# MUNICIPAL DEPARTMENT

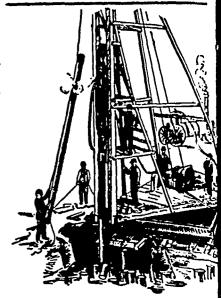
THAWING OF WATER PIPES BY ELECTRICITY.

A NUMBER of successful experiments have recently been made in Canada and

and to4 volts secondary; this was further reduced by means of a water rheostat as described below to 50 volts. The apparatus, as shown in accompanying cut, consists of a large 200 light (40 G. S.K.C.) transformer, switchboard, several switches, C. G. watt meter to measure the current, all of which is placed on a small waggon for convenience in transportation, and a water rheostat. The water rheostat consists of the most simple type, a copper plate placed in the bottom of a wooden pail, another copper plate placed some 6" to 8" above the first and so arranged that it can be moved up and down as found

current is then conducted by 2 No. 6 wires to afford ample capacity for current without heating the wires, and by means of a simple clamp these wires are attached to one end of a frozen pipe.

(To be Continued.)



#### PILE DRIVING

on land or water by Steam Pile Drivers or Dro Hammers.

# Portable Boilers Hoisting Engines Pumping Machinery

Bridge Building, Trestle Work, Wharve Dams, Diving Submarine Work an. EGeneral Contracting.

WM. HOOD & SON 10 Richmond Sq. - MONTREAL



Fig. 1.—Apparatus for Thawing out Water Pipes.

the United States with the use of electricity for thawing out frozen water pipes. The Canadian experiments were made in Ottawa, Berlin and Chatham. Below are printed particulars of the methods pursued in the above mentioned cities, together with illustrations showing the apparatus enrolled:

The Berlin Gas and Electric Co. used alternating current of 2,080 volts primary

necessary. There is enough water poured into the pail to well cover both plates. When in use the water is kept from boiling by the addition of snow or ice.

by the addition of snow or ice.

The waggon is placed as near as possible to the place of operation. The wires of the primary circuit are brought to a D.P. switch on waggon switchboard, are then taken to the transformer and back to a second D.P. switch on switchboard. The

#### ARTIFICIAL STONE PAVEMENTS

SIDEWALKS A SPECIALTY

CORPORATIONS Will do well to consider our work and prices before letting contracts

The Silica Barutic Stone Gompany of Ontario, Limited.

WALTER MILLS, General Manager.

Head office: INGERSOLL, ONT.

Flush Your Sewers with

## THE MILLER AUTOMATIC SYPHON

(VATENTED)

Received HIGHEST AWARD at the World's Columbian Exposition for

(1) SIMPLICITY OF CONSTRUCTION.
(2) EFFECTIVENESS. (3) RELIABILITY.
Write for Prices and Particulars.

VICTOR HILL, General Agent, Hewson Bldg. Box 245. NIAGARA FALLS, ONT

ORE AND STONE CRUSHERS

Hoisting Machinery Railway Supplies Boilers and Engines

Prices furnished on application

MARSH & HENTHORN, BELLEVILLE, ONT.

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

## PORTLAND NORTH'S CONDOR

P ving and Pire Brick a Specialty

"DYCKERHOFF" and "WHITE CROSS" BIR

ACCIA,2 ... CONDUC... BURND MANDER EMSI DUITE AND ROLD WEDGE BY THE UNIMERS EXHIBITION



## BEAVER" PORTLAND CEMENT

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

COMMERCIAL WOOD & CEMENT COMPANY

COMMERCIAL WOUD & CEMENT COMPAN Canada Life Building, Montreal.

Largest Works in Canada.

Write for Prices



#### 'GERMANIA" BRAND

- HIGHEST CLASS PORTLAND CEMEN

McGILL UNIVERSITY TESTS, 1898:

Fineness:—residue on 100 sieve, 4.45%.
Tensile strength: neat: 7 days, 629 lb.
" 773 lb.

OF ALL FIRST CLASS DEALERS.



#### BUKHAM" BRAND

THE BEST LONDON PORTLAND CEMEN

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

OF ALL FIRST CLASS DEALERS.