The Use of Wood for Water Pipes—Interesting Experiments.

Yesterday a number of gentlemen of this city were present at the Machine Works of Wm. Kidd & Co., to witness some interesting experiments, made to test the power of a new kind of water pipe about to be introduced to the public. The importance of the trial and the interest manifested in it by our citizens is increased, because Rochester is now sadly in want of a supply of water, and the impediment which has thus far prevented us from possessing this indispensable boon, is its cost. The only practicable and available source of supply is many miles distant, and the great cost of iron as a conduit, has thus far perhaps, more than anything else prevented our city and capitalists from engaging in the enterprise of supplying the place with water.

Experiments made with ordinary wooden pipes —pine logs bored and banded at the joints—had resulted favorably so far as related to the capacity of the wood to resist the pressure of the water, but there were those who doubted, and there were others who feared decay in the wood in certain kinds of soil and where exposed to the air. All concede that wood is the better material for conduits, so far as the preservation of the water in purity is concerned. Messrs. Wyckoff, Hobbie & Co., (the Company being Gen. Swan) of this city, have been experimenting with a view to increase the strength of wooden pipes, and preserve them from decay in the ground. In this they have, we think, been highly successful. The pipes which they have made are pine logs, bored out by a patent augur to almost any required size of hole, turned outside and wound with a spiral band of hoop iron. The sections, eight feet in length, are put together with wooden thimbles, and when laid in the ground the whole is enclosed in a coat of hydraulic cement, two inches in thickness, which will render the wood indestructable. This pipe can be furnished at half the cost of iron, of the same capacity, and in pipe alone there may be a saving of perhaps two hundred thousand dollars, for works to convey water to this city—no small item

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The following statement of the engineer, who had charge of the experiment, and the certificates of those who witnessed them, tells the whole story more briefly than we can do it:

I hereby certify that I have recently prepared some experiments on the strength of wooden pipe banded with iron, designed for the conveyance of water. Apparatus was prepared at the machine shop of Wm. Kidd & Co., in this city, to apply hydraulic pressure to the internal surface of the pipe, and by means of a piston and graduated scale-beam to measure the force of such pressure per square inch. The pipe was ten inches interior and sixteen inches exterior diameter—the length of the piece is four feet. The following table gives the amount of pressure applied, and the height of a vertical column of water, which will produce an equal pressure:

DESCRIP'N OF BANDS.			PRESS. APPLIED.		
				Water pressure.	
No. of ex'ts.	Width, Inches.	Thickness, inch.	Distance apart, inches.	Lbs. sqr. inch.	Pressure sustain'd.	Pipe burst.
1	1	1-10	4	407	940	960
2	1	1-8	4	400	925	925

Being obliged to leave the city before the experiment could be completed, I have requested Mr James Campbell to apply the tests and state the results. DANIEL MARSH, Civil Engineer.

This may certify that in accordance with the request of D. Marsh, Civil Engineer, I have completed the experiments in testing the strength of spiral banded wooden pipes, and obtained the result as shown in the three last columns of the above schedule.

From the above tests it is evident that the band iron used on pipe No. 1, is sufficiently strong for all practical purposes, as under a pressure of 400 lbs. per square inch, or 925 feet of head water pressure, no perceptible weakness was manifest in it. And that the iron used on pipe No. 2 is stronger than is required to be used for that purpose. JAMES CAMPBELL, Sup't. Kidd's Iron and Steam Engine Works.

Rochester, N. Y., March 8, 1860.

The undersigned witnessed the above experiments. They were skilfully conducted with carefully constructed apparatus, and we believe that the results arrived at are in all respects reliable.

Rochester, March 8, 1860.

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J. F. QUINBY,
CHAS. R. BABBITT,
GEORGE HAND SMITH.

The undersigned were present and witnessed the above experiments, and concur in the statement of the scientific gentlemen as above expressed.

Rochester, March 8, 1860.

ROSWELL HART,
E. M. SMITH,
JOHN M. FRENCH,
WM. CHURCHILL,
WM. KIDD,
GEO. G. COOPER,
C. W. HEBARD,
GEO. BYINGTON,
JOSEPH SWAN.

Supreme Court—General Term.

Present—Judges Smith, Johnson and Knox.

MARCH 8.—No. 94, Anson Doolittle, resp't, vs. John W. Binniny, appl't. [illegible] ley for resp't; F. C. Binniny for appl't.

MARCH 9.—No. 77, J. C. Winans et al., appl'ts, vs. Corbet Peebles et al., resp'ts. Argued. C. H. Thompson for appl'ts; J. Herron for resp'ts.

No. 32, Jas. H. Ferris et al. ap., vs. A. Pomeroy et al., respt. Argued. Arnold for ap., G. W. Cowles for respt.

No. 62, W. S. Curtis, respt., vs. L. D. Fay, ap. Argued. J. Herron for respt., C. Bell for ap.