

REPORT OF SUPERINTENDENT AND ENGINEER AT THE WATER  
WORKS.

REPORT

OF THE

WATER COMMITTEE,

FOR 1869.

To the Select and Common Councils of the City of Pittsburgh.

GENTLEMEN:—The Water Committee Report that the revenues from the water works for the year 1869, amounts to the sum of one hundred and forty-six thousand fifty-eight dollars and thirty-three cents (\$146,058.33), and the expenditures for the same period amounts to the sum of one hundred and eighty-four thousand one hundred and three dollars and fifty-five cents (\$184,103.55), which will more fully appear in the Reports of the Superintendent of the Water Works and Assessor of Water Rents herewith submitted, to which your attention is invited.

HENRY LLOYD,  
JOHN DAUM,  
WM. J. FRIDAY,  
HENRY MOSELEY,  
JAMES VERNER,  
J. J. ALBIETZ,  
THOMAS A. PENDER,  
R. G. HERRON,

CHAS. W. BATCHELOR,  
G. W. COFFIN,  
R. M. SNODGASS,  
GEO. B. CHALMERS,  
JOHN SHIPTON,  
J. D. SCULLY,  
HENRY MEYER,  
CHARLES A. KEHEW,  
D. W. C. CARROLL.

February 28, 1870.

*Running time at the Lower Works.*—The Hercules engine ran 20½ hours per day, and the Sampson engine 14 hours per day; average consumption of coal, 860 bushels per day; average daily supply of water, 1,165,021 cubic feet. These calculations are made for 365 running days, or in other words it has become necessary to keep up steam nearly night and day.

*Running time at the Upper Works*—22 1-7 hours per day; coal consumed, 253½ bushels per day; average daily supply of water, 278,140 cubic feet. Total running time nearly 313 days.

The following extensions were made in 1869.

	Feet.
Three inch pipe on Reed street.....	312
“ “ “ Trumbull.....	180
Four inch pipe on Second Avenue.....	1,625
“ “ “ Diamond Street.....	84
“ “ “ Chislett “.....	366
“ “ “ Washington “.....	463
“ “ “ Cross “.....	53
“ “ “ Baxter alley.....	168
“ “ “ Mulberry “.....	227
“ “ “ Whitesides “.....	292
“ “ “ Keatings “.....	700
“ “ “ Craft Avenue.....	615
“ “ “ Niagara Street.....	621
“ “ “ Enoch “.....	550
“ “ “ Pasture “.....	517
“ “ “ Vine “.....	294
“ “ “ Vickroy “.....	496
“ “ “ Mercer “.....	206
“ “ “ Townsend “.....	324
“ “ “ Roberts “.....	360
“ “ “ Wylie “.....	410
“ “ “ Washington “.....	170
“ “ “ Eighth “.....	30
“ “ “ Forty-first “.....	305
“ “ “ Forty-ninth “.....	25
“ “ “ Charlotte “.....	46
“ “ “ Craig “.....	28
“ “ “ Dithridge “.....	56
“ “ “ Fifth Avenue.....	41
“ “ “ Smallman Street.....	100
“ “ “ Forty-third “.....	75
Four inch pipe on Twenty-eighth street.....	89
Six inch pipe on Craig Street.....	659
“ “ “ Dithridge Street.....	1,016
“ “ “ Duquesne Way.....	150

