PUBLICATIONS RECEIVED.

Probable Effect of War on U.S. Ceramic Industries. By A. S. Watts, U.S. Bureau of Mines. 15 pp.; 6x9 ins.

Department of Railways and Canals, Canada.—Annual Report for year ending March 31st, 1914. It contains reports on Government railways, including N.T.R., and Quebec bridge, canals, locks, railway subsidies, etc.

Explosions of Gas and Coal Dust.—Circular 21, U.S. Bureau of Mines. 24 pp.; 6x9 ins. Some notes, prepared by Mr. G. S. Rice on what a miner can do to prevent such explosions.

Cotton Warehouses and Terminal, New Orleans, La. General illustrated description of design and construction of this plant with annual capacity of 2,000,000 bales. Issued by Ford, Bacon and Davis, engineers. New York.

Department of the Interior.—Annual Report for year ending March 31st, 1914. Vol. 1. It covers Dominion lands, immigration, surveys, astronomy, and Dominion parks. Vol. 2 will cover forestry, irrigation and water power.

Telegraph Statistics.—Report for 1914, Department of Railways and Canals, Canada, giving organization, earnings, operating expenses, equipment and other statistical information concerning all corporations operating telegraph lines in Canada.

5,000 Facts About Canada.—1915 edition of this useful booklet, compiled by Frank Yeigh, Toronto. It covers agriculture, area, banking, census, immigration, mining, manufacturing, trade, etc. The Canadian Facts Publishing Co., Toronto. Price, 25c.

Timiskaming and Northern Ontario Railway Commission.—13th annual report (for year ending October 31st, 1914). It contains reports of chief engineer and the departments of motive power and cars, roads, bridges, buildings, traffic, telegraph, etc.

Physical Properties of Metal Cobalt.—Part 2 of Report by H. T. Kalmus, B.Sc., Ph.D., and C. Harper, B.A. Published by Mines Branch, Department of Mines. 70 pp.; illustrated. It deals with researches on Cobalt and its alloys conducted at Queen's University for the Mines Branch.

Hand Firing Soft Coal Under Power Plant Boilers.—By Henry Kreisinger. Technical Paper 80, U.S. Bureau of Mines. 83 pp.; 6x9 ins. Description of methods of firing, discussion of combustion and heat losses, and simple instructions toward greater efficiency, make this a most useful publication for fuel engineers and men employed in steam power plants.

Highway Bonds.—By L. I. Hewes and J. W. Glover, U.S. Office of Public Roads. 136 pp.; 6x9 ins.; illustrated. Issued as Bulletin No. 136, U.S. Department of Agriculture, Washington. A compilation of data and an analysis of economic features affecting construction and maintenance of highways financed by bond issues, and the theory of highway calculations.

Investigation of Flow Through 4-inch Submerged Orifices and Tubes.—By L. R. Balch, C.E. Published by Engineering Experiment Station, University of Wisconsin. Bulletin No. 700. 31 pp.; illustrated; 6x9 ins. Price, 25c. It contains results of experimental work carried out under the direction of Daniel W. Mean, Professor of Hydraulic and Sanitary Engineering.

Minister of Public Works.—Annual Report for year ending March 31st, 1914, relative to works under his control. Vol. 1. It contains reports of deputy minister, accountant, chief architect, chief engineer, general superintendent of telegraphs, collector of revenues, and miscellaneous. (Vol. 2 will deal with geodetic levelling.) The chief engineer's report covers the construction and repairs of wharves, piers, breakwaters, dams, etc.; improvement of harbors and rivers; construction of graving docks; slides, booms; interprovincial bridges, etc., etc.

Flow Over Weirs With Imperfect Contractions.—By G. J. Davis, Jr., Dean of Engineering, University of Alabama. Bulletin No. 699, Engineering Experiment Station, University of Wisconsin. 73 pp.; illustrated; 6x9 ins. It outlines description of experimental apparatus, methods of experimentation, gauging, calibration, discussion of results and tables of data.

Sewage Disposal Systems in Canada.—By T. Aird Murray and T. Lowes, consulting engineers, Toronto. Published by the authors, 1915. 44 pp.; 8x11 ins.; fully illustrated. Price $1.00. It outlines recent developments in sewage disposal and describes the disposal works at Lethbridge, Alta.; Weston, Ont.; Mount Dennis, Ont.; Whitby, Ont.; Dundas, Ont., and Carleton Place, Ont. It contains sections devoted to a discussion of the distribution of sewage over percolating filters and outlines types of 7-inch sedimentation tanks, with notes on the alteration of an ordinary septic tank into a 2-story tank.

CATALOGUES RECEIVED.

Small Motors.—Six-page leaflet describing type A R single-phase motor. Illustrated. Issued by Westinghouse Electric and Manufacturing Co.

Cableways on Filtration Work.—A bulletin issued by the Canadian Allis-Chalmers, Limited, Toronto, describing use of Lidgerwood cables in the construction of several large filtration plants.

Sorge-Cochrane Hot Process System of Water Softening.—A 20-page pamphlet issued by the Harrison Safety Boiler Works, Philadelphia, and relating to recent developments in the conversion of hard water into soft.

Steam Turbine Drive for Rolling Mills.—A 22-page illustrated pamphlet distributed by the De Laval Steam Turbine Co., Trenton, N.J., containing detailed information respecting the installation, operation and results in several important mills.

Armstrong-Whitworth of Canada, Limited.—128-page, illustrated catalogue of high-speed twist drills, cutters, reamers, riveters, dies, taps, punches, etc., with interesting notes on carbon steel, feeds and speeds, steel treatment, etc. Head office, Montreal.

Water Purification.—A booklet of 80 pages, illustrated, relating to mechanical filtration and water softening plants. It reproduces extracts from a number of recent valuable papers on the subject, and illustrates numerous installations for cities, towns, public institutions, industrial works, etc.

Testing V-Notch Meters.—A 48-page, illustrated booklet issued by the Harrison Safety Boiler Works, Philadelphia, describing exhaustive investigation of the properties of the V-Notch weir, the Cochrane Meter Testing Plant and meter equipment. The paper by James Barr, B.Sc., entitled "Experiments Upon the Flow of Water Over Triangular Notches" is reprinted therein from London "Engineering."

Fluxphalte.—An interesting illustrated booklet issued by the Asphalt and Supply Co., Limited, Montreal, relative to their asphalt macadam binder, "Fluxphalte," which is a very heavy road oil just being introduced into Canada, although used extensively in Mexico and England, as is also Rodol, which is a lighter asphaltic oil or dust preventative. It contains illustrations of roads that have been treated with Fluxphalte, and of special flapper machines which are loaned to municipalities for applying it.