

of 20,000,000 pounds. This is more than half the world's product. Of lead we produced 411,568 short tons, and of zinc 123,231 short tons.

Nearly all our potassium chlorate, about 6,000,000 pounds per annum, is now manufactured at home by electrolytic processes. We are the largest producers of salt (in 1900 20,738,729 barrels of 280 pounds), of gold (3,781,310 ounces), of silver (59,561,797 ounces), of phosphate rock (1,663,476 net tons), and second only to Russia in petroleum output.

This year has witnessed a great increase in the cement industry (7,991,639 barrels of Portland cement). Of the Portland cement three-quarters is produced in the states of Pennsylvania and New Jersey. The opinion is expressed that the cheapest producing territory is likely to be found in the Lehigh Valley where the industry has already had enormous development.

It is quite impossible in the space available to give an adequate idea of the vast amount of data of all sorts contained in this magnificent report of progress.

E. H.

AN ELEMENTARY TREATISE ON QUALITATIVE CHEMICAL ANALYSIS.

By J. F. SELLERS, A.M., Professor of Chemistry, Mercer University, Georgia. Boston: Ginn & Co. 1900. ix + 160 pp.

Within the compass of 137 pages, the author seeks to present "a course both practical and progressive * * * selected from the most recent and approved methods * * * free from the mechanical schemes in qualitative analysis * * * and conformable to the modern dissociation theory of solutions and giving * * * more than ordinary emphasis to the spectro-scope."

The reviewer has read the various chapters with great interest. The impression made is that almost too much has been attempted, and that comparatively few of the students, who may pursue the course from beginning to end, as it is presented, would really become "practical analysts" or be thoroughly prepared "for advanced university work." From the reviewer's experience to attain to either of these states, would require a decidedly more exhaustive and thorough drill than seems to be intended by the author. It is hardly likely, for example, that a beginner, in carrying out the instructions for the decomposition of an insoluble silicate by the J. Lawrence Smith method, as described on page 133, would meet with much success, because of a lack of detailed directions as to how he should proceed. Other and similar instances of incomplete descriptions of analytical methods exist but they need not be pointed out, as the teacher and student will of course discover them for themselves. It only remains to say that the book is well written and will doubtless be acceptable to those who do not lay great stress upon drill in analysis.

EDGAR F. SMITH.