

THE MINERAL INDUSTRY. Its Statistics, Technology and Trade in the United States and Other Countries, to the End of 1902. Edited by J. STRUTHERS, PH.D. New York. The Engineering and Mining Journal: 1903. Large 8vo. 891 pp. Price, \$5.00.

This publication is so well and favorably known and appreciated at home and abroad that it will be quite sufficient recommendation to say that the present volume (Vol. XI) fully lives up to the standard of its predecessors.

Of the features deserving particular mention, we may notice a 31-page article by Frederick H. Lewis on "The Mechanical Equipment of a Modern Portland Cement Plant," which is a valuable and timely article; J. B. C. Kershaw's review of "Progress in Electrochemistry and Electrometallurgy in 1902;" C. H. Fulton's "Review of the Cyanide Process in 1902;" Prof. Hoffman's 30-page article on "Recent Improvements in Lead Smelting;" W. R. Ingall's 15-pages on "Zinc;" R. H. Richards on "Ore Dressing;" W. Campbell on "Metallography;" J. A. Mathews on "Alloy Steels;" W. McDermott on the "Concentration of Ores by Oil;" and T. S. Rickards' 40-page treatise on the "Sampling and Estimation of Ores in a Mine." Besides these are the always-good reviews by other regular contributors, including much valuable work by the editor.

There are few of us who could afford to be without this welcome annual visitor, even if the volume cost several times its present moderate price.

J. W. RICHARDS.

EVAPORATING, CONDENSING AND COOLING APPARATUS. Explanations, Formulæ and Tables for Use in Practice. BY E. HAUSBRAND. Translated from the second, revised German edition by A. C. WRIGHT, M.A., (Oxon), B.Sc. (Lond.). 21 illustrations and 76 tables. xxiii + 400 pp. London: Scott, Greenwood & Co.; New York: D. Van Nostrand Company. Price, \$5.00.

This book fills a long-felt want of technical and manufacturing chemists in this country. Here, too often, the chemist must be his own engineer. Too often the education of chemists fails to cover the principles of mechanics and engineering so necessary to rational work. Experience is therefore frequently costly, even when the chemist has had the assistance of the professional engineer who, having limited knowledge of chemistry, fails to grasp the true needs of the situation. The author, in his preface, very rightly says: "The problems which are to be solved in the