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NINTH ANNUAL REPORT

OF THE

BOARD OF PUBLIC WORKS,

TO THE

COMMON COUNCIL

OF THE

CITY OF CHICAGO,

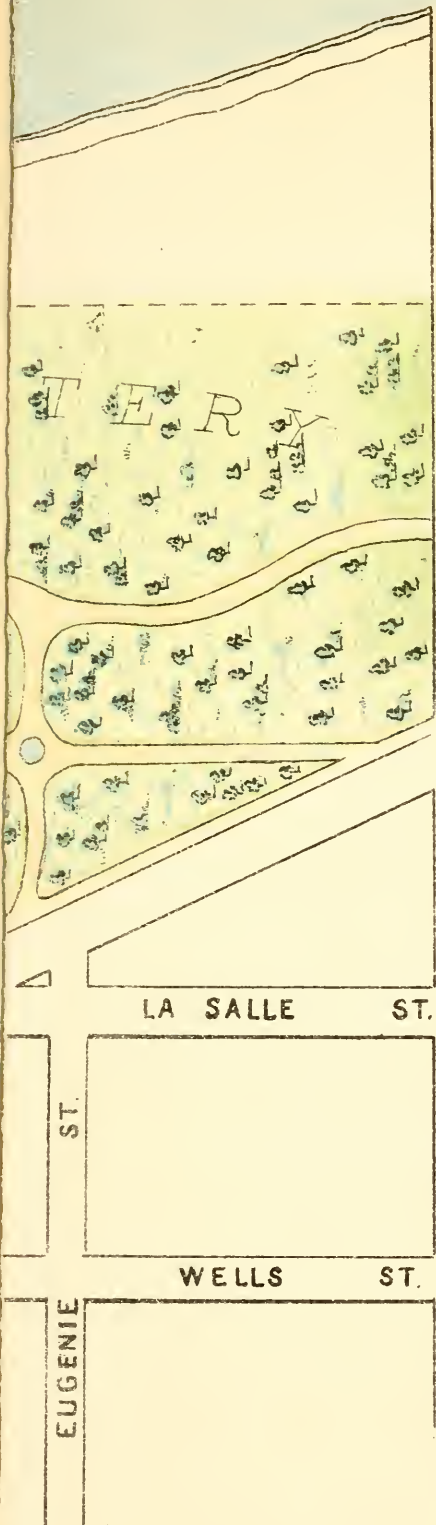
FOR THE

Municipal Fiscal Year ending March 31, 1870.

CHICAGO:

PRINTED AT THE LAKESIDE PRESS.

1870.



AVE.

DEARBORN ST.

CLARK ST.

LA SALLE ST.

ST.

NORTH

WELLS ST.

EUGENIE

BOARD OF PUBLIC WORKS.

MEMBERS OF THE BOARD.

JOHN McARTHUR, COMMISSIONER AND PRESIDENT.

W. H. CARTER, COMMISSIONER AND TREASURER.

REDMOND PRINDIVILLE, COMMISSIONER.

WILLIAM GOODING,)
EDWARD B. TALCOTT,) MEMBERS ACTING ONLY IN MATTERS
) PERTAINING TO CLEANSING CHI-
) CAGO RIVER.

OFFICERS.

A. W. TINKHAM, SECRETARY.

E. S. CHESBROUGH, CITY ENGINEER.

PLAN OF
LINCOLN PARK

SCALE 400 FT TO ONE INCH



COMMISSIONERS' REPORT.

OFFICE OF THE BOARD OF PUBLIC WORKS }
CHICAGO, OCT. 1ST, 1870. }

To the Common Council of the City of Chicago :

The Board of Public Works submit herewith their annual report for the year ending March 31st, 1870.

ORGANIZATION.

Several changes have occurred in the Board during the year. The term of office of A. H. Burley, Esq., the Commissioner for the North Division, expired at the close of last year, on the confirmation by your honorable body of the appointment of his successor. Commissioner Prindiville succeeded Mr. Burley, entering upon the duties of his office, Jan. 1st, 1870.

One other change was caused by the election of Hon. R. B. Mason, as Mayor of the city, inducing his resignation as a member of the Board. E. B. Talcott, Esq., was appointed by the Governor of the State as his successor. Mr. Talcott acts only when the deepening of the Illinois and Michigan Canal, and kindred matters are involved.

In the statements which follow, the same order is pursued as in previous annual reports.

WATER WORKS.

CONDITION OF THE WORKS GENERALLY.

At no time during the year has the supply of water to the whole city been interrupted. An alarming accident occurred, however, on the 18th of August, by which the West Division was for about three days deprived of the larger portion of its supply. A vessel carelessly dragging anchor, broke the large main passing under the river at Chicago avenue. The accident, occurring in the heat of summer, and when with every facility it was hardly possible to furnish sufficient water to the more remote parts of the city, was the cause of much temporary inconvenience and discomfort. It however served the good end of originating a means of passing the river quite secure from any such risks and liabilities, and before the close of the year, mains were laid under the bed of the river, not only at Chicago avenue, but also at Division street, in substantial brick tunnels of six feet diameter, and at such depth as to be wholly secured from accidents. Hereafter it is not likely that any important main will be laid across the river, excepting through tunnels, where they will be safe from injury and accessible for repairs.

The fact is not without interest, that in the year 1861, the Board of Water Commissioners had under consideration the propriety of building a tunnel under the river for the principal main supplying the South Division, the Pine street and Wabash avenue main, and went so far as to prepare plans and receive bids for the work. The bids for its construction were low, and the parties responsible, but the limited knowledge and lack of experience then possessed as to such structures, deterred the Board, and the main was eventually laid in the ordinary way, a boiler-iron syphon deposited in a trench dredged in the bed of the river.

The very full discussion which followed the accident to the Chicago avenue main, particularly as to what should be done to

afford a uniform supply of water to the more distant parts of the West Division, led to the consideration of the whole subject of improving and equalizing the supply to all parts of the city, and finally to the plan for additional pumping works in the south-west part of the city, to be supplied by a second lake tunnel adjacent to the present one, and a land tunnel as a conduit connecting the lake tunnels and pumping works on the lake shore and the proposed new works. This plan has since been adopted by your honorable body.

The supply to the city has been wholly drawn through the lake tunnel and from the inlet at the lake crib, and has always been pure and good. No city has water of better quality. The following table is of interest, as showing the relative temperatures of the air and of the water at the crib, at its entrance into the tunnel; for all months of the year. The observations of the temperature of the water were made in the well within the crib. The water is introduced to this well by conduits through the crib, some distance below the level of the lake.

TEMPERATURE—FAHRENHEIT.

MONTHS.	AIR			WATER.		
	<i>High-est.</i>	<i>Mean.</i>	<i>Low-est.</i>	<i>High-est.</i>	<i>Mean.</i>	<i>Low-est.</i>
<i>April</i> , 1869.....	61°	44°	31°	44°	38°	33°
<i>May</i> , ".....	69°	51°	41°	51°	46°	43°
<i>June</i> , ".....	74°	63°	53°	60°	53°	50°
<i>July</i> , ".....	80°	71°	62°	67°	63°	60°
<i>August</i> , ".....	88°	75°	66°	72°	67°	64°
<i>Sept.</i> , ".....	76°	65°	53°	72°	63°	57°
<i>October</i> , ".....	59°	45°	28°	57°	47°	40°
<i>Nov</i> , ".....	50°	35°	28°	40°	36°	33°
<i>Dec</i> , ".....	38°	30°	18°	33°	32°	32°
<i>Jan</i> , 1870.....	40°	28°	10°	32°	32°	32°
<i>Feb.</i> , ".....	39°	30°	- 9°	33°	32°	32°
<i>March</i> , ".....	41°	33°	12°	33°	32°	32°

The works are generally in good state, with this exception, that the experience of the year has only made more manifest the truth of last year's statement, that to insure a sufficient and uniform supply to the city, additional engines and larger mains should be got into use with all possible despatch.

NEW ENGINE HOUSE AND WATER TOWER.

Many minor details lacking on these buildings at the beginning of the year, were completed during its time, and final settlement made with the contractors for all work done.

NEW ENGINES.

It was not until somewhat late in the season that the order was obtained from your honorable body, to proceed with the erection of new engines at the pumping works. Plans for these engines had for some time previous been under consideration, but they were not fully made up and adopted until the Chief Engineer of the Pumping Works, D. C. Cregier, Esq., had, by orders of the Board, examined the principal pumping engines of the country. It was thought best, even at the sacrifice of considerable time, to profit by whatever of value could be obtained from the experience of other cities. At the date of this writing, however, the engines, with boilers, are in process of manufacture, at the Knap Fort Pitt Foundry Works, Pittsburgh, Pa., to be completed and set up ready for use by August 1st. 1871.

The engines are to be two vertical beam condensing-engines, set eight feet apart, coupled together by one shaft, with cranks and fly-wheel. The working capacity will be the delivery of 36,000,000 U. S. gallons in twenty-four hours, under a head of 150 feet.

In the meantime, the consumption of water has greatly increased. The average daily supply for the year ending March 31st, 1869, was 14,725,000 gallons. The same for the year ending March 31, 1870, amounted to 18,633,278 gallons, the percentage of increase of this year's pumping over that of the preceeding year being about 26½ per cent.

WATER PIPES.

It was remarked in the last report that the length of pipes laid during that year, ($30\frac{1}{2}$ miles,) exceeded that of any previous year. The amount for the present year is, however, still greater, summing up as follows :

In the South Division,.....	38,495 feet.
“ West “	97,404 “
“ North “	31,605 “
Total	<u>167,504 feet,</u>

or $31\frac{3824}{5280}$ miles. Of this total, however, 2,436 feet was of pipes laid in place of smaller ones removed.

There are now laid in the city, of supply and distribution mains of all sizes, 239 miles and 4,763 feet.

The system of supply mains, making circuit through the three divisions of the city, to which attention was called last year, is being rapidly laid, and is already so far in use as to afford a marked benefit to many parts of the city.

The Board, as a rule, order water pipes laid where the revenue will be sufficient merely to pay the interest on the pipes as put down, which amounts at the present price to about fifteen cents per foot in length of pipes. When no more than this minimum revenue is obtained, such lengths of pipes must of course, for a while, be maintained at a loss. Experience, however, shows that the laying of the pipes is speedily followed by the erection of new buildings, and such streets soon become self-supporting. Although the amount laid last year was so great, the continued growth of the city, and the extension of its improvements is such, that the Board find it still very difficult to obtain enough pipes to satisfy the demand upon them, but will continue to put down all that can be obtained.

FIRE HYDRANTS.

New hydrants were erected during the year, in the three parts of the city, as follows :

In the South Division,.....	58
“ West “	133
“ North “	33
	<hr/>
Total,.....	224
Total number of hydrants erected in the city, 1,294.	

TAPPING OF WATER PIPES.

The number of taps inserted in the pipes was very large. The number of each size is given below :

$\frac{1}{2}$ inch,.....	2708
$\frac{5}{8}$ “	4477
$\frac{3}{4}$ “	167
1 “	129
	<hr/>
Total during the year.....	7481

WATER RATE COLLECTIONS.

The gross receipts from all water rents and taxes collected during the year, amounted to \$476,968.24.

WATER METERS.

The number of establishments rated by water meters attached has quite largely increased during the year. Five hundred and thirty were in operation at its close, all being of the kind known as the “ Worthington Meter.” It speaks well for the durability of this meter, that those first purchased in 1860, are still in use and in good condition.

The numbers on hand, of each size, are as stated below :

$\frac{5}{8}$ inch Meters,	118
1 " "	190
$1\frac{1}{2}$ " "	85
2 " "	84
3 " "	49
4 " "	4

Total number of meters, 530

The total quantity of water pumped during the year was 6,801,146,720 gallons. The amount delivered to consumers through meters was 659,615,000 gallons, an amount equal to, or somewhat exceeding the supply to the whole city in 1855.

The revenue obtained from meter rates during the year was \$98,830, equaling the water tax collected from the entire city during the year 1857.

CONDENSED STATEMENT OF EXPENDITURES.

The following exhibits give a brief summary of the cost, during the year, of the additions to the Water Works and of their maintenance. It should be remarked that the amount of the item "repairs of pipes," etc., is largely increased by the substitution of larger pipes in the older parts of the city for those found too small; by the multiplication of the number of stop-cocks, so as to reduce the size of the districts, and to lessen, proportionately, the inconvenience from shutting off the water for repairs, etc.; by doubling up the number of hydrants in the older parts of the city; by the many and expensive changes made necessary by the great amount of street improvements in progress; and by the outlay caused by the accident to the Chicago Avenue main. The cost of the pipe laying is also made much larger than usual for the number of miles laid, for the reason that it includes a very large proportion of twenty-four inch and other supply mains, and also because the distributing pipes now laid have less of the smaller and more of the larger sizes than heretofore.

INTEREST, EXPENSES AND SURPLUS REVENUE.

Expenses at the Pumping Works,.....	\$81,185.06
Lake Tunnel,—keeper, use of tugs, etc.,.....	2,753.21
Repairs of Pipes, Hydrants, etc., and miscellaneous operating expenses,.....	65,054.55
Water Meters, repairs, depreciation, and operating expenses,.....	3,595.72
Salaries of Board and officers, office rent and ex- penses and all salaries and expenses pertaining to the Water Office and the assessment and collec- tion of water rates,.....	37,142.62
Interest on Water Loan Bonds, including \$4,279.22 transferred from discount account,.....	200,412.93
	<hr/>
Total interest and operating expenses,.....	\$390,144.09
Income from Water Rates, as stated above,.....	\$476,968.24
Deduct interest and expenses,.....	390,144.09
	<hr/>
Surplus Revenue,.....	\$ 86,824.15

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COST OF ADDITIONS TO THE WORKS DURING THE YEAR.

31 $\frac{3}{8}$ $\frac{2}{3}$ $\frac{4}{5}$ miles of pipes of all sizes, from 4 in. to 24 inch, cost as laid, including tunnels under river for water mains,.....	\$514,652.54
New Engines, sundry miscellaneous expenses,....	706.04
New Engine House, balances to contractors, etc..	10,272.37
Water Works Tower, “ “ ..	4,095.57
New Inlet,.....	1,295.03
	<hr/>
Total cost of additions during the year,.....	\$531,021.55

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COST OF THE WORKS, APRIL 1ST, 1870.

Cost of the Water Works, including all expenditures on works in progress, March 31st, 1870, \$3,677,404.69.

MEANS BY WHICH THE WORKS HAVE BEEN
PAID FOR.

Water Loan Bonds, 6 per cent., \$1,030,000.00, deducting for discount, \$38,358.88.....	\$991,641.12
Water Loan Bonds, 7 per cent.....	2,290,000.00
Balance from water rents.....	395,763.57
	<hr/>
	\$3,677,404.69

SEWERAGE WORKS.

The extent of sewers laid last year largely exceeds that of any previous year, amounting to about twenty-six and one-half miles.

The most important structure of this year's work was the Douglas Place sewer, of about a mile in length, and extending from State street to the lake. This sewer will be the outlet of the sewerage of all that part of the city south of Thirty-first street, and between Clark street and Lake Michigan. Being of the largest size, six feet in diameter, and constructed through wet sand, much of the way with a depth of cutting of twenty feet, it is a matter of congratulation that the work was accomplished in a substantial and satisfactory manner, and without accident to the work itself or to adjacent buildings. The cost, about \$100,000, differs not largely from that of the same extent of the Lake tunnel for the Water Works.

In the appended report, giving in detail the sewerage work of the year, it is remarked that "the effect of the raising to grade and paving of the streets, in diminishing the cost of both the repairs and cleansing of the sewers, begins to be apparent. Notwithstanding the great increase in the extent of the sewers, the cost of repairs is one-third less than for the previous year, while the cleansing account is nearly one thousand dollars less."

LENGTH AND COST OF SEWERS LAID DURING THE YEAR.

South Division,	37,173 feet.....	costing,	\$218,266.77
West	" 73,408 "	"	314,971.65
North	" 29,124 "	"	120,902.84
Total.....	139,705 feet or 26 miles, and 2,425		
	feet, costing		\$654,141.26

The total length of sewers laid March 31st, 1870, was $136\frac{3}{4}\frac{1}{2}\frac{1}{8}$ miles.

SEWER CLEANING.

Cost of cleaning Sewers and Catch Basins during the year.....\$26,015.68

SEWER REPAIRS.

Cost of the repairs of Sewers and Catch Basins, and the renewal and repairs of man-hole covers during the year..... \$7,527.16

PRIVATE DRAINS CONNECTING WITH PUBLIC SEWERS.

As remarked, last year, in order to insure the putting in of drains in advance of the laying of pavements, the Board have heretofore caused such drains to be laid and to be paid for from the Sewerage Fund. Subsequently assessments for such expenditures are levied, and such payments eventually refunded. The following enumeration of permits issued during the year for such drains, includes many, therefore, for which the permit charge is yet to be collected. The charge for permit for an ordinary six-inch connection is five dollars.

South Division, permits issued.....	830	
West “ “ “ 	2,110	
North “ “ “ 	1,039	
		—————
Total.....	3,979	
Total receipts from sewerage permits.....		\$12,639.27

SEWERAGE EXPENSES, REPAIRS AND INTEREST.

Interest on sewerage loan bonds.....	\$153,634.63
Sewerage Sinking Fund, amount set aside, tax of 1868	31,069.20
Salaries, office rent, and office and miscellaneous expenses.....	18,464.07
Repairs and cleaning of sewers as above.....	33,542.84
	<hr/>
Total cost for the year.....	\$236,710.74

SEWERAGE LOAN BONDS.

Six per cent. bonds outstanding March 31st, 1870, \$	87,000.00
Seven " " " " "	2,538,000.00
	<hr/>
Total of sewerage bonds outstanding March 31st, 1870.....	\$2,625,000.00

Authority was given to issue but 175,000 more of bonds, so that the maximum of the sewerage debt, as determined by the recently adopted constitution, will be \$2,800,000. This debt will be annually lessened by the accumulations of the sinking fund. As the means heretofore for the construction of sewers have been wholly derived from the issue of bonds, it will be necessary to obtain legislation at the coming meeting of the General Assembly to provide for the cost of sewers in some way which shall not add to the city's indebtedness.

SEWERAGE SINKING FUND.

The condition of the fund April 1st, 1870, was as follows:

Balance in the hands of the City Treasurer.....	\$70,369.73
Mortgage ordered foreclosed, not yet collected.....	5,922.10
	<hr/>
Amount not yet applied to canceling bonds.....	\$76,291.83

Forty bonds were canceled last year, making the total amount to March 31st, 1870, purchased and canceled, \$200,000.00.

DEEPENING OF THE ILLINOIS AND MICHIGAN CANAL.

The work of deepening the canal was prosecuted successfully throughout the year. During the winter the Rock Sections, numbers 45 to 64 inclusive, and extending about eight miles from Lockport this way, were completed. Strenuous efforts are made for as speedy a completion of the whole work as shall be practicable. It is the expectation of the Board that it will be finished by March 31st, A.D. 1871, at which time the contracts expire.

We give below a statement of the quantities of work done:

Earth excavations.....	568,663	cubic yards.	
Rock “	81,387		“
Retaining wall,	444		“
Rip-rap wall,	5,535		“

The State of Illinois is now building a dam across the Illinois river and a lock at Henry; and the United States is dredging out some of the bars below Henry. With these works finished, and the deepened canal, there may be reasonably expected a large addition to the business and revenues of the canal.

The deepening of the canal will make the property adjacent to it and near Bridgeport, valuable as dock property. As the work has been done by the city, and as it is invested with a lien upon the canal and its revenues, for the re-imbursing of the cost of the deepening, the profits arising from this change in the character of the property should to a great extent accrue to the city. The Board would invite your consideration as to whether steps should not be taken to secure this benefit to the city. With a careful use of the revenues to be obtained from the canal property, the Board believe that the deepening will not only be of benefit to the city as a sanitary measure, but that it will eventually be repaid for its cost.

CLEANSING OF THE RIVER BY PUMPING INTO THE CANAL.

The pumps at Bridgeport were used at intervals during the summer, and until as late as November 15th, the time of closing the canal, and the river thus maintained in a sufficiently cleanly state. The cost of pumping for the season amounted to \$15,499.58.

CLEANSING OF THE NORTH BRANCH.

It was not anticipated, when the scheme of deepening the canal was adopted, that its effects in changing the water in the river would be felt materially in the North Branch.

It is hardly necessary to say that the work of flushing and cleansing is needed quite as much there as in the other parts of the river. It should, however, be stated that its generally uncleanly state is due but to a small extent to the amount of sewage discharged into it, but mainly to the large amount of refuse and waste allowed to find its way into it from the distilleries and other large manufacturing establishments along its banks. Few sewers have their outlets in the North Branch, and the discharge from them is not large.

The early completion of the canal, it is believed, will soon suffice to maintain the main river and South Branch in good condition. The Board are of the opinion that it is not wise or safe to further postpone the entering upon some efficient plan for keeping clean the North Branch. Their attention, for a considerable time, has been given to the consideration of what means seemed most likely to accomplish the object. From the remark made above, it would seem evident that whatever plan be adopted, every effort should be made to keep out of the river the wash and waste unlawfully allowed to enter it from the establishments referred to, so that the city should be required to remove only the effects of its own sewage. For flushing-out the river, but one of the many schemes proposed seems to them to promise to be effectual and worthy of adoption—that is, the construction

of a canal, open or covered, between the lake and the North Branch, through which the water shall be forced by mechanical means, either into the river or lake, as shall at the time be necessary. The location of this canal, and the details of its construction, the Board do not undertake to present in this report.

For its more thorough investigation, the Board respectfully invite the attention of your honorable body to the remarks of the City Engineer on this subject, as embodied in his appended report.

CHICAGO HARBOR.

The expenditures by the city for several years have been confined to the maintenance of the channel and harbor within the bar. Much anxiety was caused in the earlier part of the year from the lack of water at numerous places in the channel of the river, so much so that the Board deemed it necessary to report specially the state of facts to your honorable body, and to urge that immediate appropriation be made for dredging and deepening as should be found necessary.

The work of dredging was, however, prosecuted continuously, and no serious interruption occurred to the navigation of the harbor. The amount thus expended was \$56,035.73.

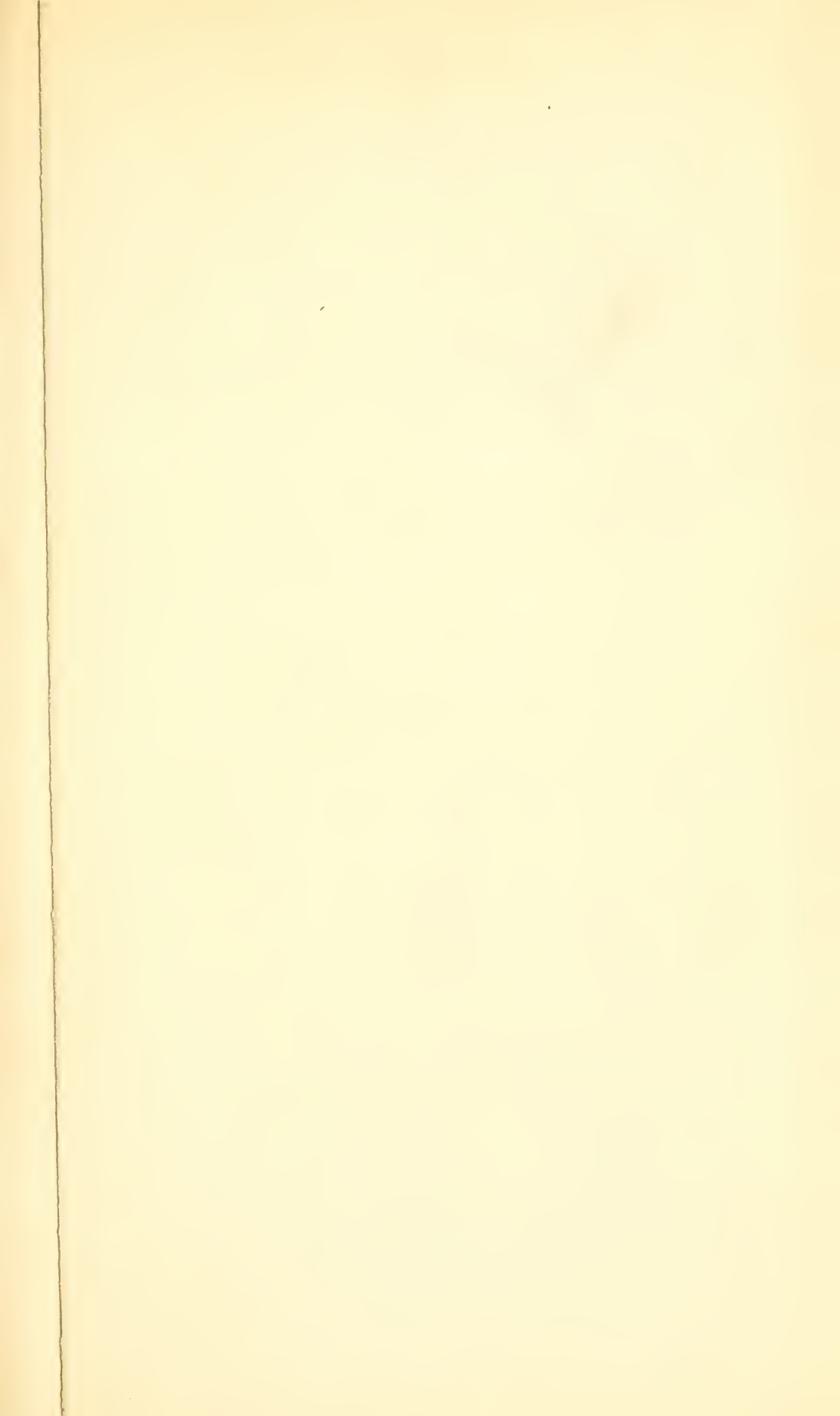
WASHINGTON AND LA SALLE STREET TUNNELS.

