

NEW BOOKS.

THE SCHOOL CHEMISTRY. BY ELROY M. AVERY. New York: The American Book Co. 1904. 423 pp.

This book resembles most text-books of chemistry in giving an account of the elementary principles and a selection of the facts of the science all arranged more or less from the point of view of the chemist. It is a question whether this prevailing fashion is a good one and whether it is pedagogically the best method of presenting the subject to a pupil who is not yet conversant with the scientific method. If, however, this is assumed to be the most appropriate form for a high-school text-book, the present work fulfils its purpose on the whole very well. The facts and principles are given clearly and are copiously illustrated by well-chosen experiments. The book is commendably free from errors. On page 10 the statement that gravitation is a form of energy, when it is really only one of the factors of certain kinds of energy, will confuse pupils who have already been led, with difficulty, to grasp the difference between force and energy in their study of physics. The author seems to suffer from an obsession, which used to be epidemic among writers of text-books, to the effect that the description of molecules and atoms must precede that of the facts which led to their invention. In one or two instances he even speaks as if facts were ascertained by reasoning based on these conceptions. Thus (page 17) he deduces the law of conservation of mass from the premises that every atom has a definite weight and that in chemical change the atoms are simply rearranged, instead of reasoning conversely. Again (page 77) the law of multiple proportions is stated to result from the definition of an atom. To use this book successfully, the teacher should realize more clearly than does the author that chemistry is an inductive science.

A. S.

THE NEW REQUIREMENTS IN CHEMISTRY FOR JUNIOR MATRICULATION AND FOR THE DEPARTMENTAL EXAMINATIONS OF THE PROVINCE OF ONTARIO. BY W. LASH MILLER, Associate Professor of Physical Chemistry in the University of Toronto. Issued by the authority of the University. Boards, 68 pp. Price, 25 cts., from the Librarian of the University of Toronto.

In his preface the author states that "In the new 'Regulations of the Education Department of the Province of Ontario' the