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REPORT

OF THE

COMMITTEE

FOR THE

INTRODUCTION

OF

Wholefome Water

INTO THE

CITY OF PHILADELPHIA.

Printed by order of the Select and Common Councils.

—Philadelphia:—

PRINTED BY ZACHARIAH POULSON, JUNIOR,
No. 106, Chestnut-street.

1801.

Vertical text on the right side of the page, possibly a library or collection stamp, including the number 10.

RESOLVED, by the Select and Common Councils, That the Report of the Committee for superintending the introduction of wholesome water into the city be approved of; and that the unremitting care and attention of the Committee to the business entrusted to them, entitle them to the warmest thanks of Councils.

Resolved, That five hundred copies of the said Report be printed for the use of the Citizens.

EDWARD J. COALE,

Clerk of the Select Council.

WILLIAM MEREDITH,

Clerk of the Common Council.

October 12th. 1801.

REPORT
OF THE
COMMITTEE
FOR THE
INTRODUCTION
OF
Wholesome Water, &c.

*The Committee for superintending the introduction
of Wholesome Water into the City,*

REPORT,

THAT, from the nature of the business which they have been called on to direct, it has been impracticable, during its progressive state, to render as frequent and detailed reports to Councils as would otherwise have been agreeable. While the works were so circumstanced that every part of them was daily assuming a new aspect, the difficulty of furnishing very minute and complete statements of the expenditures and condition of each department, must, in an undertaking so extensive, interesting, and novel, appear obvious to every one.

In .

In addition to the information which has, from time to time, been laid before Councils, the committee have now the pleasure of presenting a view of the subject, which they flatter themselves will be acceptable. It contains an accurate statement of the situation of the works, on the first of October.

The **BASON** may be considered as completed, except as to the coping of the Wall. It is entirely out of danger, and conceived to be sufficiently substantial to resist the utmost force of the waters, in the most rigorous seasons. The coping may be finished before Winter, as part of it is already done and preparations made for the completion of the residue. The whole cost of this article, so far as it has gone, is twenty-two thousand one hundred and seventy-eight dollars, and thirty-three cents. The additional expence will be trifling.

The **CANAL** which leads from the Bason and connects with the lower Tunnel is completed, except as to coping the wall and sluice. Stone has been collected for that use, and may be wrought and set at any time. There has been expended in digging, walling, and materials, on this object, three thousand four hundred and thirty-eight dollars, and sixty-nine cents; besides which the

CANAL SLUICE cost two thousand two hundred and sixty-four dollars, and forty-three cents.

The **LOWER TUNNEL** wants nothing but an iron grating to render it complete. It cost six thousand nine hundred and twenty-one dollars, and ninety-three cents.

The **LOWER ENGINE HOUSE** is finished, so far as respects the purpose to which the Engine is now applied. When the extra power shall be used, for mechanical purposes, it will be necessary to complete the cellar at the north end; but this is rather a matter of concern to the contractor than to the Corporation. This building was erected on a larger scale, and at a considerable increase of expence for his accommodation, and, whenever the extra power shall come into operation, this will form a fair item of charge against the party who may use it. The house cost eleven thousand one hundred and sixty-one dollars, and sixty-four and an half cents. The stone for walling up the cellar is in readiness, and the doors and window sashes nearly prepared to be fixed in their places.

The **ENGINE WELL** in this house cost nine hundred and fifty-two dollars, and sixty-eight and an half cents. A small additional expence will be incurred in coping this well and the pump chamber adjacent to it.

The UPPER TUNNEL may require some pointing. In other respects it is finished, and cost twenty-six thousand one hundred and twenty dollars, and fifteen and an half cents.

The CENTRE-SQUARE ENGINE HOUSE has already cost forty thousand five hundred and thirty-two dollars and seventy-one cents. It is not quite completed; but nearly all the marble is set or prepared, and may, together with the masonry, be finished this fall. The Carpentry is also in a state of great forwardness, and may be accomplished in the Winter. It is probable that, in addition to the sums which have been expended on this building, the marble mason will have a demand for about eight thousand dollars, for marble prepared but not yet measured. The permanent Reservoir, ordered by the committee to be of timber, is now fitting up in this house, and included in the expence. It will be ready to receive the water in the course of two or three weeks.