At the beginning of the year now reported on, Washington Street Tunnel had become a gratifying success. The work was substantially completed, and save some annoyance from a troublesome leak which manifested itself in the carriage-way, under the river, was found to fully answer all expectations concerning it.

It then became a matter of consideration as to where the next tunnel should be made, and, under instructions from the Council, the Board submitted plans for one under the main river at La Salle street, and one under the South Branch at Adams street. The pressing necessities for a connection between the North and South Divisions, led to the adoption of La Salle street as the locality for the work. Immediately with the reception of your orders for its construction, the Board proceeded to prepare plans and specifications for the work in full, and soon after to invite proposals for its execution. On the 20th of October the contract was awarded to Mr. Rob't E. Moss, at a price estimated on the quantities and prices of the various kinds of work to be done, of \$127,044.46. The lateness of the season when the contract was awarded was unfavorable to making great progress during the winter, especially on the masonry of the tunnel, but the work was vigorously and successfully prosecuted by the contractor from the start. On the 5th of February, the coffer-dam having been previously finished and pumped out, and sufficient progress made in the excavation, the masonry of the tunnel was commenced in the bed

of the river, and has since been carried forward without interruption. By the terms of the contract the work is to be finished by July 1st, 1871, and the progress made warrants the expectation of its being completed in time.

Washington Street Tunnel has been in use throughout the year. The leak referred to has been remedied. The passenger way is perfectly dry. The carriage way is very nearly so, and the trouble from water, excepting what pertains to the drainage, is limited to an occasional drop from the arch overhead, immediately under the river.

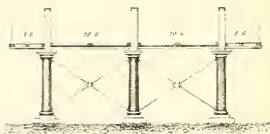


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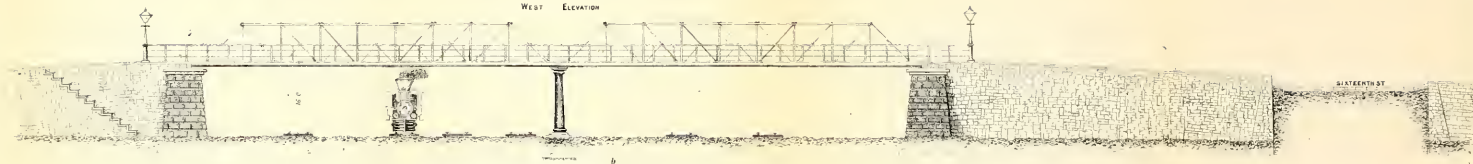
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VIADUCT AT HALSTED ST. OVER C. B. & Q. R. R.

SECTION AT a b



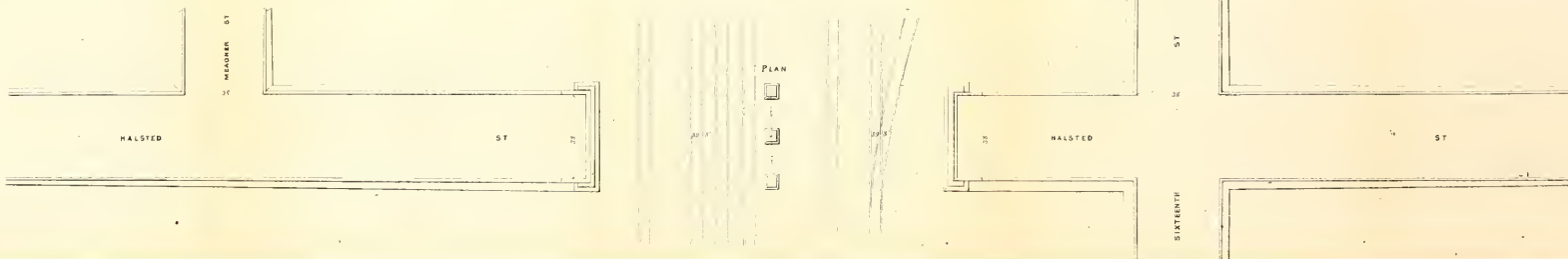
WEST ELEVATION



WEST ELEVATION SHOWING GRADE



GIVE BASE



STREET WORK.

There were in the city, at the close of the year, that is, on March 31st, 1870, thirty-seven miles of streets paved with wooden block pavements, and two and one-fourth miles paved with boulder, or block stone pavements. The statement does not include the graveled or macadamized streets. These pavements were very largely the work of the past three years. While the time is very brief since the condition of the streets of Chicago was the subject of constant complaint, there are to-day few cities in our land presenting more drives of miles in length of smoothly paved streets.

The Board may also, with propriety, call attention to the cleanly condition in which the paved streets are generally to be found. The work of cleaning, as remarked last year, is in the hands of Mr. Levi P. Wright, as contractor for the three years ending November 19th, 1871.

As was remarked above, the pavements laid are mostly of the various kinds termed wooden block pavements. At present, no pavement is found to give so general satisfaction, and while its term of wear is comparatively limited, not extending beyond eight or ten years, no pavement has yet been found of sufficiently well established superiority, as to excellence and durability, to lead to its substitution for the one in general use. At the same time, it is the aim of the Board to avail themselves of any opportunity promising an improvement, whether it be by a modification of the wooden pavement, or by the use of one of other materials. The principal experiment of this sort, during the year, was the application to some pavements of the process for preserving the wood from decay, known as that of the North American Wood

Preserving Company, with the view of promoting its durability. South Park avenue, between Twenty-second and Twenty-ninth streets, a distance of about three-fourths of a mile, was paved with the use of this process, all of the wood composing the pavement being subjected to its application. The process, as represented by the parties applying it, consists in first expelling the sap and various vegetable fluids from the pores of the wood by vaporization, and then in impregnating the wood with solutions of sulphate of iron (copperas) and of lime, forming within the pores sulphate of lime and oxide of iron. The pavement was laid in the fall of 1869, and of course sufficient time has not elapsed to test its durability.

Several small pieces of one other pavement have been put down on trial during the present season—the bituminous or asphaltic rock pavement—a specimen of which may be seen at the intersection of Clark and Monroe streets. This pavement has been laid but a few months, but now promises well.

Noticeable among the important works under this general head, undertaken by the Board during the year, are the planning and construction, more or less entirely, of several important viaducts, by which the street is carried at an elevation above the railroads and their trains. The viaducts at West Indiana and W. Adams sts. were constructed this year. The most interesting structure of this sort, however, accomplished during this time, is the Halsted street viaduct, crossing the railway tracks near Sixteenth street. It is of interest as being the first of its kind. In other instances, the viaduct is near the river, and is connected with a pivot bridge across the river. The street having attained the elevation necessary for the bridge is simply continued at about the same elevation above the railway tracks, and then descends to the ordinary grade. The Halsted street viaduct is wholly for the purpose of elevating the street, so that the railway trains may pass beneath it. The railway tracks being kept as low down as possible, the paved street, with its sloping retaining walls, rises to the necessary height on the one side, crosses above the track by an iron truss bridge, and then descends to ordinary grade on the other side.

Railway tracks are laid in the city across some of its finest streets and avenues, and on even grade with those streets, and trains at frequent intervals are passing and repassing where the throng of vehicles and pedestrians is greatest. The dangers from collisions at these crossings are such as to excite constant apprehension, and the interruptions of travel are serious and annoying. It is evident that some means must speedily be taken to remedy these evils. For these reasons the Halsted street viaduct is of value to the public generally, as showing how far such a structure is an effectual cure to the evils referred to, and to what extent it is objectionable. Its cost was borne by the Chicago, Burlington & Quincy Railroad Company, excepting that the abutting property was assessed the same amount as if the street had been walled, filled and paved in the usual manner.

A profile view of the Halsted street viaduct accompanies this report.

The cost of new street improvements being mainly paid for by special assessments on property contiguous to such streets, the most complete view of such work — including, however, all improvements paid for in the same manner — is given in the report of the special assessment department as presented herewith. By this report it will be seen that the general fund, or the city at large, bore the cost of the various improvements therein specified, to the amount of \$397,002.06, while there was assessed on the property specially benefited, the sum of \$2,836,852.48.

SPECIAL ASSESSMENT DEPARTMENT.

CHICAGO, *April 1, 1870.*

MR. A. W. TINKHAM,

Secretary Board of Public Works.

SIR: Accompanying this, please find a tabular statement of the street improvements and their estimated cost, for which assessments have been made during the year ending April 1st, 1870, to which is appended a summary, showing, among other things, the cost of the various improvements in each of the Divisions of the city, the total amount for which special assessments have been made each year for the last nine years, the number of miles of the different kinds of street improvements, and an alphabetical list of all the streets in the city and their length.

STATEMENT OF ASSESSMENTS FOR STREET OPENINGS AND WIDENINGS.

No. of War'ant	NAME OF STREET.	FROM	TO	Amount of Assessment.
605	Holt st.....	Bradley st.....	W. North av.....	\$3,157 08
606	N. Leavitt st.....	W. North av.....	Milwaukee av.....	1,023 74
607	N. Leavitt st. thro' B	14 Ass'rs div. NE $\frac{1}{4}$	E $\frac{1}{2}$ NW $\frac{1}{4}$, sec. 6.	100 00
608	Trustee st.....	Northern terminus	Hubbard st.....	1,700 00
629	Leavitt st.....	W. Harrison st....	W. Twelfth st.....	4,993 03
631	N. Hoyne st.....	W. Division st....	Milwaukee av.....	2,095 00
676	Fifteenth st.....	Western terminus..	Clark st.....	5,422 95
726	Street run'g N. & S.	bet. Schil. & N. av. &	Wells and Franklin	11,274 09
730	Mitchell st.....	Waller st.....	Halsted st.....	39,820 50
791	N. Robey st. thro'	blks. 11, 12, 13, Ass'rs	div. of unsubd. lnds	413 71
793	W. 12th & S. W'n av	Reuben st.....	present city limits.	27,442 86
868	Thirty-second st...	Forest av.....	Indiana av	15,826 84
862	Hurlbut st.....	St. Bk. Ill. subd. to	Clybourne av.....	17,325 90
978	Milwaukee av.....	present terminus..	Lake st.....	54,350 56
1061	Michigan av.....	Twenty-second st.	Thirty-second st..	75,533 08
1063	Seeley st.....	W. Van Buren st..	W. Tyler st.....	4,250 00
1064	Goethe st	N. Clark st.....	N. State st	29,150 00
1065	Franklin st.....	Madison st.....	Adams st.....	124,312 63
1068	St. from Vincennes	Road to Cottage	Grove av. between	
	Wahpansah and	Egan avs.....	.....	7,633 70
1069	Reuben st.....	W. Tyler st.....	W. Twenty-sec. st.	34,505 44
1071	Wentworth av....	Twenty sixth st...	Twenty-seventh st.	7,190 00
Total.....				\$467,521 11

STATEMENT OF ASSESSMENTS FOR ALLEY OPENINGS AND
WIDENINGS.

No. of Warr'nt		Amount of Assessments.
593	Opening alley from Goethe to Division st., and bet. La Salle and N. Clark st.....	\$5,626 00
604	Opening alley through bl'k 44, Sch. Sec., Van Buren to Tyler st., and bet. Clinton and Jefferson sts.....	2,580 77
630	Opening alley through bl'k 54, Sch. Sec., bet. Canal and Clinton sts.....	819 83
665	Opening alley through bl'k 2, McGrath's add, Robey to Hoyne st., and between Taylor and Harrison sts.....	578 95
667	Opening alley through W. 1/2 bl'k 97, W. 1/2, sec. 27.....	852 18
668	Widening alley through bl'ks 135 and 136 Sch Sec.	2,648 07
792	Opening alley running E. and W, in N. part of bl'k 47, Sec. 7, T. 39, R. 14.....	1,294 48
1,067	Widening and opening alley in bl'k 4, Original Town,....	5,916 84
1,070	Opening alley through bl'k 16, Johnston, Roberts and Storr's add.....	4,130 00
1,073	Opening alley from Grant to Schiller st., bet. N. Clark and N. La Salle sts.....	4,821 61
1,076	Opening alley running E. and W. through W. part of bl'k 29, Johnston, Roberts and Storr's add.....	291 54
	Total.....	\$29,560 27

STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK
PAVEMENT.

No. of Warr'nt	NAME OF STREET.	FROM.	TO.	Amount of Assessment.
602	Indiana av.	Twenty-second st.	Twenty-ninth st. . .	47,772 96
603	W. Van Buren st. . .	S. Branch Chi. riv.	Canal st.	11,453 60
628	Clybourn av.	Division st.	North av.	73,269 96
642	W. Van Buren st. . .	Halsted st.	Loomis st.	43,260 27
659	Archer av.	State st.	Canal or Slip.	80,278 14
666	Washington st. . . .	State st.	Michigan av.	1,612 16
669	Harrison st.	State st.	Wells st.	12,217 99
670	Clinton st.	W. Lake st.	W. Kinzie st.	22,086 04
672	Wabash av.	Randolph st.	Twenty-second st. .	5,501 96
673	Central av.	72 feet S. of Lake st.	140 feet S. of Lake.	584 29
674	W. Twelfth st. . . .	Halsted st.	685 feet E. of Beach.	56,935 40
678	Jackson st.	State st.	Market st.	16,237 57
679	W. Madison st. . . .	Centre av.	Robey st.	74,905 71
689	W. Lake st.	Reuben st.	Western av.	102,953 12
715	Desplaines st.	W. Van Buren st. . .	W. Harrison st. . . .	19,140 85
719	W. Lake st.	E. line B. 29, O. T.	Halsted st.	10,071 89
720	S. Park av.	Twenty-second st. .	Twenty-ninth st. . .	43,646 33
721	Griswold st.	Van Buren st.	Polk st.	3,037 00
722	Dearborn st.	Monroe st.	Jackson st.	28,484 31
723	N. Halsted st.	W. Lake st.	W. Indiana st.	33,313 27
724	N. LaSalle st.	Chicago av.	Division st.	29,047 08
725	Huron st.	N. Wells st.	Townsend st.	18,519 47
727	Clinton st.	W. Van Buren	W. Harrison st. . . .	21,289 97
728	Chicago av.	N. Clark to E. line.	B. 53 Kinzie Add. . .	24,028 71
749	Archer av.	Canal or Slip.	Halsted st.	32,044 29
774	Griswold st.	Jackson st.	Van Buren st.	7,287 60
775	Ohio st.	N. Clark st.	Kingsbury st.	50,724 25
777	Sherman st.	Jackson st.	Van Buren st.	8,026 78
779	Dearborn place. . . .	Randolph st.	Washington st.	3,009 76
781	N. Market st.	Kinzie st.	Chicago av.	42,346 96
782	Aberdeen st.	W. Madison st.	W. Harrison st. . . .	30,401 57
786	Fourteenth st.	Michigan av.	State st.	7,200 01
794	North av.	N. Wells st.	N. Br'ch Chi. riv. . .	79,043 64
816	Canal st.	W. Sixteenth st. . . .	W. Eighteenth st. . .	17,884 22
818	N. Wells st.	Division st.	N. Clark st.	75,755 74
859	Washington st.	State st.	Franklin st.	22,533 18
860	Jefferson st.	W. Van Buren st. . .	W. Harrison st. . . .	20,272 01
861	N. Sangamon st. . . .	Fulton st.	Milwaukee av.	41,125 54
863	W. Polk st.	Halsted st.	Elsworth st.	43,428 90
864	Canalport av.	Canal st.	Halsted st.	42,863 21
942	Union st.	W. Madison st.	Milwaukee av.	47,018 00
943	Indiana st.	St. Clair st.	N. Clark st.	27,536 25
952	Erie st.	N. Br'ch Chi. riv. . .	Pine st.	93,132 77
954	Quincy st.	State st.	Clark st.	11,872 07

Forward, \$1,483,154 80

STATEMENT OF ASSESSMENTS FOR WOODEN BLOCK
PAVEMENT. (CONTINUED.)

No. of Warrnt.	NAME OF STREET.	FROM.	TO	Amount of Assessment.
			Forward	\$1,483,154 80
955	Chicago av.....	N. Clark st.....	N. Br'ch Chi. riv..	5,855 93
956	Halsted st.....	Harrison st.....	C.B.&Q.R. cross'ng	428 39
957	Halsted st.....	Lake st.....	Harrison st.....	14,068 99
979	Clark st.....	Chicago river...	Chicago av.....	8,446 44
980	Polk st.....	State st.....	S. Br'ch Chi. riv...	12,726 45
981	Park av.....	Reuben st.....	Leavitt st.....	44,602 20
982	Twenty-second st.	State st.....	200 ft. W. of Grove.	60 940 67
983	W. Madison.....	Robey st.....	Western av.....	32,452 19
984	W. Indiana.....	Rucker st.....	Noble st.....	18,780 43
985	W. Harrison st...	Canal st.....	Halsted st.....	33,675 43
986	Sherman st.....	Harrison st.....	Taylor st.....	27,963 20
1062	Calumet av.....	Twenty-first st..	Cottage Grove av..	24,357 95
1072	Illinois st.....	N. Wells st.....	N. State st.....	25,604 28
1074	Monroe st.....	State st.....	Clark st.....	6,977 12
1077	Canal st.....	WLake st.....	W. Madison st.....	443 05
Total.....				\$1,800,477 52

STATEMENT OF ASSESSMENTS FOR MISCELLANEOUS STREET
AND ALLEY IMPROVEMENTS.

No. of Warr'nt	NAME OF STREET.	Amount of Assessments.
671	Curbing and filling Illinois st. from N Wells st. to Kingsbury st.....	\$16,273 15
675	Macadamizing Blue Island ave. from W. 12th to W. 22d st.	8,975 98
677	Straightening alley in bl'k 5, H. O. Stone's sub div. of Astor's addition.....	426 48
707	Grading & planking Throop st. fm 22d st. to Blue Island av.	7,746 64
709	Curbing, filling and planking alley in bl'k 15, Kinzie's addition to Chicago.....	1,030 37
710	Grading Ridgeville rd. from W. North av. to Bloomingdale road.....	171 83
711	Grading Commercial st. from W. North av. to Bloomingdale road.....	171 83
712	Filling and planking alley in bl'k 53, Sch. Sec. add. to Chicago.....	1,485 89
713	Grading Wabansia av. from Hewes st. to N. Wood st.....	209 26
714	Grading Edgar st. from Wabansia av. to Bloomingdale rd.	128 10
729	Curbing & filling Wesson st. fm. Chicago av. to W. Oak st.	4,949 77
731	Curbing, filling and grading Division st. from Clybourn av. to Division street bridge.....	7,367 81
776	Curbing and grading Clybourn place from Clybourn av. to Elston road.....	3,528 38
778	Curbing and filling W. Monroe st. from Canal st. to Halsted st.....	21,511 20
783	Filling, grading and planking alley running E. and W. through S. ½ of bl'k 51, sec. 7, T. 39, R. 14.....	2,015 62
784	Curbing, filling and planking alley running N. and S. through bl'k 22, frac. sec. 15 add.....	861 97
785	Grading and planking alley in bl'k 4, Union Park add.....	1,100 35
787	Curbing & filling W. Jackson st. fm. Canal st. to Halsted st.	19,353 14
788	Curbing, filling and planking alley from Chicago av. to W. White st. between Sedgwick and Townsend sts. ...	4,745 37
789	Curbing, grading and planking alley running N. and S. through bl'k 14, frac. sec. 15 addition.....	233 34
790	Filling, curbing and planking Calhoun place in bl'k 53, Original Town... ..	409 28
817	Curbing and filling Clark st. from 12th st. to 22d st.....	69,150 29
840	Curbing, filling and planking Marble place from State st. to Clark st.....	2,241 79
841	Grading and planking alley running N. and S. through bl'k 12, Duncan's add.....	986 87
842	Re-planking Couch place, in bl'k 34, Original Town.....	472 23
935	Macadamizing W. 12th st. fm. Reuben st. to S. Western av.	13,713 75
936	Filling Centre av. from Mitchell st. to Lumber st.....	2,871 66
937	Curbing, filling and planking alley in bl'k 25, Sch. Sec. add. to Chicago.....	2,233 19
938	Curbing and filling 4th av. from Taylor st. to 12th st.....	9,313 28
939	Curbing and filling W. Division st. from Milwaukee av. to N. branch of Chicago river.....	28,739 78
Total.....		\$232,418 59

STATEMENT OF ASSESSMENTS FOR MISCELLANEOUS STREET
AND ALLEY IMPROVEMENTS. (CONTINUED.)

No. of Warr'nt	NAME OF STREET,	Amount of Assessments.
	Forward....	\$232,418 59
940	Grading and macadamizing N. Halsted st. from N. branch of Chicago river to Division st	6,564 85
941	Curbing, filling and macadamizing Larrabee st. from Chi- cago av. to Clybourn av.....	25,682 10
944	Grading and graveling N. Halsted st. from Division st. to North av.....	9,382 39
945	Grading and planking alley running N. and S. through bl'k 8, frac. sec. 15.....	1,033 80
951	Grading and planking N. Branch st. from Halsted to Division st.....	8,940 04
953	Curbing, filling and planking alleys in bl'k 45, S. E. $\frac{1}{4}$ sec. 21, T. 39, R. 14.....	3,534 85
958	Grading and cindering Noble st. from Milwaukee av. to W. Clybourn place.....	1,639 63
987	Curbing, filling and planking Calhoun place, bl'k 55, Original Town.....	304 80
1,066	Curbing, grading and cindering Clybourn av. from North av. to Clybourn place.....	5,518 02
1,075	Curbing, grading and planking alley running N. and S. through bl'k. 5, frac. sec. 15 add.....	1,936 53
	Total.....	\$296,955 60

STATEMENT OF ASSESSMENTS FOR THE ERECTION
OF LAMP POSTS.

