# Report of the Committee on the Fire Department,

**In Answer to a Resolution of the City Council of the City of Columbus, passed at their Meeting of February, 1857.**

"*Resolved*, That a committee of five be appointed, one from each ward, to enquire into the expediency and expense of erecting a stationary steam power at, or near the Scioto river, for the purpose of raising water for the use of the fire department of the city of Columbus, and for the erection of buildings for the same, and for the further purpose of sinking cisterns and laying iron pipe from the river to, and along High street, commencing with said cisterns the whole of the length of said High street; all of sufficient capacity to supply said fire department; and to report to this Council the amount of such improvement as early as possible."

We, the undersigned, beg leave to report that, from the facts obtained from competent workmen in machinery, and from the city Engineer, who has been taking the grades of our streets, that it is perfectly practicable to raise water with a small stationary steam engine, through six inch iron pipes, to an elevation, on solid terra-firma, west of the Court House, in the city of Columbus, and on a lot of ground that can be procured for a reasonable price: there to supply a cistern or reservoir of 4000 barrels, at an elevation, above three-fourths of the city, of from fifteen to thirty feet, and ten feet above the level of the square at State and High streets; and by a connection of 4 inch iron pipes, with side arms and stop-cocks at each cistern, will supply the whole length of High street, North and South, and the cross streets West to the river and East to Eigth street on Broad and State streets, and we would therefore recommend the expediency of the enterprise.

This is an estimate of all extra costs:

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| Lot at Canal | $ 300 00 |
| Cistern and brick Sewer | 100 00 |
| Engine House, of brick | 800 00 |
| Engine and Double Acting Pump | 1600 00 |
| 1300 feet 6-inch pipe to summit, $1,40 pr foot | 1820 00 |
| 4000-barrel Reservoir on summit | 800 00 |
| ½ lot on High street, 2500 do | 1500 00 |
| | $6,920 00 |

The question now to answer is the expense of this improvement, and here your committee would state that the first in importance is cisterns to hold a large supply of water, and as one cistern on each square of the city will be expected, we would recommend that a part of the cisterns necessary for such a supply be first completed, so as to have a cistern at alternate squares throughout the city plat, with plans of filling up the whole amount so soon as the means can be obtained and the work performed. We would recommend that 25 cisterns, of 1600 barrels each, be first finished, which will cost, at $350 each when completed, $8,750, and will hold 40,000 barrels. For the distribution of water to these cisterns, and to supply the main reservoir cistern, it will require 11000 feet four inch pipe and 1300 six inch pipe. The eleven thousand feet of pipe can be laid four feet deep for one dollar per foot, $11,000; and the 1300 feet six inch nine at $1.40 per foot, 1,820. Then you will have a supply of water so distributed so that with the assistance of the Steam Fire Engine, we can supply water to every part of the city until the balance of the cisterns are made and other pipes laid.

To supply this amount of water, we will require a double-acting steam pump, set up complete, with steam boiler, fire-front and attachments, at a cost of $1600; a small cistern of 200 barrels, at a cost of $100; a brick house for the engine, at a cost of $800. The

would furnish 5,000 families each, with 126½ gallons of water every twenty-four hours, and if paid for at one dollar per year, by each family, would amount to $5,000—a sum much larger than would pay all expenses attending the raising of water, and interest on the money that would build the establishment, as appears from the following table:

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| 6,750 bushels of coal, at 8 cents per bushels | $700 80 |
| A hand to run the engine | 400 00 |
| Interest on $25,000 at 8 per cent | 2,000 00 |
| Wear and tear | 1,500 00 |
| Total | $4,600 00 |

After the first fifty-four hours of the working of the steam engine or pump, the cisterns are full; and this suggests the idea of offering water for sale, as the same machinery that would supply the Fire Department, will furnish an excess, in the absence of fires, of 9,900 barrels of water every twelve hours, the sale of which, as above stated, would pay all expenses, (if citizen families would not wish to use it as above suggested,) and would thus lessen, if not entirely remove the expenses of the Fire Department.

