MUNICIPAL ENGINBERS, CONTRACTORS, AND MATERIALS.

fall; secondly, that a minimum amount of suspended matter is deposited or retained within the sewer; and, thirdly, that such deposits and the growths attaching to the sides of sewers can be readily removed from time to time. These requirements can be fulfilled by giving the sewer a good alignment, a proper size, sectional shape and slope, by giving the interior a high degree of smoothness, by preventing eddies or back flow, and by providing means for readily inspecting and cleaning every part of the system.

(To be Continued.)

LEGAL DECISIONS AFFECTING MUNICIPALITIES.

CAMPBELL VS. VILLAGE OF LANARK. — Judgment on appeal by James Wier Campbell from an order of Galt, C. J., refusing an application to quash a by-law of the municipality providing for the issue of debentures to the amount of \$4,000, ostensibly for the purpose of making provision for a system of electric lighting for the village by securing the election of a building su'table for the purpose and by acquiring water power for a period of 20 years, but really, as the applicants alleged for the purpose of aiding one Kate S. Coldwell to erect, equip and operate a grist will. The applicant contented these The applicant contended that it was in fact a bonus by-law passed in form stated, in evasion of the provisions of the municipal act of 1892 making bonus by-laws illegal. The respondents did not deny that they had in view the advantage deny that they had in view the advantage to be derived by the village from the building of a grist mill, for the erection of which the by-law distinctly provided. Galt, C. J., stated that he was "unable to say that the sole object of the by-law was to give a bonus to the mill-owner," and dismissed the application on that ground. The court held that the by-law was a plain evasion of the wholesome provision of the statute forbidding the passing of a bonus by-law. Appeal allowed with costs.

CEMENT.

7,000 Barrels of the best London brand in stock and to arrive; also Fire Brick, and Drain Pipes, best quality and lowest prices.

F. HYDE & CO.

81 Wellington Street, MONTREAL.
Sole Agents for
"The Grahtryx" Smoke Test Machine, for
applying the smake-test to defective drains, soil
pipes, gas pipes, &c., furnigating, disinfecting, destroying vermin, &c.

Municipalities issuing debentures, no matter for what purpose, will find a ready purchaser by applying to G. A. STIMSON, 9 Toronto Street, Toronto. N.B.-Money to loan at lowest rates on first mortgage.

NOTICE

We manufacture the

Thorold Cement.

It is the best

Hydraulic Cement.

Write us for prices.

ESTATE OF JOHN BATTLE.

Thorold, Ontario.

WILLIS CHIPMAN, B.A.Sc., 1. Soc. C.E.; M. / M. Am. W. W.

CIVIL AND SANITARY ENGINEER Scirage Disposal

103 BAY STREET TOKONTO.

I. McDOUGALL, C. E.,

ENGINEER COUNTY OF YORK,

Consulting Engineer for Municipal Work.

Electric Railways and Bridges.

COURT HOUSE, - TORONTO.

JOHN GALT MEM. CAN. SOC. C. E.,

CONSULTING ENGINEER AND EXPERT WATERWORKS, SEWBRAGE, RTC.

Iwenty-five years practical experience in Great Britain, United States and Canada.

Office. Rooms 99 and 100, CANADA LIFE BUILDING. TORONTO.

LOIGNON, CIVIL ENGINEERS.

Bridge and Structural Iron Work. Steel Beams kept in stock.

WORKS: ST. COLUMBAN ST. AND CANAL SIDE, MONTREAL, OFFICE. 7 PLACE D'ARMES, Telephone 9777.

CORRUGATED SOIL PIPE AND FITTINGS (PATENTED)



This improvement marks an era in sanitary reform. Universal certificates in its favor from Architects, plumbing inspectors master plumber associations, and others. Costs no more: more economical to use. Montreal.

H. R. Ives & Co.

UNICIPAL

OFFICIALS

should see to it that in the erection of town and city PUBLIC BUILD-INGS, the installation of water works plant, etc., the advantages of

MINERAL WOOL



are made use of for deadening sound in floors and partitions, insulation of heat and cold, firepreofing, etc., also SECTIONAL MINERAL WOOL COVERING for steam pipes, boilers, exposed water pipes, etc.

Montreal Agent:
GBO. H. COWAN,
Room 23, 204 James St.

Canadian Mineral Wool Co., Limited, 122 Bay Street, TORONTO

PORTLAND GEMENT

23,353 Barrels of Burham Brand were sold in Toronto in 1892, amounting to two-thirds of our total sales.

BURHAM IS THE BEST.

Nichols, Smythe & Co., - 25 George St., Toronto.

HAMILTON AND TORONTO SEWER PIPE CO.

- FOR --



CULVERTS. AND

WATER PIPES.

Fire Brick Sewers

Write for Discounts. HEAD OFFICE AND FACTORY, HAMILTON, CANADA.

Drummond McCall Pipe Foundry Company, MONTREAL

MANUFACTURERS OF

ORKS: LACHINE, QUE.

ANADA PIPE AND FOUNDRY CO.

Cast Iron Pipes and Special Castings

Works: MONTREAL AND ST. HENRI, QUE. CORRESPONDENCE SOLICITED.



Manufacturers of Salt-Glazed.

Vitrified

Double Strength Railway Cul-vert Pipes, Inverts, Vents,

AND ALL KINDS OF FIRE CLAY GOODS.

Water Meter Untario Co., Ltd. MANUFACTURERS OF

Meter Supports, Dial Extensions, Fixture Locks, Water Cart Registers, Strainers, Coupling Scals and Reservoir Indicators.

Send for Price Lists and Testimonials. Our Meters are adopted and in use in over 500 cities and towns in Canada and the United States. Highly endorsed by leading Engineers. A guarantee for five years given with all Meters. All information furnished on application to

A. C. WINTON, Secretary-Treas.

OFFICE: No. 23 Toronto Street, Toronto, Ont.

THE G. & J. BROWN MFG.

Railway and Contractors' Plant.

BELLEVILLE, ONT.