No. of Warrnt.	No. posts	NAME OF STREET.	FROM	TO	Amount of Assessment.
595	12	Blue Island av....	W. Harrison st...	W. 12th st.....	\$ 499 50
596	22	W. Harrison st...	Hal-ted st.....	Aberdeen st.....	747 00
597	20	Fulton st.....	Morgan st.....	N. Ada.....	684 00
598	9	Clinton st.....	W. Madison st...	W. Jackson st...	324 00
599	8	W. Adams st....	Reuben st.....	Loomis st.....	288 00
600	2	W. Jackson st....	Sangamon st.....	Morgan st.....	72 00
601	21	Polk st.....	Centre av.....	Blue Island av...	756 00
632	2	Jefferson st.....	De Koven st....	W Taylor st	72 00
633	5	Reuben st.....	Jackson st.....	Van Buren st....	180 00
634	14	Jackson st.....	State st.....	Market st.....	504 00
635	5	Reuben st.....	Washington av...	Fulton st.....	180 00
636	3	Throop st.....	W. Adams st....	W. Monroe st....	108 00
637	3	Lafin st	W. Adams st....	W. Monroe st....	108 00
638	6	Washington av...	Wood st.....	N. Lincoln st....	216 00
639	13	Centre st.....	Hurlbut st.....	N. Franklin st...	463 50
640	6	Hubbard st.....	Paulina st.....	Page st.....	216 00
641	27	W. Indiana st....	Mo gan st	Noble st.....	904 50
751	5	Grant place.....	Larrabee st.....	Hurlbut st.....	180 00
752	3	Pine st.....	Michigan st.....	Chicago av.....	108 00
753	21	Canal st.....	18th st.....	Harri-on st.....	1,048 95
754	5	Franklin st.....	Madison st.....	Randolph st. ...	191 25
755	5	Belden av.....	Hurlbut st.....	N Clark st.....	180 00
756	5	Peck st.....	Depot st.....	Fulton st.....	180 00
757	9	W. 12th st.....	Centre av.....	125 ft. W of Throop	324 00
758	10	Townsend st.....	Oak st.....	Division st.....	360 00
759	5	Reuben st.....	W. Lake st....	Fulton st.....	180 00
760	8	Lake av.....	Douglas place ...	Wahpanseh av...	288 00
761	2	North av.....	N. La Salle st....	N. Clark st.....	72 00
762	8	Paulina st.....	W. Kinzie st....	W. Indiana st....	288 00
763	4	Hurlbut st.....	Grant place.....	Belden av.....	144 00
764	8	Crosby st.....	Hobbie st.....	Larrabee st.....	288 00
765	7	Larrabee st.....	Crosby st.....	Chicago av.....	252 00
766	6	Wendell st.....	Sedgwick st....	N. Franklin st...	216 00
795	3	28th st.....	Wabash av.....	State st.....	108 00
798	3	Sophia st.....	N. Franklin st...	N. Clark st.....	108 00
809	4	Lincoln st.....	W. Madison st...	W. Lake st.....	144 00
810	7	La Salle st.....	North av.....	N. Clark st.....	252 00
814	11	Prairie av.....	31st st.....	33rd st.....	425 70
815	4	Indiana av.....	32d st.....	33rd st.....	144 00
820	14	Kankakee av....	29th st.....	31st st.....	541 80
821	3	Madison st.....	State st.....	Wabash av.....	108 00
823	3	13th st.....	Michigan av.....	Wabash av.....	108 00
823	14	N Wells st... ..	North av	Lincoln st.....	495 00
834	5	Wahpanseh av....	Cottage Grove av.	Lake st.....	180 20
837	9	Lincoln av.....	N. Franklin st...	Sedgwick st.....	324 00
857	16	Franklin st.....	Adams st.....	Harrison st.....	558 00

Amount forward.\$14,119 20

STATEMENT OF ASSESSMENTS FOR THE ERECTION
OF LAMP POSTS. (CONTINUED.)

No. of Wari'nt	No. posts	NAME OF STREET.	FROM	TO	Amount of Assessment.
				Forward....	\$14 119 20
865	6	W. Lake st.....	Oakley st.....	Western av.....	234 00
866	11	W. Van Buren st..	Aberdeen st.....	Throop st.....	385 00
867	11	W. 22nd st.....	Morgan st.....	Centre av.....	429 00
868	9	W. Indiana.....	N. Desplaines st..	N. Halsted st....	351 00
869	23	Canalport av.....	Halsted st.....	Canal st.....	740 00
870	3	South-western av.	At intersec'n with	W. Washington st	117 00
871	4	W. Van Buren st..	Canal st.....	Chicago river....	156 00
872	1	Sheldon st.....	W. Madison.....	W. Washington st	39 00
873	7	Fulton st.....	125 ft.N. of Hoyne	Robey st.....	273 00
874	5	Luke st.....	John st.....	Halsted st.....	195 00
875	2	Jefferson st.....	W. 12th st.....	Dussold st.....	78 00
876	5	Walnut st.....	Wood st.....	Lincoln st.....	195 00
877	8	W. Monroe st....	Leavitt st.....	Hoyne st.....	312 00
878	4	Carroll st.....	Halsted st.....	Union st.....	156 00
879	1	Elm st.....	Clark st.....	La Salle st.....	38 70
880	4	W. Van Buren st.	Sangamon st....	Halsted st.....	154 80
882	7	Dearborn st.....	Monroe st.....	Jackson st.....	285 50
883	20	Vincennes av....	Douglas place....	860ft.S.of Wahp'h	780 00
884	5	Egan av.....	Lake av.....	Ellis av.....	195 00
885	11	Ellis av.....	Wahpanseh av..	Egan av.....	429 00
886	7	29th st.....	State st.....	Ludiana av.....	273 00
887	34	22nd st.....	Grove st.....	State st.....	1,129 00
888	8	31st st.....	S. Park av.....	Cottage Grove av.	312 00
889	5	W. Madison st....	Western av.....	Oakley st.....	195 00
890	25	W. Division st....	Milwaukee av....	Chicago river....	850 00
891	7	Newberry st.....	W. 12th st.....	Maxwell st.....	270 90
892	2	Sherman st.....	W. Van Buren st.	Jackson st.....	78 00
893	4	29th st.....	S. Park av.....	Cottage Grove av	156 00
894	3	Aberdeen st.....	W. Van Buren st.	W. Jackson st....	117 00
895	3	26th st.....	Wabash av.....	State st.....	117 00
896	1	25th st.....	Michigan av.....	Wabash av.....	39 00
897	13	Sherman st.....	Taylor st.....	Harison st.....	478 00
898	29	W. Chicago av....	Noble st.....	Wood st.....	974 00
899	1	W. Taylor st.....	109 ft. E. of Canal	.....	39 00
900	7	Lytle st.....	W. 12th st.....	W. Taylor.....	312 00
901	1	De Koven st.....	109 ft. W. of Canal	.....	39 00
902	15	Warren av.....	Western av.....	Leavitt st.....	540 00
903	1	W. Lake st.....	N.W.cor. Peck st.	.....	39 00
904	14	Hoyne st.....	W. Monroe st....	W. Van Buren st.	509 00
905	15	Sangamon st.....	Milwaukee av....	Carroll st.....	540 00
906	5	Hoyne st.....	W. Madison st....	W. Monroe st....	195 00
907	7	W. Washington st	Clinton st.....	W. Water st.....	332 00
908	12	31st st.....	Indiana av.....	S. Park av.....	464 40
909	3	W. Jackson st....	Reuben st.....	Marshfield st....	117 00
910	10	Winchester av....	W. Madison st....	W. Jackson st....	385 00
911	8	Wahpanseh av....	Cottage Grove av	Vincennes av....	312 00
912	9	Polk st.....	State st.....	Chicago river....	320 00
913	16	N. State st.....	Oakwood st.....	Chicago av.....	496 00
914	10	Lake av.....	Oakwood av.....	Pier st.....	390 00

Amount forward.....\$29,680 50

STATEMENT OF ASSESSMENTS FOR THE ERECTION OF
LAMP POSTS. (CONTINUED.)

No. of Warr'nt	No. posts	NAME OF STREET.	FROM	TO	Amount of Assessment.
				Forward.....	\$29,680 50
915	4	Wabash av.....	33rd st.....	32nd st.....	156 00
916	31	Archer av.....	Halsted st.....	State st.....	1,098 50
917	21	North av.....	Clybourn av.....	Chicago river....	726 00
918	7	14th st.....	Clark st.....	State st.....	297 99
919	31	Chicago av.....	Grover st.....	N.Br'ch Chi. riv..	1,036 00
920	7	Jefferson st.....	W. Van Buren st.	W. Harrison st...	273 00
921	17	Union st.....	W. Madison st...	Hubbard st.....	614 50
922	4	W. Adams st.....	Winchester av...	Robey st.....	156 00
923	5	33rd st.....	Cottage Grove av	Lake Shore av...	195 00
924	13	Milwaukee av....	Noble st.....	Division st.....	478 00
925	7	Langley st.....	Wahpansah av...	800 ft. S. Wahpan.	273 00
926	3	31st st.....	Wabash av.....	State st.....	117 00
927	4	Elm st.....	N. Clark st.....	N. State st.....	154 80
928	3	30th st.....	Wabash av.....	State st.....	117 00
929	16	Ontario st.....	Kingsbury st....	N. Wells st.....	571 00
930	4	29th st.....	Calumet av.....	S. Park av.....	154 80
931	3	31st st.....	Cottage Grove av.	Cottage place....	117 00
932	2	Washington st....	Franklin st.....	La Salle st.....	103 00
933	4	25th st.....	Wabash av.....	State st.....	144 00
934	6	Cass st.....	Chicago av.....	Hinsdale st.....	234 00
946	2	La Fayette place..	Clark st.....	Dearborn st.....	77 40
947	1	Ontario st.....	N. Clark st.....	N. Dearborn st...	49 95
948	2	24th st.....	Wabash av.....	Michigan av.....	78 00
949	2	Chicago av.....	Rush st.....	Pine st.....	77 40
950	1	Dearborn place...	Washington st...	Randolph st.....	39 00
959	1	28th st.....	120 feet East of..	Wabash av.....	39 00
960	2	W. Jackson st....	Chilton st.....	Canal st.....	78 00
961	1	12th st.....	100 feet West of..	State st.....	39 00
962	2	Prairie av.....	Cottage Grove av	24th st.....	78 00
963	2	Quincy st.....	Clark st.....	Dearborn st.....	78 00
964	1	Oak st.....	N. Clark st.....	N. Dearborn st...	38 70
965	2	Griswold st.....	Jackson st.....	Van Buren st....	78 00
966	1	Calumet av.....	24th st.....	Cottage Grove av	39 00
967	2	26th st.....	Michigan av.....	Indiana av.....	78 00
968	9	S. Park av.....	24th st.....	Cottage Grove av	351 00
969	1	Cottage Grove av.	132 feet South of..	Wahpansah av...	39 00
970	1	23rd st.....	127 feet West of..	Wabash av.....	39 00
971	11	Huron st.....	N. Wells st.....	Townsend st....	416 00
972	12	W. Polk st.....	Canal st.....	Chicago river....	447 00
973	9	Granger st.....	N. Wells st.....	Sedgwick st.....	351 00
974	5	N. Halsted st....	W. Chicago av...	Chicago river....	195 00
975	5	Cottage place....	31st st.....	650 ft. S. thereof.	195 00
976	9	Myrick av.....	31st st.....	29th st.....	351 00
977	10	W. Polk st.....	Halsted st.....	Desplanes st, ...	385 00

Total.....\$40,333 54

STATEMENT OF ASSESSMENTS FOR LAYING PRIVATE
DRAINS.

No. of Warr'nt	NAME OF STREET.	FROM	TO	Amount of Assessment.
799	N. Clark st.....	Division st.....	North av.....	\$2,790 16
801	Randolph st.....	Michigan av.....	Chicago river.....	809 60
802	Eighteenth st.....	Wabash av.....	Chicago river.....	699 79
806	Madison st.....	Market st.....	State st.....	513 19
826	Polk st.....	State st.....	Chicago river.....	271 68
827	Fourteenth st....	State st.....	Wabash av.....	171 00
828	N. Dearborn st...	Schiller st.....	North av.....	971 02
829	N. Wells st.....	Kinzie st.....	Division st.....	728 10
831	Prairie av.....	Cottage Grove av..	Twenty ninth st...	1,745 00
886	Michigan av.....	Twenty-second st..	Twenty-ninth st...	1,827 31
838	Calumet av.....	Twenty-second st..	Cottage Grove av..	1,120 15
852	Halsted st.....	Archer av.....	Chicago river.....	526 80
854	N. Dearborn st...	Chicago river.....	North av.....	2,966 72
855	Twelfth st.....	State st.....	Chicago river.....	419 60
856	Indiana av.....	Twenty-second st..	Twenty ninth st...	1,043 50
858	Wabash av.....	Twenty-second st..	Twenty-ninth st...	2,359 29
1,043	Clinton st.....	W. Lake st.....	W. Kinzie st.....	890 68
1,044	Jefferson st.....	W. Randolph st...	W. Harrison st....	969 30
1,046	W. Washington st.	Green st.....	Elizabeth st.....	1,571 52
1,047	W. Adams st.....	Halsted st.....	Reuben st.....	2,878 96
1,048	Canal st.....	W. Twelfth st.....	W. Sixteenth st ...	955 52
1,049	Canal st.....	W. Madison st....	W. Twelfth st.....	3,956 24
1,050	Twelfth st.....	State st.....	Michigan av.....	175 15
1,051	Clinton st.....	W. Van Buren st..	W. Harrison st....	620 67
1,052	W. Kinzie st.....	Halsted st.....	Chicago river.....	203 56
1,053	W. Lake st.....	Halsted st.....	Reuben st.....	5,436 40
1,054	Jackson st.....	Michigan av.....	Chicago river.....	614 75
1,055	Archer av.....	Stewart av.....	Ogden slip.....	492 28
1,056	Clinton st.....	W. Madison st....	W. Van Buren st..	908 72
1,057	Halsted st.....	C. B. & Q R.R. cr'g	Chicago river.....	3,261 60
1,058	W. Washington st.	Chicago river.....	Green st.....	577 00
1,059	Harrison st.....	State st.....	Wells st.....	185 50
1,060	N. LaSalle st.....	Chicago river.....	North av.....	4,306 09
Total.....				\$46,966 85

STATEMENT OF ASSESSMENTS FOR LAYING WATER
SERVICE PIPES.

No. of Warr't	NAME OF STREET.	FROM	TO	Amount of Assessment.
698	Huron st.....	N. Clark st.....	N. State st.....	\$271 28
699	Ohio st.....	St. Clair st.....	Clark st.....	777 31
700	Sangamon st....	W. Van Buren st..	Fulton st.	2,161 31
701	N. Wells st.....	Kinzie st.....	Chicago av.....	1,543 96
702	Division st.....	N. Clark st.....	Clybourn av.....	668 25
703	W. Kinzie st.....	Canal st.....	Halsted st.....	212 70
704	Canal st.....	W. Twelfth st.....	W. Sixteenth st....	1,489 98
705	Harmon court....	State st.....	Michigan av.....	268 82
706	Pin ^e st.....	Michigan st.....	Chicago av.....	708 57
708	N. Clark st.....	Division st.....	North av.....	1,585 38
716	Clinton st.....	W. Van Buren st..	W. Madison st....	1,958 25
717	Washington st....	Market st.....	Franklin st.....	108 19
718	Monroe st.....	Clark st.....	Market st.....	601 69
796	Madison st.....	State st.....	Chicago river....	1,644 33
797	Wabash av.	Twenty-second st..	Twenty-ninth st...	3,336 54
803	Eighteenth st....	Wabash av.....	Chicago river....	1,102 32
804	N. Wells st.....	Chicago av.....	Division st.....	847 76
811	Polk st.....	State st.....	Chicago river....	588 68
812	Fourteenth st....	State st.....	Michigan av.....	125 24
813	Twelfth st.....	Michigan av.....	Twelfth st. bridge	813 66
819	Desplaines st....	W. Van Buren st..	Fourth st.....	1,666 41
824	W. Lake st.....	Halsted st.....	Paulina st.....	5,279 99
835	Indiana av.....	Twenty-second st..	Twenty-ninth st...	1,589 27
839	Calumet av.....	Twenty-first st....	Cottage Grove av..	1,047 80
843	Madison st.....	Halsted st.....	Robey st.....	6,795 16
845	Jefferson st.....	W. Van Buren st..	W. Randolph st...	1,267 65
846	W. Adams st.....	Halsted st.....	Reuben st.....	2,929 52
848	W. Washington st.	W. Water st.....	Elizabeth st.....	2,756 40
849	Canal st.	W. Madison st....	W. Twelfth st....	2,927 33
988	Clinton st.....	W. Lake st.....	West Kinzie st....	1,114 99
1,000	W. Lake st.....	Pauli a st.....	Western av.....	6,156 00
1,001	W. Harrison st...	Canal st.....	Halsted st.....	1,432 15
1,002	Archer av.....	State st.....	Ogden slip.....	2,172 20
1,003	Dearborn st.....	Monroe st.....	Jackson st.....	773 00
1,004	Archer av.....	Ogden slip.....	Halsted st.....	3,358 00
1,005	Halsted st.....	Archer av.....	R. R. cr'g, at 16th st	1,622 83
1,006	Sangamon st.....	Fulton st.....	Milwaukee av.....	2,587 50
1,007	W. Indiana st....	Desplaines st....	Noble st.	5,078 25
1,008	Milwaukee av....	Elston road.....	W. Division st....	4,731 00
1,009	Jefferson st.....	W. Van Buren st..	W. Harrison st....	1,023 00
1,010	W. Twelfth st....	Halsted st.....	Beach st.....	3,786 25
1,012	Michigan av.....	Twenty-second st..	Twenty-ninth st...	6,085 50
1,013	Halsted st.....	W. Lake st.....	N. br. Chicago riv.	3,072 00
1,014	Market st.....	Kinzie st.....	Chicago av.....	1,699 00

Amount forward.....\$91,765 42

STATEMENT OF ASSESSMENT FOR LAYING WATER SERVICE PIPES. (CONTINUED.)

No. of Warr'nt	NAME OF STREET.	FROM	TO	Amount of Assessment.
			Forward	\$91,765 42
1,015	Clybourne av....	Division st.....	North av.....	3,233 25
1,031	Chicago av.....	N. Clark st.....	E.line,B.50,Kin.add	655 50
1,032	N. La Salle st....	N. Water st.	Division st.....	3,428 00
1,033	N. Dearborn st...	N. Water st.....	Division st.....	2,907 11
1,034	North av.....	N. Wells st.....	N. br. Chicago riv..	6,484 50
1,035	N. Dearborn st...	Division st.....	North av.....	2,553 21
1,036	Clinton st.....	W. Van Buren st..	Harrison st.....	802 00
1,037	Randolph st.....	Michigan av.....	Chicago river.....	1,955 26
1,038	Ohio st.....	Clark st.....	Kingsbury st.....	3,191 50
1,039	Desplaines st....	W. Van Buren st..	W. Harrison st....	1,195 00
1,040	W. Van Buren st.	Chicago river.....	Canal st.....	282 00
1,041	W. Madison st....	Robey st.....	Western av.....	5,804 25
1,042	Harrison st.....	State st.....	Wells st.....	144 13
1,045	W. Van Buren...	Halsted st.....	Loomis	5,680 50
Total.....				\$130,081 63

STATEMENT OF ASSESSMENTS FOR LAYING GAS SERVICE PIPES.

No. of Warr'nt	NAME OF STREET.	FROM	TO	Amount of Assessment.
767	Adams st.....	Halsted st.....	Reuben st.....	\$617 40
768	Desplaines st....	W. Van Buren st..	W. Lake st.....	279 75
769	Jefferson st.....	W. Randolph st...	W. Van Buren st....	255 35
770	W. Lake st.....	Halsted st....	Reuben st.....	500 35
771	N. Desplaines....	Kinzie st.....	Fourth st.....	346 30
772	W. Van Buren st..	Halsted st.....	Canal st.....	290 75
773	Canal st.....	W. Harrison st....	W. Sixteenth st....	147 45
805	Halsted st.....	W. Sixteenth st....	Halsted st. bridge..	848 05
844	Clinton st.....	W. Madison st....	W. Van Buren st..	321 65
Total.....				\$3,607 05

STATEMENT OF ASSESSMENTS FOR CONSTRUCTION OF
SIDEWALKS.

No. of Warr'nt	NAME OF STREET.	FROM	TO	Amount of Assessment.
609	Shurtleff av.	Twenty-sixth st...	Napoleon place ...	\$131 40
610	Lake av.	Douglas place.	Egan av.	189 45
611	Lincoln st.	Lake st.	Washington st.	47 25
612	Wentworth av.	Sixteenth st.	Thirty-first st.	432 00
613	Butterfield st.	Twenty-seventh st.	Thirty-third st.	353 70
614	Farrell st.	Archer av.	C. & St. L. R. R. ...	135 00
615	Indiana st.	Lincoln st.	Robey st.	86 40
616	Bonfield st.	C & St. L. R. R. cross.	Hickory st.	121 50
617	Joseph st.	Archer av.	Hickory st.	236 34
618	Nineteenth st.	State st.	Blackwell st.	145 35
619	Lock st.	Archer av.	Thirty-first st.	148 95
620	Arnold st.	Thirty-first st.	Thirty-third st.	160 00
621	McGregor st.	Builer st.	Wentworth av.	22 50
622	Deering st.	Archer av.	C. & St. L. R. R. ...	11 25
623	Twentieth st.	Grove st.	Wentworth av.	56 25
624	Lytle st.	Taylor st.	Twelfth st.	61 20
625	Henry st.	Blue Island av.	Eastern terminus of Henry st.	454 95
626	Sanger st.	Archer av.	Twenty-sixth st. ...	108 23
627	Broad st.	Archer av.	Thirty first st.	30 71
643	Loomis st.	Twelfth st.	Sixteenth street. ...	264 33
644	Lyman st.	Main st.	Deering st.	535 35
645	Bushnell st.	Hanover st.	Archer av.	137 96
646	Centre av.	Sixteenth st.	Twenty-second st. .	23 14
647	Rebecca st.	Lafin st.	Reuben st.	32 04
648	Mitchell st.	Blue Island av.	Waller st.	96 12
649	Oneida st.	Laurel st.	Halsted st.	352 29
650	Centre av.	W. Twelfth st.	Blue Island av.	95 23
651	Pitney st.	Archer av.	Thirty-first st.	32 04
652	Purple st.	Nineteenth st.	Archer av.	240 32
653	Hickory st.	Main st.	Deering st.	122 57
654	Union st.	Sixteenth st.	Twenty-second st. .	102 80
655	Catherine st.	Centre av.	Morgan st.	217 36
656	Thirty-first st.	Halsted st.	Wentworth av.	756 45
657	Bryant st.	Vincennes av.	Moonaway place. .	111 24
658	Forest av.	Thirty-first st.	Douglas place.	233 61
660	Catherine st.	Canal st.	Stewart av.	44 50
661	Wrong st.	Main st.	S. W. cor. lot 10, B. 24, sec. 29.	120 15
662	Lancaster av.	Benson st.	Ullman st.	121 04
663	Whiting st.	Market st.	Delavan's addition.	22 25
664	Brown st.	Twelfth st.	Sixteenth st.	21 36
680	McHenry st.	Blanch st.	Wabansia av.	109 02
681	State st.	Douglas place.	Egan av.	890 22
682	Sampson st.	Lafin st.	Reuben st.	266 11

Amount forward.....\$7,879 94

STATEMENT OF ASSESSMENTS FOR CONSTRUCTION OF
SIDEWALKS. (CONTINUED.)

No. of Warrant	NAME OF STREET.	FROM	TO	Amount of Assessments.
			Forward	\$7,879 94
683	Twenty-fourth st.	Butler st.....	Clark st.....	432 21
684	English st.....	Centre av.....	May st.....	150 04
685	Tyler st.....	Centre av.....	Throop st.....	22 26
686	W. Eighteenth st..	Canal st.....	Halsted st.....	140 18
687	Holt st.....	Division st.....	Bradley st.....	42 72
688	Northern av.....	Cottage Grove av..	Illinois Central R R	72 53
690	Mitchell st.....	Lafin st.....	Reuben st.....	234 07
691	Hoynes st.....	W. Van Buren st..	W. Harrison st....	21 81
692	Clayton st.....	Centre av.....	May st.....	233 67
693	Thirty-first st....	Deering st.....	Pitney st.....	218 27
694	Morgan st.....	Twelfth st.....	Sixteenth st.....	427 62
695	Archer av.....	Beers st.....	S. br. Chicago riv..	311 55
696	Hastings st.....	Lafin st.....	Reuben st.....	266 11
697	Dashiel st.....	Douglas place.....	Egan av.....	74 76
732	Rebecca st.....	Morgan st.....	Centre av.....	142 85
733	Sholto st.....	Eleventh st.....	Polk st.....	33 38
734	Shurtleff av.....	Thirty-first st....	Thirty-third st....	166 88
735	Wood st.....	W. Madison st....	W. Van Buren st..	125 94
736	Kinzie st.....	Elizabeth st.....	Western av.....	190 94
737	Ruble st.....	Sixteenth st.....	Eighteenth st.....	85 44
738	Dussold st.....	Jefferson st.....	Halsted st.....	134 85
739	W. Twelfth st....	Lafin st.....	Reuben st.....	53 40
740	Wright st.....	Canal st.....	Stewart av.....	44 50
741	Coolidge st.....	Waller st.....	Blue Island av....	60 97
742	Buddan st.....	Twenty-sixth st...	Thirty-first st....	282 12
743	W. Washington st.	Leavitt st.....	Western av.....	21 36
744	Hastings st.....	Reuben st.....	Wood st.....	96 12
745	Western av.....	W. Madison st....	W. Van Buren st..	200 25
746	Kossuth st.....	Wentworth av.....	Halsted st.....	1,218 40
747	Mitchell st.....	Reuben st.....	Paulina st.....	131 72
748	Catherine st.....	Throop st.....	Loomis st.....	10 68
800	Bunker st.....	Canal st.....	Beach st.....	186 01
807	Langley st.....	Egan av.....	Wahpanseh av....	29 04
825	Paulina st.....	W. Jackson st....	W. Madison st....	46 73
822	Reuben st.....	Cornelia st.....	Division st.....	19 53
830	John st.....	Evans st.....	Twenty second st..	66 78
832	Asylum place....	Hurlbut st.....	Halsted st.....	59 18
847	Wallace st.....	Douglas place.....	Esplanade st.....	170 88
850	Curtis st.....	Second st.....	May.....	26 70
851	Twenty-third st..	Stewart av.....	Buddan st.....	161 16
853	Evans st.....	Halsted st.....	John st.....	111 72
989	Catherine st.....	Loomis st.....	Wood st.....	459 24
990	Barber st.....	Canal st.....	Halsted st.....	327 60
991	Mitchell st.....	Loomis st.....	Paulina st.....	525 99
992	W. Harrison st...	Centre av.....	Reuben st.....	743 07
993	W. Adams st.....	Reuben st.....	Lafin st.....	133 56
994	Seward st.....	Canalport av.....	Lumber st.....	85 01
995	Throop st.....	W. Taylor st.....	W. Twelfth st....	144 58
996	String st.....	Canalport av.....	Sixteenth st.....	550 54

Amount forward.....\$17,374 91

STATEMENT OF ASSESSMENTS FOR CONSTRUCTION OF
SIDEWALKS. (CONTINUED.)

