PH.D. New York: The Macmillan Co. 1907. 8vo. pp. xv + 218. Price, $1.50 net.

The work includes introductory exercises in gravimetric analysis, acidimetry and alkalimetry, permanganate and dichromate titrations, iodimetry, stoichiometry, and a section on agricultural analysis covering the examination of milk, butter, cereals and feeding materials, fertilizers and soils.

The book is well written and contains a number of good illustrations. It will be welcomed by those beginners in agricultural analysis who have been obliged to use the methods of the Association of Official Agricultural Chemists in bulletin form in lieu of a text-book. The procedures are clearly and explicitly described and the explanatory notes are generally good. The numerical data selected to illustrate normal composition could in some cases be improved, but the only figures likely to be seriously misleading are those for starch in grain products on page 121.

The failure of the authors to make use of the conceptions of ionization, mass action and solubility product in the discussion of inorganic reactions and the entire omission of electrolytic methods are unfortunate in a text-book which is likely to represent the sole training in quantitative analysis of many of the students who use it. These, however, are omissions which may be supplied by the teacher and which the authors will probably correct in a subsequent edition.

The book will fill a real need in the case of the agricultural student for whom it is especially intended and will be found useful and suggestive to many others. It is commendably free from typographical errors and its general make-up is excellent. H. C. SHERMAN.

Testing Milk and Its Products. By FARRINGTON and WALL. Madison, Wis.: Mendota Book Co. 1908. pp. 292. Price, $1.00.

The authors have revised their useful book. The present constitutes the eighteenth edition, the first edition having been issued over ten years ago. Considerable matter has been added, which includes new methods that have come into recent use. L. L. V. S.

The Chemistry of Commerce. By ROBERT KENNEDY DUNCAN. Harper Brothers. Price, $1.50.

It is perhaps questionable whether "Chemistry of Commerce" should be reviewed in a scientific journal like that of the Chemical Society, inasmuch as the book can only be regarded as a report on certain spectacular topics, some of which barely lie within the broad domains of chemistry.

At the present time, anything which tends to stimulate industrial and applied chemistry in the United States, will be hailed with delight by every chemist of the land. That "Chemistry of Commerce" is intended to do this, is evident from the author's preface and introduction. Whether he has succeeded in stimulating the masses in this highly tech-

nical branch of the science is a question which might best be left to the layman himself. To the chemist, however, who is familiar with the industries of Germany, the value of the book as a stimulus to industrial chemistry lies little above the zero mark. Germany leads the world in industrial chemistry, not because of any attempt to popularize science by means of educating the masses in these extremely technical branches, but because the nation has pursued a diametrically opposite policy. The highly trained few instead of the superficially trained many is the secret of Germany's industrial success.

The book is made up of twelve chapters, some of which have already appeared as magazine articles or "researches," as the publishers choose to call them. The whole is cemented together by both a preface and an introduction with numerous little prefaces thrown in, in order to bring about catalytic action in the mind of the reader.

The author was sent abroad for one year to "write up" the industries of Europe. Evidently the time was too short, for some of the great industries have been left out, or perhaps crowded out by the more pyrotechnical ones like the New Microbe Inoculation. That "laymen subsist on a pabulum of illogical and, for the most part, sensational misinformation," is a stinging blow to scores of popular writers who are moulding public thought and who never appear under the yellow flag. If some one of these writers should consider it worth while, he might, using "illogical" and "sensational," the same standards used by the author, find in "Chemistry of Commerce" hues differing only by a very few wave lengths from the sodium spectrum.

The chapter on alcohol is interesting and reminds one of some of the popular newspaper articles which have appeared from time to time since the new Food and Drug Act. The Ethyl and Maude pun, however, seems a little out of place in any book or article which lays any claims to the science.

Some of the other chapters as, for instance, Catalysis, Fixation of Nitrogen, The Rare Earths, Modern Chemistry and Glass-Making, and Cellulose are too familiar to the reader to need more than mention. Lime nitrogen would probably have had a little more significant meaning to the layman than Kalkstickstoff.

The last chapter on Industrial Fellowship is unique. The scheme is not entirely new. It does, however, seem a little out of place.

In conclusion, let it be hoped that the author may not be disappointed in his method of bringing about a great industrial awakening by his appeal to the public. GEORGE B. FRANKFORTER.

Modern Pigments and their Vehicles. By FRED MAIRE. New York: J. Wiley & Sons. pp. 265. Price, $2.00.

This book is evidently written by a man who has had a great deal of