

of organization and management common to efficient operation and maximum success in both kinds of establishments, the author follows special applications of the same ideas, first in the shop and then in the foundry.

Strength of Materials. By H. E. Murdock, M.E., C.E. Published by Wiley & Sons, New York, Renouf Publishing Co., Canadian agents. Cloth, $5\frac{1}{4} \times 7\frac{1}{2}$ inches, 279 pages, 151 cuts and many tables. Price \$2.00 net.

The book takes up the different materials of construction, stresses and methods of application, riveted joints, beams, deflections, the elastic curve, columns, torsion, secondary stresses, repeated stresses, resilience, etc. The material is presented in such a manner that the use of the calculus is not necessary for an intelligent understanding of the principles of the strength of materials. The chapter on graphic integration is a treatment of the subject not usually seen in book of this character, and the author is to be congratulated on its inclusion. In preparing the book the author states that he had in mind the needs of students. We must say, however, that we feel that the book is deserving of far wider application than this. The material included is presented in a clear and concise manner, and while there is no unnecessary data, still the whole ground has been covered. A knowledge of the calculus is not essential; however, if the reader is acquainted with the calculus, he will find the graphic treatment a decided aid in obtaining a clearer conception of the calculus method.

Handbook of Steam Shovel Work. By the Construction Service Co., for the Bucyrus Co., South Milwaukee, Wis. Cloth, $4\frac{1}{4} \times 6\frac{3}{4}$ inches, pp. 374; illustrated. Price \$1.50.

This book has been compiled for the Bucyrus Company, and in a sense is, therefore, a trade publication. The company are, however, to be commended on having made this material available to the engineer and contractor.

A systematic analysis has been made of a number of shovels working in different kinds of material and the results are presented to the reader in concise form. All the different elements entering into the different locations are shown, and the facts given in considerable detail.

The book is divided into ten chapters. The first four chapters deal with the factors to be considered in calculating the costs of the work done with shovels. The other chapters deal with reports of shovels under operation in sand and gravel, earth and glacial drift, ore and rock. The final chapter gives directions for moving a steam shovel. The book should prove valuable because it shows the different factors which go to make up the total cost of excavation.

PUBLICATIONS RECEIVED.

Canadian Society of Civil Engineers. Transactions of the Society, January to June, 1911; also the Index of Transactions Volumes 1 to 24.

Tide Tables for the Eastern Coast of Canada for the Year 1912, including the river and gulf of St. Lawrence, the Atlantic Coast, the Bay of Fundy, Northumberland and Cabot Straits, and information on currents. Issued by the Tidal and Current Survey, in the Dept. of the Naval Service of the Dominion of Canada.

Tide Tables for the Pacific Coast of Canada for the Year 1912. Including Fuca Strait, the Strait of Georgia, and the Northern Coast. With data for slack water in the navigable passes and narrows and information on currents. Issued by the Tidal and Current Survey, in the Dept. of Naval Service of the Dominion of Canada.

Geology of East Side of Lake Temiskaming. Issued by Canada Dept. of Mines, Geological Survey Department.

The Clay and Shale Departments of Nova Scotia and Portions of New Brunswick. Issued by Canada Dept. of Mines, Geological Survey Department.

The Annual Report of the Minister of Mines for the Province of British Columbia for the year 1910.

Geology of a Portion of Fabre Township, Pontiac County. Issued by the Dept. of Colonization, Mines and Fisheries, Province of Quebec.

Annual Report on Highway Improvements, Ontario, 1911. Issued by the Dept. of Public Works, Parliament Buildings, Toronto.

Inland Revenues Report of the Dominion of Canada for the Year Ending March 31st, 1911. Part 2, weights and measures, gas and electricity. Issued by the Dept. of Inland Revenues, Ottawa.

Summary Report of Mines Branch for Year 1910. Issued by the Canada Dept. of Mines, Ottawa.

Report on the Molybdenum Ores of Canada. By T. L. Walker, M.A. Issued by the Canada Dept. of Mines, Ottawa.

Municipal Statistics. Issued by the Ontario Dept. of Agriculture.

Monthly Report of the Dept. of Trade and Commerce of Canada for August, 1911.

Imports Entered for Consumption, Sept., 1911. Issued by the Dept. of Customs, Ottawa.

The Institution of Mechanical Engineers, Calcutta and District Section. Proceedings for 1910-11. Mr. A. Drydon, Secretary, Calcutta.

Proceedings of Western Railway Club, 1910-11. Published by The Western Railway Club.

Tests of Centrifugal Pumps. Bulletin No. 77, of the New Mexico College of Agriculture and Mechanical Arts. The Agriculture Experiment Station, Agricultural College, New Mexico.

Concrete Silo Construction. Bulletin No. 214, University of Wisconsin Agriculture Experiment Station, Madison, Wis.

Manufacture and Utilization of Hickory, 1911. Bulletin issued by the Forest Service, U.S. Dept. of Agriculture.

CATALOGUES RECEIVED.

Jeffrey Power Transmission Machinery. Issued by The Jeffrey Manufacturing Company, Columbus, Ohio. Canadian office, corner of Cote and Lagauchetiere Streets, Montreal. Contains descriptive matter on the horse-powers of steel shafting, standard methods of key-seating, sizes and dimensions of couplings, etc.

High Vacuum Jet Condensers. Issued by the Wheeler Condenser Engineering Co., Carteret, N.J. Bulletin No. 107, describing the wheeling jet condenser, etc.

The Renold Patent Silent Chains and Sprockets, for high speed driving. Issued by The Hans Renold, Ltd., Manchester, England. Jones & Glasgow, Montreal, Canadian agents.

The Keuffel & Esser Company issue a new circular with price list of their flat wire tapes and band chains to be pasted in a catalogue.

Country House Sewage Purification. The second edition of book issued by Tuke & Bell, Ltd., Sewage Specialists, 69 Leadenhall Street, London, E.C. A very valuable little volume giving the methods of taking care of individual house sewerage.