No. of Warr'nt	NAME OF STREET.	FROM	TO	Amount of Assessments.
			Forward	\$17,374 91
997	Ann st.....	W. Kinzie st.....	Carroll st.....	126 38
998	Coolidge st.....	Blue Island av.....	Waller st.....	107 69
999	Gardner st.....	Vine st.....	Halsted st.....	13 35
1,011	Wabash av... ..	Thirty-second st...	Douglas place.....	89 04
1,016	Twenty-seventh st	Wentworth av.....	Stewart av.....	214 04
1,017	Reuben st.....	Harbine st.....	Madison st.....	396 50
1,018	W. Harrison st...	Canal st.....	Beach st.....	81 86
1,019	N. Branch st.....	Bliss st.....	Division st.....	107 23
1,020	W. Harrison st...	Lytle st.	Leavitt st.....	588 87
1,021	Fulton st.....	Leavitt st.....	Oakley st.....	97 46
1,022	W. Kinzie st.....	Reuben st.....	Paulina st.....	193 13
1,023	Emerald st.....	Douglas place.....	Egan av.....	360 90
1,024	Walnut st.....	Hoyne st.....	Oakley st.....	44 07
1,025	Cherry av	Bliss st.....	Division st.....	66 78
1,026	Ridgeville road...	Clybourn place...	North av.....	214 55
1,027	Clybourn place...	N. Br. Chicago riv.	Commercial st....	375 14
1,028	Milwaukee av....	Wood st.....	North av.....	122 43
1,029	Ashley st.....	Wood st.....	Hoyne st.....	730 08
1,030	Thirty-third st...	Cottage Grove av..	Illinois Cent'l R. R.	44 50
				\$21,348 91

SUMMARY.

TOTAL ASSESSMENTS FOR STREET OPENINGS AND WIDENINGS.

North Division.....	\$57,749 99	
South Division.....	235,919 20	
West Division.....	173,851 92	
	<u>467,521 11</u>	\$467,521 11

TOTAL ASSESSMENTS FOR ALLEY OPENINGS AND WIDENINGS.

North Division.....	\$20,785 99	
South Division.....	3,500 25	
West Division.....	5,274 03	
	<u>29,560 27</u>	29,560 27

TOTAL ASSESSMENTS FOR WOODEN BLOCK PAVEMENT, INCLUDING CURBING AND FILLING.

North Division.....3.85 miles	\$553,311 48	
South Division.....6.61 "	464,311 79	
West Division.....9.40 "	782,854 25	
	<u>1,800,477 52</u>	1,800,477 52

TOTAL ASSESSMENTS FOR MISCELLANEOUS STREET AND ALLEY IMPROVEMENTS.

North Division.....	\$94,408 73	
South Division.....	85,957 30	
West Division.....	116,589 57	
	<u>296,955 60</u>	296,955 60

TOTAL ASSESSMENTS FOR ERECTION OF LAMP POSTS.

North Division.....186 posts,	\$ 6,673 45	
South Division.....352 "	13,208 94	
West Division.....554 "	20,451 15	
	<u>40,333 54</u>	40,333 54

TOTAL ASSESSMENTS FOR CONSTRUCTION OF PRIVATE DRAINS.

North Division.....	\$11,762 09	
South Division.....	12,974 59	
West Division.....	22,230 17	
	<u>46,966 85</u>	46,966 85

TOTAL ASSESSMENTS FOR LAYING OF WATER SERVICE PIPES.

North Division.....	\$30,554 58	
South Division.....	25,714 63	
West Division.....	73,812 42	
	<u> </u>	130,081 63

TOTAL ASSESSMENTS FOR LAYING OF GAS SERVICE PIPE.

North Division.....		
South Division.....		
West Division.....	\$3,607 05	
	<u> </u>	3,607 05

TOTAL ASSESSMENTS FOR CONSTRUCTION OF SIDEWALKS.

North Division.....	\$255 44	
South Division.....	9,782 16	
West Division.....	11,311 31	
	<u> </u>	21,348 91

Total amount of assessments for the North, South and West Divisions.....		<u> </u>	\$2,836,852 48
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NORTH DIVISION.

Total amount of assessments for street improvements.....	\$775,501 75	
Total amount payable out of Appropriation Fund on account of same.....	104,357 44	
	<u> </u>	\$879,859 19

SOUTH DIVISION.

Total amount of assessments for street improvements....	\$851,368 86	
Total amount payable out of Appropriation Fund on account of same.....	101,600 65	
	<u> </u>	952,969 51

WEST DIVISION.

Total amount of assessments for street improvements.....	\$1,209,981 87		
Total amount payable out of Appropriation Fund on account of same.....	191,043 97		
	<u> </u>	1,401,025 84	
Total estimated cost of street improvements in the North, South and West Divisions.....		<u> </u>	\$3,233,854 54

TO BE PAID FROM APPROPRIATION FUND FOR STREET IMPROVEMENTS IN THE

North Division.....	\$104,357 44	
South Division.....	101,600 65	
West Division.....	191,043 97	
	<hr/>	
Total		\$397,002 06

Total number of Lamp Posts provided for by assessment:

IN THE NORTH DIVISION,

From April 1st, 1869, to April 1st, 1870.....	186	
Posts erected prior to April 1st, 1869.....	1027	
	<hr/>	1213

IN THE SOUTH DIVISION,

From April 1st, 1869, to April 1st, 1870.....	352	
Posts erected prior to April 1st, 1869.....	1411	
	<hr/>	1763

IN THE WEST DIVISION,

From April 1st, 1869, to April 1st, 1870	554	
Posts erected prior to April 1st, 1869.....	1858	
	<hr/>	2412

Total number of Lamp Posts in the city.....		<hr/>
		5388

The following is a statement of the amount of work done and to be done on account of street improvements provided for by the assessments of the year ending April 1st, 1870:

Whole number of cords of Curb Wall.....	28,309 98-100
Whole number of lineal feet of Curb Stone.....	84,926 01-100
Whole number of cubic yards of Filling.....	439,504 84-100
Whole number of cubic yards of Excavating and Grading.....	82,980 96 100
Whole number of square yards of Wooden Block Paving.....	513,023 20-100
Whole number of miles of Wooden Block Pavement... ..	19 86-100
Whole number of cubic yards of Graveling.....	907 27-100

During the past year there has been prepared and sent to the Council the following number of Ordinances in connection with the special assessment business of the Board :

For Street Improvements.....	121
For Alley Improvements.....	16
For Miscellaneous Improvements.....	67
For Sidewalks.....	169
For the erection of Lamp Posts.....	98
For the construction of Private Drains.....	25
For laying Water Service Pipe.....	86
For laying Gas Service Pipe.....	15
For Street and Alley Openings and Widening.....	24
Total.....	621

The following list shows the total amount of assessments made in each year by the Board of Public Works since it was created in 1861 :

For the year ending April 1st, 1862.....	\$ 42,635 49
For the year ending April 1st, 1863.....	46,493 67
For the year ending April 1st, 1864.....	339,169 31
For the year ending April 1st, 1865.....	103,576 35
For the year ending April 1st, 1866.....	802,574 56
For the year ending April 1st, 1867.....	317,206 18
For the year ending April 1st, 1868.....	1,354,436 48
For the year ending April 1st, 1869.....	2,395,683 03
For the year ending April 1st, 1870.....	2,836,852 48
Total for nine years.....	\$8,288,627 55

LINEAL FEET OF WOODEN BLOCK PAVEMENT IN

North Division.....	39,970
South Division.....	79,388
West Division.....	79,205

Lineal feet of Wooden Block Pavement in the North, South and West Divisions..... 198,563

Number miles of Wooden Block Pavement in the North, South and West Divisions37.60

LINEAL FEET OF BOULDERS IN

North Division..... 1,250
 South Division..... 19,900
 West Division.....

Lineal feet of Boulders in the North and South Divisions.... 21,150
 Number miles of Boulders in the North and South Divisions, 3.77

LINEAL FEET OF McADAM IN

North Division..... 9,850
 South Division 22,040
 West Division.....: 27,560

Lineal feet of McAdam in the North, South and West Divisions, 59,450
 Number miles of McAdam in the North, South and West Divisions.....11.26

LINEAL FEET OF GRAVELING IN

North Division..... 8,150
 South Division..... 25,820
 West Division.....

Lineal feet of Graveling in the North and South Divisions... 33,970
 Number miles of Graveling in the North, and South Divisions, 6.43

LINEAL FEET OF CINDERING IN

North Division.....
 South Division..... 6,600
 West Division..... 6,020

Lineal feet of Cindering in the South and West Divisions.... 12,620
 Number miles of Cindering in the South and West Divisions, 2.40

LINEAL FEET OF CURBING IN

North Division..... 87,490
 South Division.....171,884
 West Division.....235,010

Lineal feet of Curbing in the North, South and West Divisions 494,384

Total number of miles of street in the city..... 531.25
 Total number of miles Improved..... 61.46
 Total number of miles Unimproved..... 469.79

ALPHABETICAL LIST OF THE STREETS IN THE CITY,
SHOWING THEIR LENGTH, AND THE NUMBER OF FEET
IMPROVED AND UNIMPROVED.

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
A	1,230	....	1,230
Aberdeen	5,280	....	5,280
Ada	3,560	....	3,560
Albany	1,060	....	1,060
Adams	17,400	10,560	6,840
Adelaide	590	....	590
Alexander	1,280	....	1,280
Almond.....	420	....	420
Ames	1,240	....	1,240
Ann	2,640	....	2,640
Archer av.....	18,860	11,230	7,630
Armitage road.....	5,680	....	5,680
Armour	2,650	....	2,650
Arnold.....	7,350	....	7,350
Arthington.....	780	....	780
Arthur	1,400	....	1,400
Ashley	1,930	....	1,930
Ashland	1,400	....	1,400
Astor	1,390	....	1,390
Asylum place	9,500	....	9,500
Auburn.....	1,420	....	1,420
Augusta	8,120	....	8,120
Attica	1,230	....	1,230
Bank	940	....	940
Baldwin	230	....	230
Barber.....	2,580	....	2,580
Batavia	650	....	650
Bates	650	....	650
Bauwans	770	....	770
Beach.....	3,960	....	3,960
Benton.....	670	....	670
Benson	700	....	700
Belknap.....	250	....	250
Belden av	4,900	....	4,900
Berlin	1,290	....	1,290
Barker av	620	....	620
Better	550	....	550
Bickerdike	1,860	....	1,860
Barry Point road.....	7,750	....	7,750
Birch	650	....	650
Bishop court	440	....	440
Bissell	3,760	....	3,760
Bixby place	400	....	400
Blackhawk.....	5,975	....	5,975
Forward	136,005	21,790	114,215

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward	136,005	21,790	114,215
W. Blackhawk	2,300	....	2,300
Blackwell	950	....	950
Blair	550	....	550
Blanche	2,550	....	2,550
Bliss	1,000	....	1,000
Block	635	....	635
Bloomington road	3,351	....	3,351
Blucher	350	....	350
Blue Island av.	9,205	9,205	....
Bianchard	1,200	....	1,200
Bonaparte	250	....	250
Bonfield	1,950	....	1,950
Boon	200	....	200
Bowery	400	....	400
Bradwell av	3,215	....	3,215
Bradley	1,480	....	1,480
Bremen place	1,290	....	1,290
Bremer	2,580	1,320	1,260
Brigham	1,300	....	1,300
Broad	720	....	720
Broadway av	700	....	700
Broadway place	1,580	....	1,580
Broom	535	....	535
Brown	6,660	....	6,660
Bross av	2,800	....	2,800
Bryant	600	....	600
Bryant place	680	....	680
Bryson	1,300	....	1,300
Buddan	7,190	....	7,190
Buena Vista place	250	....	250
Bunker	2,460	....	2,460
Burling	4,540	....	4,540
Burlington	1,000	....	1,000
Burnside	8,420	....	8,420
Burton place	375	....	375
Bushnell	2,190	....	2,190
Butler	1,650	....	1,650
Butterfield	8,600	....	8,600
Boardman	910	....	910
Beers	5,280	....	5,280
B	1,230	....	1,230
C	1,230	....	1,230
Calumet av	8,090	1,100	6,990
Calhoun place	2,350	....	2,350
Campbell	7,920	....	7,920
Canal	13,180	9,200	3,980
California	5,280	....	5,280
Canal place	525	....	525
Canalport av	3,800	....	3,800
Carl	400	....	400
Forward	273,206	42,615	230,591

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward.....	273,206	42,615	230,591
Carroll.....	6,720	....	6,720
Carpenter.....	6,315	....	6,315
Cutler.....	500	....	500
Cass.....	2,650	....	2,650
Catherine.....	16,400	....	16,400
Cayuga.....	1,230	....	1,230
Cedar.....	920	....	920
Centre av.....	12,660	....	12,660
Centre place.....	850	....	850
Central av.....	550	68	482
Champlain.....	2,000	....	2,000
Centre.....	6,735	....	6,735
Chapin.....	630	....	630
Charles.....	880	....	880
Charles place.....	400	....	400
Chase.....	850	....	850
Cherry av.....	3,510	....	3,510
Chestnut.....	850	....	850
Chestnut place.....	1,100	....	1,100
Chicago av.....	28,020	3,370	24,650
Church.....	3,880	....	3,880
Church place.....	630	....	630
Church court.....	1,330	....	1,330
Churchhill.....	1,300	....	1,300
Clarinda.....	1,900	....	1,900
Clark.....	32,050	21,150	10,900
Clay.....	1,300	....	1,300
Clayton.....	8,300	....	8,300
Cleaver.....	1,810	....	1,810
Clinton.....	8,950	3,220	5,730
Clybourn av.....	10,390	....	10,390
Clybourn place.....	5,156	....	5,156
Coblentz.....	2,600	....	2,600
Cologne.....	3,590	....	3,590
Columbia.....	4,600	....	4,600
Commercial.....	2,640	....	2,640
Congress.....	870	....	870
College.....	620	....	620
Connor.....	650	....	650
Collax.....	2,250	....	2,250
Cook.....	3,240	....	3,240
Cooper.....	520	....	520
Coolidge.....	3,760	....	3,760
Cork.....	620	....	620
Cornell.....	2,390	....	2,390
Cornelia.....	3,955	....	3,955
Corwin.....	630	....	630
Cottage Grove av.....	11,100	11,100	....
Cottage place.....	620	....	620
Couch place.....	2,330	....	2,330
Forward.....	490,957	81,523	409,434

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improv'd.	Lineal ft. Unimprov'd
Brought forward.....	490,957	81,523	409,434
Coulter	2,640	....	2,640
Court place.....	1,900	....	1,900
Cortland	1,840	....	1,840
Coventry.....	2,250	....	2,250
Cox.....	265	....	265
Crawford	250	....	250
Crippen	1,320	....	1,320
Crittenden	920	....	920
Crittenden av.....	820	....	820
Crooked	1,000	....	1,000
Crosby.....	1,800	....	1,800
Crossing	1,210	....	1,210
Currier	900	....	900
Custom House place	350	....	350
Curtis.....	4,590	....	4,590
Cypress	1,240	....	1,240
Cortez	1,320	....	1,320
Crab.....	280	....	280
Cossitt	1,180	....	1,180
Charlotte	590	....	590
Cross	900	....	900
D.....	1,230	....	1,230
Damon.....	550	....	550
Dashiel	1,930	....	1,930
Dakotah av.....	650	....	650
Dayton	5,555	....	5,555
Davis	2,640	....	2,640
Dean	470	....	470
Dearborn	10,310	8,580	1,730
Dearborn place	850	850	....
DeKoven.....	1,780	....	1,780
DeKalb	1,550	....	1,550
Depot.....	1,600	....	1,600
Depot place	1,600	....	1,600
Derrick	640	....	640
Deering	3,100	....	3,100
Depuyster.....	840	....	840
Desplaines	9,580	5,620	3,960
Dexter place.....	350	....	350
Dickson.....	2,260	....	2,260
Dieden.....	650	....	650
Diller.....	1,280	....	1,280
Dinet.....	340	....	340
Division.....	27,390	2,900	24,490
Dix.....	1,465	....	1,465
Dock.....	130	....	130
Dodge.....	1,300	....	1,300
Douglas place.....	17,070	....	17,070
Dudley.....	4,565	....	4,565
Dunn.....	250	....	250
Forward.....	620,447	99,473	520,974

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward.....	620,447	99,473	520,974
Dussold.....	650	....	650
Deerpath avenue.....	1,320	....	1,320
Derby.....	3,960	....	3,960
E.....	1,230	....	1,230
Eagle.....	850	....	850
Eastman.....	2,450	....	2,450
Eda.....	1,320	....	1,320
Edward.....	540	....	540
Egan avenue.....	21,970	....	21,970
Egania place.....	650	....	650
Eldridge court.....	870	....	870
Eleventh.....	550	....	550
Elgin.....	1,050	....	1,050
Elizabeth.....	3,950	....	3,950
Elk Grove.....	3,915	....	3,915
Elk.....	315	....	315
Ellen.....	840	....	840
Elmira.....	1,230	....	1,230
Elm.....	5,660	....	5,660
Elston road.....	11,800	....	11,800
Elsworth.....	1,220	....	1,220
Ellis.....	450	....	450
Ellis avenue.....	2,700	....	2,700
Eighteenth.....	7,360	2,510	4,850
Emily.....	1,280	....	1,280
Emerald avenue.....	3,920	....	3,920
Emerald.....	1,350	....	1,350
Emma.....	2,220	....	2,220
English.....	3,090	....	3,090
Erie.....	12,420	....	12,420
Esplanade.....	1,300	....	1,300
Eugenie.....	1,030	....	1,030
Evans.....	9,080	....	9,080
Ewing.....	3,740	....	3,740
Edgar.....	1,300	....	1,300
F.....	1,230	....	1,230
Francisco.....	2,640	....	2,640
Fall.....	800	....	800
Fabius.....	1,275	....	1,275
Farrell.....	2,100	....	2,100
Fay.....	600	....	600
Ferdinand.....	3,230	....	3,230
Fifth.....	1,110	....	1,110
Fifteenth.....	800	....	800
Finell.....	1,100	....	1,100
Fig.....	980	....	980
First.....	4,290	....	4,290
Fisk.....	3,125	....	3,125
Fleetwood.....	3,295	....	3,295
Florimond.....	500	....	500
Forward.....	765,102	101,983	663,119

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward	765,102	101,983	663,119
Flournoy	3,200	....	3,200
Fort	300	....	300
Foster	1,235	....	1,235
Forest avenue.....	4,510	....	4,510
Forquer.....	3,350	....	3,350
Fountain	1,320	....	1,320
Fourth.....	17,890	....	17,890
Fourteenth	2,070	....	2,070
Fourth avenue.....	1,420	....	1,420
Fowler	770	....	770
Fox place.....	520	....	520
Fox.....	1,330	....	1,330
Frankford	2,600	....	2,600
Franklin.....	13,180	1,620	11,560
Fremont	3,175	....	3,175
Freeman.....	2,640	....	2,640
Front.....	2,300	....	2,300
Fry	1,610	....	1,610
Fulton	18,000	....	18,000
Fuller.....	1,800	....	1,800
Fullerton avenue....	14,700	....	14,700
Furlong.....	1,320	....	1,320
Fairfield avenue..	1,320	....	1,320
Fillmore	1,200	....	1,200
Geddis	900	....	900
Good	550	....	550
Gurley.....	2,250	....	2,250
Gage	2,640	....	2,640
Gano	840	....	840
Gardner	1,150	....	1,150
Garden	400	....	400
Garibaldi	2,560	....	2,560
George.....	1,435	....	1,435
George place	250	....	250
Girard	3,915	....	3,915
Gilpin	1,250	....	1,250
Goethe.....	1,835	....	1,835
Grant	375	....	375
Grant place	1,300	....	1,300
Grand	1,900	....	1,900
Graves place	520	....	520
Grape	650	....	650
Grand Haven	1,050	....	1,050
Greeley	450	....	450
Green	8,280	....	8,280
Greenwich.....	1,300	....	1,300
Grove	4,940	....	4,940
Grace.....	460	....	460
Granger	1,000	....	1,000
Grover.....	1,035	....	1,035
Forward	910,097	103,603	806,494

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward	910,097	103,603	806,494
Griswold	2,980	1,670	1,310
Gold	420	....	420
Genesee av.	2,640	....	2,640
Haines	1,200	....	1,200
Halsted	36,960	22,090	14,870
Hall	640	....	640
Haddock place	2,690	....	2,690
Hamilton	1,050	....	1,050
Hamilton av.	810	....	810
Hammond	650	....	650
Hanover	1,990	....	1,990
Harbine	7,920	....	7,920
Hinsdale	2,680	....	2,680
Hinman	600	....	600
Hinsche	1,770	....	1,770
Hir-che	4,720	....	4,720
Hobbie	1,940	....	1,940
Hoey	400	....	400
Holden place	850	....	850
Holstein av	3,250	....	3,250
Harmon court	870	350	520
Harper	400	....	400
Harrison	27,270	1,600	25,670
Hart	250	....	250
Hastings	6,050	....	6,050
Hawthorn av.	7,620	....	7,620
Hawk	450	....	450
Haynes	430	....	430
Henry	6,360	....	6,360
Henshaw av.	4,000	....	4,000
Hermitage av.	2,570	....	2,570
Herndon	1,185	....	1,185
Hervey	5,100	....	5,100
Hewes	630	....	630
Hickory	3,700	....	3,700
Hickory av.	3,050	....	3,050
High	1,000	....	1,000
Hills	1,475	....	1,475
Holt	2,590	....	2,590
Homer	1,915	....	1,915
Honore	2,640	....	2,640
Hope	650	....	650
Hotchkiss	455	....	455
Houston	800	....	800
Howe	1,560	....	1,560
Howard	2,600	....	2,600
Hoyne	13,070	....	13,070
Hooker	3,700	....	3,700
Hubbard	12,810	....	12,810
Hubbard court	870	....	870
Forward	1,102,327	129,313	973,014