Six inch pipe on Butler Street,.....	30
" " " North ".....	75
" " " Willow ".....	424
" " " Smallman ".....	650
" " " Diamond Alley,.....	516
" " " Lafayette ".....	561
" " " Twenty-sixth Street,.....	186
" " " Twenty-ninth ".....	108
" " " Thirtieth ".....	180
" " " Forty-third ".....	1,823
" " " Forty-fourth ".....	2,053
Eight inch pipe on Charlotte Street,.....	1,866
" " " Duquesne Way,.....	428
" " " Roberts Street,.....	172
" " " Webster Avenue,.....	750
" " " Thirty-first Street,.....	271
" " " Thirty-second ".....	225
" " " Thirty-ninth ".....	1,056
" " " Forty-fifth ".....	1,729
Twelve inch pipe on Liberty Street,.....	1,438
Fifteen inch pipe on Fifth Avenue,.....	8,342
Twenty inch pipe on Butler Street,.....	290
Amount laid in, 1869,.....	36,534
Add former amount less 516 feet renewed,.....	226,557
Total amount over 49 8-10 miles, or feet,.....	263,091
Four inch pipe removed on Diamond Alley,.....	516
" " " Lowered Roberts Street,.....	144
" " " Wylie ".....	950
" " " Miller ".....	367
Eight " " Erin ".....	140
Total amount lowered,.....	1,601
Number of fire plugs made and put in,.....	45
" " repaired and re-set,.....	40
Fire plug boxes put in,.....	18
Fire plug boxes renewed,.....	10
Number of flood gates made and put in,.....	53
" " repaired,.....	13
Number of flood gate boxes put in,.....	53
" " renewed,.....	35
Whole number of flood gates in the City,.....	643
Number of leaks in mains repaired,.....	83
Whole number of fire plugs in the City,.....	413
Number of ferrules inserted 1/2 inch,.....	5
" " " ".....	15
" " " ".....	194
" " " ".....	216
" " " ".....	76
" " " ".....	1
Extra drilling,.....	37-543 @ \$2 each \$1,086 00
	28 00
Amount received and paid to City Treasurer,.....	\$1,114 00
	1,080 00
	34 00

JOSEPH FRENCH, *Sup't.*

The Superintendent paid to the City Treasurer, February 28th, 1870, \$45,445, which will appear in the Receipts for that year.

REPORT OF THE ASSESSOR OF WATER RENTS FOR 1869.

To the Water Committee.

GENTLEMEN:—The undersigned respectfully Reports, that the Cash items paid to the City Treasurer, during the year 1869, amounted to the sum of eight hundred and sixty-seven dollars and eighty-five cents, as follows, viz:

Water Rents for building purposes,.....	\$599 14
Water Rents for sprinkling streets,.....	98 00
House and Ground Rent at Basin.....	170 71
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	\$867 85

The water rents assessed on the various establishments in the City, using the hydrant water, for the year ending on the 31st day March, 1870, amounts to the sum of one hundred and forty-one thousand five hundred and thirty-five dollars and ninety cents. Add five per cent. on arrears remaining unpaid on the first day of October, 1869, (\$2,283.58); water rents for building purposes, (\$599.14); water rents for sprinkling streets, (\$98.00); house and ground rent, at basin lot, (\$170.71); ferrules and drilling, (\$1,114.00); old material, (\$257.00); making a total revenue of (\$146,058.33); as set forth in the following schedule.

1 Court House and Jail,.....	\$ 1,000 00
1 Gas Works,.....	950 00
2 Flour Mills,.....	185 56
1 Custom House and Post Office,.....	200 00
1 Steam Laundry,.....	80 00
3 Chandleries,.....	167 50
6 Cabinet and Chair Factories,.....	198 00
4 Hospitals,.....	240 00
4 Public Bathing Establishments,.....	254 00
6 Oil Refineries,.....	1,317 00
4 Steel, Spring, and Shovel Factories,.....	783 00
10 Glass Works,.....	587 50
2 Coke Works,.....	190 00
16 Planing and Saw Mills,.....	964 21
56 Confectionary and Bake Houses,.....	489 10
14 Brick Yards,.....	483 21
42 Printing Offices and Binderies,.....	842 25
58 Churches,.....	434 25
31 Schools and Colleges,.....	720 00
18 Theatres and Lecture Halls,.....	345 00

2 Distilleries, .....	128 50
12 Rectifying Distilleries, .....	390 00
345 Livery and other Stables, .....	2,150 40
14 Rolling Mills, Forges, and Steel Works, .....	5,312 75
73 Engine Shops, Foundries, and Boiler Yards, .....	4,160 00
12 Breweries and Malt Houses, .....	2,675 95
14 Railroad and Railway Depots, .....	13,416 21
60 Miscellaneous Manufactories, .....	2,343 00
932 Hotels and Boarding Houses, .....	12,892 50
1,760 Warehouses, Stores, Offices, and Work-shops, .....	12,320 25
862 Stores with Dwellings attached, .....	7,915 50
10,950 Dwellings, .....	67,399 76

15,316 Assessments, .....

