

*The Phosphates of America.* When and How they Occur; How they are Mined and what they Cost, with Practical Treatises on the Manufacture of Sulphuric Acid, etc. By Francis Wyatt. Second edition. New York: The Scientific Publishing Company.

This is a valuable book of 178 pages, royal 8vo, which gives besides a general introduction on the agricultural side of phosphates, a history of the apatite mines of Canada, belonging to the Archean division of the geological scale, and the bone or rock phosphates of the Cenozoic age in South Carolina and Florida. The manner of occurrence, relation to the surrounding rocks, methods of exploitation and of mining, the laws relating to the subject and the statistics of production are all given with the succinctness and method of one who is a master of this subject and who is familiar with the presentation of philosophical papers. It is illustrated richly by photo-engravings which add very much to the clearness of the work.

Chapter VIII is consecrated to the best methods of phosphate, limestone, pyrites, etc., analysis, and this is thoroughly taken up.

The last eleven pages of the work are concerned with directions for the preparation of the necessary laboratory reagents, useful tables for computation, etc.

It covers a field entirely its own and covers it so well that it must be accessible to any one who is interested in phosphates; indeed, even if the book were only half as reliable as it is, the chemist, geologist, manufacturer and shipping merchant would need it for reference. F.

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*The Washington Bridge over the Harlem River at One-hundred-and-eighty-first Street, New York.* A description of its construction. By William R. Hutton, Chief Engineer. New York: Leo von Rosenberg. Price, \$8.

The monograph above cited is similar in style to other publications, descriptive of special engineering works, issued by the same publisher. It forms in itself an exhaustive description of the important structure of which it treats, and will prove a most valuable work for the bridge designer and constructor, for whom it is specially intended.

As will be inferred from the foregoing remarks, the feature of the work which gives it its peculiar value to the specialist resides in the illustrations, which comprise general views and plans, views of the work in different stages of completion, views of the completed structure, of the iron work, of the details of the masonry and superstructure, etc. These illustrations give a complete description of the bridge from the engineering standpoint.

The text covers a descriptive account of the construction, and copies of the contract and specifications, which, with the wealth of illustrations, constitute one of the most complete and satisfactory monographs that it has been our pleasure to notice in these columns.

We cannot refrain from special commendation of the illustrations, which are executed in admirable style, and of the mechanical excellence of the work as a whole, which reflects credit on the publisher. The engineering profession in America will, no doubt, duly appreciate these facts. W.