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Unimpro'd Lineal ft.
Brought forward	1,102,327	129,313	973,014
Hubbs	1,290	....	1,290
Hull	650	....	650
Hunt	550	....	550
Hurlbut	7,415	....	7,415
Huron	5,940	800	5,140
Hamilton	1,075	....	1,075
Holden	1,300	....	1,300
Heyam	5,280	....	5,280
Iglehart av.	7,920	....	7,920
Illinois	4,770	....	4,770
Indiana	17,540	....	17,540
Indiana av.	13,360	6,550	6,810
Ingraham	780	....	780
Iowa	3,800	....	3,800
Iron	650	....	650
Irwin	450	....	450
Jackson	23,040	1,625	21,415
James av.	1,290	....	1,290
Jane	1,600	....	1,600
Jefferson	12,960	4,230	8,730
Jesse place	250	....	250
John	1,930	....	1,930
John place	520	....	520
Johnson av.	700	....	700
Johnson	3,470	....	3,470
Joliet	250	....	250
Jones av.	1,750	....	1,750
Joseph	850	....	850
Judd	1,320	....	1,320
Judson	400	....	400
Julian	1,300	....	1,300
Julius	220	....	220
Jones	1,270	....	1,270
Kansas	1,870	....	1,870
Keeley	1,160	....	1,160
Kernon	1,950	....	1,950
Kendall	1,150	....	1,150
Kingsbury	3,290	....	3,290
Kieth	670	....	670
Kinzie	26,850	5,610	21,240
Kissam	1,250	....	1,250
Knerr	520	....	520
Kossuth	3,690	....	3,690
Kramer	1,200	....	1,200
Kroger	670	....	670
Kankakee av.	10,560	....	10,560
Labar	1,100	....	1,100
Lafayette place	400	....	400
Laffin	10,560	....	10,560
Lake	27,460	16,265	11,195
Forward	1,322,567	164,393	1,158,174

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward.....	1,322,567	164,393	1,158,174
Lake av.....	4,410	....	4,410
Larrabee.....	10,560	....	10,560
Langley.....	1,100	....	1,100
Lancaster.....	1,290	....	1,290
LaSalle.....	13,240	3,620	9,620
Laughton.....	2,640	....	2,640
Laurel.....	5,280	....	5,280
Lawrence.....	420	....	420
Leavitt.....	21,300	....	21,300
Leavenworth.....	1,300	....	1,300
Lee place.....	650	....	650
Leeve.....	500	....	500
Lewis.....	1,575	....	1,575
Lexington.....	900	....	900
Lime.....	1,400	....	1,400
Lincoln.....	17,130	....	17,130
Lincoln av.....	5,200	....	5,200
Linden.....	1,310	....	1,310
Lisle.....	450	....	450
Lock.....	2,000	....	2,000
Lockport.....	460	....	460
Loewe.....	1,020	....	1,020
Lowe av.....	2,740	....	2,740
Laimbeer.....	3,720	....	3,720
Long John.....	5,280	....	5,280
Loomis.....	12,460	....	12,460
Lubeck.....	2,600	....	2,600
Luce.....	430	....	430
Luke.....	3,090	....	3,090
Lundy's Lane.....	1,270	....	1,270
Lull.....	350	....	350
Lumber.....	11,650	....	11,650
Lydia.....	850	....	850
Lynch place.....	350	....	350
Lytle.....	2,550	....	2,550
Lyman.....	2,220	....	2,220
Lessing.....	700	....	700
Liberty.....	2,550	....	2,550
Macalester place.....	1,260	....	1,260
Macedonia.....	810	....	810
Madison.....	27,380	15,950	11,430
Main.....	4,000	....	4,000
Mautene court.....	410	....	410
Maple.....	1,300	....	1,300
Marble place.....	1,480	....	1,480
Marcy.....	1,400	....	1,400
Margaret.....	660	....	660
Market.....	10,050	4,450	5,600
Market square.....	800	....	800
Marvin.....	640	....	640
Forward.....	1,519,702	188,413	1,331,289

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'd
Brought forward.....	1,519,702	188,413	1,331,289
Mark	450	....	450
Mark av.....	670	....	670
Marshfield.....	1,650	....	1,650
Mather.....	1,990	....	1,990
Mathew.....	580	....	580
Maxwell.....	6,120	....	6,120
Mary.....	900	....	900
May.....	4,450	....	4,450
McAlpine.....	1,500	....	1,500
McCagg place.....	370	....	370
McGlashen.....	470	....	470
McGregor.....	3,350	....	3,350
McGrath.....	1,360	....	1,360
McHenry.....	2,250	....	2,250
McMullen court.....	830	....	830
McReynolds.....	1,300	....	1,300
Meeker.....	5,280	....	5,280
Mendell.....	900	....	900
Menominie.....	2,600	....	2,600
Meridian.....	850	....	850
Michigan.....	4,400	3,150	1,250
Michigan av.....	21,740	15,800	5,940
Mill.....	640	....	640
Miller.....	1,720	....	1,720
Milwaukee av.....	13,950	11,600	2,350
Mitchell.....	14,660	....	14,660
Mohawk.....	4,530	....	4,530
Monroe.....	15,600	3,310	12,290
Montgomery.....	3,680	....	3,680
Moonaway place.....	2,550	....	2,550
Moore.....	2,640	....	2,640
Moorman.....	1,320	....	1,320
Morton.....	2,580	....	2,580
Morgan.....	15,830	....	15,830
Milligan.....	1,540	....	1,540
Murray.....	1,360	....	1,360
Myrick av.....	1,450	....	1,450
Meacher.....	2,580	....	2,580
McIlroy.....	1,320	....	1,320
Middle.....	2,640	....	2,640
Napoleon place.....	1,280	....	1,280
Nebraska.....	1,870	....	1,870
Newberry av.....	2,760	....	2,760
Newton.....	650	....	650
Nineteenth.....	2,180	....	2,180
Nixon.....	850	....	850
Noble.....	7,920	6,020	1,900
Northern av.....	930	....	930
North Grove.....	620	....	620
North Branch.....	4,995	....	4,995
Forward.....	1,698,357	228,293	1,470,064

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpro'p
Brought forward.....	1,698,357	228,293	1,470,064
North av.....	26,400	.....	26,400
Norton.....	850	.....	850
Nursery.....	870	.....	870
Nutt.....	680	.....	680
Oak av.....	830	.....	830
Oak.....	4,970	.....	4,970
Oakwood.....	970	.....	970
Oakwood av.....	480	.....	480
Oakley.....	11,660	.....	11,660
O'Brien.....	1,250	.....	1,250
Ohio.....	5,100	2,230	2,870
Olive.....	850	.....	850
Onondaga.....	1,230	.....	1,230
Ontario.....	5,640	.....	5,640
Oneida.....	1,230	.....	1,230
Orchard.....	6,540	.....	6,540
Osborne.....	535	.....	535
Oswego.....	270	.....	270
Otis.....	460	.....	460
Oglesby.....	2,640	.....	2,640
Ogden av.....	10,410	.....	10,410
Parmalee.....	1,320	.....	1,320
Page.....	1,970	.....	1,970
Park av.....	5,280	.....	5,280
Park place.....	350	.....	350
Park N. and S.....	3,890	.....	3,890
Park E. and W.....	840	.....	840
Paulina.....	18,480	.....	18,480
Pearce.....	840	.....	840
Pearl.....	620	.....	620
Pearson.....	3,130	.....	3,130
Peck.....	1,033	.....	1,033
Peck court.....	870	.....	870
Penn.....	460	.....	460
Peoria.....	6,590	.....	6,590
Perry.....	900	.....	900
Perch.....	1,230	.....	1,230
Peterson.....	665	.....	665
Phillips.....	910	.....	910
Pier.....	350	.....	350
Pine.....	3,300	2,360	940
Pierpont.....	1,500	.....	1,500
Pitney.....	620	.....	620
Pleasant.....	460	.....	460
Plum.....	620	.....	620
Polk.....	15,550	2,000	13,550
Poe.....	460	.....	460
Post.....	680	.....	680
Prairie av.....	11,360	6,550	4,810
Pratt.....	1,450	.....	1,450
Forward.....	1,867,950	241,433	1,626,517

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimprv'd
Brought forward.....	1,867,950	241,433	1,626,517
Prentiss.....	1,320	....	1,320
Price place.....	840	....	840
Purple.....	1,200	....	1,200
Putnam.....	1,050	....	1,050
Quarry.....	2,300	....	2,300
Queer place.....	700	....	700
Quincy.....	3,390	....	3,390
Qui m.....	1,620	....	1,620
Racine road.....	2,900	....	2,900
Railroad av.....	1,300	....	1,300
Randolph.....	12,550	4,900	7,650
Ray.....	840	....	840
Rebecca.....	9,260	....	9,260
Redfield.....	1,150	....	1,150
Rees.....	3,400	....	3,400
Reuben.....	28,340	....	28,340
Rhine.....	1,290	....	1,290
Rhodes av.....	2,250	....	2,250
Rice place.....	650	....	660
Rice.....	650	....	650
Ridgeley.....	1,320	....	1,320
Ridgeville road.....	4,380	....	4,380
River.....	1,350	670	680
Roberts.....	900	....	900
Robey.....	26,835	....	26,835
Roe.....	220	....	220
Rose.....	650	....	650
Rosebud.....	1,950	....	1,950
Ruble.....	2,350	....	2,350
Rucker.....	5,250	....	5,250
Rumsey.....	3,170	....	3,170
Rush.....	4,820	2,550	2,270
Rum.....	920	....	920
Rawson.....	1,025	....	1,025
Rountree.....	1,080	....	1,080
Rockwell.....	2,640	....	2,640
Samuel.....	2,640	....	2,640
Sampson.....	9,040	....	9,040
Sangamon.....	7,000	3,600	3,400
Sanger.....	1,050	....	1,050
Saratoga.....	2,150	....	2,150
Salt.....	450	....	450
Schiller.....	3,510	....	3,510
School.....	1,560	....	1,560
Scott.....	1,590	....	1,590
Sebor.....	1,980	....	1,980
Second.....	6,750	....	6,750
Sedgwick.....	11,460	....	11,460
Selah.....	780	....	780
Seeley.....	1,850	....	1,850
Forward.....	2,055,630	253,153	1,802,477

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpr'd
Brought forward.....	2,055,630	253,153	1,802,477
Selden.....	680	....	680
Seneca.....	1,060	....	1,060
Seventeenth.....	1,650	....	1,650
Seward.....	2,060	....	2,060
Shaughnessy.....	400	....	400
Sheffield av.....	5,640	....	5,640
Sheldon.....	2,450	....	2,450
Sherman.....	2,930	850	2,080
Shober.....	2,640	....	2,640
Sholto.....	2,120	....	2,120
Short.....	315	....	315
Shurtleff av.....	4,470	....	4,470
Sibley.....	1,730	....	1,730
Sigle.....	1,670	....	1,670
Silver.....	420	....	420
Sixteenth.....	24,260	1,700	22,560
Sloan.....	840	....	840
Smart.....	360	....	360
Smith.....	1,540	....	1,540
Smith av.....	830	....	830
Snell.....	670	....	670
Snider.....	1,070	....	1,070
South Port av.....	2,900	....	2,900
South western av.....	14,985	....	14,985
Spring.....	1,420	....	1,420
Springer av.....	930	....	930
Spruce.....	630	....	630
Starr.....	500	....	500
State.....	30,280	15,840	14,440
St. John's place.....	1,033	....	1,033
St. Clair.....	2,020	....	2,020
Steele.....	7,920	....	7,920
Stephenson.....	800	....	800
String.....	1,850	....	1,850
Stone.....	970	....	970
Stowell.....	600	....	600
Summit.....	460	....	460
Summer.....	500	....	500
Sumner.....	620	....	620
Superior.....	5,820	....	5,820
Swift place.....	1,260	....	1,260
Sophia.....	4,515	....	4,515
Street.....	1,260	....	1,260
Snyder.....	1,300	....	1,300
Stewart.....	15,840	....	15,840
Seymour.....	4,960	....	4,960
Sacramento.....	8,620	....	8,620
Taylor.....	17,350	....	17,350
Temple.....	670	....	670
Third av.....	5,260	....	5,260
Forward.....	2,250,708	271,543	1,979,165

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpr'vd
Brought forward	2,250,708	271,543	1,979,165
Thirteenth	1,220	....	1,220
Thirtieth	4,750	....	4,750
Thirty first	24,570	....	24,570
Thirty-second	3,560	....	3,560
Thirty-third	9,230	....	9,230
Thirty-fourth	2,000	....	2,000
Thomas	3,900	....	3,900
Thompson	2,620	....	2,620
Thorn	640	....	640
Throop	10,430	....	10,430
Todd	250	....	250
Towns court	270	....	270
Townsend	2,480	710	1,770
Trenton	2,325	....	2,325
Tucker	2,640	....	2,640
Trustee	270	....	270
Twelfth	27,640	2,500	25,140
Twentieth	4,680	....	4,680
Twenty-first	5,110	....	5,110
Twenty-second	23,720	2,620	21,100
Twenty-third	5,960	....	5,960
Twenty-fourth	6,560	....	6,560
Twenty fifth	7,780	....	7,780
Twenty-sixth	7,880	....	7,880
Twenty-seventh	2,700	....	2,700
Twenty-eighth	880	....	880
Twenty-ninth	5,200	....	5,200
Twomey	300	....	300
Tyler	11,410	....	11,410
Talman av.	1,320	....	1,320
Troy	440	....	440
Union	11,310	....	11,310
Union place	880	....	880
University place	800	....	800
Upton	430	....	430
Ullman	5,280	....	5,280
Van Buren	18,750	5,420	13,330
Van Horn	3,240	....	3,240
Valiquitte	660	....	660
Verson av.	1,260	....	1,260
Vedder	1,150	....	1,150
Vermont av.	660	....	660
Vine	1,480	....	1,480
Vincennes av.	2,630	....	2,630
Valentine	1,050	....	1,050
Wabansia av.	8,315	....	8,315
Wabash av.	21,140	16,100	5,040
Wade	450	....	450
Wahpanseh av.	10,560	....	10,560
Waller	1,240	....	1,240
Forward	2,524,728	298,893	2,225,835

ALPHABETICAL LIST OF THE STREETS, ETC.—(CONTINUED.)

NAME OF STREET.	Lineal ft. Length.	Lineal ft. Improved.	Lineal ft. Unimpr'vd
Brought forward.....	2,524,728	298,893	2,225,835
Wallace.....	9,300	....	9,300
Walnut.....	6,115	....	6,115
Walsh.....	2,640	....	2,640
Ward.....	550	....	550
Water S.....	3,400	3,400	....
Water N.....	5,270	....	5,270
Water W.....	2,350	....	2,350
Waterville.....	800	....	800
Warren av.....	8,405	....	8,405
Washington av.....	10,780	....	10,780
Washington place.....	400	....	400
Washington.....	16,690	9,910	6,780
Waver.....	450	....	450
Wayman.....	1,230	....	1,230
Weed.....	2,000	....	2,000
Wells.....	16,790	12,300	4,490
Wendell.....	1,450	....	1,450
Wentworth.....	13,120	....	13,120
Wesson.....	2,580	....	2,580
Western av.....	36,960	....	36,960
West Liberty.....	2,640	....	2,640
White.....	3,750	....	3,750
White House place.....	1,260	....	1,260
Whiting.....	1,300	....	1,300
Whitney.....	1,575	....	1,575
Wilcox.....	4,240	....	4,240
Will.....	550	....	550
William.....	2,670	....	2,670
Willow.....	3,310	....	3,310
Willard place.....	420	....	420
Wilmot av.....	3,065	....	3,065
Wilson.....	1,330	....	1,330
Winchester.....	2,630	....	2,630
Winter.....	500	....	500
Wisconsin.....	2,320	....	2,320
Wood.....	23,515	....	23,515
Wright.....	5,230	....	5,230
Wrong.....	1,600	....	1,600
Washtenaw av.....	1,320	....	1,320
Whisky Point road.....	7,980	....	7,980
Whiteside.....	13,790	....	13,790
Whipple.....	1,140	....	1,140
Yeaton.....	680	....	680
York.....	950	....	950
Yorktown.....	1,735	....	1,735
Yager.....	2,640	....	2,640
Streets not named.....	46,880	....	46,880
Total.....	2,805,028	324,503	2,480,525

Respectfully submitted,

F. H. BAILEY,

In charge of Special Assessments.

SIDEWALKS.

The following exhibit of sidewalks constructed under the ordinances of the Council, by owners and by the Board, under a contract for such work, it is hardly necessary to say, pertain exclusively to pine plank walks. In nothing does Chicago seem so much to manifest a lack of that permanency and solidity which properly belong to a large and prosperous city, as in its sidewalks. Constructed of a material which shows signs of decay almost as soon as laid on the ground, and which as soon is liable to fracture, to holes and consequent accident; our sidewalks are altogether inferior to what they should be, and are the source of constant care and complaint. Where the walks are much elevated it is not easy to find a suitable material other than wood, except at much greater cost. It is to be hoped, however, that in the well occupied parts of the city it will speedily give place to something more substantial.

MR. A. W. TINKHAM,

Secretary of the Board of Public Works.

SIR: The undersigned respectfully presents the following report, relating to the construction and reconstruction of sidewalks, from April 1, 1869, to March 31, 1870, under the following ordinances:

NORTH DIVISION.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
B. S.	Division st.	Halsted st.	Division st. br.	All built.	
S. S.	Whiting "	Delevan add.	Market st.	"	
B. S.	Orchard "	Clybourn av.	North av.	"	
S. S.	Centre "	Orchard st.	Halsted st.	"	
N. S.	Centre "	Halsted "	Fremont "	"	
W. S.	Halsted "	Centre "	Sophia "	"	
N. S.	Scott "	N. State "	Stone "	"	
E. S.	Crosby "	Larrabee "	Division "	"	
W. S.	Orchard "	Centre "	Sophia "	"	
B. S.	Gardner "	Vine "	Halsted "	"	
B. S.	Weed "	Halsted "	Sheffield "		not built.
W. S.	Bissell "	Dayton "	Clay "	"	
N. S.	Asylum pl.	Hurlbut "	Halsted "	"	

NORTH DIVISION—CONTINUED.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
B. S.	Dayton st.	North av.	Willow	All built.	
S. S.	North av.	N. Dearborn	N. Clark	"	
W. S.	N. Dearborn st	Burton pl.	North av.	"	
E. S.	N.Branch st.	Bliss	Division	"	
E. S.	Racine av.	Clybourn pl.	Centre		175 feet.
S. S.	Willow st.	Sheffield av.	Bissell	"	
S. W.	Bissell "	Dayton "	Willow	"	
W. S.	Crosby "	Larrabee	Division	"	
W. S.	Cherry av.	Bliss	Division		
N. E.	Clybourn "	North av.	Racine av.		345 feet.
E. S.	Roberts st.	Erie	Chicago av.		not built.
N. S.	Wendell "	Market	Sedgwick		"
E. S.	Racine av.	Centre	Fullerton av.		"
N. S.	Centre st.	Racine av.	Larrabee		"
B. S.	Asylum pl.	Halsted	Clybourn av.		"
N. S.	Division st.	Sedgwick	Clybourn av.	"	
B. S.	Clybourn av.	Division	North av.	"	
S. S.	Huron st.	Townsend	Kingsbury		"
E. S.	Dayton "	Sophia	Asylum pl.		"
E. S.	N. Clark "	Sophia	Asylum pl.		150 feet.
E. S.	Selah "	Hobbie	Division		150 feet.

SOUTH DIVISION.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
W. S.	Honoré	Napoleon pl.	Twenty-eighth	All built.	
N. S.	Napoleon pl.	Buddan	Stewart av.	"	
S. S.	Napoleon pl.	Hanover	Stewart av.	"	
W. S.	Levee st., in	part of Lot 5,	B. 12, C. S. S.	Sec. 29.	not built.
B. S.	Bushnell	Hanover	Archer av.	All built.	
B. S.	Bryant	Vincennes av.	Moonaway pl.	"	
S. S.	Lancaster av.	Benson	Ullman	"	
B. S.	Burnside	Twenty-fifth	Twenty-sixth	"	
N. S.	Thirty-third	Butterfield	Kankakee av.	"	
S. S.	Thirty first	Cottage-G. av	Forest av.	"	
W. S.	Shurtleff av	Thirty-first	Thirty-third	"	
E. S.	Mary	Archer av	Hickory		
B. S.	Kossuth	Wentworth av	Halsted	"	
B. S.	Buddan	Twenty sixth	Thirty-first	"	
B. S.	Emerald av.	Douglas pl.	Egan av.	"	
E. S.	Benson	Thirty-first	Lancaster		264 feet.
N. S.	Twenty-sec'nd	Prairie av.	Kankakee av.	"	
B. S.	Street running	E. and W. thro'	McPherson &	Allerton Ad.	205 feet.
E. S.	Kankakee av.	Wahpanseh av	Egan av.		800 feet.
E. S.	Hanover	Archer av.	Kossuth	"	
S. S.	Twenty-third	Stewart av.	Buddan	"	
B. S.	Langley	Egan av.	Wahpanseh av	"	
W. S.	Wallace	Douglas pl.	Esplanade	"	
S. S.	Quincy	Clark	Wells	"	
S. S.	Thirty-third	Cottage-G. av.	I. C. R. R.	"	
B. S.	Moonaway pl.	Wahpanseh av	Douglas pl.		304 feet.
W. S.	Wabash av.	Thirty-second	Douglas pl.		
W. S.	Reuben	Columbia	Archer av.		188 feet.

SOUTH DIVISION—CONTINUED.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
S. S.	Wahpanseh av	Stewart av,	Halsted		249 feet.
B. S.	Twenty-sev'th	Wentworth av,	Stewart av,	All built.	
N. S.	Mill	Reuben	Jones	"	
S. S.	Ray	Prairie av,	S. Park av.		100 feet.
W. S.	Buddan	Twenty-fifth	Twenty-sixth	"	
B. S.	Garibaldi	Twenty-sixth	Twenty-ninth		648 feet.
E. S.	Vernon av.	Douglas pl,	Wahpanseh av		216 feet.
N. S.	Twenth-first	Stewart av,	Purple		300 feet.
S. S.	Crippin	Indiana av.	State		129 feet.
B. S.	Alexander	Wentworth av,	Stewart av.		975 feet.
W. S.	Arnold	Thirty-first	Thirty-third		250 feet.
S. S.	Egan av.	Lake av.	Cottage-G. av.		30 feet.
B. S.	Archer av.	State	Ogden Slip	"	
S. S.	Randolph	Market	C. River	"	
S. S.	Twenty-ninth	Michigan av.	State		240 feet.
E. S.	Lock	Archer av,	Fuller		not built.
N. S.	Thirtieth	Clark	Wentworth av,		120 feet.
S. S.	Lyman	Deering	Lock		150 feet.
N. S.	Napoleon pl,	Buddan	Wentworth av.		not built.
B. S.	Elgin	Stewart av,	to western term		"
E. S.	Arnold	Twenty-third	Twenty-fourth		150 feet.
N. S.	Cayuga	Halsted	Laurel		not built.
E. S.	Grove	Archer av,	Eighteenth		"
S. S.	Twenty-first	Stewart av.	State		300 feet.
B. S.	Stewart av.	Archer av.	Grove		not built.
E. S.	S. Park av,	Twenty-sec'nd	Twenty-sixth		"
W. S.	Murray	Kossuth	Archer av,	"	"
N. S.	Wahpanseh av	Cottage-G. av.	I. C. R. R.,		175 feet.
S. S.	Twenty-third	Wentworth av,	Buddan	"	

WEST DIVISION.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
N. S.	Ranson	McHenry	Elston road	All built.	
N. S.	Wright	Wabansia av.	North av.	"	
W. S.	McHenry	Blanche	Wabansia av.	"	
W. S.	Morgan	Evans	Twenty-sec'nd	"	
N. S.	Gurley	Sholto	Centre av.	"	
B. S.	Mather	Halsted to	eastern term's	"	
B. S.	Curtis	Second	May	"	
N. S.	Catherine	Centre av.	Morgan	"	
E. S.	Throop	Blue-Island av	Twenty-sec'nd	"	
E. S.	Loomis	"	"	"	
W. S.	Laffin	"	"	"	
W. S.	Holt	Division	Bradley	"	
S. S.	Coolidge	Waller	Blue-Island av	"	
B. S.	String	Canalport av.	Sixteenth	"	
N. S.	Rebecca	Morgan	Centre av.	"	
B. S.	Tyler	Centre av.	Throop	"	
N. S.	Twenty-sec'nd	"	Reuben	"	
N. S.	Kinzie	Elizabeth	Western av.	"	
W. S.	Rumsey	Augusta	Jane	"	
S. S.	Catherine	Loomis	Wood	"	

WEST DIVISION—CONTINUED.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
E. S.	Western av.	Madison	Van Buren	All built.	
N. S.	Clayton	Blue-Island av	Wood	"	
S. S.	Fourth	Elizabeth	Noble	"	
E. S.	Wood	West Madison	Van Buren	"	
S. S.	Wright	Canal	Stewart av.	"	
B. S.	Bunker	"	Beach	"	
E. S.	Sholto	Eleventh	Polk	"	
B. S.	Dussold	Jefferson	Halsted	"	
N. S.	Hastings	Reuben	Wood	"	
S.W.S	Milwaukee av.	Wood	North av.	"	
E. S.	Elston road	Fullerton av.	Clybourn pl	"	
W. S.	Reuben	Cornelia	Division	"	
S. S.	Second	Carpenter	Noble	"	
B. S.	Barber	Canal	Halsted	"	
N. S.	Damon	Sholto	May	"	
E. S.	Throop	Taylor	Twelfth	"	
E. S.	Sangamon	Van Buren	Harrison	"	
S. S.	Kinzie	Reuben	Paulina	"	
W. S.	Wood	Ashley	Fourth	"	
S. S.	Adams	Reuben	Lafin	"	
S. S.	Harrison	Canal	Beach	"	
W. S.	Leavitt	Madison	Warren av.	"	
N. S.	Evans	Robey	Centre av.	"	not built.
S. S.	Fulton	Leavitt	Oakley	"	
S. S.	Evans	Halsted	John	"	
E. S.	John	Evans	Twenty-sec'nd	"	
B. S.	Harrison	Centre av.	Reuben	"	
B. S.	Hinman	Wood	Lincoln	"	
E. S.	Throop	Taylor	Twelfth	"	
B. S.	Seward	Canalport av.	Lumber	"	
S. S.	Harrison	Lytle	Leavitt	"	
S. S.	Mitchell	Loomis	Paulina	"	
E. S.	Leavitt	Lake	Kinzie	"	
B. S.	Walnut	Hoyne	Oakley	"	
B. S.	Lafin	Adams	Harrison	"	
B. S.	Ashley	Wood	Hoyne	"	
W. S.	Lincoln	Indiana	Fourth	"	
W. S.	Johnson	Twelfth	Sixteenth	"	
B. S.	Loomis	Jackson	Harrison	"	
N. S.	Coolidge	Blue-Island av	Waller	"	
N. S.	Bloom'gdaler rd	Reuben	Commercial	"	
W. S.	Ridgeville rd.	Clybourn pl.	North av.	"	24 feet.
S. S.	Clybourn av.	N. Branch br.	Commercial	"	
B. S.	Lafin	Adams	Harrison	"	
S. S.	McGrath	West terminus	Hoyne		72 feet.
B. S.	Lafin	Harrison	Taylor	partly built.	
E. S.	Noble	Indiana	Fourth	built.	
S. S.	Ferdinand	Lincoln	Leavitt	partly built.	
N. S.	Harrison	Campbell av.	Western av.	"	
B. S.	Jackson	Western av.	Rockwell	"	
W. S.	Western av.	Madison	Harrison		75 feet.
S. S.	Harrison	Western av.	Leavitt	partly built.	
S. S.	Fourth	Lincoln	Robey	"	
E. S.	Noble	Kinzie	Hubbard	"	

WEST DIVISION—CONTINUED.

