

Also, those who presented papers at the last annual meeting and indicated their intention to publish them in the *American Mineralogist* should notify the Editor when these articles will be available. Such action will be of great assistance in planning well balanced numbers for future issues.

The first commercial shaft ever sunk in the United States for potash has now reached a depth of a thousand feet, and potash minerals are ready to ship. The shaft has been sunk in New Mexico in a district recently explored by the U. S. Geological Survey. The shaft has passed through several workable beds of potash minerals, the best of which consists of sylvite.

A book of 325 pages with 127 plates and map, by James G. Manchester on "The Minerals of New York City and its Environs" has recently made its appearance. A review of this interesting work appears in another section of this journal. The book was published as a bulletin of the New York Mineralogical Club and can be purchased for \$2.50 (plus 20¢ postage) by addressing the New York Mineralogical Club, care of the American Museum of Natural History, Central Park West and 77th St., New York City.

### BOOKS REVIEWS

THE MINERALS OF NEW YORK CITY AND ITS ENVIRONS. JAMES G. MANCHESTER. Bull. New York Mineralogical Club: 3 (1) 1931, (186 pages, 127 photographic illustrations, map). \$2.50, plus 20 cents postage.

One Saturday, late in November, about twenty years ago, a New Yorker hurrying home from his daily work, hesitated on his way to the subway to examine an excavation for an apartment house at Broadway and 161st Street. The workmen had left and he descended into the cut. He found what looked like three faces of a feldspar crystal protruding from the rock. Not having any tools, he marked the spot, intending to extract the specimen later. During the night a storm arose, covering the ground with three inches of snow. Early on Sunday morning passing pedestrians stopped to see the strange sight of a man climbing over the rocks, and sweeping off the snow with a small whisk-broom. Two weeks of illness resulted from exposure, but the collector obtained a wonderful oligoclase crystal.<sup>1</sup>

Of such enthusiasm was this book written. Mr. Manchester has been one of the most active members of the New York Mineralogical Club, and for many years was its president. In a life crowded with the duties of an executive in an insurance company, he has nevertheless found time to indulge in the hobby of collecting minerals in the excavations and mines about New York, and to gather the data set forth in this volume.

This work treats of the minerals to be found within fifty miles of Columbus Circle in New York City: an area which includes many famous localities such as Franklin Furnace, Sterling Hill, Paterson and Bergen Hill, in New Jersey; Orange County, Bedford, Peekskill and Tilly Foster, in New York; and Branchville, Danbury and Trumbull in Connecticut.

The Introduction describes the geology of the area, with an account of the various mining and quarrying enterprises which have made the district so fruitful to collectors. Exactly 400 localities are then listed alphabetically with the minerals

<sup>1</sup> Now in the American Museum of Natural History, and illustrated on Plate 39.

reported from each. This is followed by a list, also alphabetically arranged, of mineral species, varieties, synonyms and alterations recorded from the area. The 396 mineral species and important varieties have been tabulated in the order of Dana's System, with the chemical composition, form, color, hardness and specific gravity of each. Some 848 books and papers are listed in the Bibliography. The illustrations include 88 photographs of extraordinary specimens, 29 of mineral localities, and 10 showing the New York Mineralogical Club in the field. The mineral index is a model of completeness, as it not only lists all species, varieties, synonyms and alterations found in the district, but references are also given in each case to the Bibliography, Classified List, Locality List, and to the Illustrations.

Collectors and curators should find this book a faithful guide, and it should go far toward stimulating a local interest in mineral collecting in the excavations of Manhattan.

SAMUEL G. GORDON

DETERMINATION OF THE OPAQUE MINERALS. C. MASON FARNHAM.  
McGraw-Hill Book Company, Inc., New York, 1931. 236 pages. \$3.50.

The identification and association of minerals serve as the basis on which mining geologists and engineers build working hypotheses regarding the persistency of ore at depth and the recognition of mineral zones. In the past insufficient attention has been given the study relating to opaque mineral identification as only two textbooks on this subject have appeared in English in the past fifteen years. The new book by Farnham therefore does not greet an overcrowded field.

Many reviews ignore the author's statement of the purpose of his book and proceed to measure its applicability to their chosen fields. Farnham has restricted his choice of methods, "so as to be available with apparatus consisting only of a suitable microscope, a few bottles containing reagents, hand-grinding machines, and a few abrasives." Other methods may be extremely valuable but, as the author states, are "not practical for the field geologist or the investigator who is located in an isolated mining district."

While the science of mineralogy at present generally recognizes about 261 opaque minerals, 94 have been shown by the microscope to be mixtures of minerals or belong to doubtful species. (It is the opinion of the reviewer that benjaminite should also have been added to the list of mixtures).

Although the scope of the book is primarily limited to the identification of the opaque minerals, 51 somewhat transparent minerals have been added as they occur associated with the opaque minerals in ore deposits. In the tables sixty-five divisions are recognized based on the effects produced by six standard reagents-  $\text{HNO}_3$ ,  $\text{KCN}$ ,  $\text{HCl}$ ,  $\text{FeCl}_3$ ,  $\text{KOH}$ , and  $\text{HgCl}_2$ . Numerous supplementary tables are also included on "Minerals with a Distinctive Color," "Minerals with a Colored Powder," "Minerals Arranged According to Hardness, Specific Gravity, Electrical Conductivity, etc." Fourteen pages are devoted to a description of the technique employed in preparing the polished section while a rather extensive bibliography should prove extremely helpful to the serious-minded student.

The book is up to date including a brief discussion of the behavior of polarized light upon opaque minerals, and should make a strong appeal to both the student in the laboratory and the practical man in the field who, by necessity, is restricted in the number of his reagents and the amount of his equipment.

ERNEST E. FAIRBANKS