In the DISTRIBUTION much difficulty has been experienced on account of the leakage of the pipes of conduit, and the devices connected with them. Most of those difficulties have been surmounted. Perseverance, and that knowledge which is only to be

be acquired by experience, will, it is hoped, finally prevail over the rest. In the opinion of some gentlemen, iron has been thought to be the best material for pipes; and, in order to procure a fair experiment, the committee have obtained a few feet, which are now at the Centre-square, and appear to be well cast. Directions have been given to place these pipes, fourteen in number, each six feet long, under the greatest pressure of the water, in order to prove a method of securing their joints, which it is supposed will be substantial, and cheaper than the common mode.

The plan of the HYDRANTS that were first used has been wholly rejected, and another, which answers better, substituted. Of the latter thirty-seven are now fixed in different parts of the city, and six more are in readiness for the same use.

The number of private houses supplied with Schuylkill water is sixty-three, of which twenty-seven belong to applicants, and thirty-six to subscribers to the loan. Four breweries and one sugar refinery also draw their supply from the same source. Nor is there a doubt but the great and increasing value of the water, for culinary and other purposes, will induce a very general demand for it, whenever the distribution shall be more widely extended, and be in a more perfect state.

Under this head of expence is included the pipes of Conduit, and all the devices attached to them, the distributing chest, and the descending main leading to it from the reservoir in the Centre-square Engine-house. The whole expence now incurred is thirty-one thousand four hundred and twenty-two dollars and twenty-two cents. There are now laid twenty-nine thousand nine hundred and sixty-three feet of pipe in different parts of the city, and it is a very desirable object to have the distribution as generally extended the ensuing season as circumstances will allow, not only as it respects the increase of the Corporate revenue, but the convenience and accommodation of the citizens. The impracticability of procuring suitable logs last Spring, prevented the committee from laying as many as they could have wished, and as would have been advisable.

The ENGINES have cost the Corporation thirty-one thousand eight hundred and eighteen dollars, and thirty-two cents, exclusive of nine hundred and forty-two dollars and eighty-one cents paid for the frames on which they are supported. Hitherto they have operated well, nor can there be a doubt of their fully answering the purposes of the city.

The committee have given directions for the immediate erection of two additional boilers, agreeably to the original design, to guard against any inconvenience which might arise from accidents to those which are in use. They are manufacturing at the expence of the Contractor for the Engines, and his account will accordingly be charged with all the monies which may be disbursed in their completion.

The Engines cannot, in their present condition, pump three millions of gallons of water in each and every twenty-four hours; but they may, by an enlargement of the working barrels of the pumps, be easily made to throw up even a larger quantity: and the Contractor is bound, whenever the Corporation shall require it, so to alter the Engines that they shall pump the quantity required by contract.

The situation of Nicholas I. Roosevelt, in relation to his engagements with the Corporation, and particularly respecting the future maintenance of the Engines, the use of the extra power of the one nearest Schuylkill, and the lease of certain contiguous lots of ground, will demand the early and deliberate attention of those who may hereafter

after compose the Councils of the city. His contract for their erection and completion has not been fully complied with, and therefore the original security taken, by the mortgage of his estate at Soho, remains in force. Until that contract shall be satisfactorily fulfilled in all its parts, and good, approved and sufficient security given for the maintenance and repair of the Engines, in conformity to the terms and conditions mutually stipulated, he cannot enter on the Lease of the lots and extra power. Since the Engines have commenced their operations the committee have furnished them with fuel and attendance. The sums which have been so expended amount to five thousand nine hundred and sixty-six dollars, and seventy-two cents, and have been charged to Mr. Roosevelt. From this sum is to be deducted the stipulated price for a supply of water, on the terms already contracted for. As this gentleman has not yet furnished the means for keeping the Engines in motion, nor consequently entered on the lease of the lots and extra power, it has become essential to the interest of the city, and the proper understanding of the parties, that an explicit and early determination be had on these several points. Frequent essays have been made by the committee to accomplish

accomplish that object, but have not been attended with the desired effect. They prepared an article of agreement, designating and establishing the principles of the lease, &c. which was submitted to Mr. Roosevelt some months past, but remains unattended to and unexecuted.

The Engineer, by special articles of agreement, was entitled to receive six thousand three hundred and fifty dollars as a full compensation for his services, on the completion of the work in all its parts. This sum he has drawn for, and it has been paid to him within about twelve dollars. It is proper in this place to observe, that he demanded one thousand nine hundred and twenty-five dollars more than his stipulated compensation, on grounds which the committee deemed inadmissible. The demand was, therefore, rejected. The salary of John Davis, who has been with the committee from the commencement of the undertaking, and whose employment as clerk of the works has been very essential and satisfactory, amounts to two thousand three hundred and thirteen dollars. And the salary of James Todd, the accomptant, an officer equally deserving and useful, has, during the same period, amounted to one thousand nine hundred dollars. And there has been paid to another person, as a salary, three hundred and seventy-two dollars, and seventy-five cents.