SIDE.	STREET.	FROM	TO	ALL BUILT.	EXCEPT.
B. S.	Page	Kinzie	Hubbard	built.	
B. S.	Fox pl.	Elston road.	Noble	"	
S. S.	Twenty-sec'nd	Morgan	Halsted	"	
N. S.	Sampson	Laffin	Reuben	"	
W. S.	Union	Luke	Eighteenth	"	
B. S.	Milwaukee av.	Kinzie	Lake	not opened.	
N. S.	Fulton	Lincoln	Wood	built.	
W. S.	Ridgeville rd.	Milwaukee av.	Bloom'gdalerd	partly built.	
N. S.	Harbine	Lincoln	Campbell	"	
S. S.	Van Buren	Western av.	Rockwell	"	
B. S.	Seymour	Kinzie	Lake	"	
S. S.	North av.	The River	Ridgeville rd.	"	
S. S.	Wilcox	Western av.	California	"	
B. S.	Robey	Kinzie	Hubbard	"	
E. S.	Ashland av.	Blackhawk	North av.	"	
E. S.	Ada	Hubbard	Kinzie	built.	
B. S.	S. Western av.	Madison	Robey	partly built.	
S. S.	Lake	C. C. C. R. R.	California	nothing b'lt.	
B. S.	Stanton	Madison	Lake	partly built.	
W. S.	Blair	Canalport av.	S. termin Blair	"	
B. S.	John's pl.	Halsted	Green S. Br'ch	Add. Built.	
E. S.	Osborne	Indiana	Fourth	partly built.	
S. S.	Elk	Bauwan	Ridgeville rd.	"	
E. S.	Dickson	North av.	Blanche	nothing b'lt.	
B. S.	Ada	Fourth	Indiana	"	
E. S.	Noble	Fourth	Cornelia	partly built.	

SIDEWALKS ASSESSED AND BUILT BY CONTRACTOR.

SOUTH DIVISION.

SIDE.	STREET.	FROM	TO	NO. OF FEET.	COST.
N. S.	Nineteenth	State	Blackwell	865½	\$311.58*
W. S.	Shurtleff av.	Twenty-sixth	Napoleon place	311½	112.14
E. S.	Lock	Archer av.	Thirty-first	243	87.48
B. S.	Butterfield	Twenty-seventh	Thirty-third	234	84.24
E. S.	Farrell	Archer av.	C. & St. L. R. R.	125	45.00
W. S.	Wentworth av.	Sixteenth	Thirty-first	599	215.64
W. S.	Lake av.	Douglas place	Egan av	125	45.00
B. S.	Bryant av.	Vincennes av.	Moonaway place	100	36.00
S. S.	Thirty-first	Halsted	Wentworth av.	261	93.96
B. S.	Lyman	Main	Deering	273	98.28
N. S.	Oneida	Laurel	Halsted	388	139.68
N. S.	Archer av.	Beers	South Branch	25	9.00
N. S.	Thirty-first	Deering	Pitney av.	353	116.94
E. S.	State	Douglas place	Egan av.	1938	697.67
W. S.	Dashiel	Douglas place	Egan av.	144	51.84
B. S.	Buddan	Twenty-sixth	Thirty-first	247	88.92
W. S.	Wabash av.	Thirty-second	Douglas place	100	36.00
W. S.	Wallace	Douglas place	Esplanade	200	72.00
B. S.	Emerald	Douglas place	Egan av.	432	155.52
B. S.	Kossuth	Wentworth av.	Halsted	1562	562.32
Total..				.....	\$3,059.21

WEST DIVISION.

SIDE.	STREET.	FROM	TO	NO. OF FEET.	COST.
S. S.	Van Buren	Reuben	Robey	442	\$155.52
E. S.	Lytle	Taylor	Twelfth	125	48.60
B. S.	Henry	Blue Island av.	Eastern terminus	745	263.20
N. S.	Indiana	Lincoln av.	Robey	188	60.48
E. S.	Lincoln	Lake av.	Washington	107½	38.70
N. S.	Catharine	Centre av.	Morgan	295	106.20
B. S.	Loomis	Twelfth	Sixteenth	218	78.48
N. S.	Rebecca	Lafin	Reuben	80	28.80

* Around Hospital.

WEST DIVISION.—CONTINUED.

SIDE.	STREET.	FROM	TO	NO. OF FEET.	COST.
E. S.	Western av.	Madison	Van Buren	469	\$168.84
E. S.	Ruble	Sixteenth	Eighteenth	121	43.56
E. S.	Twelfth	Lafin	Reuben	48	17.28
N. S.	Hastings	Reuben	Wood	50	18.00
N. S.	Hastings	Lafin	Reuben	576	207.36
S. S.	Coolidge	Waller	Blue Island av.	25	9.00
E. S.	Wood	Madison	Van Buren	301	108.36
S. S.	Washington	Leavitt	Western av.	48	17.28
N. S.	Mitchell	Reuben	Paulina	96	34.56
N. S.	Rebecca	Morgan	Centre	195	70.20
S. S.	Wright	Canal	Stewart av.	100	36.00
S. S.	Catherine	Throop	Loomis	36	8.64
N. S.	Kinzie	Elizabeth	Western av.	530	190.80
N. S.	Mitchell	Lafin	Rebecca	408	146.88
W. S.	Holt	Division	Bradley	96	34.56
W. S.	McHenry	Blanche	Waubansia	50	18.00
W. S.	Morgan	Twelfth	Sixteenth	858	308.88
B. S.	Clayton	Centre av.	May	175	63.00
B. S.	English	Centre av.	May	185	66.00
S. S.	Eighteenth	Canal	Halsted	82	29.52
N. S.	Adams	Reuben	Lafin	...	43.20
S. S.	Harrison	Canal	Beach	25	9.00
W. S.	Reuben	Harbine	Madison	693	263.34
B. S.	Walnut	Hoyne	Oakley	99	35.64
B. S.	Bunker	Canal	Beach	150	54.00
E. S.	John	Evans	Twenty-second	75	27.00
N. S.	Coolidge	Blue Island av.	Waller	48	17.28
W. S.	Ridgeville road	Clybourn place	North av.	386	138.24
S. S.	Evans	Halsted	John	203	73.08
W. S.	Milwaukee av.	Wood	North av.	275	99.00
B. S.	Ashley	Wood	Hoyne	480	172.80
B. S.	Curtis	Second	May	60	21.60
E. S.	Throop	Taylor	Twelfth	25	9.00
B. S.	Seward	Canalport av.	Lumber	75	27.00
Total.				.....	\$1,085.70

NORTH DIVISION.

SIDE.	STREET.	FROM	TO	NO. OF FEET.	COST.
W. S.	Cherry av.	Bliss	Division	150	\$54.00
B. S.	Gardner av.	Vine	Halsted	30	10.80
E. S.	North Branch	Bliss	Division	252	90.00
S. S.	Whiting	Market	Delavan add.	50	18.00
Total.				.....	\$172.80

A TABLE

EXHIBITING THE NUMBER OF FEET OF SIDEWALK CONSTRUCTED OF DIFFERENT WIDTHS
IN EACH DISTRICT, DURING THE FISCAL YEAR.

No. DISTRICTS IN EACH DIVISION.	<i>Sidewalks Constructed in New Localities.</i>							<i>Reconstructed New in Old Localities.</i>							Yearly Totals in each Dist.	
	25 ft	4 ft	6 ft	7 ft	8 ft	10 ft	12 ft	14 ft	4 ft	6 ft	8 ft	10 ft	12 ft	14 ft		16 ft
First District, North Div'n	4,922	.....	.....	.....	.....	.....	.....	8,353	165	465	.....	4,155	16,743	34,803
Second " "	19,458	.....	.....	.....	.....	.....	.....	2,367	125	349	.....	3,225	3,676	29,200
First " South	803	711	.....	542	6,768	4,418	13,242
Second " "	1,619	7,205	2,303	2,871	4,430	905	19,333
Third " "	170	92,577	180	.....	.....	.....	50	2,004	2,707	100	.....	.....	4,796	1,325	103,609
First " West	400	.....	35,843	.....	.....	.....	.....	183	40	221	16,668	40	.....	240	480	54,718
Second " "	850	10,766	.....	200	.....	.....	.....	.....	100	18,335	234	637	4,391	16,380	52,876
Third " "	360	33,801	.....	380	414	.....	.....	.....	415	8,681	.....	1,470	1,717	14,439	61,677
Fourth " "	59,036	.....	.....	.....	.....	.....	.....	275	23,078	.....	375	6,064	13,380	102,208
	400	1380	256,403	180	580	597	90	2,004	1,011	82,611	8,580	5,599	4,999	35,786	71,746	•

Grand Total, 471,666
Equal to 89 ¹/₃ miles.
Of the above, 3,401 ft. are stone.

261,634 feet of walk on new localities.
Equal to 49 6-10 miles.

Last year report, 470 miles = 519 6-10 miles of all kinds.

From the foregoing exhibit, it is very evident that property owners are more inclined to construct walks of cheap material which require constant watching, than use that which is imperishable.

The concrete materials of different Patents have been laid in many localities about the city, but as a general thing, more as a test of their suitableness for sidewalk purposes. Some give evidence of durability, while others are proved worthless. No specimen yet laid can claim superiority to, or even equal stone, when cost is taken into consideration.

From past experience, it is clearly certain that more regard must be paid to the material of which sidewalks are constructed, and to accomplish that object with greater certainty, the ordinance ordering the improvement might specify the material, whether stone, concrete, brick, ordinary plank, or plank preserved by some preserving process.

Large preparations are now made in the city for preserving timber for all purposes, and if wood is rendered any less perishable it should be adopted. It costs seven cents per foot more for walks six feet wide, and wider walks in proportion.

All must admit there is no portion of our streets that require greater care and watchfulness than our sidewalks. Better material and mechanism must be more generally used to ensure less bodily injury, and consequently less law suits.

J. L. HANCHETTE,

Supt. of Sidewalks.

BRIDGES.

The new work of the year includes the construction of the new pivot bridge at Indiana street, with its connecting viaduct passing above the tracks of the Chicago and Northwestern Railway; and of new pivot bridges at Adams street, Kinzie street, and at Division street across the North Branch Canal.

With all new bridges to be erected across the South Branch the first step to be taken is to widen the river at the particular point, at much cost and delay, so as to give sufficient width of channel for the passage of vessels. A large share of the gross cost to the city of such bridges is due to the widening of the river.

Below is a list of the movable bridges owned and operated by the city, and crossing the river and connecting branches. As will be seen, the number of the bridges is continually multiplying with the growth of the city, while the slow-moving float-bridges, which at one time were the only ones in use, have almost entirely given place to elevated truss bridges, revolving on a central pivot and pier.

LIST OF BRIDGES.

NAME AND LOCATION.	DESCRIPTION.
Clybourn avenue.....North Branch.....	Wooden truss pivot bridge.
North avenue..... " "	" " " "
Division street..... " "	Truss pivot bridge, iron chords, wooden braces.
" "	Canal.. " " " "
N. Halsted "	" "
Chicago avenue..... " "	Wooden truss pivot bridge.
Erie street..... " "	Truss pivot bridge, iron chords, wooden braces.
Indiana "	Wooden float bridge.
Kinzie "	Truss pivot bridge, iron chords, wooden braces.
	" " " "

NAME AND LOCATION.				DESCRIPTION.
Rush	"	.....Main River.....	.....	Wooden truss pivot bridge.
State	"	....." ".....	.....	" " " "
Clark	"	....." ".....	.....	Truss pivot bridge, iron chords, wooden braces.
Wells	"	....." ".....	.....	Wooden truss pivot bridge.
Lake	"	.....South Branch.....	.....	Truss pivot bridge, iron chords, wooden braces.
Randolph street.....	"	"	.....	Wooden truss pivot bridge.
Madison ".....	"	"	.....	All iron.
Adams ".....	"	"	.....	Truss pivot bridge, iron chords, wooden braces.
Van Buren ".....	"	"	.....	" " " "
Polk street.....	"	"	.....	" " " "
Twelfth street.....	"	"	.....	" " " "
Eighteenth ".....	"	"	.....	" " " "
S. Halsted ".....	"	"	.....	Wooden truss pivot bridge.
Main street.....	"	"	.....	Truss pivot bridge, iron chords, wooden braces.
Fuller ".....	"	"	.....	Wooden truss pivot bridge.
Reuben " West fork of "	"	"	.....	" " " "
Archer avenue.	South Branch	.....	.....	Truss pivot bridge, iron chords, wooden braces.
Western " West fork of "	"	.....	.....	" " " "

PUBLIC BUILDINGS.

CITY HALL.—During the year the walls of the new addition were erected, and its stone and brick masonry substantially completed—including the iron and masonry work for the floors. Early in March, however, a serious disaster occurred to the iron and slate roof, then in process of erection. The north half settled and fell, and the portion left on the walls was damaged and insecure, so that the reconstruction of the entire roof on a plan of greater strength than at first, became necessary; the work of completing the building was, in consequence, much delayed.

The fallen portion of the roof was rebuilt in a heavier and stronger manner than at first, and the standing portion correspondingly strengthened, at a cost of \$2,357—the whole roof being made quite firm and secure.

The city offices, as is generally known, will occupy not only this new building, but the west half of the old Court House. The contracts include the erection of the new part, and the re-modeling of the old. The work on the old building, of course, could not be done until the new addition was finished, and the various city offices transferred to it. As much time has necessarily been consumed in accomplishing this, the entire building, old and new, will not be finished until late in the year.

CITY BRIDEWELL.—At the date of this report, the building constituting the prison proper is finished.

Water is yet to be supplied to it, and the boring for an artesian well for that purpose is in progress, with the expectation that the work may be finished within some three months. The grounds, too, are without any suitable enclosure.

The building now finished includes the two prisons for males and females, respectively, rooms for the Warden and officers, the kitchens, bakery, laundry, hospitals for each sex, and a chapel—the entire building being warmed by a steam-heating apparatus, and thoroughly fitted up with all necessary plumbing for washing, bathing, etc.

The importance of this institution warrants the Board in presenting a detailed description of it. It is hoped that its use will work a change in the discipline and management of criminals which will be beneficial to them and to the city.

A general view of the buildings as erected, and of those yet to be built, is submitted with this report.

The location of the new City Bridewell is on that tract of land containing about fifty-eight acres, lying north of the South Branch of the Chicago River, in the E. $\frac{1}{2}$ of S. W. $\frac{1}{4}$ of Sec. 25, T. 39, R. 13, E.

The following description is by the architect, Jno. M. Van Osdel, Esq.:

“The natural surface of the land is from eight to ten feet above the river when at ordinary level, and the grounds are, therefore, susceptible of complete surface drainage to the river. The building fronts east on California street, at a distance of three hundred feet from said street—the south side of the prison fronting the river at a distance of about four hundred feet. The base of the entire building has an elevation of three feet six inches above the natural surface of the ground, a filling of earth to the depth of three feet six inches having been made in and around the building, and graded off from the walls outward, for the distance of one hundred feet. The earth for this filling was obtained from the bank of the river, as it is contemplated to widen and deepen it. The artificial surface of the ground at the building is therefore about twelve feet above the surface of the river.

It is proposed to employ the convicts in making further excavations of the river bank, and to fill up and grade the courts or yards of the prison and its immediate surroundings, to conform to the filling and grading already done.

The buildings now finished are of brick, with slate roof, plain

and substantial structures, with no costly architectural embellishment, except so far as it appeared necessary to give expression of purpose.

The Warden's house, forty-eight by sixty feet, two stories high, occupies the centre of the east front.

The two cell houses, each fifty by two hundred and twenty-four feet, extend north and south, forming wings, and are attached to the rear of the Warden's house. The prison for males, in the south wing, contains two hundred and eighty-eight cells. That for females, in the north wing, contains two hundred cells. The cells are of the most improved and substantial character, and are constructed entirely of cut-stone work, with no joints or seams, excepting at the angles. The cells are arranged in stories, four stories high, with galleries and stairways of iron. Each cell is ventilated by a separate flue, and has a door of iron gratings, furnished with Newell's prison-door locks. Each range of doors is furnished with a sliding bar, moved by a lever, by means of which all the doors of that range are closed and bolted simultaneously.

The north end of the north cell house is formed in two stories. On the first floor is the boiler and fuel-room, forty-eight feet square. In this room there are set up three large steam boilers, tanks, pumps, and other apparatus for heating the several buildings. On the first floor there is also a bathing-room, fitted up with six iron bath tubs, wash-bowls, etc. In the second story is the hospital for females, thirty by forty-eight feet, well lighted and ventilated, and several rooms for the Matron and Assistants.

The Warden's house, on the first floor, has the public offices, parlor and reception-room and Warden's living room; on the second floor, the Warden's parlor, Chaplain's room, private office and bed-rooms.

Immediately in rear of the Warden's house, and attached to the rear of the cell houses, is a building fifty feet wide, and one hundred and thirty-eight feet long, two stories high, connected with the Warden's house by corridors, which separate the cell houses.

In the attic, resting on the walls of these corridors, there are four large iron tanks, to be supplied with water from the artesian

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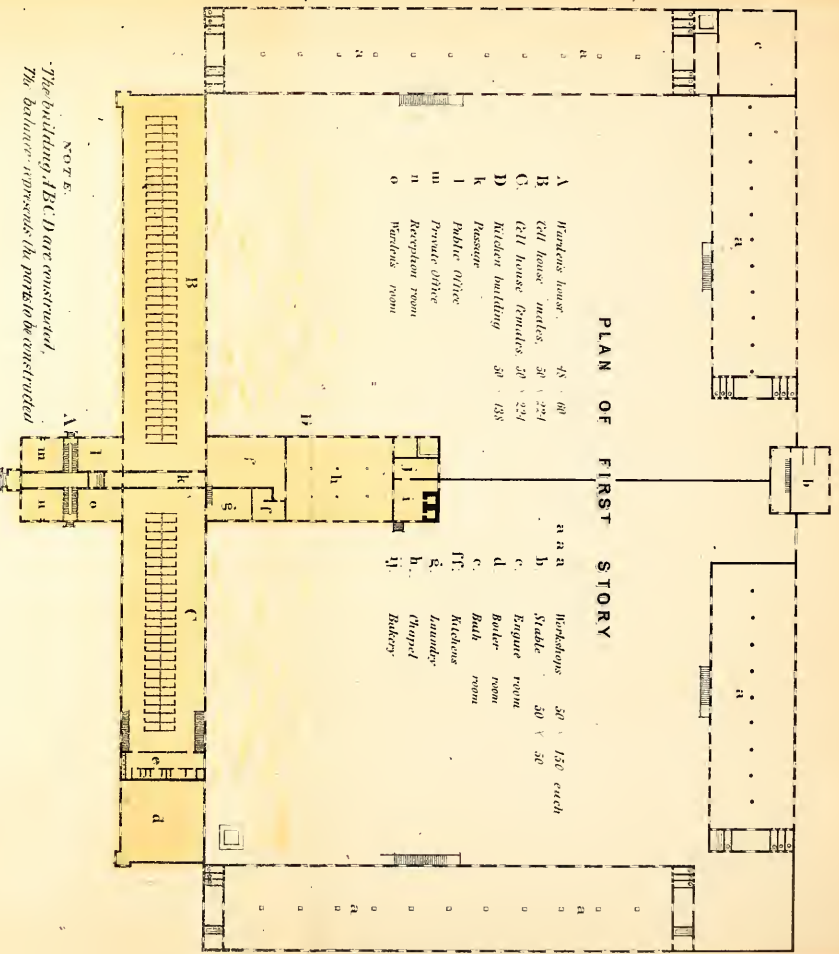
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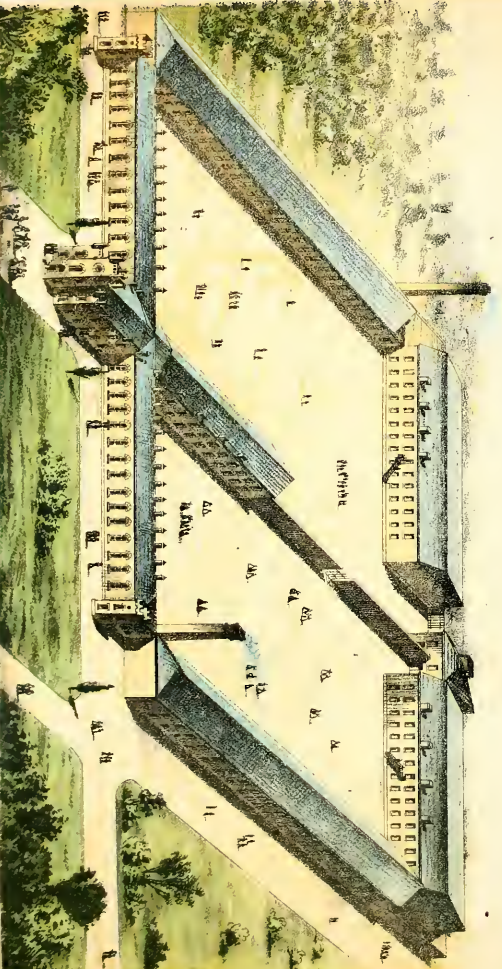
PLAN OF FIRST STORY



- A Warehouse house, 48 x 60
- B Cell house, makes, 30 x 224
- C Cell house, inmates, 30 x 224
- D Kitchen building, 30 x 138
- E Passaire
- F Public Office
- G Private Office
- H Reception room
- I Markens room

- a a a Workshops, 30 x 150 each
- b Stables, 30 x 30
- c Engine room
- d Barber room
- e Bath room
- f f f Kitchens
- g g g Laundry
- h h h Chapel
- i i i Bakers

NOTE.
The building A, B, C, D are constructed.
The balance represents the portion to be constructed.



25 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

well, to be forced up by pump in the boiler-room. Pipes lead from these tanks to furnish water to the kitchen, laundry, water-closets, and bath-rooms throughout.

