

absence of noxious decomposition products on one hand, and on the other hand, to the economical discharge of the duties of the local authority. As an example of the quantitative nature of such an estimate, the daily amount of oxygen required for the bacterial oxidation of the sewage entering New York Harbour was found experimentally, the rate at which oxygen was entering the harbour water from the atmosphere was calculated, and from these a value obtained for the oxygen content of the harbour water, which value was in good agreement with the quantities actually found.

The book includes full directions for the estimation of dissolved gases in water, and useful information concerning the interpretation of the results of some arbitrary but common methods of water analyses. It is of wider interest than the title suggests.

H. W. H.

*School Laboratory Fittings.* By Alan E. Munby. Pp. vii + 88. (London: George Bell and Sons, Ltd., 1929.) 7s. 6d. net.

MR. MUNBY is well known as an ingenious and successful architect of science laboratories, and his large book on laboratory design and equipment is generally recognised as the best work on the subject. The present book deals with a more circumscribed topic, namely, the fittings of school laboratories. A handbook of this kind, embodying the results of long and wide experience, cannot fail to prove of great assistance to educational authorities and to exercise a beneficial effect upon science teaching in the schools. As Mr. Munby truly says, the present-day cost of education calls for a high efficiency in the material requirements of teaching, and particularly in laboratories the need for intelligent planning and fitting is urgent.

A noteworthy feature of the book is that all the arrangements and fittings described have actually been put into use, in the laboratories of Clifton College and elsewhere, while the illustrations are largely based upon the author's working drawings. Attention may be directed in particular to the excellent scheme for an elementary chemical laboratory, where ample fume-cupboard accommodation is provided for a class of thirty, and the benches are so arranged that the master has complete and easy control over the whole room.

The book is well printed and excellently illustrated, and Mr. Munby must be thanked for presenting us, at a nominal price, with professional information of a high practical and financial value to all who are about to build or fit school laboratories.

*Industrial Tyneside: a Social Survey made for the Bureau of Social Research for Tyneside.* By Dr. Henry A. Mess. Pp. 184. (London: Ernest Benn, Ltd., 1928.) 10s. 6d. net.

IN this volume the author has tried to present the facts of the social conditions of the eleven municipal areas from Newburn and Blaydon along both banks of the Tyne to the sea. Most of the information was collected in the years 1926-27, but the survey does not claim to give a complete view of the area in those particular years. The author has

attempted, with much success, to indicate the forces that are at work in changing the life of Tyneside. The result is a valuable study of the evolution of human society in one of the oldest areas of industrial England. The influence of place in the growth of this human 'conurbation' is not neglected, but the study might have had wider value if the geographical factors in the rise and growth of Newcastle and other centres had been given more attention. The poorness of the maps is out of keeping with the care and trouble that the work in general has demanded.

### Psychology.

*The Fundamentals of Human Motivation.* By Prof. Leonard T. Troland. Pp. xiv + 521. (London: Macmillan and Co., Ltd., 1928.) 21s. net.

OF books on general psychology as at present understood there is a goodly array. Their name is legion, and we gather that it would not have occurred to Dr. Troland to add another to the list. The problems he sets out to solve are essentially practical. Why do people behave and feel as they do? What are the foundations of impulse, desire, emotion, purpose, and habit? Yet his book does not belong to the category of 'applied psychology'. Though he is guided by practical considerations, his aim is to fill a gap in the literature of pure psychology. His treatment, which is very thorough, eventuates in a form of psychological hedonism, according to which our voluntary choices are determined by the summation of all past affections. This 'hedonism of the past', which is his interpretation of happiness, constitutes the basis of preferability among alternative courses of action.

Dr. Troland applies his principle to a large number of 'motivational processes', including those involved in such a primitive interest as sex, and such modern interests as motor-cars, music, the drama, radio, and so on. The book is not an easy one to read, for the author is not concerned to temper the wind to the shorn lamb. He helps the general reader of good education, however, by supplying a glossary of the more difficult, and, we may add, the neologistic, terms.

*Introduction to Social Psychology: Mind in Society.*

By Dr. Radhakamal Mukerjee and Dr. Narendra Nath Sen-Gupta. Pp. xv + 304. (London and Sydney: D. C. Heath and Co., 1928.) 7s. 6d. net.

THOUGH emanating from India, this book is in fact an American production. Not only have the authors been very largely influenced by American writings on the subject, but also they have adopted the American form of presentation. Within the limits of this class of literature, it is a careful and competent production. But the limits of usefulness of text-books of social psychology are obvious. On one hand, the foundations are in many respects anything but firm in the present state of our knowledge. On the other hand, concrete studies of the behaviour of man in society are few. Of necessity, therefore, a text-book is unsatisfactory. It