REPORT

> OF THE

# WATERING COMMITTEE 

TO THE

SELECT AND COMMON COUNCILS.

READ JANUARY 25, 1816.

PUBLISHED BY ORDER OF THE COUNCILS.

PHILADELPHIA:
printed by whllam fry, walnut, near fifth street:
1816.

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## REPORT

## WATERING COMMITTEE.

The committee appointed to superintend the Works for supplying the City with water, in compliance with a standing resolution of the Select and Common Councils, submit the following Annual Report:

During the last year most of the important parts of the New Works at Fair Mount, mentioned in the last annual report of the committee, as being in progress and unfinished, have been completed.

The Steam Engine, upon the principles of Boulton and Watt, with the boiler, pump, and ascending main, having been finished in the month of August last, the Works were put into operation on the 7th of September following, and from that time to the present, the supply of Water for the City has been derived entirely from the New Works. The experience thus far afforded by the use of the Reservoir warrants the opinion that it is in all respects perfect, no leak or defect having at any time appeared. But with respect to some other parts of the Works the Committee regret to be obliged to state, that they believe justice has not been done to the City. Both the boiler and pump appear to be leaky and defective, but whether these deficiencies are occasioned exclusively by bad or negligent workmanship, or arise in part from other causes, they are not at present able, with certainty to determine. When the second Engine shall be put into operation so as to give full opportunity for examining without interrupting the supply of water for the City, it is hoped that the defects may be ascertained and remedied.

The Steam Engine contracted for with Oliver Evans is nearly finished; the pump attached to it is in considerable forwardness, and the contractors are of opinion that the whole will be in readiness for use, some time in the month of February ensuing.

The parts of the Works remaining to be finished are the following: The small pump at the Old Works is to be removed and fixed up for supplying the cold water cistern of the Engine; the plastering, painting, and glazing, of the Engine House are to be completed; the pump channel is to be deepened, and an iron balustrade erected upon the platform, fronting the Schuylkill. The wall of the Reservoir is also to be covered with a stone coping, and further quarrying will be needful to enlarge the wood yard, which is by much too confined.

In order to conduct the water to the City, it was originally intended, to lay down five ranges of six inch pipes, from the Reservoir to the Centre Square, but the impossibility of obtaining a sufficient quantity of suitable timber, induced the Committee, as appears by a former report to lay but four ranges of that size, and one of four inches and a half. One of
the six inch ranges has been continued down Vine Street, and united with the pipes in the upper parts of the city, and the whole have been carried to, and connected with the distributing chest at the Centre Square.
The quantity of water flowing to the city in a given time, in consequence of the alteration above stated, as well as of the friction of the pipes, and the resistance of the frequent elbows is considerably less than the quantity originally intended, and there is reason to apprehend that even more than one additional six inch pipe will be required, to give a supply equal to the consumption of the city, during the summer months. The Committee have contracted for timber, and propose to add another six inch pipe during the ensuing season. Notwithstanding the defects above mentioned it is satisfactory to observe that the populous parts of the city are much more generally and regularly supplied with water than at any-former period, and the Committee do not entertain the least doubt, that the works will eventually answer every purpose expected from them.

From actual measurement the Reservoir at Fair Mount, is found to contain 3,264,126 gallons, beer measure, and from the observation of the superintendent it appears that the consumption of water in the city during the twenty-four hours, on the 6th of December last, was about 840,000 gallons, of which quantity. 330,000 gallons were used during the night.
The Engine usually works about twelve hours at a time, and is found to consume five cords of oak wood, or about one hundred and six bushels of Virginia coal in thirteen hours. The stroke of the Engine is six feet, and its capacity may be estimated as sufficient to raise into the Reservoir about $2,100,000$ gallons of water in twenty-four hours, though from the deficiencies before mentioned, it does not now usually perform at that rate.
The works at the Centre Square being now disused, the reason for placing the smith's shop there, has ceased, and the Committee are of opinion, that, for the purpose of distribution and repairs, for which it will be used exclusively in future, it would be convenient to have a situation nearer to the cente of the built parts of the City, with sufficient space for a shop and stable, and a yard for the deposit of tools and materials. They respectfully suggest that some of the exhausted gravel lots on High Street and Third Street from Schuylkill, might be sold and the proceeds applied to this object.

The amount actually disbursed and chargeable to the works at Fair Mount up to December 31, 1815, exclusive of the interest on the purchase of the ground, appears by the annexed list of certificates and statement marked, No. 1, to be, $\$ 183,289 \quad 62$
From which deduct the cost of 1,205 cords of wood, (considerable part of which is yet on hand), 592 bushels of coal, hauling \&c. sundry materials for the Engine and pump, and the wages of workmen, being the general expense of carrying on the works from September 7th, to the end of the year, amounting to,

## leaves the actual cost of the works at Fair Mount,

\$ 173,760 34
Of this sum one hundred and seventy one thousand dollars have been raised on loan at different times, during the progress of the works under the several ordinances passed for that purpose, and the residue, being two thousand seven hundred and sixty dollars and thirty-four cents, has been disbursed from the appropriation made under the ordinance passed on the 26th of October last.

