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FOURTH ANNUAL MESSAGE

OF

ALEXANDER HENRY,

MAYOR OF THE CITY OF PHILADELPHIA,

WITH THE

ACCOMPANYING DOCUMENTS.

January 30, 1862.

DEPARTMENT OF SURVEYS.

DEPARTMENT OF SURVEYS, }
Philadelphia, January 8th, 1862. }

To the HON. ALEXANDER HENRY,

Mayor of Philadelphia:

SIR:—As desired in your circular, I now lay before you a statement of the condition of this Department, with the expenditures for the past year, and other matters that may be considered necessary for the action of Councils.

Appropriation for the year 1861, . . . \$21,650 00

Which has been disbursed as follows:

Salaries General Office, . . .	\$5,800 00	
“ District Surveyors, . . .	6,000 00	
Expenses General Office, . . .	946 27	
For New Sectional Plans, . . .	4,584 00	
“ Revision of old Plans, . . .	539 00	
“ Work ordered by Councils during 1861, . . .	175 88	
“ Landmarks, (corner stones) . . .	200 00	
“ Examination of Culverts for Office Records, . . .	101 50	
“ Repairs to Wire Bridge, . . .	1,590 41	
Balance to merge, . . .	1,712 94	
		\$21,650 00

The Surveys for the regulation of the outer districts are all now drawing to a close, and if sufficient appropriation was furnished, all that are immediately necessary could be finished during the ensuing year, but as such cannot be expected, we can only proceed with the work to the extent of the amount of appropriation furnished.

During the past year there have been filed in this Office, as completed by the District Surveys, the following plans:

No. 72, Extension of Wood street, 21st Ward, approved by Board and confirmed by Court.

No. 182, Hermits' Lane, 21st Ward, approved by Board and confirmed by Court.

No. 166, Greenway avenue, 24th Ward, approved by Board and confirmed by Court.

No. 44, Revision of Grades at Thirty-sixth and Filbert streets, 24th Ward, approved by Board.

No. 99½, Revision of Grades at Washington avenue and Swanson street, 2d Ward, approved by Board.

No. 17, 6th Section, late Borough of Germantown, approved by Board.

No. 176, 5th Section, late Borough of Germantown, approved by Board.

No. 177, 8th Section, late Borough of Germantown, approved by Board.

No. 178, 3d Section, late Borough of Germantown, approved by Board.

No. 180, part of Holmesburg and adjoining, 23d Ward, approved by Board.

The Surveys that have been progressing under Commissioners appointed by Act of Assembly, or under contracts made by such Commissioners, have ceased. The first by an Act of Assembly of date May 1st, 1861, repealing the Act constituting the Commissioners for the Survey of Passyunk, yet no maps or memoranda have been filed as the result of their labors, although over eight thousand dollars have been paid them by the city. The Law Department of the city is about commencing such action at law as it is hoped

will place in charge of the city an equivalent for money expended.

The last contract existing, made under commissions, and covering a portion of the 24th Ward, has just been completed, and the plans on file.

Those surveys progressing under Ordinances of Councils, and in charge of the District Surveyors, are in a forward state, and are carefully examined upon the ground by the Board of Surveyors as presented.

SEWERS.

It is a matter of regret that the extension of our sewers has not been carried on as in the previous year. The Act of Consolidation, of date April 21, 1855, authorized the city to assess upon property lying upon the line of sewers, an amount not exceeding 75 cents per linear foot of front, which assessment was, by Ordinance, approved Nov. 11th, 1858, directed to be given the contractors building the sewers, in the form of certified bills, as so much cash paid for the construction thereof; and in the payment of all current estimates, these bills of assessment were received and collected at the expense of the contractor. This system worked well, and many branch sewers were constructed during the years 1859-60, in the aggregate amounting to 6.3 miles, but by an Act of Assembly, approved May 1, 1861, this authority for culvert assessment was repealed, and the construction of sewers was directed to be paid by general taxation. The result has been, that but 6,548 feet of branch sewers have been constructed during 1861, 1,355 feet of which have been at private expense. That some method should be adopted for the further extension of our sewers, is most desirable, and perhaps the best that can be arranged, as bearing most equally upon all, is to levy a sewer tax upon the entire water shed belonging to any sewer to be constructed. A plan for payment might be devised by creating a permanent loan, entitled the Sewer Fund. A sewer authorized by Councils could be paid for out of this fund, and the Board of Surveyors report

the exact limits of area that would drain into it. A sewer tax could then be laid upon the entire property embraced within this area, of such amount as would be necessary to cover all expenses of construction and collection. This, placed upon the ordinary tax bills, could be collected with the other assessments, and placed to the credit of the Sewer Fund, to be again used for other constructions. By this arrangement, the city would be but loaning the money to individuals most interested in having the sewer constructed. During 1861 we have disbursed the balance of the Culvert Loan, created to build the four great arterial sewers—Cohocksink, Twenty-fourth street, Vine street and Moore street. These, with several others, were completed during 1860, leaving an unexpended balance of the loan on January 1, 1861, amounting to \$11,354 89 with which, during 1861, we have completed the

