

disposal and treatment of sewage are subjects that are very fully discussed. Although the greater part of it is of purely local interest, there are many theories of general application and matters of similar interest to municipal and sanitary engineers.

### PUBLICATIONS RECEIVED.

**Annual Report of the City Engineer of the city of Halifax, N.S., for the civic year, 1912-1913.**

**Labor Organization in Canada.**—Third Annual Report for the year 1913, issued by the Department of Labor at Ottawa.

**McGill University Calendar, 1914-1915,** containing full information regarding all departments and faculties, details of courses, etc.

**Proceedings of the Union of Nova Scotia Municipalities** at the eighth annual convention, held at Bridgewater, N.S., on August 27th, 28th and 29th, 1913.

**Monthly Bulletin of the Canadian Mining Institute.**—Edited by H. Mortimer Lamb, Secretary. This bulletin represents the proceedings of the Institute for the month.

**28th Semi-Annual Report of the Sewage and Water Board of New Orleans.**—This mid-year report consists of brief financial statements and synopsis covering the previous six months.

**Notes on Radium-Bearing Minerals.**—A 26-page handbook, listed as Prospectors' Handbook No. 1, issued by the Geological Survey Branch, Department of Mines, Ottawa. Compiled by Wegatt Malcolm.

**Summary Report of the Geological Survey,** Department of Mines, for the calendar year 1912. A 544-page summary of the operations of the Geological Survey for 1912, including the reports of the various officials on the work accomplished by them.

**Progress Reports of Experiments on Dust Prevention and Road Preservation, 1913.**—Bulletin No. 105, issued by the United States Department of Agriculture, Washington, covering experiments made at Chevy Chase, Md., with supplementary reports.

**Year Book, 1913.**—Issued by the Swedish Chamber of Commerce in London. The contents include the first annual report of the council, transactions of the year, and various lists, statements and reports; in addition several plans, maps, and full-page illustrations.

**Flumes and Fluming.**—By Eugene S. Bruce, expert lumberman. Issued as Bulletin No. 87 by the United States Department of Agriculture, Washington. This bulletin discusses the use of flumes in lumbering operations and tells how to build them. Of special value to lumbermen and log-drivers.

**Permissible Electric Lamps for Mines.**—Written by H. H. Clark, and issued, as Technical Paper No. 75, by the Bureau of Mines, Department of Mines, Washington. This paper deals with safety as a feature of miners' electric lamps, permissible tests, and specifications suggested by the Bureau of Mines for portable electric lamps.

**Serpentine and Associated Rocks of Southern Quebec.**—Compiled by John A. Dresser. A preliminary report, dealing, primarily, with the economic resources of Southern Quebec, with some attention given also to the petrography and structural geology of the district. Issued as Memoir No. 22 by the Geological Survey Branch, Department of Mines, Ottawa.

**Precise Levelling.**—By F. B. Reid, D.L.S., and issued by the Dominion Observatory, Department of the Interior,

Ottawa. This publication is a continuation of two that have already been issued—Appendix No. 5 to the Chief Astronomer's report for 1910, and the 1913 publication on precise levelling. The present publication is arranged in the same general form, with the results of the levelling set forth in three tables.

**Ohio State Board of Health—27th Annual Report, 1912.**—Voluminous report, comprising 880 pages. Size, 6 x 9 ins.; bound in cloth. It contains the minutes of board meetings and complete discussions of the subjects taken up. Reports on proposed new water supplies and purification plants for various cities are included. Another section is devoted to reports upon communicable diseases, and another to hygienic laboratories.

**Brass-Furnace Practice in the United States.**—Compiled by H. W. Gillett, and issued as Bulletin No. 73 by the Bureau of Mines, Department of the Interior, Washington. The bulletin deals with the object and results of an extensive investigation conducted to ascertain the melting and fuel losses on present brass-melting losses, and to indicate, as far as possible, methods by which such losses might be reduced.

**Portions of Portland Canal and Skeena Mining Divisions, Skeena River, B.C.**—By R. G. McConnell. Memoir No. 32, issued by the Geological Survey Branch, Department of Mines, Ottawa. This memoir includes reports on four neighboring areas, all portions of the Skeena mining district. The main report deals with Portland Canal mining division; the others describe the results of preliminary work in the Salmon River valley, portions of Nass valley, and on observatory inlet.

**Tests of Bond between Concrete and Steel.**—Compiled by Duff A. Adams, and issued as Bulletin No. 71 by the Engineering Experimental Station, University of Illinois. The tests reported in this bulletin were made in the Laboratory of Applied Mechanics, and formed a part of the investigations of reinforced concrete and other structural materials which were conducted by the Experimental Station. The tests cover the experiments which were designed with special reference to a study of bond between concrete and steel during the period of 1909-1912.

**The Tractive Resistance of a 28-Ton Electric Car.**—By Harold H. Dunn, and issued as Bulletin No. 74 by the Engineering Experimental Station, University of Illinois. The first part of the bulletin describes the purpose, methods and final results of tests conducted by the Engineering Department to determine the resistance offered to the motion of a 28-ton electric car running on a straight, level track, in still air at uniform speed; and to ascertain the relation existing between the resistance and the speed of the car. In the three appendices details are given concerning the apparatus, the methods of calculation, the test data, and the intermediate results.

### CATALOGUES RECEIVED.

**Merritt Sewage Disposal Apparatus.**—A 16-page, illustrated booklet descriptive of the various features of Merritt sewage apparatus. Issued by the Merritt Hydraulics Company, Philadelphia, Pa.

**C-E Flow Meters for Measuring Steam, Water, and Air.**—Bulletin No. 46501, containing 52 pages descriptive of flow meters manufactured by the Canadian General Electric Company, Limited, of Toronto.

**Electric Cable-making Machinery.**—A fine, cloth-bound, 84-page catalog descriptive of electric cable-making machinery and accessories. Issued by W. S. Glover & Company, Limited, Manchester, Eng.