The questions may arise, why all this expense? Why the necessity of erecting these water works, and at this time? The Committee would beg leave to state, that this is the only meaus to carry out the original plan of extinguishing fires, as proposed by the Committee on the Fire Department of the City Council of 1855, when in answer to a resolution, they reported the efficiency and usefulness of the Steam Fire Engine. Early in the year 1856, the Steam Fire Engine was purchased at an expense of six thousand dollars, and as the tax for that department of the ctiy is limited to one mill on the dollar, the City Council is not able to raise money from a tax duplicate to perfect the original plan, therefore present this plan, (as water-works,) thereby enabling the city to create bonds for the amount, with a full assurance that the receipts from water sold will pay more than the interest on all the money required. And the Committee will further state, that although there was a difference of opinion as to the efficiency of the Steam Fire Engine, there never has been any difference of opinion on the subject of the necessity of water for fire purposes. The only and important question is, and has been, how shall a sufficient supply be obtained at the most reasonable rate? And as the expense was then fully set forth by the reports of the Committees on the Fire Department, we, the present Committee, recognise their plans fully, and recommend the above as the most efficient for a supply of water for the extinguishing of fires.

The Committee would here state, that many other plans have been proposed and suggested, all leading to a more thorough supply of water for families. But as the resolution has not so instructed the Committee, and as the water that is now contemplated would not likely be preferred for drinking water, your Committee have confined their report to the cheapest and most efficient plan they are presented with—and one that is within the possibility of being acceptable to the citizens of our city, as the amount thus to be raised must be submitted to them at an election, and meet their approbation.

JOHN NOBLE,
GEORGE GERE,
A. S. DECKER,
JA'S H. STAURING.

To supply this amount of water, we will require a double-acting steam pump, set up complete, with steam boiler, fire-front and attachments, at a cost of $1600; a small cistern of 200 barrels, at a cost of $100; a brick house for the engine, at a cost of $800. The power will be twenty-five horsee-power; but, with fifteen horse-power at work will, with about one bushel of coal per hour while in operation, raise 825 barrels of water per hour, to the reservoir, 85feet above the bottom of the canal, at the foot of Strawberry alley. Thus, we will have a supply of water on hand, after fifty-four hours' working of the engine, of 44000 barrels of river water, at a cost in coal fifty four bushels at 8 cents per bushel; and this supply is more than twice over the amout that has ever been used for fire purposes in the city of Columbus in any one *year*.

RECAPITULATION.

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| 1 double acting steam pump and engine | $1,600 00 |
| 1 brick house and cistern for the same | 900 00 |
| 25 1600-barrel cisterns, $350 each | 8,750 00 |
| 1 reservoir-cistern on summit | 900 00 |
| 11000 feet 4-inch iron pipe, laid four feet deep | 11,000 00 |
| 1300 feet 6-inch iron pipe, $1,40 pr ft., laid 4 ft. dp | 1,820 00 |
| | $24,870 00 |

To purchase lots to erect the steam works and build the large reservoir, would cost two thousand dollars in addition to the above, and the permanency of the above plan, the committee would recommend such purchase to be made so soon as the plan is accepted by the city of Columbus, at their election.

Therefore, your committee would recommend, that in this improvement they would so arrange these works as to furnish water to citizens for manufactories, new buildings, bath houses, hotels, clothes washing, street sprinkling, &c. to the extent of works that will cost twenty-five thousand dollars, and keep the steam pump at work all the time if necessary. The water thus furnished will pay the interest of all the cost of the works thus made; and if the State House Commissioners require water for their engines, the city works will furnish all they will require from the cistern on State street, by an attachment and pipes to their well, where they can pump it up to their highest level on the State House.

The committee would remark, that the amount of iron pipe thus laid, at a cost of one dollar per foot, will be a permanent property, and will save their cost by taking the place of hose. And if, after years, the city shall increase so as to require larger water works, these pipes will answer to be transferred to more remote points where 4-inch pipe will be large enough for all time, as distributing pipe.

These works, under the supervision of the engineer of the steam fire engine, will only cost the wages of one fireman, whose duty it will be to run the engine and pumps by direction from said engineer.

Thus, after the works are perfected on this plan, we have a supply of water from the river; and, if our calculations are correct, will furnish 19,800 barrels, or 633,600 gallons, each twenty-four hours the engine is in operation, and will be distributed throughout the city without any further expense. This quantity of water