

should judge of no little value to "the average American citizen."

- I. THROUGH A MICROSCOPE. pp. 126.
- II. THE MAKING OF PICTURES. pp. 131.
- III. ENTERTAINMENTS IN CHEMISTRY. pp. 79. Boston: The Interstate Publishing Co. 60 cents each.

Three pleasant and profitable little books.

The first-mentioned is perhaps the most fascinating for boys and girls, and is the work of Mary Treat, Samuel Wells, and F. L. Sargent.

The second is a series of twelve talks upon art and the principles which underlie the various branches and processes of art.

The third (Prof. Tyler), in spite of its title, is very instructive. The experiments, we notice, are all warranted to be safe.

PAPERS ON INORGANIC CHEMISTRY. By George E. R. Ellis, F.C.S. London: Rivingtons. pp. 146. 2s.

An excellent book for science students, containing some seven or eight hundred questions, results being given to those which admit of numerical answers, and many being fully explained. The questions are miscellaneous and have been obtained from different sources; they are most carefully arranged in a progressive series of a hundred papers.

- I. ELEMENTARY ALGEBRA. With Answers. By H. S. Hall, M.A., of Chifton College, and S. R. Knight, B.A., late of Marlborough College.
- II. ELEMENTARY ALGEBRA. With Answers. By Charles Smith M.A., of Sidney Sussex College. London: Mac-Millan & Co.

We have pleasure in speaking highly of both these works. In the former our mathematical friends will find some 3,500 questions, accompanying and illustrating a clear and careful presentation of the various parts of elementary algebra. In the latter, we specially noticed papers of miscellaneous examples. Mr. Smith pays a good deal of attention to the logical ground-work of the subject.

SHELDON'S ELEMENTARY ARITHMETIC. Illustrated. New York: Sheldon & Co.

Possesses several good features, and has a large number of practical questions, admirably suited for young children.

ELEMENTS OF ANALYTIC GEOMETRY. By Prof. Wentworth, of the Phillips Exeter Academy. Boston: Ginn & Co. pp. 221.

Intended for beginners, this book consists of chapters on The Straight Line, The Circle, Systems of Co-ordinates, etc. A large number of problems is appended to each chapter, also answers and, in some cases, solutions.

ASTRONOMY BY OBSERVATION. New York: D. Appleton & Co.

The author, Miss Eliza A. Bowen, of Beechcroft School, Tennessee, has prepared a good book on this subject for High Schools and Academies. It aims at teaching the constellations, etc., and leading the student to think and understand what he can see. The star-maps and numerous illustrations are remarkably good.

THE ELEMENTS OF ALGEBRA. With numerous examples. By J. A. McLellan, M.A., LL.D. 328 pp. Price 75 cents. Toronto: Canada Publishing Company.

THE HIGH SCHOOL ALGEBRA. Part I. By W. J. Robertson, B.A., LL.B., Mathematical Master, Collegiate Institute, St. Catharines, and I. J. Birchard, M.A., Ph.D., Mathematical Master, Collegiate Institute, Brantford. Toronto: William Briggs, 78 and 80 King St. East, 1886. 338 pp. Price 75 cents.

We have special pleasure in noticing these two books on Algebra; they are printed and published in Canada; the printing, paper and binding—"the whole get-up"—is highly creditable to Canadian enterprise. Both firms deserve commendation for the finished style in which they have produced these mathematical books. Still more pleasure have we in stating that clear evidence is afforded by these books, the work of Canadian graduates, first-class honorem in the department of mathematics, of careful and successful labour in the difficult under-