gloria....! The description follows the usual lines, with the exception that a triple suture line is used.

Parts 3 and 4 are devoted to the surgery of the spleen and pancreas. Volume I ends with part 5, which contains the surgery of the gall-bladder and bile ducts. It is, as one might expect, an excellent and authoritative description.

In volume II the first three parts deal with the liver, appendix and peritoneum. Then come chapters describing hernia. The chapter on strangulated hernia is particularly helpful. A long section on the intestine then follows. It is interesting to note that no method of primary anastomosis has yet supplanted the Mikulicz procedure in colonic resection.

Indeed, the position of the Mikulicz operation has recently been strengthened by the introduction of improved clamps for restoring the continuity of the bowel.

The last chapter of the book is on the subject of post-operative chest complications and is written by Dr. Sleigh Johnson. He reminds us that 10 to 14 per cent of cases of abdominal section suffer from post-operative lung complication, and deplores the lack of progress in respect of this problem. He discusses the aetiology, prevention and treatment of lung complications, the use of heparin being of special interest.

The book has been published and printed in the U. S. A. It has been splendidly done, as befits its importance. Most of the illustrations have been executed by Miss Pauline Larivière, and they are so good that it seems rather unkind to point out that in three figures she has drawn lineæ transversæ crossing the rectus muscle midway between the umbilicus and the symphysis pubis.

W. McN. N.

POULSSON'S TEXTBOOK OF 'PHARMACOLOGY AND THERAPEUTICS'.—By Stanley Alstead, M.D. (Liverpool), M.R.C.P. (Lond.). Third English Edition with new appendix. 1940. William Heinemann (Medical Books), Ltd., London. Pp. xi plus 557. Price, 21s.

Poulsso's *Pharmacology* needs little introduction; it is one of the best books on the subject, it is written with lucidity and precision, and contains numerous invaluable practical hints.

The present edition contains the second *Addendum* to the *B. P.*, issued in June 1940, and gives an account of the new preparations of vitamins and hormones. A special chapter on the sulphonamide compounds, their different preparations, posology, mode of action, and therapeutic indications have made the book very up-to-date and immensely useful, both for students and practitioners. The classification, though not pharmacological, is very ingenious and original.

The book, though suffering from some minor limitations in its scientific and experimental aspects, as also in explaining certain technical things in the light of modern drugs standardization which students are supposed to know nowadays, will definitely prove to be a good addition to our pharmacological library.

J. C. G.

THE MANUFACTURE OF COMPRESSED YEAST.—By F. G. Walter, A.A.C.I. 1940. Chapman and Hall Limited, London. Pp. viii plus 254. Illustrated. Price, 15s.

THE discovery of yeast as one of the most potent sources of several essential nutritional factors has greatly increased the importance of this substance, already indispensable as a leavening agent and in the fermentation industries. Until the great war yeast was only a by-product of the alcoholic fermentation, but during the last twenty years the manufacture of yeast has developed into a great industry by itself. In spite of vast literature on the chemical transformations brought about by yeast, there has been little mention of yeast production in scientific literature. This book therefore supplies a distinct need.

The book presents a comprehensive description of various processes in the cultivation of yeast, the

principles underlying those processes, and the application of these in practice. The usefulness of the book has been greatly enhanced by inclusion of a description of the plant, together with the specifications of the important units, vessels and fittings. A chapter is devoted to dried yeasts and yeast foods, but unfortunately the quality of yeast from the point of view of its content of various vitamins finds little mention. The book however represents a valuable volume on the subject of the cultivation and manufacture of commercial yeast.

DEBATABLE TUMOURS IN HUMAN AND ANIMAL PATHOLOGY.—By W. F. Harvey, E. K. Dawson and J. R. M. Innes. 1940. (Cancer Research Memoirs No. 1.) Published for the Cancer Control Organization of Edinburgh and South-East Scotland by Oliver and Boyd, Edinburgh (Tweeddale Court). Pp. vii plus 124. Illustrated. Price, 10s. 6d.