The kitchen, laundry, bakery, and chapel are arranged on the first floor of the last-mentioned building. The officers' dining-rooms and bed-rooms, the hospital for males, the dispensary, etc., are on the second floor.

There are yet to be erected the work-shops, comprising six buildings, fifty by one-hundred and fifty feet each, two stories high, arranged so as to form two enclosures, or courts, two hundred by three hundred feet. These courts will be divided by a wall from the rear of the kitchen building to the stable. The stable will be located centrally, in rear of the principal buildings, and will be fifty feet square, and two stories high. A boiler and engine-room, fifty by seventy-five feet, will be built at the south-west angle of the court, with shafting extending from the engine-room through three of the work-shops. The artesian well now in progress is expected to furnish water for all purposes required."

SCHOOL BUILDINGS.—There were erected during the year, for the use of the Board of Education, the brick primary school buildings on North LaSalle street, Mitchell street, and Monroe street. The four-story brick grammar-school houses on Forest avenue, and Larrabee street were in progress during the year, but were not completed at its close.

POLICE BUILDINGS.—For the Board of Police there was built the brick Engine-House and Police Stations at the corner of North avenue and Larrabee street.

PUBLIC PARKS.

The parks of the city under the care of the Board, and for which any attempt has been made for their improvement or ornamentation, are:

Lincoln Park,
Washington Park,
Union Park,
Jefferson Park,
Vernon Park,
Lake Park,
Dearborn Park,
Ellis Park.

There are small squares and pieces of land intended for public grounds, which are not included in the above list.

The Board have given much attention to the work of beautifying these various parks, and have prosecuted the work as far as was practicable with the amount of means at their disposal. The largest expenditures during the year have, of course, been made at Lincoln and Union Parks, but much has also been done both at Ellis and Jefferson Parks, in filling and grading and laying out the grounds, and preparing for their full improvement. It is evident that when brought into use, and especially as they become such general places of resort as Lincoln and Union Parks that a large outlay is necessary, merely to keep up the grounds in good condition. The drives and walks, the artificial ponds and various structures, the draining, lighting, and watering; the trees, shrubbery, sodding, and flowers all require constant care and expense, and without such the grounds will speedily become places of disorder and waste.

Among the improvements of the year at Lincoln Park, was the construction of a graveled roadway from the head of North

Dearborn street through the cemetery, and along the lake shore to the park. Much was done in seeding down a large share of the ground to grass, in the planting of large elm and other trees and shrubbery, in the construction and enlargement of the bridges, the erection of suitable buildings and enclosures for the animals, and in expenditures for drainage, for lighting, and for supplying water.

At Union Park, the work of the year included the erection of the large pavilion for a music stand, the construction of the two fountains with their ornaments, the erection of buildings and enclosures for the animals, the introduction of water for the fountains, drinking hydrants, and animals, the planting of deciduous and evergreen trees, the completion of the leveling and seeding of the grounds, etc.

Many very generous donations of rare animals have been made to the city, not only by donors whose homes are within the city, but from those who reside at places quite remote from it. In this way quite interesting collections have been gathered at Lincoln and Union Parks.

With this report, the Board present plans of Lincoln, Union, Jefferson, Vernon, and Ellis Parks, and as proposed for Lake Park, which it is believed will generally be of interest to the citizens. The plan for the improvement of Lake Park is being carried out as rapidly as the filling progresses.

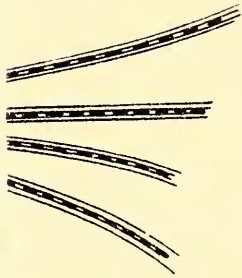
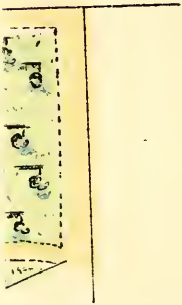
At some of the parks, and at several other public places, the Board have erected water closets and urinals, with a drinking hydrant and water trough for animals. They are found to be of great convenience to the public. The Board recommend that their number be increased.

CONCLUSION.

The Board append to their report the annual report of the City Engineer, giving more full information as to many matters briefly referred to by them, and a detailed exhibit of all their financial transactions. To these statements they respectfully invite your attention.

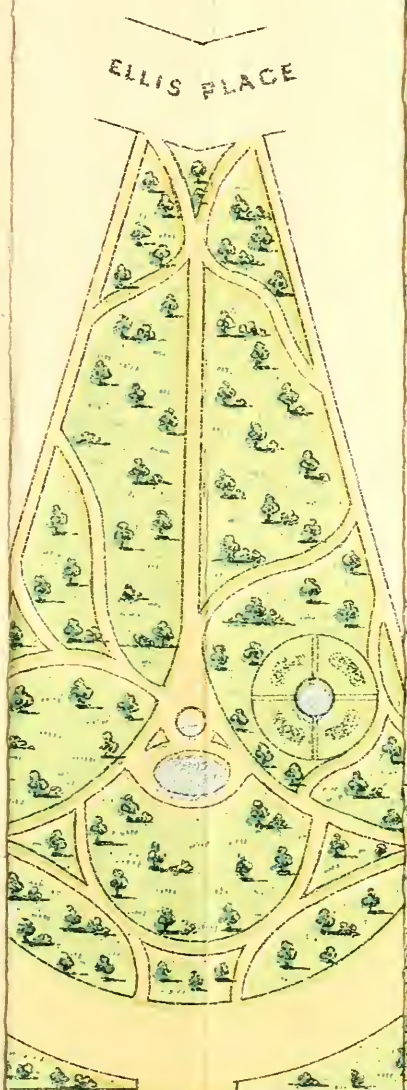
JOHN McARTHUR,
W. H. CARTER,
REDMOND PRINDIVILLE, } *Board of
Public Works.*

RANDOLPH ST.



276

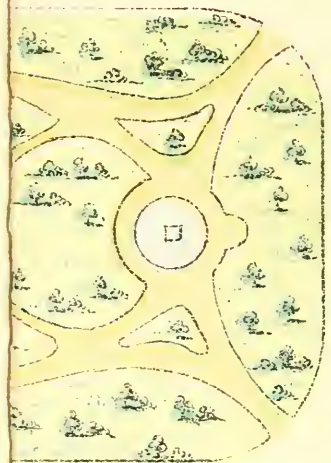
PLAN
OF
ELLIS PARK
SCALE 150 FT. TO ONE INCH.



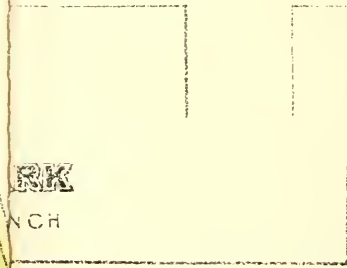
ELLIS PLACE

LANGLEY ST.

PLACE



LACE



ARK
NCH

ST.



ST.

LYTLE

ST.

THROOP

ST.

PLAN OF LAKE PARK

1874

LAKE

MICHIGAN

ILLINOIS CENTRAL R.R. 40' B-LANK WATER

ILLINOIS CENTRAL R.R. 40' TRACK



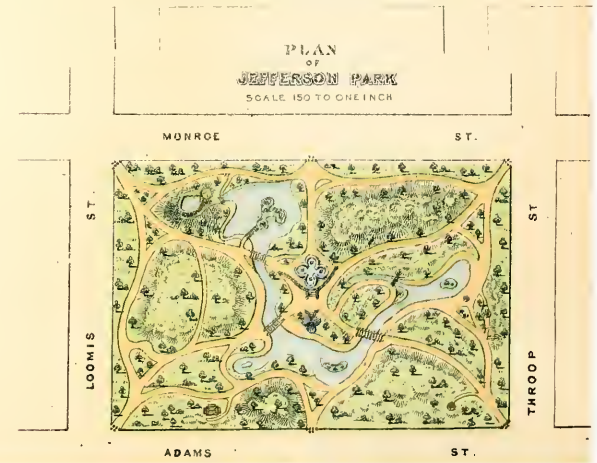
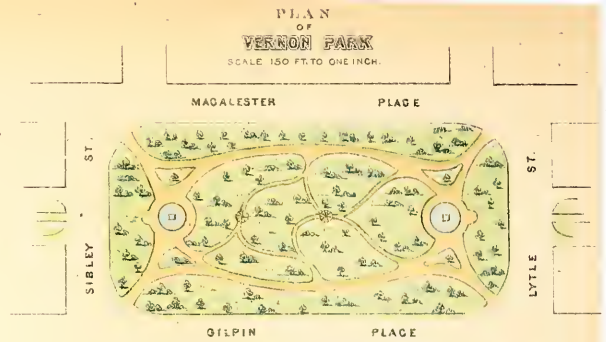
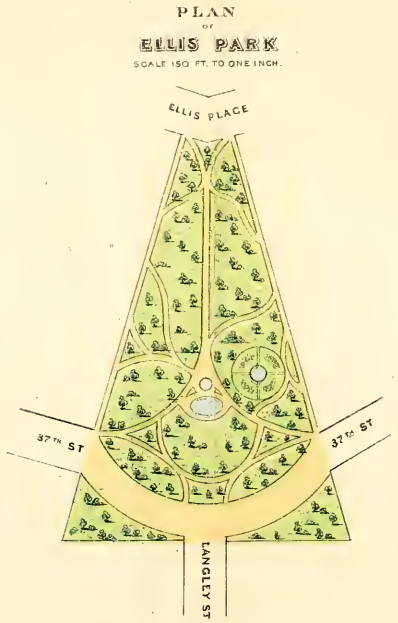
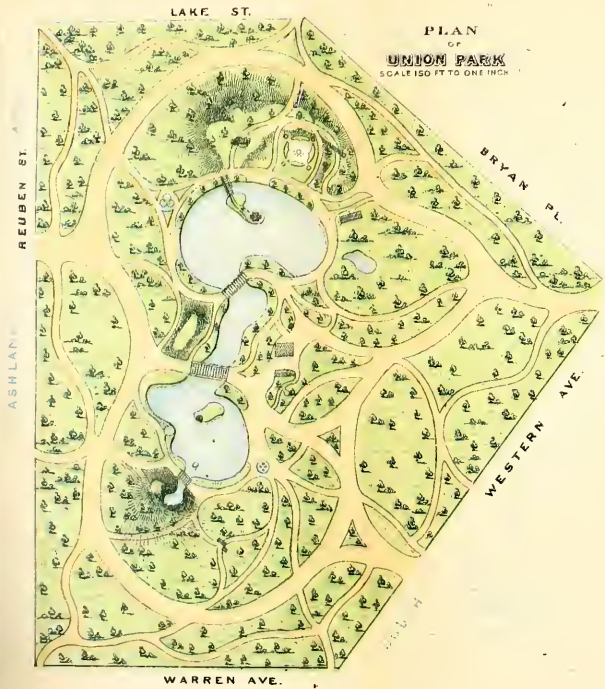
MICHIGAN

AVENUE

- RANDOLPH ST
- WASHINGTON ST
- MADISON ST
- MONROE ST
- ADAMS ST
- JACKSON ST
- VANBUREN ST
- CONGRESS ST
- HARRISON ST
- HUBBARD CT
- PECK CT
- ELDRIDGE CT
- HARMON CT

PARK PL

SECTION 4





CITY ENGINEER'S REPORT.

CHICAGO, *October 1, 1870.*

To the Board of Public Works :

GENTLEMEN: Herewith your Engineer respectfully presents his Report for the year ending March 31, 1870, and as usual the first part of it is the

REPORT OF THE ENGINEER OF PUMPING WORKS.

PUMPING DEPT. WATER WORKS, }
CHICAGO, *April 15, 1870.* }

E. S. CHESBROUGH, Esq., *City Engineer :*

SIR: I present herewith my Sixteenth Annual Report of the operations of this department, it being for the year ending March 31, 1870.

The total quantity of water pumped during the year, was 6,801,146,720 gallons, an increase of nearly 1,427,000,000, or about 26½ per cent. over that pumped the previous year.

The daily average during 1868-9 was nearly 14¼ million gallons, although during the month of March, the average was about 16½ millions.

During the past year the daily average was 18¾ millions, and throughout the month of July it was over 20½ millions.

The following record will show the operations of the works each month during the past year:

OPERATIONS OF ENGINES AND BOILERS.

MONTHS.	No. of Days.	No. of Hours run per month.		Average No. of Hours run per mo.	Total ¹ Revolutions per month.	Average No. of Revolutions per day.	Total No. of Gallons Water Pumped per month.	Average No. of Gallons Water Pumped per day.	Total Pounds of Coal consumed per day	Average Pounds of Coal consumed per day.
		H.	M.							
1869										
April	30	720	00	24 00	523,843	17,428	515,558,836	17,185,294	1,252,720	41,757
May	31	744	00	24 00	737,327	23,784	511,024,720	16,484,668	1,335,130	43,068
June	30	720	00	24 00	793,013	26,433	537,626,771	17,920,892	1,353,260	45,108
July	31	743	35	23 59	776,230	25,039	641,359,425	20,689,014	1,610,740	51,959
August	31	744	00	24 00	797,368	25,721	626,549,674	20,211,279	1,664,680	53,699
September	30	720	00	24 00	834,952	27,831	592,379,232	19,745,974	1,497,280	49,909
October	31	744	00	24 00	767,785	24,767	556,909,988	17,964,838	1,422,310	45,881
November	30	720	00	24 00	631,272	21,042	550,754,730	18,358,491	1,440,710	48,023
December	31	744	00	24 00	695,908	22,448	569,074,149	18,357,230	1,440,460	46,474
January, 1870	31	743	45	23 59 ¹	740,532	23,888	548,247,452	17,685,401	1,535,260	49,524
February	28	672	00	24 00	565,669	20,203	525,713,115	18,775,468	1,279,300	45,687
March	31	743	33	23 59	791,019	25,516	625,948,628	20,191,890	1,643,330	53,901
Totals	365	8,758	53	286 57 ¹	8,653,918	284,100	6,801,146,720	223,570,439	17,475,180	574,090
Gen'l Avg. per Mo.	....	729	54	23 56	721,160	23,675	566,762,227	18,630,870	1,456,265	47,840
Gen'l Avg. per Day	....	23	59	....	23,709	.....	18,633,278	.....	47,877	.....

It will be seen by the foregoing table, that engines have been stopped but 67 minutes during the year, the total running time being 8,758 $\frac{2}{10}$ hours. The following amount of coal has been received during the past year:

	TONS.	LBS.		TONS.	LBS.
On hand April 1, 1869.....	142	00			
Received of Hammondsville Strip Vein.....	1347	1610			
“ Willow Bank.....	7534	880			
“ Otter Creek.....	121	100			
“ Hocking Valley.....	104	940			
“ Briar Hill.....	54	200			
	TONS.	LBS.			
Of these amounts there has been used for					
pumping, heating buildings, etc.....	8737	1180			
For Work Shop, Pipe laying, etc.....	456	550			
On hand April 1, 1870.....	110	000			
	9303	1730	9303	1730	

The expenses due to pumping during the past year were as follows:

Salaries of Engineers.....	\$ 7,180	00
“ Firemen and others.....	8,186	27
8737 $\frac{1}{2}$ $\frac{8}{10}$ $\frac{0}{10}$ tons of coal at an average of \$6 $\frac{9}{10}$ $\frac{3}{10}$	60,551	40
588 $\frac{3}{4}$ gallons of oil.....	853	99
826 pounds of tallow.....	106	08
Cotton waste.....	185	75
Packing.....	96	34
Small stores.....	140	89
Gas for lighting Works.....	708	07
Repairs on Engines and Boilers.....	1,639	65
Total.....	\$79,648	44
Cost of delivering water per million gallons.....	\$11	71

The following tables will show the quantity of water pumped each month, for the past twelve years; also the total quantity pumped each year, together with the daily and annual increase, etc.

TABLE SHOWING QUANTITY OF WATER PUMPED EACH MONTH, FROM JAN, 1, 1858, TO APRIL 1, 1870.

MONTHS.	1858.	1859.	1860.	1861.	1862.	1863.
January	81,538,179	106,905,665	132,284,454	137,651,918	151,971,047	169,900,255
February	69,426,515	106,401,412	130,800,720	142,071,067	168,931,783	158,108,450
March	82,677,463	102,415,983	150,331,680	135,576,447	192,937,942	159,930,404
April	82,600,782	89,994,235	132,930,546	128,371,178	170,081,570	
May	82,279,920	116,097,263	141,171,078	150,489,168	181,483,032	Hereafter the year commences on the first day of April.
June	90,211,505	113,098,416	148,197,024	155,996,352	199,113,518	
July	101,670,736	133,800,336	166,394,640	147,182,793	209,215,872	
August	107,176,652	123,266,556	152,427,690	168,602,494	195,588,295	
September	108,534,540	131,735,847	132,272,202	152,710,186	186,902,888	
October	101,046,605	141,527,040	148,710,195	149,362,166	199,045,045	
November	86,385,840	127,342,018	150,493,248	153,879,648	187,002,720	
December	98,316,722	122,653,139	130,773,075	145,261,272	175,006,027	
Total	1,091,865,459	1,415,147,910	1,716,786,552	1,767,154,689	2,217,279,739	487,939,109

MONTHS.	1863-4	1864-5.	1865-6.	1866-7.	1867-8.	1868-9.	1869-70.
April	173,519,952	178,013,170	189,131,463	260,207,901	281,904,710	376,430,083	515,558,836
May	193,119,348	201,471,216	212,575,920	278,006,304	282,813,313	402,382,583	511,024,720
June	194,255,701	230,814,576	249,935,040	271,415,472	318,358,925	422,909,052	537,626,771
July	209,332,677	223,227,723	254,045,040	310,687,104	363,322,276	505,513,404	641,359,425
August	217,561,920	257,109,360	255,641,034	299,800,032	375,441,736	482,160,940	626,549,674
September	217,229,652	237,157,038	266,145,900	262,016,784	354,965,654	447,213,481	592,379,232
October	185,678,001	191,542,516	246,406,639	264,920,802	377,585,973	456,278,707	556,909,988
November	176,132,600	165,033,042	200,101,293	224,726,521	350,800,232	430,887,264	550,754,730
December	199,592,696	208,044,966	192,616,708	211,366,383	378,710,850	466,284,049	569,074,149
January	209,884,992	232,131,600	236,844,455	259,410,174	380,912,240	457,504,543	548,247,452
February	176,088,647	189,244,751	227,597,773	257,166,480	380,867,239	418,212,220	525,713,115
March	183,712,268	209,569,260	246,776,084	269,036,652	386,108,511	508,848,250	625,948,628
Total	2,336,108,454	2,523,339,218	2,777,817,349	3,168,760,609	4,231,791,659	5,374,624,576	6,801,146,720

TABLE SHOWING TOTAL QUANTITY OF WATER PUMPED, TOGETHER WITH ANNUAL AND DAILY INCREASE.

ALSO THE GREATEST DAILY AVERAGE FOR A SINGLE MONTH FOR THE FOLLOWING YEARS :

YEARS.	Total Quantity Pumped. GALLONS.	Annual Increase. GALLONS.	Average Daily Quantity Pumped. GALLONS.	Average Daily Increase. GALLONS.	GREATEST DAILY AVERAGE.	
					MONTH.	GALLONS.
1858	1,091,865,459	.....	2,991,413	.....	September.....	3,617,818
1859	1,415,147,910	323,282,453	2,877,119	885,706	October.....	4,565,388
1860	1,716,786,552	301,338,642	4,703,525	826,406	July.....	5,367,569
1861	1,767,154,689	50,368,137	4,841,520	137,995	August.....	5,438,790
1862	2,217,279,739	450,125,050	6,074,739	1,233,219	July.....	6,748,899
1863	2,336,108,454	118,128,715	6,400,298	325,559	January.....	6,770,483
1864	2,523,339,218	187,230,764	6,913,259	512,961	August.....	8,293,850
1865	2,777,817,349	254,478,131	7,610,459	697,200	September.....	8,871,530
1866	3,168,760,609	390,943,260	8,681,536	1,071,077	July.....	10,022,164
1867	4,231,791,659	1,063,031,050	11,562,273	2,880,737	March.....	12,455,113
1868	5,374,624,576	1,142,832,917	14,724,999	3,162,726	March.....	16,414,460
1869	6,801,146,720	1,426,522,144	18,633,278	3,998,279	July.....	20,689,014
Average for 12 years..	2,951,818,578	475,690,105	8,084,535	1,303,488		9,104,590

TABULAR STATEMENT OF OPERATIONS OF EACH ENGINE.

ENGINES.	Hours and Minutes.		Total Revolutions.	Total Gallons Water Pumped.
	H.	M.		
'53.....	5,381	6	3,095,045	1,605,709,340
'57.....	3,634	16	2,111,406	1,722,907,295
'67.....	5,231	33	3,447,467	3,472,530,085
Totals	14,246	55	8,653,918	6,801,146,720

SHOPS.

During the year there have been manufactured of new fire hydrants 292, and of new stop valves, 123, viz :

37	4 inch,	11	12 inch,
36	6 inch,	4	16 inch,
27	8 inch,	8	24 inch.

In addition to these, ten new drinking hydrants have been made, and the usual amount of repairing for streets, bridges and other city departments.

New tools, fixtures and patterns have been added to the shop, costing.....	\$ 819.00
Value of tools, etc., previously reported.....	4,300.00
Total cost of tools.....	\$5,119.00
Cost of coal, oil, operating shop, etc..	\$1,194.28
Superintendence	750.00
Total.....	\$1,944.28

Deducting this expense, together with 8 per cent. interest on total cost of tools, and 4 per cent. depreciation of same, and estimating the value of work done at considerably less than current prices, the nominal net earnings of the shop for the year amounts to \$5,853.74.

There are remaining on hand of

New Fire Hydrants.....	55
“ Four inch Valves.....	11
“ Six inch “	5
“ Eight inch “	8
“ Twelve inch “	3
“ Twenty-four inch Valves.....	4

The value of these, together with raw material on hand, including finished wood work, lumber, etc., is.....	\$6,649.11
Add value of tools.....	5,119.00

Total value of stock in shop.....	<u>\$11,768.11</u>
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During the year a portion of the patterns belonging to the city were destroyed by fire, at the foundry of N. S. Bouton & Co.; they have been replaced by new ones.

CONDITION OF THE WORKS.

No extensive repairs have been made during the past year. The engines are in as good order as can be expected, in view of their almost constant running.

The principal expenditure for repairs has been upon the boilers. One of those in the north wing has been in use over seventeen years; its general condition is such that it should be replaced by a new one, as we require all the boiler capacity we have, which should be of a reliable character.

The two south boilers have been in use thirteen years; they are at present in fair order, and may be relied upon until their removal to make way for the boilers to accompany the proposed new engine.

The city has not been wholly deprived of water during the year, although by the action of the ice at the Lake Crib, on the morning of the 24th of December last, the supply was seriously threatened; and the disaster to the river pipe, at Chicago avenue crossing, on the 18th of August following, rendered the supply to the West Division quite inadequate to the public wants.

Some improvements of a permanent character have been made in the engine room, and at other points. The fronts of engines 53 and 57 have been fitted with new iron floor-plates and wheels for operating throttle and other valves; also brass hand-rail extending around the working parts.

The old inlet-pipe has been filled with masonry several feet from its connection with the pump-well, and a new waste-pipe connecting all the air-pumps with it, was put in in June last.

Nearly all the work on buildings, left unfinished at date of last report, has been completed during the year; such as stone steps at main entrance, plastering walls, extending gallery, and pointing outside of walls.

The tower has been plastered and blocked off in the vestibule, the cupola finished, and an additional flight of iron steps put in, leading thereto. Nothing has been done towards the proposed improvement of the surrounding ground, which is far from being in harmony with the character of the buildings.

The large and constantly increasing consumption of water is such that we shall soon reach the limit of the present means of supply. During 1868-9 the daily average was about $14\frac{3}{4}$ million gallons. On page 60, last annual report, it was predicted that the daily average for the present year would reach 20,000,000; and during the hot season 25,000,000 gallons would be required. The delay in issuing this report enables me to say that even this high estimate falls short of the truth, for during the first three months of the present year, the daily average has reached nearly 21,000,000; one week of this time the daily average was over 23,000,000 gallons, and for certain days, the quantity pumped was over 28,000,000. The constant extension of pipe, and new attachments thereto, will of course have a tendency to increase these figures.

To meet the increase as here anticipated, the Commissioners gave orders for the preparation of plans and specifications for additional pumping machinery, with a capacity to deliver thirty-six million gallons daily.

