

MR. C. B. SMITH, C.E.

In this issue we publish a portrait of Mr. C. B. Smith, C.E., who was recently elected President of the Engineers' Club of Toronto.

That Mr. Smith ranks among the foremost of Canadian civil engineers is proven by the many important and responsible positions which he holds. Graduating from McGill University in 1884, he devoted some years to railroad engineering with various companies, and later became Assistant-Professor of Civil Engineering in the University where he had received his training. He was for some years resident engineer for the Canadian-Niagara Power Company in connection with the building of their extensive power development works at Niagara Falls, and consulting engineer to the International Railway Company, which positions he resigned in 1904 to engage in a consulting practise. He was then appointed Chairman of the Temiskaming and Northern



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Ontario Railway Commission, which position he recently resigned, and later on in the same year accepted a position on the Hydro-Electric Commission as Chief Engineer. The City of Winnipeg then engaged him as Chief Engineer of the Power Department of that city, and just recently he was retained by the City of Toronto to report on the eastern entrances of the different railways to the city.

THE USE OF SMALL PUMPING PLANTS IN CONNECTION WITH SEWERAGE SYSTEMS.

A number of brief papers and addresses on the use of small pumping plants in connection with sewerage systems were presented at the meeting of the Sanitary Section of the Boston Society of Civil Engineers on the evening of January 9. Mr. I. F. Farnham described a small sewerage plant at Newton Upper Falls. The plant is a temporary one, designed for use pending

the construction of a gravity outfall sewer. The plant was put in operation in 1903 and serves 30 houses with a population of about 160, and a machine shop with a population of some 600. There are two 3½-in. submerged centrifugal pumps driven by two 6-H.P. gasolene engines. Either engine can operate either or both pumps, and both engines can, if desired, be connected to one pump. The maximum lift is 30.7 ft. The contract capacity was 150 gals. per min. and the test capacity was 210 gals. The plant is located near the water-works pumping station and is attended by a fireman in the latter. An indicator in the water-works pumping station shows when the small reservoir connected with the sewage station has filled. When the indicator works, the fireman goes to the sewage station and starts the pumps, which shut down automatically. The cost of this plant, including the pumping station, force main, etc., was \$6,700, and the yearly cost of operation has averaged between \$400 and \$500. On the whole, the plant is very satisfactory. The most serious trouble has been due to human rather than mechanical defects. No emergency overflow is possible, and once or twice the pumping station has been flooded. No screens were provided when the pumps were started, but trouble with clogging by cotton-waste led to the installation of basket screens.

Mr. F. A. Barbour, M. Am. Soc. C.E., of Boston, read a paper in which he described a number of sewage pumping plants which he had designed. He stated by way of preface that labor was the chief problem in connection with these pumps. In order to minimize the attendance on the pumps, automatic features are introduced where

feasible, for which and other reasons the pumps are frequently divided into small units. After describing the Saratoga installation, Mr. Barbour took up in succession the plants at Hudson, Mass., Fredericton, N.B., Atlantic City, N.J., and elsewhere. Two small, electrically-driven centrifugal pumps at Hudson, with a normal combined capacity of 500 gals. per min. against 35 ft. head, were installed at a cost of \$3,600 for pumps, motors, and piping. At Fredericton a plant of the same capacity, but operating under a lower head, is being put in, to pump the sewage when the river rises above the outfall. The cost of this plant will be about \$3,000, including a considerable percentage of import duty. At Atlantic City a number of electrically-driven pumps will be located beneath the sidewalk, with no structures above the surface.—Engineering News.

Mr. W. F. Fye, C. E., of Montreal, Que., has left for Mexico to take charge of the engineering work for the Canada Electric Syndicate, Limited.

Snow cleaning in Ottawa, Can., which was formerly carried on as a local improvement is now charged to the general expense fund. The snow is plowed from the walks with two-horse wooden snow plows, is thrown further into the roadway with "walkaway" plows, and finally is compacted with heavy wooden rollers. In the spring of 1905, according to the report of City Engineer N. J. Ker, on some roadways there was an accumulation of snow and ice 4 feet. thick, while the sidewalks were comparatively clean.

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