Montgomery and Ninth streets,		
at a cost of	\$9,758	44
Changes at Fifth and Parrish sts.,	1,596	45
	—————	\$11,354 89

This latter was a portion of the proposed change intended to correct the overflows at that point, and which it was thought proper to test before subjecting the city to the expense necessary for carrying out the full plan, as, from the best authorities in our possession, we were led to a hope that the entire plan would be unnecessary. In this we were disappointed, and have now in progress an auxiliary sewer, tapping the Parrish street line at Franklin street, and passing by Franklin and Coates street to a connection with the old sewer at Fifth street. This will not affect the floodings at Tenth and Parrish streets, until a branch from it shall be carried up Brown street to cut off a portion of the excess now draining to Tenth and Parrish streets. Another important sewer is about completed in the late Borough of Manayunk, which it is hoped will prevent a recurrence of the damage occasioned by the storm of August, 1859, but cannot be fully efficient

until Levering street is placed in better condition for travel, and permits a division of the storm-water which now concentrates upon one side of the street.

Again must I call attention to the importance of having the private sewer connections made the subject of an Ordinance, so that they may be granted, in the first place, only when approved by the proper officers of the city, and then under proper restrictions as to traps, &c.; next, that their construction, as regards connection with the sewer, should be under the immediate supervision of a city officer, in fact, should be built by the city and charged to the owners. This would render the work secure and not injurious to the working of the sewer. They should all be recorded and noted in detail upon the plans of this Department for proper reference, and the rentals so arranged that the city may have the full revenue. It is believed that now the positions of a large number are not known. It would also be greatly to the advantage of the city, if an Ordinance be passed, directing that all buildings within a reasonable distance of a sewer, should make a connection therewith on plan approved by the Board of Surveyors, for water-closet purposes, and that no cess-pools be hereafter permitted, unless the sewer be out of reach.

BRIDGES.

The Bridges in charge of the city require greater attention than has been given them, and if the watchmen in charge were required to have accumulations of dust and dirt removed, which now retain moisture and generate decay, a greater durability of the wood-work would be the result.

The Girard Avenue Bridge again requires a comparatively small expenditure to prevent a greater at no distant day.

The Suspension Bridge has had an entire new roadway within the last few months, at a cost of \$3,090 41, which, if some attention is given to its cleanliness, will be very durable, as all points of con-

tact of the floor beams and floor plank were, at the time of laying, covered with a hot mixture, making, in cooling, all the joints impervious to water. For want of appropriation, this repair is yet incomplete. The side railing, which is a "Howe Truss," adopted to reduce undulation in the floor, is now so much decayed as to render it useless for the purpose intended, and although it is not essential to the safety of the structure, yet the condition of the lower chord is such as to affect injuriously the new timber lately placed there. This should be renewed at the earliest day, at which time the cables and suspenders should be repainted. The cost would be about \$2,000. The condition of the western approach to this bridge should be a matter for the immediate consideration of Councils. By the elevation of Bridge street to the established grade rendered necessary for the construction of the Hestonville Passenger Railway, and the improvement of the street at and west of the Pennsylvania Railroad crossing, the communication by vehicles with Bridgewater street, may be said to be cut off, unless the ascent from one to the other be made at imminent risk, while Bridge street, at the line of Bridgewater, is an unprotected embankment some fourteen feet high, offering a point perilous to all persons, whether on foot or in carriage. An accident there might cost the city a sum equal to that required to place it in safe condition, which would be from \$10,000 to \$12,000.

In my previous reports I have stated the necessity of protecting the Market Street Bridge from decay, by weatherboarding; but as yet it has not been done, and the result is, that a late examination of this structure found it in such condition as to be actually insecure; and had not the sustaining arches been perfect, it would have been a matter of no surprise if the truss had yielded to the large amount of heavy traffic continually passing over it. We are now repairing the north truss, and splicing the braces, the footing of many of which were so decayed, that a few months more would have rendered them entirely useless, and

the structure, if it had remained in position, would have been sustained entirely by the suspension rods bearing upon the arches. We are now introducing metal between the timbers at the joints, in such manner as to protect them from moisture, and make them more durable than heretofore; yet I must again ask that authority be given to cover in the trusses with weatherboarding. The south track floor will also require renewing during the present year, which should be done in the same manner as that adopted at the Wire Bridge. I would also recommend that a greater width be given to the south footway, as upon that side the entire travel of foot passengers is thrown, the north side being cut off by the necessity of crossing at each end the railroad tracks to reach it. The same remark relative to keeping the bridge clean, previously made with reference to the Suspension Bridge, is applicable here.