Drawings and specifications for the machinery have accordingly been issued, and proposals invited for its construction, and it is hoped that the next annual report may announce its near completion; it will be fully described hereafter.

The south wing and pump-well, originally designed for this machinery, are ready to receive it. The construction of foundations, and the extension of branch of main tunnel to the well, will require considerable time, and should be commenced as soon as may be practicable. The whole of the work here alluded to should be carried forward with the utmost dispatch, for until its completion, the present machinery will be closely pressed to meet the demand upon it.

I regret to report the occurrence of an accident at these works which resulted fatally. On the 20th of May last, Mr. Richard Coote, while temporarily engaged in making some measurements in the building, was struck by the engine crank, and so severely injured that he died in consequence on the 31st of the same month.

The deceased was for a number of years connected with the corps of civil engineers, under the Board of Public Works, and was regarded as a gentleman of fine attainments in his profession and highly esteemed by his associates, as well as by those under whom he served.

The unfortunate occurrence is regretted by none more than those connected with this department.

Respectfully,

DE WITT C. CREGIER,

Engineer.

CONSUMPTION.

Mr. Cregier's report shows that rapid increase in the consumption of water continues to be not only enormous, but, considering the pumping power at present available, truly alarming. The new engine recently contracted for, cannot be got into operation in less than a year.

Already the average consumption has reached the guaranteed capacity of the two small or old engines. The large and newest one must sometimes be laid up for repairs, and then the two small ones will be insufficient to meet the extra demand of very hot or very cold weather.

It should be stated here, that the reported number of gallons actually pumped has necessarily been obtained from the dimensions of the pumps, and the registered number of revolutions. As all large pump valves are known to leak somewhat, the tabular statement probably exceeds, more or less, the actual rates; but this does not affect the comparison of one year with another. A large proportion of the water pumped is wasted, and if there is any practicable way of preventing it, the threatened short supply occasionally, for a year to come, may be avoided.

The average daily consumption the past year was not less than seventy gallons for each inhabitant. During the past summer, the average has not been less than eighty, and there were days on which it would have reached one hundred, had it been possible to meet the demand with the present pumping machinery. This shows that the whole city demands, at this date, in very warm and dry weather, 30,000,000 gallons for consumption and waste. It may be said that an occasional short supply would be a good thing to teach the citizens not to waste. Unfortunately, this would not meet the case, because the least wasteful are those

who live in the out-lying districts, yet they are the great sufferers.

Mr. Cregier's report shows that the average daily consumption has more than doubled during the last three years. There are satisfactory reasons for a large part of this increase, in the increased number of water takers, but not sufficient to account for the whole of it. So far all estimates of consumption for this city, based upon previous experience, however extravagant they may have appeared, have been more than realized. Of course a change must come sooner or later, but who can tell when?

Great pains has been taken to ascertain the cause of the increased consumption here, and it has been clearly traced to a reckless waste which is not confined to any locality. At first it was hoped that the excessive demand for water might be accounted for by the discovery of one or more large leaks from the water mains into the sewers. These were examined in central business portions of the city, and the discharge from them by night and day carefully measured, but the only thing discovered was an immoderate waste of water every where. Extensive examinations were then made, under the direction of Mr. Woodford, the Assessor, on the private premises of many of the water takers, and enough was ascertained to account for the excessive demand on the pumping works.

Many persons waste from their taps from carelessness, others for the sake of having the water always cool and fresh the instant they wish to drink, others let their fixtures get out of order, and are too careless or penurious to have them repaired.

Experience shows that much plumbing done in past years is very defective. The use of sprinkling hose at forbidden hours, is a large and increasing cause of waste.

If those who needlessly waste simply caused the city so much more expense on their account, the effect, though quite objectionable pecuniarily, would be of much less importance than it now is, for it is impossible, in certain extreme conditions of the weather, to supply the outlying districts of the city at all. Many families and various industries are thus deprived of an absolute necessity, and exposed, in case of fire, to immense loss.

As a very large amount of waste is caused by defective water closets and fixtures, it is suggested that *earth closets* might be advantageously used in those places where ordinary ones are found to be injured by frost or neglect. The prospect of success in this direction, judging from the testimony of competent persons in New Orleans and other cities, might be determined by a moderate experiment in this city.

When it is considered that all waste of water causes not only an increase of annual expenditures, but necessitates enlargements and extensions of the water works earlier than would otherwise be necessary, it will be seen that every citizen hereafter will have a direct interest in preventing this waste.

INLET BASIN.

It is remarkable how long the old breakwater, in front of this basin, continues to protect it. The piles are more decayed than ever, but still stand. Nothing more can be said of the necessities of this basin, than was said last year. As usual, a dredging machine was kept in it all winter, to assist in preserving an open channel to the lake, in case any accident should happen to the tunnel or the crib. A portion of the sand that had accumulated in the basin during the previous season, was dredged out at the beginning of winter.

DISTRIBUTING PIPES.

There were laid during the year ending March 31, 1870, the following main and distributing pipes, viz:

SOUTH DIVISION.

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
Arnold st.	Twenty-seventh and Thirty-first.	4	2,420
Alley across Dr'bn.	Monroe and Jackson st.	4	300
Alley " 18th..	State and Burnside.	4	100
Alley N. from " .	Blackwell and Wentworth av.	4	100
Burnside st.	Twenty-fifth and Twenty-sixth.	4	680
Burnside st.	Archer av. and North.	6	130
Blackwell st.	Eighteenth and South.	6	100
Butterfield st.	Thirty-first and Thirty-third.	4	1,060
Bryant st.	Vincennes road and West.	4	704
Buddan st.	Archer av. and South.	6	100
Bushnell st.	" " "	4	150
Butler st.	" " "	6	160
Cottage Grove av..	Douglas place and South.	6	50
Calumet av.	Twenty first and North.	6	154
Cottage place.	Thirty-first and South.	4	620
Clark st.	into E. wing of City Hall.	4	125
Clark st.	" " "	6	141
Cologne st.	Main and Quarry sts.	6	850
Dearborn st.	Madison and Jackson sts.	6	1,200
Eighteenth st.	Clark and Butterfield sts.	6	200
Eighteenth st.	State and Burnside sts.	4	320
Fourteenth st.	Wabash and Michigan avs.	8	414
Gano st.	South Park av. and Calumet av.	4	360
Indiana av.	Twenty-seventh and Thirtieth sts.	6	830
La Salle st.	into W. wing of City Hall.	6	130
Lake av.	Douglas place and Wahpanseh av.	4	1,400
McGregor st.	Wentworth av. and Wallace st.	4	2,670
Madison st.	Market st. and the river.	4	137
Main st.	end of pipe and Thirty-first st.	6	260
Market st.	at intersection of Madison st.	8	300
Market st.	" Randolph st.	8	180
Nineteenth st.	Purple and Wentworth av.	6	650
Prairie av.	Thirty-first and Thirty-third.	6	1,400
Prairie av.	Cottage Grove av. and Twenty-third st.	4	436
Purple st.	Twentieth and Twenty-first.	6	444
Polk st.	Wells st. and the river.	4	400
South Water st ...	Michigan av. and East st.	6	414
South Park av.	Twenty-second and Twenty-fourth.	6	1,282
	Carry forward.		21,371

SOUTH DIVISION.—(CONTINUED.)

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
	Brought forward.....		21,371
South Park av....	Twenty-fifth and Twenty-sixth sts.....	6	670
Stewart av.....	at intersection of Archer av.....	8	190
Twelfth st.....	the river and eastward.....	16	168
Twenty-sixth st...	Wabash av. and State st.....	12	630
Twenty-fourth st..	State st. and east of Wabash av.....	6	560
Twenty-fourth st..	South Park av. and East.....	4	125
Twenty-third st...	at intersection of South Park av.....	4	200
Twenty-fifth st....	“ “ “	6	140
Twenty-first st....	“ Calumet av.....	6	172
Thirty-third st....	Clark and Burnside st.....	6	600
Thirty-third st....	Cottage Grove av. and East.....	6	604
Thirty first st....	Butterfield and Arnold sts.....	8	570
Thirty-first st....	State and Wabash av.....	8	344
Thirty first st....	Cottage place and Cottage Grove av.....	6	306
Twenty ninth st...	Butterfield st. and Wentworth av.....	6	711
Twenty-eighth st..	Michigan and Wabash avs.....	4	390
Thirteenth st.....	at intersection of Wabash av.....	4	210
Vincennes road....	Douglas place and South.....	6	2,300
Wabash av	Twenty second and Thirty-first sts	24	4,600
Wabash av.....	Thirty-second and South.....	6	374
Wentworth av....	Eighteenth and South.....	6	100
Wentworth av....	Twenty-sixth and Twenty-ninth sts.....	6	1,150
Wahpansch av....	Vincennes road and Langley st.....	6	414
			36,899
	Hydrants.....		1,596
	Total.....		38,495

WEST DIVISION.

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
Aberdeen st.....	Polk and Gurley sts.....	4	470
Adams st.....	end of pipe and Reuben.....	6	1,000
Adams st.....	Honore and Paulina sts.....	6	1,216
Ada st.....	Lake and Madison sts.....	8	1,520
Augusta st.....	Milwaukee av. and Will st.....	6	640
Ann st.....	at intersection of Lake st.....	6	240
Alleys acr's D'splns	Adams and Kinzie sts.....	4	808
Bryan place.....	Lake and South.....	6	200
Blair st.....	Canalport av. and South.....	4	100
Canal st.....	Twelfth and Judd sts	6	300
Canal st.....	at intersection of Washington st.....	4	200
Centre av.....	Sixteenth and Evans sts.....	6	616
Centre av.....	Fourth and South.....	6	124
Centre av.....	Harrison and William sts.....	6	620
Centre av.....	Chicago av. and North.....	8	150
Canalport av.....	John and W. of Brown st.....	6	700
	Forward.....		8,904

WEST DIVISION.—(CONTINUED.)

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
	Brought forward.....		8,904
Curtis st.....	Third and Fourth sts.....	4	400
Curtis st.....	Kinzie and Fulton sts.....	6	820
Chicago av.....	Carpenter and W. of Reuben st.....	16	3,900
Chicago av.....	Paulina and Wood sts.....	6	780
Carpenter st.....	Chicago av. and North.....	8	40
Carpenter st.....	Fulton and Carroll sts.....	6	400
Desplaines st.....	Lake and Kinzie sts.....	6	980
Dunn st.....	Kinzie and Northward.....	6	100
Eleventh st.....	Morgan and Sholto sts.....	6	570
English st.....	Centre av. and May st.....	4	420
English st.....	Halsted and Canalport av.....	4	466
Evans st.....	“ and John sts.....	6	200
Eighteenth st.....	Jefferson and Seward sts.....	6	470
Elston road.....	Wabansia and North av.....	6	1,030
Elston road.....	end of pipe and Armitage road.....	4	300
Elston road.....	“ “ “.....	6	1,064
Elizabeth st.....	Randolph and Washington sts.....	6	440
Fisk st.....	Sixteenth and Southward.....	6	60
Forquer st.....	Canal and East.....	6	210
Fourth st.....	Noble and Centre av.....	6	1,422
Fourth st.....	Reuben and East.....	8	140
Fulton st.....	Robey and Lincoln sts.....	4	616
Green st.....	Monroe and Harrison sts.....	12	2,290
Green st.....	Lake and South.....	4	70
Henry st.....	Blue Island av. and Throop st.....	4	480
Henry st.....	Waller and Centre av.....	4	1,350
Hubbard st.....	Robey and Oakley sts.....	6	2,270
Hubbard st.....	Desplaines and Union sts.....	6	370
Hamilton st.....	end of pipe and Southward.....	4	360
Hamilton st.....	Jackson and North.....	4	40
Harrison st.....	Reuben and Desplaines sts.....	12	6,190
Halsted st.....	Meagher and Sixteenth sts.....	4	350
Halsted st.....	Sixteenth and Southward.....	6	220
Halsted st.....	“ Northward.....	4	398
Hermitage av.....	Jackson and Southward.....	6	236
Indiana st.....	Desplaines and East.....	6	120
Judd st.....	Canal and East.....	6	110
John place.....	Halsted and West.....	4	590
Jackson st.....	at intersection of Green st.....	8	260
Jackson st.....	Aberdeen and Centre av.....	6	650
Jackson st.....	Hoynes and Leavitt sts.....	4	514
Jackson st.....	Lincoln and Hermitage av.....	6	1,050
Jackson st.....	Robey and Seeley sts.....	6	336
Johnson st.....	Wright and Maxwell sts.....	6	870
Kinzie st.....	at intersection of Reuben st.....	12	117
Kansas st.....	Loomis and Laflin sts.....	4	622
Lytle st.....	Harrison and South.....	12	1,774
Laflin st.....	at intersection of Madison st.....	6	190
Lake st.....	Western av. and Valentine st.....	6	850
Loomis st.....	Adams and Northward.....	6	134
	Forward.....		46,493

NINTH ANNUAL REPORT OF
WEST DIVISION.—(CONTINUED.)

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diame- ter in Inches.	Length in Feet.
	Brought forward.....		46,493
Lincoln st.....	Kinzie and Hubbard sts.....	6	370
Luke st.....	Halsted and Union sts.....	4	450
Madison st... ..	Western av. and Staunton st.....	8	600
Maxwell st.....	Newberry and Waller sts.....	6	1,090
May st.....	Hubbard and Erie sts.....	6	1,250
Margaret st.....	Henry and Catherine sts.....	6	280
Monroe st.....	Robey and Lincoln sts.....	4	670
Newberry st.....	Twelfth and Maxwell sts.....	4	430
Noble st.....	Bradley and Chicago av.....	8	3,130
O'Neill st.....	Halsted st. and Westward.....	4	290
Oakley st.....	Lake and Fulton sts.....	6	580
Paulina st.....	Mitchell and Sixteenth st.....	6	1,340
Paulina st.....	Waba. sia av. and South.....	6	200
Paulina st.....	Monroe and Adams st.....	6	556
Peoria st.....	Lake and South.....	4	240
Quincy st.....	Clinton and Jefferson sts.....	6	400
Reuben st.....	Bauwans and Blackhawk sts.....	6	690
Reuben st.....	Warren and Washington sts.....	6	260
Reuben st.....	Lake and Augusta sts.....	24	5,065
Reuben st.....	Cornelia and Division sts.....	6	1,530
Reuben st.....	Chicago av. and First st.....	6	320
Reuben st.....	Indiana and Fourth sts.....	6	500
Reuben st.....	Lake st. and N. of Kinzie st.....	6	1,000
Rebecca st.....	Centre av. and Morgan st.....	4	1,550
Ruble st.....	Canalport av and North.....	6	63
Redfield st.....	Elston road and McHenry st.....	4	750
Sixteenth st.....	Centre av. and Nutt st.....	8	1,214
Sixteenth st.....	Morgan and Union sts.....	8	1,620
String st.....	Canalport av. and North.....	6	100
Sangamon st.....	Harrison and Tyler sts.....	4	430
Sangamou st.....	Randolph and Washington sts.....	6	460
Sangamon st.....	Lake and Fulton sts.....	6	440
School st.....	at intersection of Desplaines st.....	4	150
Seward st.....	Canalport av. and Southward.....	4	114
School st.....	at intersection of Clinton st.....	4	150
School st.....	" Jefferson st.....	4	150
School st.....	Canal st. and Westward.....	4	216
Sebor st.....	" " Eastward.....	4	200
St. Johns place....	Lake st. and North.....	4	100
Sheldon st.....	at intersection of Lake st.....	6	200
Sheldon st.....	Madison and Washington sts.....	6	504
Smart st.....	Kinzie and Hubbard sts.....	4	400
Stewart av.....	at intersection of Eighteenth st.....	6	200
S. W. Plank road..	Washington and North-east.....	6	175
Twelfth st.....	The river and Lytle st.....	16	5,486
Trustee st.....	Kinzie and Hubbard sts.....	4	400
Twenty-second st..	Halsted and Jefferson sts.....	6	1,125
Throop st.....	Harrison and Tyler sts.....	8	290
Throop st.....	Adams and Northward.....	6	134
Tyler st.....	Throop st. and Centre av.....	6	640
	Forward.....		84,995

WEST DIVISION.—(CONTINUED.)

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
	Brought forward.....		84,995
Union st.....	Canalport av. and English st.....	6	490
Union st.....	to connect at Twelfth st.....	8	14
Van Buren st.....	Morgan and Sangamon sts.....	6	260
Wade st.....	Elston road and N. W. R. R. track.....	4	614
Walsh st.....	Halsted and Westward.....	6	87
Washington st.....	Canal st. and the river.....	4	500
Walnut st.....	Hoyne and Western av.....	4	2,040
Wabansia av.....	Elston road and Ridgeville road.....	6	1,800
Western av.....	Lake and Kinzie sts.....	8	1,470
Wright st.....	Wabansia av. and Rawson st.....	4	700
Winchester st. . .	Monroe and Adams sts.....	4	530
W. Water st.....	to connect at Washington.....	4	180
	Hydrants.....		93,630
	Total.....		3,724
			97,404

NORTH DIVISION.

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
Alley.....	West of Larrabee S.W. from Clybourn av..	4	100
Burton place.....	at intersection of Dearborn st.....	4	180
Burton place.....	Clark st. and Eastward.....	6	100
Block st.....	North av. and Linden st.....	4	670
Belden av.....	Larrabee and Orchard st.....	4	600
Clybourn av.....	Halsted and North av.....	6	550
Clybourn av.....	end of pipe and Fullerton av.....	6	390
Centre st.....	Hurlbut and Mohawk st.....	6	350
Centre st.....	Larrabee and Howe sts.....	6	350
Church st.....	Blackhawk and North av.....	4	778
Chesnut st.....	Dearborn and Eastward.....	4	140
Chesnut st.....	Clark and LaSalle sts.....	6	375
Chicago av.....	in Water Pipe Tunnel.....	24	362
Division st.....	in Water Pipe Tunnel.....	24	340
Dearborn st.....	Kinzie and North Water sts.....	6	316
Dearborn st.....	end of pipe and North av.....	4	350
Dayton st.....	Willow and South.....	4	172
Dayton st.....	Clay and North.....	4	262
Erie st.....	Pine and West.....	6	100
Elm st.....	at intersection of Dearborn st.....	4	240
Engine House(into)	at City Water Works.....	4	70
Franklin st.....	Sophia and Asylum place.....	4	700
Fremont st.....	Willow and Clay sts.....	6	870
Grant place.....	Clark and La Salle sts.....	4	420
Huron st.....	Pine and Westward.....	6	100
Hammond st.....	Wisconsin and Menominee sts.....	4	675
	Forward.....		9,560

NORTH DIVISION.—(CONTINUED.)

ON WHAT STREET.	BETWEEN WHAT STREETS.	Diameter in Inches.	Length in Feet.
	Brought forward.....		9,560
Halsted st.....	Rees and Blackhawk sts.....	6	400
Halsted st.....	North av. and Clybourn av.....	6	475
Hills st.....	Wells and Eastward.....	4	60
Hull st.....	Lincoln and Menominee sts.....	4	640
Illinois st.....	Franklin and Kingsbury sts.....	6	1,120
Kroger st.....	Sheffield av. and Northwest.....	4	690
Linden st.....	Church and Wells sts.....	4	1,386
Linden st.....	at intersection of La Salle.....	4	140
Labar st.....	Division and Larrabee sts.....	4	780
La Salle st.....	North av. and Clark st.....	6	820
Maple st.....	Dearborn and Westward.....	4	140
Menominee st.....	Church and Sedgwick sts.....	4	50
North av.....	Hurlbut and E. of Clark st....	8	2,790
North av.....	at intersection of Dearborn st.....	6	240
Oak st.....	at intersection of Dearborn st.....	4	150
Oak st.....	Market and Townsend sts.....	6	775
Oak st.....	Rush and Larrabee sts.....	24	3,788
Orchard st.....	Clybourn and North avs.....	4	850
Pine st.....	Hinsdale and Whitney sts.....	6	300
Pine st.....	Chicago av. and Northward.....	6	120
Rush st.....	Oak and Pearson sts.....	24	1,154
Sophia st.....	Clark and Franklin sts.....	6	290
Schiller st.....	at intersection of Dearborn st.....	6	260
Schiller st.....	La Salle and E. of Clark.....	6	390
Scott st.....	Astor place and Lake Michigan.....	4	330
Sheffield av.....	Clybourn av. to Clay st.....	6	1,003
St. S. of Blackhawk	from Clybourn av. Southwest.....	4	100
“ from Division S.	Franklin and Market sts.....	4	96
White st.....	Dearborn and Eastward.....	4	364
White st.....	E of Wells and Franklin sts.....	6	600
Whitney st.....	end of pipe and Pine st.....	4	150
Wendel st.....	Wells and Eastward.....	6	60
Willow st.....	Dayton and Fremont sts.....	4	482
Weed st.....	Clybourn av. and North.....	4	100
	Hydrants.....		30,653
			952
	Total.....		31,605

The whole length of pipe laid in the city during the year, was 167,504 feet— $31\frac{3}{5}\frac{8}{2}\frac{24}{80}$ miles, about 2,436 feet of which was on streets in which the increased demand for water rendered it necessary to take up the smaller and lay down larger sized pipe.

The total length of pipe laid in the city to this date, as nearly as can be ascertained, is as follows, viz.:

	FEET.
28 inch cast iron main pipe.....	160
24 " " "	38,231
16 " " "	24,526
12 " " "	21,675
30 " wrought iron river pipe, State st.....	280
24 " " " " Rush st.....	530
24 " " " " Twelfth st.....	258
12 " " " " Adams st.....	176
9 " " " " and syphon pipe at Archer av.....	90
10 " cast iron distributing pipe.....	7,862
8 " " " " "	126,497
6 " " " " "	448,827
4 " " " " "	569,005
3 " " " " "	28,566
	1,266,683

or 239 miles and 4,763 feet.

The length of 24 inch mains laid in the North Division, and the northern portion of the West Division, has at this date already caused a great improvement in the supply of water to those parts of the city. It is hoped that before the close of the present year there will be a continuous line of 24 inch pipe from the pumping works, along Rush, Oak, Crosby, Division and Reuben streets, to Harrison, with important connections.

On the 18th of August, 1869, the 24 inch river pipe, on the lower side of the Chicago avenue bridge, was struck by an anchor, one fluke of which remained in the pipe, and so badly injured it that it was found best to shut off the water from it altogether, until it could be repaired. Occurring as it did, in a very warm and dry time, and when the State street river pipe was shut off to repair an injury by the driving of a pile, this accident caused more inconvenience and anxiety than had been known before in connection with the water works for ten years. All of the city suffered from a shorter supply than usual, and a

large portion had none at all during the heat of the day, so that if a serious fire had occurred, the consequences might have been deplorable in the extreme. Fortunately, by the aid of divers and a dredge, the anchor was taken out, and in about sixty hours altogether from the time the accident occurred, the regular supply of water to the West Division was restored.

The experience gained up to this time, in the use of wrought iron inverted syphon pipes for conveying water across the river and its branches, led the Board to determine, not only to put no more in, but eventually to replace existing ones with cast iron pipes laid through brick lined tunnels. It is expected that five of these will be completed before the end of the present year, viz :

Under the North Branch, at Chicago avenue.

Under the canal, on Division street.

Under North Branch, “ “

Under South Branch, at Adams street, and

Under the south fork of South Branch, on Archer av.

QUALITY OF THE WATER.

This has continued to be quite as good as during the year before. A careful record of the temperature of the water at the crib was kept during the year, and it shows a variation of forty degrees between winter and summer, in that which was taken from within the cylinder.

These observations, together with previous experience, settle beyond all doubt, that we must expect, during protracted seasons of very warm weather, a higher temperature of the water furnished to the city than was expected before the completion of the Lake Tunnel, or than is agreeable to many persons. Some supposed the water would be nearly ice cold throughout the summer, but a little reflection will show that this was unreasonable.

HYDRANTS.

During the year ending April 1, 1870, the following new hydrants were established, viz :

SOUTH DIVISION.

- 1 S.W. corner Arnold and Twenty-seventh sts.
- 1 S.W. " " Twenty-ninth sts
- 1 S.W. " " Thirtieth sts.
- 1 S.W. " " Thirty-first sts.
- 1 S.W. " Archer av. and Buddan st.
- 1 S. E. " " " Twenty-second st.
- 1 North side of Archer av., between Purple and Twenty-first sts.
- 1 S.W. corner Burnside and Twenty-fifth sts.
- 1 N.E. " " Twenty-second sts.
- 1 N.W. " " Twenty-sixth sts.
- 1 N.W. " " