



OLD FIRE ENGINES.

MONTREAL, 30th October, 1903.

Editor CONTRACT RECORD:

DEAR SIR,—In your issue of October 28th, 1903, you have an article in connection with a fire engine in the village of Buchanan, five miles west of Niles, Michigan, U.S.A., which is over 100 years old. R.H. Buchanan & Company, this city, sold one two years ago that was made in London, England, in 1760, and as good as new to-day; and they have one that was used at the big fire in London in 1666 and a complete set of copper plate engravings of fires in 1630 and engines used for the same, the property of

Yours very truly,
WILLIAM PERRY,
Hydraulic Engineer.

GLASS PAVING BRICK.

The Garchey glass paving blocks laid down in Lyons, France, recently, according to a French mechanical journal, appear to wear very well, only a few having become chipped. The blocks have a superficial area of about 64 inches, the face being divided into sixteen squares by cross furrows so as to prevent percolation, and are stated to be more durable than granite, whilst cleaner than wood blocks or asphalt. A large factory has been erected near Lyons for the production of these blocks, as well as plain and ornamental blocks for building purposes.

This glass stone is made from bottle glass and window glass cullet, is crushed in a mill, sifted, and slowly heated for an hour in cast-iron molds, to devitrify the glass and convert it into a very viscid, pasty mass, which is then heated for a few minutes in a furnace at 1,300 degrees C., and pressed by hydraulic power. According to the color or fineness of the materials, the appearance of various kinds of stone can be imitated. From official tests it appears that the glass stone will resist a pressure of 2,023 kilos. per square em., whereas granite will not stand more than 650 kilos. pressure. It also (says J. Heurivaux in Le Ceramique) withstands the action of cold, sample plates cooled to twenty degrees below zero resisting a pressure of 2,028 kilos. per square em. In point of resistance to attrition, the new product is found to be superior to St. Raphael porphyry, and twice as good as Comblanchien building stone. A 4.2 kilos. weight falling from a height of 1 metre effected the fracture of the blocks after twenty-two blows, whilst similar blocks made from blast furnace slag and Cherbourg quartzite were broken at the nineteenth blow. The tensile strength is 15.3 kilos., blocks measuring 50x33 em. requiring a force of 25,000 kilos. to tear them asunder. Among the advantages claimed for glass stone for building purposes are its non-porosity, insulating power, insusceptibility to atmos-

pheric and other influences, cheapness and hardness, the latter being so great as to necessitate the tempering in mercury of the cutting tools used in working the stone. As a street paving material it is able to stand any vibration of traffic, is easy to clean and hygienic, whilst "the pavement does not become slippery."

BULK OF BROKEN STONE.

In the Government district of Wiesbaden some interesting experiments have been made, showing the increase in bulk

of various kinds of stone after being crushed for road metal. Stone in pieces varying from 4 to 12 inches in length was broken by hand to sizes varying from 1 1/4 to 1 1/2 inches. The average increase in bulk of the six kinds of stone used in these experiments was found to be over 11 per cent.

JOHN GALT, C.E. & M.E.

MEM CAN SOC. C.E. AND C.E.A., ETC.
CONSULTING ENGINEER and EXPERT
National Trust Building Toronto
20 King Street East
Specialties—Water Supply and Sewerage.

JOSSON CEMENT .. Manufactured at NIEL ON RUPELL

Is the Highest Grade Artificial Portland Cement and the Best for High Class Work. Has been used largely for Government and Municipal Works.

TO BE HAD FROM ALL CANADIAN DEALERS

C. I. de Sola, Manager in Canada :: 180 St. James Street, MONTREAL

THE ONTARIO ASPHALT BLOCK CO., L'T'D.

MANUFACTURERS OF

ASPHALT BLOCK PAVING

Information and samples furnished municipalities on application.

Main Office: WINDSOR, ONT.

Works: WALKERVILLE, ONT.

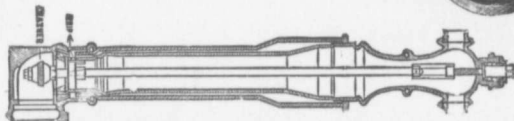
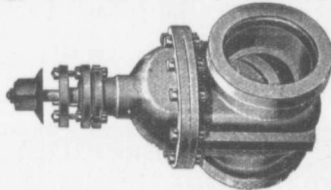
The KERR ENGINE COMPANY, Limited

PUMPING MACHINERY

HYDRANTS and VALVES
Are our Specialty

Don't fail to write us for Catalogue and prices.

WALKERVILLE, - ONTARIO



"Lehigh" Portland Cement

Capacity 11,000 Barrels every Day in the Year.

For Sidewalks and all other work requiring the highest quality Portland Cement Used by the U. S. Government and the largest contractors and users of Portland Cements in the United States.

Absolutely the most popular Cement in Canada on account of its merits.

For Prices, etc., address—

THORN CEMENT CO. - Buffalo, N. Y.

Portland Cement..

ALL GRADES.

Write or Telegraph to

BELLHOUSE, DILLON & CO.

201-203 Coristine Building, St. Nicholas Street, Montreal

for prices—Large stock constantly on hand.



at Makers in the World.