\$141,535 90
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Amount assessed, .....	141,535 90
Add five per cent. on arrears, October 1st, 1869, .....	2,283 58
Add Water Rents for building purposes, .....	599 14
Add Water Rents for sprinkling streets, .....	98 00
Add House and Ground Rents at Basin lot, .....	170 71
Add Ferrules and Drilling, .....	1,114 00
Add Old Material, .....	257 00

Total Revenue, .....

\$146,058 33
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#### CURRENT EXPENSE.

Salary of Superintendent and Assessor, .....	\$ 3,208 26
Expenditures for Lower Works, .....	36,937 15
Expenditures for Upper Works, .....	13,625 45
Expenditures in the Streets, .....	9,337 45-63,108 31

Balance Revenue over Current Expense, .....

\$82,950 02
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#### EXPENDITURES FOR LOWER WORKS.

Labor, Engineer and Fireman, .....	\$ 7,837 62
Tin and Copper Work, .....	16 57
White Lead, .....	36 61
Packing, .....	417 39
Soap and Candles, .....	44 22
Brooms and Buckets, .....	14 10
Coal, .....	23,109 18
Hauling, .....	177 00
Stove, .....	15 50
Hose, .....	98 65
Refreshments, .....	4 00
Plumber Work, .....	14 33
Smith Work, .....	1,303 71
Tow, .....	35 20
Oil, .....	577 65
Carpenter Work, .....	249 87
Hardware, .....	35 88
Flour, .....	1 25
Shovels, .....	30 50
Nails, .....	10 00

Brass Work, .....	421 68
Repairing Roof, .....	84 70
Lumber, .....	252 25
Blocks, .....	22 50
Repairing Boilers, .....	400 44
Brick Work, .....	162 05
Table in Office, .....	13 00
Sheet Lead, .....	2 10
Grate-Bars, .....	377 34
Cleaning Boilers and Vaults, .....	836 00
Cleaning Lower Basin, .....	246 96

Total, .....

\$36,937 15
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#### EXPENDITURES FOR UPPER WORKS.

Labor, Engineers and Firemen, .....	\$ 3,396 88
Tin and Copper Work, .....	4 27
Clock, .....	5 50
Packing, .....	75 75
Coal, .....	8,006 35
Hauling, .....	21 50
Hose, .....	85 00
Plumber Work, .....	21 60
Smith Work, .....	276 21
Oil, .....	487 44
Hardware, .....	2 00
Ladder, .....	9 00
Brooms, Buckets, and Soap, .....	4 81
Shovels, .....	13 50
Brass Work, .....	51 99
Repairing Boilers, .....	641 46
Glazing, .....	8 35
Brick Work, .....	271 60
Beeswax, .....	1 05
Cleaning Boilers and Paving, .....	128 00
Cleaning Upper Basin, .....	114 74

Total, .....

\$13,625 45
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#### EXPENDITURES IN STREETS.

Labor on Plugs and Hydrants, .....	3,008 97
Tools, .....	217 20
Hauling, .....	225 55
Tow, .....	21 00
Smith Work, .....	701 81
Hardware, .....	7 05
Shovels, .....	44 00
Blasting Powder, .....	7 25
Judgment and Cost, .....	758 16
Mason Work, .....	11 00
Packing, .....	15 00
Hydrants, Stop Cocks, .....	3 67
Labor on Pipes and Plugs, .....	4,316 79

Total, .....

\$9,337 45
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## EXPENDITURES FOR PERMANENT EXTENSIONS.

