to substances in the maternal blood stream (Lutwak-Mann).

The medical papers cover a wide range. G. I. M. Swyer describes a misleading testicular biopsy from a hypogonadal man, and J. K. Russell gives an analysis of medical histories in sub-fertile men, finding no cause for the condition in half of the 120 cases.

Dorothy M. Shotton discusses the outcome of pregnancy in 472 previously infertile women, and finds that the figures compare favourably with those for primigravida in general. Uterine tubal spasm appeared to be the only infertility factor correlated with an increased abortion rate and disordered uterine action during labour.

The value of the precise timing of ovulation by means of his rat ovary hyperaemia test is discussed by Dr. E. J. Farris, of the Wistar Institute; his paper suggests that, provided rats of the Wistar strain are used, the best time for coitus or for doing artificial insemination can be predicted with considerable accuracy.

Other papers are those by J. Lowenstein describing a coital training apparatus to help the impotent male; by Mary Pollock on the use of a 30% watery solution of sodium acetrizoate for hysterosalpingography; and by R. Palmer on the value of coelioscopy in the diagnosis of sterility.

In the last papers G. E. S. and H. W. Jones (Johns Hopkins Hospital) mention some interesting clinical syndromes associated with changes in the adrenals ranging from congenital pseudohermaphroditism to cases where hirsutism, oligomenorrhoea, and infertility became manifest after puberty, either with or without increased urinary excretion of 17-ketosteroids. They find quite small doses of cortisone (25 mg. daily) of value in dealing with these cases, regular menstruation being established and more than 50% of the previously infertile patients becoming pregnant.

CLARE HARVEY.
MARGARET H. JACKSON.

Serological Approaches to Studies of Protein Structure and Metabolism: Annual Conference on Protein Metabolism, 1954. Edited by William H. Cole. (Pp. 88. \$2.00.) New Brunswick, New Jersey: Rutgers University Press. 1955.

This symposium comes at a most opportune moment. The advances it discusses are of equal interest to students of immunology, experimental biology, and protein chemistry. The papers dealing with the serological attack on protein orientation are scattered through the literature and liable to be overlooked by workers in one particular field.

The contributors to the symposium have presented the material they have to offer with clarity, and Dr. Boyden, as well as contributing to the programme, helped to gather together a group covering such a wide range and is to be congratulated on the part he played in producing this well-balanced volume.

Haurowitz and Heidelberger are such distinguished contributors in their fields that the articles on proteins as antibodies and antigens and on the effects of denaturation on the precipitin reaction, though they contain little new information, must command interest and respect. Gitlin's article, a veritable Cook's tour, shows how the precipitin reactions may be applied to clinical research into protein disposal. He touches on the use of "light scattering methods" to refine the precipitin reaction itself. Cohn devotes the major portion of his article to a study of the formation of galactosidase in *Bact. coli*. The wider implications of this data and the problem of enzyme synthesis are the most exciting parts of this book.

Munoz's contribution on the use and limitations of serum and agar techniques should be read by the host of workers who daily use this method.

This is not a book for beginners.

N. H. MARTIN.