

and, notwithstanding the usual habit of rushing the visitor through the place as quickly as possible, can understand the *modus operandi* more fully than the guide has reason to expect.

Teachers may congratulate themselves upon the appearance of this book, for it contains, expressed in a concise manner, much that would otherwise (with perhaps less happy results) require the consultation of many books.

In a work so thorough it is difficult to select any one subject more carefully treated than the others; therefore, chemists can well feel grateful to Prof. Thorp for his contribution and doubtless few libraries will be without a copy thereof.

ALFRED SPRINGER.

THE PRACTICAL COMPOUNDING OF OILS, TALLOW, AND GREASE FOR LUBRICATION, ETC. By an expert oil refiner. London; Scott, Greenwood & Co.; New York: D. Van Nostrand Co. Price, \$3.50.

This book purports to give "to merchants and manufacturers in the different branches of these trades practical hints for the compounding of oils, also for the utilization of waste products, such as ullages, etc," and treats chiefly of lubricating oils, with one chapter on lamp oils.

Numerous receipts are given for compounding these oils for various uses with some hints and cautions. The flash and viscosity tests of mineral oils are described and also some of the simpler tests of animal and vegetable oils for the purpose of detecting adulteration. The real character of the various mixtures given and the reason of their usefulness for particular purposes seems to be ignored. So also the general theory of lubrication.

While to one entirely ignorant of the subject such a work would give an idea of the combinations of mineral and fatty oils which have been found useful for lubrication, it is difficult to see how the intelligent manufacturer will be benefited by so superficial a treatise.

E. TWITCHELL.

LIGHTING BY ACETYLENE. GENERATORS, BURNERS, AND ELECTRIC FURNACES. BY WM. E. GIBBS, M.E. Second Edition, Revised and Enlarged. New York: D. Van Nostrand Co.; London: Crosby, Lockwood & Son. pp. 161. Illustrated. 1899. Price, \$1.50.

Mention was recently made in these pages of the first edition