Labor, Street Hands,.....	4,096 37
Fire Brick,.....	243 66
Hauling,.....	503 89
Brass and Copper Works,.....	488 41
Painting,.....	182 28
Repairing Survey Instruments,.....	10 75
Stationery,.....	5 99
Brick Work,.....	15 47
Plugs and Gates,.....	4,446 03
Stone Work,.....	30 00
Castings,.....	73,249 15
Laying Pipe,.....	8,829 96
Survey,.....	358 33
Smith Work,.....	97 14
New Boilers,.....	5,210 38
New Pump,.....	5,673 00
Hardware,.....	3 25
Laying Railway Track,.....	70 67
Ferrules,.....	250 13
Paving,.....	5,062 05
Lead,.....	6,925 90
Lumber,.....	532 24
Freight,.....	147 68
Nails,.....	36 50
Tow,.....	152 80
Blasting Powder,.....	22 25
Brick,.....	385 15
Coal Scales,.....	180 00
Expense of Water Extension Bonds,.....	165 25
Tools,.....	49 95
Lithographing Water Extension Bonds,.....	120 25
Analyzing Water,.....	81 75
Patent Grate Bars,.....	109 83
Patent Tapping Drill,.....	1,675 00
Sheet Iron, Copper, and Tin Work,.....	682 83
<b>Total,.....</b>	<b>\$120,995 24</b>
Expenditures for Current Expense of Lower Works,.....	36,937 15
Expenditures for Current Expense of Upper Works,.....	13,625 45
Expenditures for Current Expense of Streets,.....	9,337 45
Salary of Superintendent and Assessor,.....	3,208 26
<b>Total Expenditures,.....</b>	<b>\$184,103 55</b>

## WATER WORKS' ACCOUNT.

1869—January 29th, to Appropriation No. 6,.....	\$ 45,000 00
February 1st, to balance Water Extension Loan, No. 24,.....	29,862 42
June 15th, to Water Extension Loan, No. 24,.....	250,000 00
November 15th, to transfer from No. 2,.....	4,280 09
“ 15th, “ “ 18,.....	1,798 69
“ 29th, “ “ 18,.....	5,000 00
December 31st, “ “ 3,.....	526 80
“ 31st, “ “ 9,.....	369 66
“ 31st, “ “ 10,.....	650 47
“ 31st, “ “ 16,.....	267 03

1870—January 11th,.....	4.....	567 29
“ “ “ “ “ “ 5.....	.....	554 25
“ “ “ “ “ “ 13.....	.....	267 87
February 1st,.....	6.....	3,980 16
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		\$314,070 73
1869—December 31st, by Sundry Warrants, Current		
Expense, Lower Works,.....	\$36,937 15	
December 31st, by Sundry Warrants, Current		
Expense, Upper Works,.....	13,625 45	
December 31st, by Sundry Warrants, Current		
Expense in Streets,.....	9,337 45	
December 31st, by Sundry Warrants, Permanent		
Extensions,.....	20,995 24	
December 31st, by Salary Superintendent and		
Assessor,.....	3,208 26	\$184,103 55
Balance Water Extension Loan,.....		\$158,867 18

The increase in the assessments for the year 1869, one thousand seven hundred and sixty-one dollars and forty-two cents over the previous year, is not in proportion to the extensions made, for the reason that a number of large consumers felt aggrieved by the assessments, and made arrangements to procure a supply from wells and pumping from the river, and a portion of the pipes laid will not produce a revenue in proportion to the outlay until the pumping facilities are increased.

The cost of the Water Works for permanent extensions from the 16th day of February, 1824, the time the first ordinance was passed providing for the raising of a sum of money, on loan, for supplying the City of Pittsburgh with water, till the 1st day of February, 1870, amounts to the sum of one million one hundred and twelve thousand nine hundred and fifty-seven dollars and ninety-four cents.

Respectfully submitted,

ROBERT KING,

Assessor of Water Rents.

FEBRUARY 28, 1870.