This is the first volume of the cancer research memoir series published by the joint efforts of the research laboratory of the Royal College of Physicians of Edinburgh, the cancer control organization of Edinburgh and South-East Scotland, and the Institute of Animal Pathology, University of Cambridge. In this volume they have taken up seminoma, granulosa-cell tumour, mixed parotid tumour, melanoma, lympho-epithelioma, giant-cell tumour, endothelioma, lymphosarcoma and meningioma.

The choice of the title of the book is befitting the neoplasms which the authors have selected for the purpose of discussion, as their real nature has always remained a subject for speculation. The memoir is the outcome of the study of more than 15,000 tumours in the laboratory of the Royal College of Physicians, Edinburgh. The authors have dealt with nine varieties of tumours in the present volume. They have first given a short but clear-cut definition of the tumour, then a detailed description of its gross anatomy and microscopic structure after which a full discussion of their own views, as well as of the views of notable workers of Great Britain and other countries of the world. After this, they have given a conclusion in which the most modern and accepted ideas have been summarized.

The descriptions and discussions have been lavishly illustrated with innumerable pictures and excellent and convincing photomicrographs. A very commendable feature of the volume is that, although the writers have to some extent dogmatically pushed their own views as well as the views of their own school of thought, they have not forgotten to take other schools of thought into consideration. In this way, the book, though small in volume, is thorough and comprehensive. A very valuable portion of the book is the inclusion, at the end, of a chapter containing an exhaustive literature which the authors have chosen to call 'directional literature'. This will enable the student of tumour pathology to increase his scope of study without having to spend time to search in the literature. This book is full of original ideas and should be possessed by everyone who is interested in neoplastic diseases, surgeon, physician, or laboratory worker.

M. N. D.

THE MICROSCOPIC ANATOMY OF VERTEBRATES.—By James I. Kendall, Ph.D., D.Sc. Second Edition. 1940. Henry Kimpton, London (263, High Holborn, W.C.). Pp. 342. Illustrated with 197 engravings. Price, 17s. 6d.

THIS is an excellent monograph which is packed with valuable information regarding histological problems and will be of great help to microscopists and embryologists. The writer has avoided too much emphasis on mammalian and human materials as the latter are available in a large number of excellent textbooks. In this book one will find exhaustive microscopical anatomy of important non-mammalian tissues.

In biology the conception of cellular independence is a necessity and this has been very well tackled with

stereo-diagrammatic figures. Various tissues originating from germinal layers are grouped separately amongst type specimens of all important classes of vertebrates. The cytomorphosis, histogenesis and organogeny of the mammalian and other vertebrates have been explained in a manner which will be found very interesting and stimulating. The book also contains original touches which enhance its value. Very useful facts are to be found in the chapter on technique in which all the important histological methods are incorporated. For the microscopist this chapter is invaluable.

All the diagrams are very illustrative and other descriptions are convincing. The book is up to date and free from any errors of fact. It is also very easy reading. In conclusion, the book is an admirable one which clarifies a difficult portion of comparative anatomy. The author is to be congratulated for making a very intricate subject so easy to remember and to reproduce.

M. N. D.

PRINCIPLES OF THE ART OF ANÆSTHESIA (BEING THE LECTURES DELIVERED TO THE STUDENTS OF THE ROBERTSON MEDICAL SCHOOL, NAGPUR).—By S. A. Sharma, B.Sc., M.B., D.T.M. (Cal.). 1941. Published by A. D. Mani, Hitavada Press, Nagpur (India). Pp. 148. Illustrated. Price, Rs. 2

AFTER a careful analysis the most generous critic will find difficulty in pointing to any merit in this

book. The reader is unavoidably driven to the conclusion that the personal experience of the author in any but the most elementary forms of anæsthesia is extremely limited. The casual dismissal in four lines of the technique of administration of an endotracheal anæsthetic does not suggest practical knowledge of the subject.

The book abounds with gross inaccuracies such as the statement that the corneal reflex should never be lost in surgical anæsthesia (this, incidentally, is contradicted three pages later). Nitrous oxide is described as an explosive gas. Again, it is said that exhaled nitrous oxide cannot be rebreathed. Has the author never heard of the carbon dioxide absorption technique? In the introduction the author announces that the book has been written for the enlightenment of his students. In which case some of his statements are frankly dangerous. For example, he says blandly that a *double* dose of avertin may be given in cases of toxic goitre.

The book is almost devoid of any real practical advice even in the simple administration of ether and chloroform by the open method. A student, knowing nothing of how to set about giving a general anæsthetic, will still know as little when he has read the book.

Apart from the subject-matter, the misprints and spelling mistakes are so numerous as to make the text scarcely readable. At the end of the book there are three and a half pages of errata, which cover only a small proportion of the total mistakes.

An unfortunate addition to the already swollen ranks of medical literature.

Abstracts from Reports.

THE PASTEUR INSTITUTE OF SOUTHERN INDIA, COONOR. ANNUAL REPORT OF THE DIRECTOR TOGETHER WITH THE THIRTY-THIRD ANNUAL REPORT OF THE CENTRAL COMMITTEE OF THE PASTEUR INSTITUTE ASSOCIATION, 1939-40

DURING the year certain important changes were made in the medical personnel of the Institute. An arrangement was made with the Government of India for a Medical Research Department Officer as Director, and for a specially trained officer of the Indian Medical Department as Assistant Director. The services of two sub-assistant surgeons of the civil medical cadre of the Government of Madras were withdrawn. The special rabies research officer appointed in 1937 was taken on the permanent staff of the Institute as senior medical assistant, and a junior medical assistant was recruited.

At the request of the Director-General, Indian Medical Service, the Central Committee agreed that the Pasteur Institute, Coonoor, should be included in the list of Training Centres for I.M.S. officers on condition that no expenditure to the Association would be involved.

The reorganization of the laboratories which was commenced in 1938 was completed during the year. Equipment essential to the proper functioning of the laboratories was provided in so far as funds permitted, but additional equipment will have to be furnished as funds become available.

Numerous additions were made to the library by purchase, gift and exchange.

The standardized system of antirabic treatment which was introduced at the Pasteur Institute, Coonoor, in 1933, was reviewed after five full years' working. Analyses of the data collected during this period indicated the advisability of adhering to the practice of giving larger doses of antirabic vaccine to human patients estimated to be at greater risk of contracting rabies. At the same time, sufficient evidence became available to justify the adoption of a simpler classification of patients with a corresponding reduction in the number of graded courses of treatment hitherto

employed. In consultation with the directors of other institutes in India a revised and simplified system of treatment was introduced which allowed of the classification of patients into three classes.

The revised system of antirabic treatment was introduced with effect from 1st December, 1939.

The antirabic vaccine employed for the treatment of human patients was a 5 per cent suspension of sheep-brain (Paris strain of fixed virus) in carbol-saline prepared by Semple's method. A total of 1,455,556 c.cm. was manufactured during the year.

During the period under review, 425 patients received a complete course of antirabic treatment at the Institute (398 Asiatics and 27 Europeans). Incomplete courses of treatment were also given to 56 patients of whom 27 were absolved from further treatment after the possibility of rabies in the biting animal had been excluded. The remainder absconded.

The treatment given at the various subsidiary centres was similar to that administered at the Pasteur Institute, Coonoor. The various centres returned 10,374 case cards for patients treated during the period under review. Of these, 8,021 received a complete course of treatment and 2,184 were incompletely treated. The remainder were absolved from further treatment as the possibility of rabies in the biting animals was excluded.

Only 21 deaths were recorded among the 10,205 patients who received complete or incomplete courses of treatment giving a mortality rate of 0.2 per cent. All of the 21 deaths reported during the year occurred among Asiatic patients. Death followed dog-bite in 20 cases and fox-bite in one case.

General laboratory work

In response to the demand for the services of a general medical laboratory in this part of India, the Institute has continued and extended facilities for work of this kind. Routine laboratory examinations were carried out on a large scale for the benefit of hospitals, dispensaries and practitioners.

Diagnostic tests carried out during the period under review covered a wider field than ever before.