

OUR WATER SUPPLY.

A New Plan for a Pipe Line, Proposed by a Well Known Engineer—He Claims a Saving of One-Half the Estimated Expense and an Increased Supply—Worthy of Consideration by the Taxpayers.

The following letter from Civil Engineer Chas. H. Smith fully explains itself and should be read by all taxpayers:

As some plan is soon to be adopted whereby an increased supply of water will be secured for the city it is not only the wish of every resident, but the duty of the city authorities charged with the solution of the problem that the plan which is adopted shall be at once the best obtainable under the circumstances as well as the most economical. Acting upon the suggestion which I originally gave to certain of the authorities that the gravity method should be used in conveying the water from the Shawangunk Kill to the reservoir, we have before us the proposition to vote an expense of \$150,000 and construct a new pipe line upon a new right of way line from a point on the Shawangunk kill at the intersection of Beaver brook, to Monhagen lake; which includes (1) the paying of damages to the mills located on this stream below the intersection of Beaver brook; (2) the securing a new right of way line for a distance of about $3\frac{1}{2}$ miles; (3) the construction of a tunnel 1,600 feet in length; (4) the use of a 36-inch pipe 4 miles in length; (5) the securing of land for dam, etc. (The long viaducts referred to in a previous article headed, "Remarkable Important Discovery," etc., which were included in the plans then, have very properly dropped out of sight.)

Now what I would like to suggest for the consideration of the taxpayers of this city is as follows: There can be no doubt that Shawangunk kill is the best nearby place to secure an ample supply, and also that the gravity method is the best method of conveying it to our reservoir. After a personal examination of the area involved I believe the Board of Water Commissioners are making a grievous error in recommending the plan they have, when by the building of a dam 20 feet in height, about 150 feet above the present dam, which is $9\frac{1}{2}$ feet high, now used by Oldroyd at his boot mill, they could secure the same head as in their advertised plan, and not disturb Oldroyd's water privilege or the privilege of any of the mills farther down the stream, avoid the construction of any tunnel, avoid securing any right of way, except for a distance of 1,600 feet, where the pipe can be laid into the highway from the proposed 20 feet dam to the old pump house and here connect with the right of way line of the old wooden pipe along which they can continue, in precisely the same trench for its entire length. The only changes necessary to be made would be the lowering of the proposed new iron pipe at two points; lowering it to a depth of 20 feet below the surface for a distance of 300 feet, at one point, and 15 feet for a distance of 400 feet at another point. This plan will give an immense storage, the water being 20 feet at the dam which will back water for two miles up the stream with an average width of 300 feet. Even with this storage it certainly is not good policy to use a 36-inch pipe. When I gauged the stream, some ten days ago, it was flowing at the rate of one and one-half million gallons per twenty-four hours; how can we get 13,000,000 gallons delivered in twenty-

this storage it certainly is not good policy to use a 36-inch pipe. When I gauged the stream, some ten days ago, it was flowing at the rate of one and one-half million gallons per twenty-four hours; how can we get 13,000,000 gallons delivered in twenty-four hours as they suggest, with the small storage they contemplate if this stream falls considerably below the present flow as it admittedly does? A careful comparison of the relative cost of the plans shows that this plan, as suggested, will cost at least \$65,000 less money.

I sincerely hope that action will be deferred at the meeting next Tuesday evening, for two weeks, at least, during which time the president of the water board shall be instructed to employ an acknowledged expert hydraulic engineer of recognized standing in the profession, who shall pass upon the plans, and who shall file a written opinion with the president of the water board. It would only be necessary to get such men as Charles B. Bush, chief engineer of the Hackensack Water Company, or J. J. R. Croes, consulting engineer, both of New York, or another equally prominent. I believe in placing the responsibility of such an important matter where it very properly belongs. The mere association with engineers and engineering works does not qualify a man to design so important a work. We have committed this error before. The money spent in putting in the old pumping plant, and consequent litigation would have built two such dams as is proposed and its construction would have obviated both. Certainly no harm can come of ventilating a plan, the adoption of which, to my mind, is the most important business Middletown has in hand just at present. While this is brought forth in opposition to one already suggested, it is done with a view of getting the best possible supply under the existing circumstances, and with no other purpose. If the advocates of the first plan have the same end in view they will certainly listen to a fair, unbiased discussion, all of which is respectfully submitted by a tax payer.

CHARLES H. SMITH,
Civil Engineer.