

Others have been revised, often with the provision of an addendum. The new chapters on intracranial haematomas and the role of radiology in the management of head trauma deserve special mention for their outstanding clarity. Earlier editions contained a chapter on the legal aspects of trauma to the brain and spinal cord, but this has been omitted in the volume owing to the growth of the subject, and possibly because national variations make it difficult to present a universally applicable account. Of the 31 contributors, two are from this side of the Atlantic.

On reading this edition it is clear that those chapters which have been completely revised or freshly written stand above the others. Time passes rapidly, and with the intervention of a war since the book first appeared a very large new literature on trauma has developed. Thus, it is disappointing that there are no references to work on post-traumatic epilepsy later than 1945. This excludes conclusions based on experience of head injuries in the second world war. Advances in treatment have similarly crept into addenda in some chapters, but in others may be contradicted by outdated information; for instance, "celluloid" is recommended for the repair of skull defects on page 60 and discarded for this purpose on page 249. It is to be hoped that in future editions the chapters containing addenda will be rewritten.

The index, unfortunately, is inadequate for a work which is undoubtedly used mainly for reference; such a book should err in the direction of too many cross-references and too full an index, rather than the reverse. A number of important items in the addenda have not been mentioned in the index. For instance, the subject of hypothermia is not included, "otorrhoea" and "cerebrospinal fluid" do not appear, and there are others.

However, in spite of the suggested shortcomings, this work is still one which may profitably be read from cover to cover by anyone concerned with the treatment of trauma. The emphasis laid on the sequelae of head injury has especial value. It is very well printed and produced, and should undoubtedly be obtained by medical libraries, particularly those in hospitals, to which it is confidently recommended.

PETER H. SCHURR.

ADOLESCENCE—FRENCH AND BRITISH

Adolescence. The Years of Indiscretion. By T. A. A. Hunter, T.D., M.B., M.R.C.P., and M. E. M. Herford, D.S.O., M.B.E., M.C., M.D., Ch.B., D.P.H. (Pp. 160. 15s.) London: William Heinemann Medical Books Ltd. 1961.

Médecine Sociale de l'Adolescent. Sa Mise au Travail. By Louis Christiaens. Preface by Professeur Julien Marie. (Pp. 613. NF. 54.) Paris: G. Doin et Cie. 1960.

For the past year or two we have all heard adolescence spoken of as a most neglected age group, and certainly the medical problems of the adolescent have received little attention compared with that given to this group by social workers, judges, advertisers, screen moguls, T.V. producers, disc jockeys, and, in fact, nearly everyone else. Here are two books to help remedy this.

The French book, *The Social Medicine of Adolescence*, edited by Professor Louis Christiaens, provides a comprehensive guide to help doctors to understand the physical and psychological problems of young people aged between 14 and 18. The five sections of the book are: "Problems of Growth and Puberty," "Psychological Problems," "Follow-up of Defects Discovered at Routine Examinations," "The Handi-

capped," and "Occupational Hygiene and Social Medicine." Inevitably some of the material could well appear in a comprehensive textbook of adult medicine or of paediatrics, but the fact that so much has been gathered here between two paper covers (the volume is worthy of more permanent binding) is a great advantage to anyone who works with these young people. Inevitably, too, the balance of the book is French, with greater emphasis on the personal responsibility of the examining doctor than we should expect here, but I wish there were an English equivalent.

The English book is altogether slighter and has a different purpose. Written for a lay audience—parents, schoolteachers, youth leaders—it carries the subtitle *The Years of Indiscretion*. (The subtitle of the French book is *Introduction to Work*.) The choice of what to include reveals the long experience of the two authors. The chapters on psychological problems and the introduction to work are most helpful, but a short list of books for further reading at the end of each section would have been useful to those who need more than is here given. The book can be recommended for the audience for whom it was intended, and indeed those of us who are consulted by teenagers will gain from reading it.

D. PIRRIE.

PASTEUR

Louis Pasteur. A Master of Scientific Enquiry. By Jacques Nicolle. (Pp. 196. 35s.) London: Hutchinson. 1961.

Louis Pasteur will for ever serve as the perfect pattern of the scientific research-worker. His acuity and accuracy of observation, intuitive choice of experiment, refusal to entertain theories until all the ascertainable facts were before him, and balanced judgment have seldom been equalled and never surpassed. Add to this his infinite patience and remarkable faculty for applying the results of his researches for the benefit of the community, and the outside observer can but marvel. This book by Jacques Nicolle is not a rival to but supplements Vallery-Radot's well-known work. In the ten carefully written chapters the author succinctly describes the working out of the ten major scientific problems which Pasteur solved, starting with the crystallography of the tartaric acids and ending with the successful immunization against rabies. Some material which might have hindered the telling of the story is included in two appendices, and there is a useful annotated list of names.

Here is a story which should interest everybody and should be an inspiration to every young research student in chemistry, biology, and medicine. In fact, the virtues which Pasteur possessed and exercised are universally applicable in research work of every kind.

ZACHARY COPE.

NERVE ENDINGS IN SKIN

Nerve Endings in Normal and Pathologic Skin. Contributions to the Anatomy of Sensation. By R. K. Winkelmann, M.D., Ph.D. (Pp. 195+viii; illustrated. 60s.) Springfield, Illinois: Charles C. Thomas. Oxford: Blackwell Scientific Publications Ltd. 1960.

This is a concise and complete account of the nerve endings in the skin, which may pave the way to a better understanding of function and sensation. It is a difficult field, to which Dr. Winkelmann has made numerous important contributions in the past ten years, and dermatologists, anatomists, and physiologists will appreciate the presentation of this work as a whole, particularly as the author is mindful of the clinical applications.