The proceeds of articles sold from the Fair Mount works appear by the same statement to be, $\$ 1,69758$

The estimates for completing the works at Fair Mount, including the balance upon the contract with Oliver Evans for his Engine and pump, and an additional six inch pipe of conduit from the Reservoir to the city, are contained in the annexed statement marked No. 2, and amount to $\$ 28,85500$; to meet which it will be necessary to raise money by loan, when the several sums may be wanted. The said statement No. 2, also contains the estimates for the support of the works, for the year 1816, amounting to, $\$ 38,97500$
The annexed statement marked No. 3, contains the account of disbursements made during the last year for the purposes of the old works amounting to $\$ 17,39029$, together with the timber used during the same period, and the quantity yet on hand. It also contains a statement of the monies paid into the treasury by the superintendent, for old materials and other articles sold from the old works, amounting to $\$ 1,68372$

The statement marked No. 4, contains the product of the duplicates of the water rents issued to the collectors for the eighteen months, ending on the 31 st of December last. From which it appears that the actual proceeds of those rents after deducting commissions and allowances, amount to $\$ 23,89147$, being $\$ 96937$, more than the sum of $\$ 22,92210$ heretofore appropriated to carry on the works for the year 1815, and leaving that surplus unappropriated. From the same statement it appears that $\$ 65437$, have been paid into the Treasury during the year 1815 , in advance upon permits -issued, and $\$ 169$, for repairing over water pipes.
From the statement No. 5, annexed, it appears that on the 31st of December 1815, 2983 dwellings, 228 private baths, and 194 stalls for horses were supplied with the Schuylkill water, the rents of which amount to $\$ 18,49950$, per annum.

The estimates for the support of the works during the year 1816, as per statement, No. 2, before mentioned amount to,
$\$ 38,97500$
Towards which the following sums may be applied:
The unexpended balance of the appropriations of last year, transferred under the ordinance of October 26, 1815 \$ 7,454 87
Proceeds of sales of building stone, old materials, \&c. as per statement No. 3, viz.

| New Works, | $\$ 1,697$ | 58 |  |
| :--- | ---: | :--- | :--- |
| Old Works, | 1,683 | 72 |  |

Amount of duplicates of water rents for 1816, as per statement No. 4, $\$ 18,49950$
Deduct ten per cent. for collection and losses, 1,849 95 16,649 55
Surplus of water rents to Dec. 31, 1815, as per ditto, 96937
Rents in advance upon permits issued in 1815, as per ditto, $\quad 65437$
29,109 46
Leaves to be appropriated,
$\$ \quad 9865 \quad 54$
By order of the Watering Committee,
GEO: VAUX, Chairman,
January $22,1816$.

## No. 1.

## LIST OF CERTIFICATES FOR MONIES,

## DRAWN BY THE

WATERING COMMITTEE

FOR
FAIR MOUNT WORKS.
From Aug. 28, 1812, to Dec. 30, 1815.




# ABSTRACT OF PAYMENTS, 

Made under the foregoing Certificates.

## Engine and Pump.

















## ABSTRACT OF PAYMENTS

MADE BY

## THE WATERING COMMITTEE

From August 28th, 1812, to December 30th, 1815.


Paid into the Treasury by the Superintendent for articles sold from Jan. 1, 1814, to Dec. 30, 1815, from Fair Mount Works:


FREDERICK GRAFF,
Superintendent of the Water Works.

## No. \%.

Estimate of Cost for the Completion of Fair Mount Works.
For the Buildings,
the Reservoir,
the Engine and Pump,
the Leading Main,
the balance due Oliver Evans for Steam Engine,
contingencies, including the main pump attached to Oliver Evans'
Engine.

Estimate for the Support of Fair Mount Works during the year 1816.
For 100 cords of Wood due by John Tuft as per contract, including cordage and hauling at \$6 81,
working the Engine and for materials,
2200 cords of Wood, cordage and hauling, at \$ 731 , rent of wood wharf on Callowhill Street,

## For the Leading Main and Distribution.

For 20,000 feet of pipe timber, boring and laying at 90 cts ., laying 3304 feet of pipes now in the pond at 35 cts., castings, of cylinders, cocks, fire plugs, \&c., 40 tubs for hydrant pumps and fixtures, repairs of Leading Mains, pipes in the streets and for pumps, fire plugs \&c.,

From which deduct the New Main included in the estimate for the completion of the Works,

For enlarging the wood yard, quarrying, \&c., salaries of the superintendent and messenger, incidentals, for advertising, stationary, \&c.,


FREDERICK GRAFF, Superintendent of the Water Works.

## No. 3.

## ACCOUNT

OF THE

## OLD WATERWORKS

From February 1st, 1815, to October 2d, 1815.

## LIST OF CERTIFICATES OR ORDERS FOR MONIES

DRAWN BY<br>THE WATERING COMMITTEE<br>FOR<br>THE OLD WATER WORKS,

From Feb. 1, 1815, to Oct. 2, 1815.


# ABSTRACT OF PAYMENTS 

From the foregoing Orders.

## DISTRIBUTION.





## ABSTRACT OF PAYMENTS

## made by

## THE WATERING COMMITTEE

From February 1st, 1815, to October 2d, 1815.

Distribution, wages to workmen, laying pipes, digging pipe trenches, repairs to pumps, fire plugs, setting new ones, with materials, Centre Engine, working engines, wages, fuel, \&cc.,
Lower Engine, ditto, ditto,
Salaries of superintendent and messenger,
Incidental expenses, advertising \&c.,

## STATEMENT OF PIPE

Used in the Distribution from Feb. 1, 1815, to Oct. 2, 1815.


Paid into the Treasury by the Superintendent for articles sold from Feb. 1, 1815, to Oct. 2, 1815, for the Old Water Works.


## No. 4.



Philadelphia, January 20, 1816.

## No. 5.

List of Dwellings, Manufactories and Institutions supplied with the Schuylkill Water, as per Register to 31st Dec. 1815.


Philadelphia, January 1, 1816.
JOSHUA ALLEN, City Clerk.