As regards the new bridge authorized to be constructed on the line of Chestnut street, after great delays we have succeeded in placing it under contract, and have commenced the masonry, but have been prevented carrying on the work with the energy we had hoped, by suits at law, which have been commenced against the project in the Supreme Court of the State.

In preparing the design of the bridge, as approved by Councils, there were several points which were considered as essential. First. That it should be an arched bridge, as having greater stability than any other plan and better adapted for such a highway. Second. The opinions of hydraulic engineers as to the necessity of placing as little obstruction to the flow of the current as possible, fearful of the effect upon Fairmount Water Works, caused the adoption of a single pier, notwithstanding it was an infringement upon all laws of architecture, and particularly as the point of location for the pier would be most favorable for secure foundation, and being assured by those navigating the river that their business would not be affected by such location. Yet objections and delays

have come from an unexpected quarter, and we are now working only to secure our coffer-dam, which might otherwise be destroyed, to great loss. The result of these suits, if adverse to the design adopted and approved by Councils, may require their further legislation. The stone accepted for the work, I am gratified to report, after an examination of a number of the most extensive quarries of our county, is obtained from the neighboring county, near Leiperville, where a strata of very beautiful fine-grained gneiss rock has been found, which, for strength and beauty, is not surpassed by any quarries at a greater distance, thus bringing the entire expenditure within our own limits, as the supplies from Lieperville are all obtained from our city. This was a point it was desirable to reach, and we happily have succeeded. The immediate charge of the work in progress has been given to Mr. James R. McClure, a civil engineer of large experience, whose scrupulous discharge of duty must commend him to all.

STREETS.

In the opening and improvement of streets this Department has had but the supervision of Market street, as being remodeled for a railroad street, and Delaware avenue in its widening under the Will of Stephen Girard.

In Market street the work is being done by the Pennsylvania Railroad Company, the cost thereof to be reimbursed to them by tolls; and, as proposed in my last report, the old track has been taken up entire, the Company crediting the city with the value of the material, and an entire new road superstructure laid with a wrought rail, in pattern similar to that used previously in cast iron, and which, from bad material, was found to be very objectionable, though several blocks laid in the same manner, with castings of different quality, are yet in use. Between the rails, as well as between tracks, and for eighteen inches outside, the cobble-stone pavement has been replaced by granite blocks, which pavement is found to be well adapted

for a horse path, and will make a durable surface. The blocks in width do not exceed four inches, and vary in length from five to eight inches. This pavement, we think, will be found to be particularly well fitted for our streets generally, as having the same durability without the objectionable features of the cubical block.

Upon the Delaware front one of the greatest improvements of the year has been in progress. From a carriage-way of twenty-one feet in width, and a foot-way of four feet, which were constantly crowded and jammed with the press of business, it has been altered to a fifty feet avenue, with a nine feet foot-way, and forty-one feet carriage-way, thus affording room for the transaction of business without the delay heretofore experienced. This improvement has increased the value of both wharf and store-house property, and is an additional monument to the munificence of Stephen Girard. We have just completed the work between Ton alley and Arch street, have under contract that portion from Arch to Vine street, and will shortly commence from Spruce to South street, the intervening blocks having been finished the year previous. When this work is completed there will be an urgent call for the extension of Delaware avenue below South street, at least as far as Queen street, the greater portion of which is now private property. Upon the contracts just concluded we have adopted the small size granite block for carriage-way, which we believe will be the means of their more general introduction in our city, and take the place entirely of the large square blocks, which are so injurious and dangerous to horses.

Respectfully submitted,

STRICKLAND KNEASS,

Chief Engineer and Surveyor.

DEPARTMENT OF PUBLIC HIGHWAYS.

OFFICE S. W. CORNER CHESTNUT }
AND FIFTH STS. }

Philadelphia January 20th, 1862.