Notwithstanding a distinct head of the several objects of expence has been carefully preserved, yet it has happened that expences have been incurred, which, although chargeable to the whole, could not with facility and clearness be assigned in the proper proportion to the parts. Thus, there has been paid for scaffolding;—shops for the accommodation of the different workmen employed;—lime houses;—fences;—tools and utensils;—including also all the wages paid to the Carpenters, the sum of sixteen thousand three hundred and five dollars, and twenty-nine cents. To the Smiths, including expences of erecting forges, cost of coals, iron, &c. two thousand three hundred and twenty-nine dollars, and twelve cents. To men employed in sawing scantling, &c. nine hundred and thirty-seven dollars, and sixty-six cents. For glass and other materials for the buildings, six hundred and sixty-nine dollars, and seventeen cents. And for Shingles, some of which have been used in both buildings, and some remain unused, five hundred and sixty-five dollars, and forty-one cents.

The Centre-square has been partially levelled and planted with trees, with the view of affording an agreeable and useful place of recreation to the citizens. The expence attending this object amounts

amounts to one thousand one hundred and ninety-five dollars, and eighty-two cents.

To the workmen liquor has been supplied to the amount of eight hundred and ninety-eight dollars, and forty-four cents. To the marble mason there has been paid, on account of marble prepared but not measured, eight hundred and nineteen dollars, and sixty-five cents. Some materials have been sold to individuals who still stand charged, on that account, with one hundred and thirty-six dollars, and eighty-four cents.

Other expences have arisen from the purchase of stationary, advertizing, printing water loan certificates, making out water tax books, drawing mortgages, contracts, &c. These amount to one thousand seven hundred and ninety-six dollars, and seventy-six cents.

The total amount of expences incurred on account of the Water-works, is **TWO HUNDRED AND TWENTY THOUSAND, THREE HUNDRED AND TEN DOLLARS, AND FIFTY-FIVE AND AN HALF CENTS;*** but this sum comprehends

* The original estimate of the ENGINEER for the entire completion of the works, is one hundred and twenty-seven thousand dollars—including one hundred and four thousand feet of pipe, of which twenty-nine thousand nine hundred and sixty-three have been laid.

seventeen thousand three hundred and seventy-five dollars, and sixty-two cents, debts due for materials, &c. furnished for the use of the works, and charged to the several heads enumerated. The amount which it is supposed will be due to the marble mason, when his work shall be measured, is not taken into this calculation, but will be an addition to it. Besides this, there is due to the workmen for five weeks wages, one thousand one hundred and ninety-nine dollars, and thirty-eight cents. And there is also owing to sundry persons, for bills not yet produced, a sum which it is supposed will not exceed seven hundred dollars.

For a more detailed view of this subject, the committee refer to the books and papers at the Water-office, under the direction of the accountant, which will be found to contain a very accurate account of all the expenditures relative to the water works.

Councils are not unapprized of the sources from whence the committee have drawn their supplies, nevertheless it may be proper to give a concise view of them, for the information of the members.

In 1799 a loan was authorized by Ordinance. Seven hundred and forty-one shares were subscribed. Three more were taken by a person in the service of the committee on account of his compensation.

	<i>Dollars Cents.</i>
The whole sum produced by this Loan, is,	72,497 80
The Water Loan of 1801, has been but partially collected: The whole number of Shares of one hundred dollars each, subscribed, is two hundred and seventy-three, on which there has been received,	17,510 0
The Water Tax of fifty thousand dollars has yielded,	49,579 99
From the Sales of the bridge and ferry at the west end of High-street, to the President, Directors and Company for erecting a permanent bridge over the river Schuylkill, including interest on their bonds, the committee have received,	20,238 6
The dividends and interest arising from the Corporation property in the stock of the said Company, and paid to the use of the committee, is	960 0
Amount of the Bridge Tolls in 1799, is	3,589 78
Out of the twelve thousand dollars, appropriated for paying interest on the Water Loan, the committee received the unapplied balance of	10,371 82
From fines and amercements there has been received,	2,325 33
From the appropriation No. VI. of eight thousand dollars, for meeting contract engagements for supporting the Steam-engines, has been received,	8,000 0
From the surplus income of the Corporate estates, and arrearage taxes, there has been received,	17,835 19
Out of the appropriation for completing a road and planting trees in the Centre-square, the committee have drawn for	93 77

Amounting, in the whole, to *Dols.* 203,001 70