

Commercial hydrogen peroxide cannot be employed, as it generally contains sulphuric acid. A proper reagent for this purpose is obtained by adding hydrated barium dioxide to water acidulated with hydrochloric acid.¹ The barium dioxide is added in small quantities until the liquid is alkaline, when alumina and ferric oxide are separated. The turbid alkaline liquid is thrown on a pleated filter and the filtrate collected in a vessel containing some hydrochloric acid. This filtrate is then ready for use.

A. BOURGOUGNON.

Fuller's Earth.—A recent discovery of a large deposit of fuller's earth in Florida promises to be of considerable importance to the oil trade. Up to the present all the fuller's earth used by the cotton oil, and lard manufacturers has had to be imported from England and has sold for as much as \$15 to \$20 per ton in New York. The domestic product has so far proved unsuitable for this particular purpose and has sold for only \$7 per ton, and is used only in the mineral oil industry. The product from this newly discovered deposit has been thoroughly tested by experts in the cotton oil industry and is pronounced to be fully equal to the best grades of the imported material. So soon as capital can be interested in the property the consumers will be able to obtain a high-grade fuller's earth of domestic origin which will cost them very much less than they at present have to pay. The terms on which the property is offered are so favorable that the new material will no doubt soon be put on the market.

F. T. SCHREIBER.

NEW BOOKS.

THE OUTLINES OF INDUSTRIAL CHEMISTRY. By FRANK HALL THORP, PH.D. New York: The Macmillan Co. 1898. xx + 541 pp. Price, \$3.50.

While no book can fully cover a field so rich in carefully guarded secrets as those pertaining to technical chemistry, I know of no treatise on that subject which gives the student a clearer and more comprehensive view thereof than Thorp's "Outlines of Industrial Chemistry."

The student who has mastered its contents can visit a factory

¹ This Journal, 12, No 3 (1890).

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