

(For the Cleveland Plain Dealer.)

Cleveland Water Works--No 2.

Messrs. Editors:—The following are some of the testimonials in favor of BALL'S INDESTRUCTIBLE WATER PIPE, referred to in a former communication.

Extracts from a letter bearing date, New York, July 10, 1853, addressed to Messrs. BALL & STEVENS, Manufacturers of said pipe, by EDWARD W. SERRELL, of the firm of STUART, SERRELL & Co., Civil Engineers, N. Y.:

"On the 31st of May I witnessed, at the corporation-yard, in this city, in the presence of several engineers, a series of experiments on your pipe, as follows, the data of which I extract from my notes made at the time: 'Hydraulic cement pipe made of No. 20 iron, 11 inches diameter, 7 feet long, riveted at intervals of 1 3-4 inches, with rivets weighing 3 lbs. per 1000, lined half an inch thick, with rosen-dale cement, was subjected by hydraulic pressure to four hundred pounds to the square inch, and remained under this strain for several minutes, without exhibiting any signs of weakness. The weight on the valve was then so placed as to bring the pressure to six hundred pounds to the square inch, but just as the valve rose to blow off, the pipe burst, tearing away the rivet holes.' This piece would probably have borne a static pressure of five hundred and fifty pounds per square inch without injury. Another piece of similar dimensions, of lighter iron, (No. 23) but riveted at intervals of 1 inch instead of 1 3-4 inches was then put in the press and successively subjected to 480, 500, 600, 700 and 800 pounds per square inch, without sensibly affecting it; the latter pressure was the limit of the capacity of the press; it was not therefore known what the piece would have burst with. * * * In the latter part of May last I saw, at Saratoga Springs, the main conduit uncovered, which has been in use nearly seven years; this is made of your cement pipe. I broke from the outside a portion of the cement covering, and found the iron uncorroded and similar in appearance to new stove pipe; this pipe is six inches in diameter. A similar specimen from the New Jersey Marshes, which had been in use for nearly the same length of time, exhibited the same favorable appearance inside as well as outside. * * *

"As your pipe, compared with cast iron, is so much cheaper, and the water which passes through it less affected than that passed through iron, I have no hesitation in recommending it where properly made and carefully laid, for all purposes where mains and street service pipes are wanted. * * *

"Office of the Greenwood Cemetery,

April 29, 1852.

Messrs. J. Ball & Co. laid in the grounds of this institution, two years since, about 800 feet of 8 inch cement pipe, carrying water forced by a steam pump to an elevation of 110 feet. It has proved perfectly satisfactory, and in my opinion is preferable, for several reasons to the best of iron pipes. Having both kinds in use, I do not hesitate from the experience thus far had, to express this opinion.

(Signed) J. A. PERRY, Comptroller."

"Having for the past three years laid many of Messrs. J. Ball & Co.'s patent cement pipes, for the Newark Aqueduct Co., I prefer them to any pipe that I have used, their cost being one-third less than iron, and also being free from wear and rust, and can most cordially recommend them for all aqueduct purposes.

(Signed) SHELDON SMITH, Super'nt.

Certificate of Prof. Horsford, of Harvard University.

CAMBRIDGE, Sept. 28, 1853.

"I have examined somewhat in detail the pipe manufactured by J. Ball & Co., for conveying and distributing water. I have repeatedly attended upon their manufacture, and the inspection preparatory to use. I have further attended upon the laying down of the pipes, and observed the mode of imbedding in, and coating with cement, the construction of sections of pipe, the piercing for lateral service pipes, and, I believe all the various processes by which the pipes are fitted for use. I have witnessed their service under a pressure of a hundred and twenty feet. I have examined various specimens that have been in use for seven years; and with one reservation, which is made because I have not had an opportunity to examine with sufficient care this branch of the subject, I am prepared to say that with strict fidelity on the part of the workmen and engineer, the above kind of pipe may be made and laid down so as satisfactorily to fulfil the general purposes of water distribution. The advantages of the pipes of Ball & Co. are, that, after a few days of use the water is transmitted entirely unchanged; the pipes do not corrode and encrust so as to diminish the service capacity; the strength increases with age; and the cheapness will make it possible to introduce water into places where the cost of iron pipe would leave it impossible.

[Signed.] E. N. HORSFORD,"

Rumford Professor, Harvard University.

The report from which the above testimonials are taken, contains many other similar endorsements of the kind of pipe under consideration. The following additional testimonials are submitted. From a letter of Daniel Marsh, of the firm of Stuart, Serrell & Co., and of Stuart & Marsh, authors of the Rochester Water Works Report, engineer of the Bridgeport Water Works, Conn. Speaking of the use of the Cement Pipe in the Bridgeport Water Works, Mr. Marsh says:

"We prefer it to iron pipe on account of strength, durability, purity and cost."

The above qualities embrace the fundamental requisites for water pipe.

From a letter of G. O. Sherman, President of the Board of Commissioners of Water Works of Watertown, N. Y.:

"Our Board decides on the Cement pipe under the impression that it was safer with the two coats inside and outside; that it would not corrode by rust; that it would last longer, and that it would furnish the water taken with with the purest kind of conductors. Cast iron pipe is more or less invariably defective in fissures. It does, and will ever rust, and sometimes fill up the aperture. It is vastly more costly, by 50 per cent to lay, and cartage is greater.—You can have no warranty of that pipe, but instead are obliged to subject each length to the test of a pressure press. That is expensive and all defective pipe is a dead loss to the Company."

The cost of Water Works for the city of Rochester, as estimated in the report of Messrs. Stuart & Marsh, is about the same as the estimated cost of the Works proposed for Cleveland, east side of the river. Their estimate (for Rochester,) for distribution for cast iron pipe is \$148,000, for indestructible Cement Pipe, \$107,190, making a difference in favor of the Cement Pipe of \$76,900, equal to 75 per cent in favor of the latter. The estimate by Mr. Scowden for Cleveland Works, reservoir (being on the west side of river) for pump mains, supply and distribution pipe, (cast iron) including lead and labor of laying, is \$173,381, 20. The Cement Pipe can be furnished, sizes and quantity the same, for \$110,000, thus saving to the city, SIXTY-THREE THOUSAND, THREE HUNDRED AND TWENTY-ONE DOLLARS.

Will not the citizens of Cleveland look well to their interests in this matter. * * *