MUNICIPAL ENGINEERS, CONTRACTORS AND MATERIALS

THE SIZE OF REGISTER TO USE.

Regarding the sizes of tegisters and pipes for different sized rooms, the following is taken from the catalogue of a prominent furnace company In public halls or buildings where but a single register is required, take the hot air pipes from the top of the furnace and use register without valves. The size of pipes and registers requisite for the successful operation of any furnace is a matter requiring the best judgment, and should be determined by the size, position, and distance from the furnace of the spaces to be heated and cannot be governed by any fixed rule. We usually recommend for rooms of ordinary height as follows

Rooms on first floor, 12 × 14 feet, should have 8-inch pipe with 8×12 register.

Rooms on first floor, 12 × 18 feet, should have 9-inch pipe with 9×12 register.

Rooms on first floor, 16 x 20 feet, should have 10-inch pipe with 10 × 14 register.

Rooms on second floor, 8 x 12 feet, should have 7-inch pipe with 8 x 10 regis-

Rooms on second floor, 10 x 16 feet, should have 8-inch pipe, with 9 and 12 register.

Room on second floor, 12×16 feet, should have 9-inch pipe with 10 × 14 register. Medium size halls should have 10inch pipe with 10 × 14 register. Large size halls should have 12-inch pipe, with 12×15

When oval or flat pipes are built in the walls of an ordinary three or four storey city house, the basement room and parlors should have independent pipes; second, third, and fourth storey rooms can be warmed by a single line of pipe reduced in size over each register, viz:

A house 18 or 20×45 or 50, should have a separate pipe, 4 x 16, to basement.

A house 18 or 20×45 or 50 should have a separate pipe, 4 × 16, to each parlor.

A house 18 or 20 × 45 or 50, should have one line, 4×18 , to second storey, reduced to 4 × 14 for third storey, reduced to 4 × 9 for fourth storey.

A house, three storeys, 20 × 45 or 50, should have one line, 4×16 to second storey, reduced to 4×9 for third storey.

The above sizes to be varied according to the size of house and general division of the interior space.

4×24 pipe in the wall should have 12inch pipe connected with furnace.

4×20 pipe in the wall should have 10inch pipe connected with furnace.

RESISTANCE OF STONE AND STEEL UNDER PRESSURE.

An interesting experiment took place recently in the Vienna Technological Museum of Commerce, with a view to ascertain the relative resistance, under pressure, of the hardest steel and the hardest stone. Small cubes, measuring 0.39 inches, of corundum and of the finest steel were subjected to the test. The corundom broke under a weight of 118 cwt. but the steel resisted up to 844 cwt. It was curious to notice how the steel split up. It burst with a noise like the report of a gun, broke into a powder, and sent thousands of sparks in every direction, bering their way into the machine like

DEMENTURES PURCHASED

Municipalities issuing debentures, no matter for what purpose, will find a ready purchaser by applying to G. A. STIMSON, 9 Toronto Street, Toronto.

Any assistance required in computing calculations in connection with sinking fund, etc., will be gladly given. N.B .- Money to loan at lowest rates on first mortgage.

Imperial Trusts Company of Canada

39 CHURCH STREET, TORONTO
Capital, \$400,000.
The Company is ready at all times to purchase
MUNICIPAL DEBENTURES, and has always
such Securities on hand for sale. Allows 4. interest
per annum on money.

I. S. LOCKER, Manager.

J. S. LOCKIB, Manager.

The London and Canadian Loan

and Agency Co., Ltd.
Capital, \$5,000,000.00.

MUNICIPAL DEBENTURES PURCHASED.
MORTGAGES PURCHASED.
MONEY TO LOAN AT CURRENT RATES. 103 Bay St., Toronto. - J. F. KIRK, Manager.

We Manufacture the

THOROLD HYDRAULIC CEMENT

the best cheapest

for all kinds of Masonry work. Used on all Government and Municipal works, also on the Grand T-unk Rallway.

Vrite us for prices or any other information required.

ESTATE OF JOHN BATTLE

THOROLD, ONTARIO

DEBENTURES PURCHASED.

W E will pay the highest price for MUNICIPAL DEBENTURES. We tender our services to those not having books to make for them the calculations necessary when issuing debentures payable in annual instalments. EMILIUS JARVIS & CO. (Member Toronto Stock Exchange), 23 King St. W., Toronto.

EUREKA CONCRETE (===== =) PAVING COMPANY

FOR SIDEWALKS,

STABLE FLOORS, CELLAR FLOORS, BREWERY FLOORS, ETC.

A. GARDNER & CO.

17 Yonge St. Arcade TORONTO Telephone 2147

Paving Granite

Granite Sets for Street Paving.

CURBING cut to any shape ordered. Quarries, St. Phillipe d'Argenteuil, P.Q.

Address all communications to

JOS. BRUNET - COTE DES NEIGES, MONTREAL

<u>Artificial</u> **Granite Stone Pavements**

. . , FOR . . .

STREETS, SIDEWALKS, BASEMENT FLOORS, ETC.

The attention of municipalities and others interested is called to the excellence of this material.

GRAHAM

Sole Proprietor and Patentee 226 Piccadilly St., - LONDON, ONT.

Drummond McCall Pipe Foundry Company, MONTREAL

MANUFACTURERS OF

AND GAS PIPES

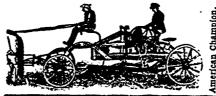
WORKS: LACHINE, QUE.

ANADA PIPE AND FOUNDRY CO. .

Cast Iron Pipes and Special Castings

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

THE COPP BROS. CO., LTD. Hamilton, Canada, Manufacturers of both these Road Machines.





THE G. & J. BROWN MFG. CO.

Railway and Contractors' Plant.

JILDERS

BELLEVILLE, ONT.