

demand for strong acid that at some works, as in those of the California Powder Co., at Pinole, Cal., the niter is melted before charging in order to drive off all the water. The introduction of the contact process for sulphuric acid will undoubtedly modify, to some extent, the position of the nitric acid producer.

Herreshoff's burner for pyrites fines is noticed in this edition for the first time, and a new plate illustrates the Rhenania zinc blende roaster. A brief description, without diagrams, is given of the Meyer tangent system of chambers, which the author considers a doubtful improvement. Additional information is given on the use of liquid water in place of steam; methods for the mechanical production of draught are also described. Herreshoff's modification of the Glover tower, one of the greatest of modern improvements, is dismissed in eight lines and no figure is given. His method of distributing the acid for this tower is not mentioned. One of the greatest improvements in concentration, that of L. Kessler, is fully described and illustrated.

The greatest interest will be felt by most readers in the description of the various contact processes, which contains a careful digest of the published and some unpublished information in 133 pages. This process bids fair to effect a complete revolution in sulphuric acid manufacture and to greatly modify many dependent industries, as it seems to be a cheaper method of manufacture than the chamber process.

Dr. Lunge could scarcely expect to add to his great reputation, but a careful examination of this new edition amply justifies the closing sentence of his preface: "But nobody can do more than is in his power, and such readers as know (or think they know) this or that thing better, and who may be inclined to sharp criticism, had best ask themselves the question whether *they* would come up to the ideal if they had to write such a book, and whether they cannot derive some valuable information even from this imperfect performance."

EDWARD HART.

COSMETICS. A Handbook for the Manufacture, Employment and Testing of all Cosmetic Materials and Cosmetic Specialties. BY THEODOR KOLLER. Translated from the German by CHAS. SALTER. London: Scott, Greenwood & Co., No. 19 Ludgate Hill, E. C. 1902. New York: D. Van Nostrand Co. Price, \$2.50 net.

ties. But it is not always possible to obtain a special book on such subjects as cosmetics. Those who *know*, as a rule, do not write; those who write, too often do not know. The mystery of secrecy prevails concerning ingredients, proportions and products. And yet, the cosmetic industry, in its various branches, covers an output of millions each year. The field is crying for the data given, judging from the flow of letters this reviewer receives, asking for formulae and subjects covered by it. This book, "Cosmetics," embraces perfumes, hair restorers, depilatories, antiseptic washes, soaps, hygienic and toilet, preparations for the skin, teeth, mouth, etc., etc. The method of treating them is not that of the empirical mixer, but of the experienced man who reasons. The origin and description of the various chemicals, matured products and compounds, tests for impurities, difficulties in compounding, and disadvantages as well as advantages of different processes, are systematically discussed. The coloring-matters of commerce, flavors, essences, ethereal oils and perfumes, the colognes, extracts, etc., etc., are instructively reviewed. This is a book to both read for general information and to refer to as necessity requires. The succinct information extended in the first 100 pages, concerning the ingredients of cosmetics, their purity, impurities, characters, etc., is more than worth the price of the volume. There are points in which we differ in some directions, but this is to be expected where secrecy has been the law, as with the substances this book covers. For example, after giving excellent cautionary advice concerning depilatories, and plainly stating that "depilatories produce exactly the same results as shaving, the after-growth of the hair being accelerated," the method of making sulphuretted quicklime depilatory is given. But it is not stated that the product will keep but a short time and needs be made fresh. Such criticisms as this, however, are carping in view of the general excellence of the book. It should be in the hands of druggists, of chemists concerned in technical and analytical work that involves its field, and of those interested in the effects and preparation of cosmetics. The thoughtful man of experience will be benefited, the rule-of-thumb man saved much needless wandering.

JOHN URI LLOYD.