

steam turbines, fire protection, aeronautics, automobiles, and a large number of other mechanical subjects.

The book is a very useful and welcome addition to mechanical engineering literature.

PUBLICATIONS RECEIVED.

Department of Mines.—Summary report for 1915 of the Geological Survey, Department of Mines, Ottawa. Price, 15 cents.

Canal Statistics.—1915 report of the Department of Railways and Canals, Ottawa, containing 103 pages. Price, 10 cents.

Financial Report, 1915, of the J. G. White Companies, New York, giving annual returns and balance sheet of these companies.

Ore Deposits of the Beaverdell Map Area.—By Leopold Reinecke. Memoir 79, No. 65, Geological Series, Department of Mines, Ottawa.

Report of Nelson P. Lewis, chief engineer, Board of Estimate and Apportionment, City of New York, for the year 1914. 235 pages, 42 tables.

Geology and Ore Deposits of Rossland, B.C.—Memoir 77, No. 64, Geological Series, Department of Mines, Ottawa. By Charles Wales Drysdale.

Geology of Field Map—Area, British Columbia and Alberta.—Memoir 55, No. 46, Geological Series, Department of Mines, Ottawa. By John A. Allen.

Gas Plant Construction.—Published by the Stone and Webster Engineering Corp., Boston, Mass. Contains 24 illustrations of various gas and power plants.

Sewage Disposal.—Tenth and eleventh semi-annual reports, 1915, of the Sewage Disposal Commission of the city of Fitchburg, Mass. Published by the Fitchburg H. M. Downs Printing Co.

Highway Improvement in Ontario.—Annual Report, Department of Highways, Toronto, 1915, by W. A. McLean, commissioner of highways. 223 pages, well illustrated by charts and photographs.

The Strength and Stiffness of Steel Under Biaxial Loading.—Bulletin No. 85, Engineering Experiment Station, University of Illinois, Urbana, Ill. By Albert J. Becker. 65 pages, illustrated. Price, 35 cents.

Experiments on the Economical Use of Irrigation Water in Idaho.—Bulletin No. 339, U.S. Department of Agriculture, Washington, D.C. By Don H. Bark, irrigation engineer, Division of Irrigation Investigations.

Tests of Reinforced Concrete Flat Slab Structures.—Bulletin No. 84, Engineering Experiment Station, University of Illinois, Urbana, Ill. By Arthur N. Talbot and Willis A. Slater. 128 pages, 85 illustrations. Price, 65c.

Good Roads Year Book, 1916.—The fifth annual edition of this useful publication has been issued. It contains a great deal of information regarding road improvement, historical notes, road materials and road machinery. W. A. McLean, Deputy Minister of Highways of Ontario, has an article in it dealing with highway improvements in Canada, and the Hon. B. Michaud, Deputy Minister of Highways of the Province of Quebec, contributes an article dealing with the roadway organization of that province. It contains 440 6 x 9-in. pages.

Annual Report on the Mineral Production of Canada.—Issued by the Department of Mines, compiled by John McLeish, B.A., chief of the division of mineral resources and statistics. This report contains 366 6 x 9-in. pages.

It is divided into three sections: First, metallic ores; second, non-metallic production; third, structural materials and clay products. A great many comparative statements are presented showing the production of each important product during the past two years, the production which each contributes to the total production and the increase or decrease, as the case may be, of the production in 1914 as compared with that of 1913.

CATALOGUES RECEIVED.

Steel.—1916 stock list of the steel department of Factory Products, Limited, 220 King Street W., Toronto.

Protecting the Water Supply of Greater New York.—An illustrated booklet issued by the Wallace & Tiernan Co., Inc., New York.

Microscopes.—A 129-page, illustrated booklet issued by the Bausch & Lomb Optical Co., Rochester, N.Y., describing their microscopes and accessories.

Small Motors.—Folder No. 25 issued by the Westinghouse Electric and Manufacturing Co., East Pittsburgh, Pa., describing, with illustrations, Westinghouse motors for washing-machine service.

Trill Indicators.—A 56-page, illustrated booklet issued by the Trill Indicator Co., Corry, Pa., describing the latest types of engine indicators and accessories, with information on taking and reading of indicator cards.

William Bryce, Lothian Street, Edinburgh.—Catalogue of chemical and technical books comprising works in agriculture, chemistry, metallurgy, etc. Catalogue is very well classified and contains 56 5½ x 8½-inch pages.

Milburn Oxy-Acetylene Welding and Cutting Apparatus.—A 6-page, illustrated folder issued by the Alexander Milburn Co., Baltimore, Md., describing their welding torch, regulators, cutting torch, welding generator and portable plant.

Manganese Chains.—Bulletin No. 171, issued by the Jeffrey Manufacturing Co. Contains full details and prices of "manganese" chains. Copy of the bulletin can be secured by addressing the Montreal office of the company, Power Building, Montreal.

Small Electrically Driven Centrifugal Pumps.—Bulletin No. S-1000, issued by Yeomans Brothers Co., Chicago, describing their centrifugal pumps for house supply and general service in office buildings, apartment buildings, power plants, etc. 11 pages, illustrated.

Yeomans Duplex Electric Centrifugal Sewage Ejectors.—Bulletin No. E-2000 of Yeomans Brothers Co., 231 Institute Place, Chicago, describing their sewage ejectors for automatically raising sewage and drainage in basements below street sewer level, municipal sewage systems, etc. 11 pages, illustrated.

Oil Filters.—Bulletin No. 5, recently issued by the Richardson-Phenix Co., Milwaukee, Wis., describing a complete line of filters for purifying lubricating oil, having capacities of from 25 gallons per day to 50,000 gallons per hour. The catalogue is well illustrated and contains prices on the various size filters.

Wagon and Truck Loaders.—Bulletin No. 177 of the Jeffrey Manufacturing Co., Columbus, Ohio, featuring their self-propelling wagon and truck loaders for handling crushed stone, sand, gravel, etc. Contains 23 pages and illustrations of many interesting installations, specifications, prices and complete details of their different types of loaders.