fourth edition was needed only seven years after the first appeared. Secondly, the layout of Gray's original manuscript was such that it lent itself to modification as science advanced without losing the basic character. Thirdly, no scientific work will survive unless every edition is readable, accurate and up to date. Here surely is the main reason why this text-book remains perhaps the most widely used medical reference book in the world today. Herein, also, lies the challenge to the present Editorial Board—every edition of a work such as this must itself create the demand for a further edition.

The text, of course, has been entirely rewritten in the course of years, though wherever possible the general layout has been carefully preserved. In some instances, such as the preamble to the description of the vertebrae, whole sentences are very similarly worded (p. 5 in the first edition, compared with p. 228 in the thirty-second). Twenty-one of the original illustrations remain in the Centenary Edition—four (Figs. 597, 648, 649 and 1,024) have not been altered in any way; the other seventeen have had colour added at various times—a remarkable testimony to the first artist, Gray's colleague, Dr C. V. Carter. Many others remain based upon the originals, having been gradually substituted as the early blocks wore out; without exception they are excellent. The original design of cover was retained almost unaltered until well into the present century, and was very handsome. The present plainer cover is not so good, chiefly because it tends to look much more dilapidated when well worn (and copies of *Gray's Anatomy* get very well worn).

The main changes in the new edition are the inclusion of knowledge gained by electron-microscopy in the sections on histology and embryology, and the addition of more references to recent work. Mention might have been made of Sharrard's important work on the distribution in the spinal cord of the motor cell columns supplying individual muscles (Journal of Bone and Joint Surgery, 1955, 37-B, 540-557). It is a pity that the section headings are becoming less anglicised: "Angiology" in the new edition replaces "Blood Vascular System" in the previous one. Surely the English is simpler in most instances: why not "Articulations" instead of "Syndesmology," "Muscles and Fascia" instead of "Myology," "Visceral System" instead of "Splanchnology"? Henry Gray labelled these sections in simple English, and it might have been better to have reverted to his own headings where possible in this Centenary Edition, rather than to drift farther away from them. Lastly, has not the time arrived for anatomy text-books to discard the idea of muscles' having an "origin" and an "insertion"? This fixes in the student's mind the idea that when a muscle is acting normally the origin is the fixed point to which the insertion is approximated, whereas, in fact, it only applies to a limb held in space. In many instances the reverse takes place when a muscle is acting naturally. This is especially true in the lower limb. Proximal and distal "attachments" would be better.

It is always easy to criticise a work of this nature, and the foregoing remarks in no way imply that the volume under review does not retain the supremacy in its own field.—J. N. ASTON.

AN INTRODUCTION TO SURGERY. Edited by David H. PATEY, M.S., F.R.C.S., Surgeon, the Middlesex Hospital; Director of Surgical Studies, the Middlesex Hospital Medical School; Examiner in Surgery, Universities of London and Oxford; with fifteen other contributors. 7½ × 5 in. Pp. xi + 228, with 54 figures. Index. 1958. London: Lloyd-Luke (Medical Books) Ltd. Price 17s. 6d., Students' edition 9s. 6d.

Although there appear to be too many books published on surgical matters, nevertheless there is a definite need for a book of this nature which the student will find a great help in surmounting a difficult climb in his career when he has just completed his pre-clinical studies and now meets his patients for the first time.

The book is well written. It is rather invidious to select any particular section, but I think that special mention should be made of the excellent chapter dealing with metabolic problems. The text is conveniently divided into general principles, clinical and further investigations, and then a few simple commonplace procedures with which the student should be familiar. The diagrams are simple, clear and informative. The glossary and the appendix of normal values of the various body constituents should prove most useful. I believe that the value of this book to the student could be improved by a fuller explanation of surgical facts, for example the differentiation of the types of deafness by the tuning fork test. There is a surprising statement that the long extensor tendon of the thumb is frayed by the rough groove on the back of the radius in a Colles fracture. Nobody who has seen the condition at operation could accept this.

As an introductory work, this book will be of only temporary use to the student; so the publishers should be congratulated on producing an alternative and cheaper paper-back students' edition. This book can be thoroughly recommended to those embarking on the clinical part of their course.—David TREVOR.