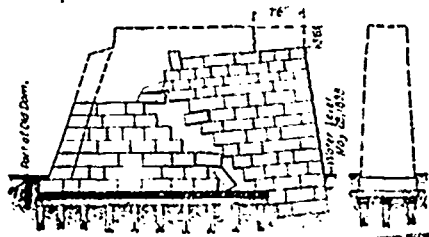


## MUNICIPAL DEPARTMENT

### DISPLACEMENT OF A BRIDGE PIER.

The displacement by ice of part of the masonry in a pier of the Richmond bridge across the St. Francis river, Canada, was described in The Engineering Record on November 11, 1899. The note led to an inquiry for further particulars, addressed to Mr. Phelps Johnson, manager of the Dominion Bridge Company, which rebuilt the structure. In his reply he explains that "the masonry for this bridge was built by Henry McFarlane about 1880, and was intended for a wooden Howe truss structure. After the piers were completed it was concluded to build an iron bridge, and it being thought unwise to lower the grade of the floor, the end posts were made of unusual length and the end lower



chord bars dropped so that the structure would occupy the same height from masonry to grade that had been planned for the wooden bridge." Accompanying Mr. Johnson's letter was a report from Mr. William Ross, who had charge of the reconstruction of the bridge. He said that the cut-water stone and a few other stones of three courses were found in the opening in the pier and at its west side. The foundation was three rows of piles, driven in gravel, with three pieces for caps covered over with square timber, as shown in the sketch, the piles being cut even with the gravel. The gravel at the side next to the island was as high as the top of the timber, but at the other side it was as low as the top of the piles. The foundation and seven courses of the cut-water, or front of pier, were just as when built, but about 7 feet in length of the first course of stone had slipped on the timber foundation.—Engineering Record.

### LEGAL DECISIONS AFFECTING MUNICIPALITIES.

RE SHARPE AND TOWNSHIP OF CAISTER.—Judgment on motion to quash by-law to close up part of road allowance between 1st and 2nd concessions of the township, and by-law to open up a road across lot 21 in the second concession. Held, that both by-laws must be quashed because the notices were not posted up one full month previously to the passing thereof, and such posting is a condition precedent under R.S.O., ch. 223, sec. 546, to valid action by the municipality. The cases are collected in re Ostend, 15 A.R.,

372; affirmed re Huron, 19 A.R., 343. If the notices in this case had complied with the statute the by-law would not have been quashed on the other grounds raised. Order made quashing by-laws without cost.

RE MCDIRMIID AND TOWNSHIP OF DUNWICH.—Tried in Single Court at Toronto. Judgment on motion to quash by-law of the township number 559, passed to provide for the cleaning out and extensions of outlet and improvements of the ditch known as the Dunwich and Aldborough Government drain No. 1 north, and for raising \$1,368, the townships proportion, for completion of same. The by-law is attacked on two grounds: (1) that the report of the engineer was sent back for amendment, and (2) that he amended his second report, and did not exercise independent judgment in making it. The learned judge sees nothing in the course pursued that is illegal or contrary to the intent of the statute, R.S.O., ch. 226, sec. 75. Re Jenkins, 25 O.R., 402, does not meet this case at any point. Motion dismissed with costs.

### SEWER VENTILATION.

Mr. Rudolph Hering, the eminent sanitary engineer of New York, says regarding sewer ventilation:

"The main thing with the sewers is to keep up a good ventilation. People living near manholes may say that they are

troubled with odours arising from the sewers, but that simply shows that the sewers are not in good condition. People give their parlors, which are the cleanest places in their houses, a thorough cleaning occasionally, and if the parlours need cleaning, certainly sewers, which are the dirtiest of places, have equal need of it. One cannot say just how often your sewers sewers should be cleaned, but certainly as often as once a month. I should say that you were using plenty of clean water for ordinary uses, but flushing does not require clean water. The sewers should have flush traps, or doors in the sewers, which would back up the sewage until it gets under some pressure, and then allow it to escape suddenly. Under such a system, which is common in Europe, the sewers could be kept clean enough to prevent the escape of offensive odours. There may be exceptional cases where it is desirable to seal the manholes, but as a general rule all the circulation of air possible should be provided for the sewers.

"This is especially true here, where you have the peculiar experience with your outfall sewer. I have not seen that, but from all accounts it would seem to be certain that the gases are responsible for the disintegration of the cement. You can figure that out as well as I can. The cement under the water is solid, while that exposed to the air is crumbling. Now, if you shut off the circulation of air, you are simply increasing the evil that exists."



## "BEAVER" PORTLAND CEMENT

A HIGH GRADE PORTLAND CEMENT

Manufactured by . . . . .

THE BEAVER PORTLAND CEMENT CO., LIMITED - WORKS: MARLBANK, ONT.

SOLE SALES AGENT:

COMMERCIAL WOOD & CEMENT COMPANY

Canada Life Building, Montreal.

Largest Works in Canada.

Write for Prices.

BELLHOUSE, DILLON & CO., 30 St. Francois Xavier St., Montreal

Sole Agents for the Compagnie Generale des Asphaltes de Franco (Rock Asphalt).

PORTLAND  
CEMENT

NORTH'S CONDOR

Paving and Fire Brick a Specialty

"DYCKERHOFF" and "WHITE CROSS" Brands

NORTH'S "CONDOR" BRAND AWARDED FIRST PRIZE AND GOLD MEDAL AT THE ANTWERP EXHIBITION

THE GEORGIAN BAY PORTLAND CEMENT CO.

OWEN SOUND, ONT.

LIMITED

These works are furnished with the latest and best machinery. The raw materials are of first-class quality. The process of manufacture is well tried and successful, and operated by experienced experts. The product is the finest grade of PORTLAND CEMENT. For further information write

J. W. MAITLAND, Sec.-Treas.



## "GERMANIA" BRAND HIGHEST CLASS PORTLAND CEMENT

McGILL UNIVERSITY TESTS, 1898:

Fineness:—residue on 100 sieve, 4.45%.

Tensile strength: neat: 7 days, 629 lb.

" 28 " 773 lb.

—OF ALL FIRST CLASS DEALERS.—



## "BURHAM" BRAND THE BEST LONDON PORTLAND CEMENT

As used for the following work: Keewatin Power Co.'s dam at Lake of the Woods; Canada Paper Co.'s dam at Windsor Mills; Government Bridge at Buffalo; Dry Docks, Brooklyn and League Island; Hudson River Tunnel and a vast amount of railway work, and mileage of Street Paving throughout Canada and the States.

OF ALL FIRST CLASS DEALERS.

MUNICIPAL DEBENTURES BOUGHT

EMILIUS JARVIS & CO. (Toronto Stock Exchange) 32 King St. West, TORONTO