

its Sunset mine, near Greenwood, Boundary district, a Rand 10-drill compound air compressor. This engine will shortly be installed. A 50-h. p. electric hoist has also been purchased for this mine.

Large quantities of materials are being taken into the Yukon by the Guggenheim mining companies, for use in connection with their water supply system for hydraulicking and dredge-mining operations in the Dawson district. About 1,000,000 ft. of timber for dredge construction purposes has been purchased in British Columbia and one-fourth of this quantity is now in transit between Skagway and the head of navigation on the Yukon River. About 100 large pipes, approximately 70 ft. in length by 4 ft. diameter, have been shipped from the Fraser River terminus of one of the transcontinental railways for Skagway, en route to the Yukon. These pipes were manufactured in Pennsylvania and are probably the largest ever taken into the Yukon.

The Dominion Copper Company, Ltd., now supplies compressed air from a central power house on its Idaho mine, Phoenix, Boundary district, to four of its mines, viz., the Idaho, Brooklyn and Stenwinder, all adjoining properties; and the Rawhide, distant about a mile from the power house. The air is compressed by a Rand 25-drill duplex tandem compound engine, electrically driven, and having a capacity of about 2,800 cu. ft. per min. of free air at sea level. A full equipment of Rand Little Giant machine drills has also been put in at each mine.

BOOKS, ETC., RECEIVED.

United States Geological Survey.

"Mineral Resources of the United States, 1905." By David T. Day, chief of Division of Mining and Mineral Resources. Pages, 1369.

"Black Sands of the Pacific Slope in 1905." By David T. Day and H. Richards. From "Mineral Resources of the United States, 1905." Pages, 84.

"Production of Gas, Coke, Tar, and Ammonia in 1905." By Edward W. Parker. From "Mineral Resources of the United States, 1905." Pages, 31.

Department of the Interior, Mines Branch, Ottawa.—"Report on the Experiments made at Sault Ste. Marie, Ontario, under Government Auspices, in the Smelting of Canadian Iron Ores by the Electro-thermic Process." By Eugene Haanel. Ph. D. Pages, 149; illustrated by diagrams and half-tones.

Department of Lands and Forests, Ontario.—"Report of the Bureau of Mines, 1906." Vol. XV, Part II. "Clay and the Clay Industry of Ontario" By M. B. Baker. Pages, 120; illustrated.

California State Mining Bureau.—"The Auriferous Black Sands of California." By J. A. Edman, E. M. Bulletin No. 45, issued by the State Mining Bureau, San Francisco, under the direction of Lewis E. Aubury, state mineralogist. Pages, 22; illustrated. Price, ten cents.

BOOKS REVIEWED.

The Metallurgy of the Common Metals. by Leonard S. Austin, professor of metallurgy and ore-dressing at Michigan College of Mines. 407 pages, 6'x9'x1/2" m., freely illustrated; published by the *Mining and Scientific Press*, San Francisco. Cloth, \$4 (plus postage 16 cents).

In his preface to this book the author says: "This outline of the metallurgy of the common metals, namely, gold, silver, iron, copper, lead, and zinc, is devoted to the description of the processes of winning the metals from their ores and to the refining of those metals, except iron, the metallurgy of which is treated only to the point where pig iron is obtained. Following the description of ores, as well as of the fuels used in treating them, and the materials of which the furnaces are composed, we come to their sampling, for the determination of their exact value before treatment. Attention is next given to

the subject of thermo-chemistry as applicable to igneous methods of extraction. The winning or reduction of the various metals is then taken up in order and is followed by a description of the methods of refining them. Finally, the commercial phases of the question have consideration, since the processes must be conducted in a profitable way."

As an example of the scope of the author's work in what he intimates is but an "outline" of the general subject, the following narration of the sub-heads of the commercial section of the book will serve to indicate that notwithstanding necessary space limitations, the subject is comprehensively though briefly treated. These sub-heads are, respectively: (1) Location of Reduction Works; (2) Handling of Materials; (3) Organization of a Metallurgical Company; (4) Investment Required on Original Plant; (5) Profits; (6) Organization; (7) General Remarks on Management and Labour; (8) The Purchasing of Ores in the Rocky Mountain States; and (9) The Marketing of Ores and Metals.

A number of half-tone blocks and line-cut diagrams serve to effectively illustrate this interesting volume, thereby increasing its usefulness. The letter press is excellent and the binding serviceable.

Mine Timbering. by Wilbur E. Sanders, Bernard MacDonald, Norman W. Parlee, and others. 176 pages: 6 1/8 by 9 1/8 in.; illustrated by numerous diagrams. Published by Hill Publishing Company, London and New York. Cloth, \$2 postpaid.

This book is a collection of articles previously printed in the "Engineering and Mining Journal," "The Mineral Industry," and the "Transactions" of various societies. In the absence of any treatise on the important subject of "Mine Timbering," which in published hand-books and text-books on mining is as a rule dealt with only in a superficial way, it has appeared worth while to publish in book form the articles, contained herein, these being offered as a series of essays rather than as a complete treatise on the subject dealt with. Many important details are gone into fully, and the practical information thus placed in readily accessible form is rendered more valuable by numerous object lessons in the shape of diagrams and other illustrations. The fact that methods of timbering adopted in mines in various countries—several of the United States, British Columbia, Queensland, Tasmania, etc.—are dealt with, thus showing different styles to meet diverse conditions, makes the book of greater use to those whose business it is to familiarize themselves with the best methods, consequently it should be widely read by mining men.

Examination Questions for Certificates of Competency in Mining. 532 pages, 6x9 in.; illustrated. Published by the Scranton, Pa., International Textbook Company. Cloth, \$3.50.

This book contains examination questions for certificates of competency as mine inspector, mine foreman, mine manager, fire-boss, hoisting engineer, etc., as given by the State Examining Records, together with answers prepared and edited by the editors of *Mines and Minerals*. In addition to dealing comprehensively with its subject matters in their relation to the United States, British Columbia has attention, and as well, brief reference is made to Nova Scotia.

The twenty-eight chapters, comprising the volume contain 2,579 questions, with answers thereto. This compilation is believed to faithfully and fully represent the range of subjects covered at the present time by examinations for certificated mining positions in the United States and Canada. It is intended to assist those preparing themselves for official examinations for such positions. It is, therefore, not intended as a text-book but merely as an aid in connection with text books on mining.

No deposits of tin, of an economic nature, have yet been discovered in Canada.