To the HON. ALEXANDER HENRY,

Mayor of Philadelphia:

DEAR SIR:—In answer to your communication of December 8th, 1861, requesting information in detail relative to the operations of this Department, it affords me much pleasure to be able to furnish you with the following statement of its affairs for the year 1861. The table marked A. will exhibit the receipts to have been fourteen thousand three hundred and twenty dollars (\$14,320,) being a decrease of its estimated receipts of thirteen thousand six hundred and eighty dollars (13,680.) The table marked B. will exhibit the annual appropriation made to this Department, the amount expended on each item, and the balances that merged at the close of the year. In the discharge of the duties of my office during the past year, it was my earnest desire to keep the expenditures of the Department within the annual appropriation made by Councils, and am happy to say that I have succeeded. It will be seen that seven thousand and forty-two (\$7,042) dollars merged, leaving in the office bills unpaid to the amount of four thousand two hundred (\$4,200) dollars, by the refusal of Councils to make the necessary transfers before the close of the year. The general appropriation to the Department for the year 1861 was two hundred and seventy-two thousand four hundred (\$272,400) dollars, which was fifty-nine thousand seven hundred (\$59,700) dollars less than in 1860, and seventy thousand three hundred (\$70,300) dollars less than in 1859; and by deducting the amount of bills unpaid from the general appropriation, would still leave two thousand eight hundred and forty (\$2,840) dollars to merge. The special appropriations made to the De-

partment during the year amounted to sixty-four thousand one hundred and fifty-five ($\$64,155\frac{15}{100}$) dollars and fifteen cents, making the entire appropriations to the Department three hundred and thirty-six thousand nine hundred and fifty-six ($\$336,956\frac{15}{100}$) dollars and fifteen cents. The decrease in the estimated amount of receipts is to be attributed to various causes. Formerly there was appropriated to footway paving from ten to fifteen thousand dollars, and a portion of this outlay would be repaid to this Department by the property owners before liens were filed for its collection. But for the last year the appropriation for such purpose was but three thousand dollars ($\$3,000$), besides which the general depression of business may have had a tendency to produce this result. With another year's experience in relation to the affairs of the City, so far as this Department is concerned, my views are the same as set forth in my communication to you of January, 1861, to which I most respectfully ask your attention.

Very Respectfully,
 JOSEPH SHANTZ,
Chief Commissioner of Highways.

A.

DEPARTMENT OF HIGHWAYS.

Philadelphia, January 1st, 1862.

The following items compose the receipts of this Department for the year ending Dec. 31, 1861.

For Sewer Permits,	\$610 00
“ Repaving,	216 00
“ Rents,	163 72
For Dray, Cart, Wagon, and Barrow Permits,	779 50
“ Building “	279 25
“ Vault “	100 00
“ Culvert Bills, “	73 70
	<hr/>
Carried forward,	2,222 17

	Brought forward,	2,222 17
For Paving and repairing footways,		641 55
“ Hotel, Private, Hackney Coaches, and Drivers’ Licenses,		292 50
“ Miscellaneous Receipts,		1,819 31
“ Passenger Railway License,		6,930 00
“ Omnibus Licenses,		75 00
“ Railroad Turnout,		60 00
“ Annual Sewer Rent,		2,280 10
		<u>\$14,320 63</u>

B.

	A.	B.	C.	
Items.	Appropriation.	Expended.	Balance.	
1	20,000 00	19,453 89	546 11	Paving intersections.
2	39,000 00	38,999 43	57	Repairing streets.
3	4,000 00	3,206 43	793 57	Repaving streets.
4	3,500 00	4,246 23	253 77	Repaving over water pipe.
5	12,000 00	11,998 11	4 89	Gutter and crossing stone.
6	40,000 00	39,978 29	21 71	Repairing streets and roads.
7	20,000 00	17,663 93	2,336 07	Grading streets and roads.
8	3,000 00	2,998 17	1 83	Repairing footway.
9	20,000 00	19,894 21	105 79	Repairs to bridges.
10	20,000 00	19,998 81	1 19	Repairs to culverts.
11	42,000 00	40,763 22	1,236 78	Cleansing streets and markets.
12	10,000 00	9,198 77	801 23	Cleansing unpaved streets.
13	2,700 00	2,693 59	6 41	Repairs to City Railroad.
14	1,500 00	1,500 00		Repairs to pumps and wells.
15	10,400 00	10,400 00		Salaries to Commissioner, &c.
16	15,700 00	15,650 00	50 00	Salaries to Supervisors.
17	900 00	494 92	405 08	Branch culverts.
18	1,200 00	1,199 90	10	Printing and stationery.
19	1,100 00	1,100 00		Insurance on bridges.
20	1,000 00	976 44	23 56	Office and yard expenses.
21	1,000 00	996 39	3 61	Incidental expenses.
22	400 00	399 50	50	Sign boards for streets.
23	2,000 00	1,550 73	449 27	Cleaning and repairing C. P. R’lway
	<u>272,400 00</u>	<u>265,357 96</u>	<u>7,042 04</u>	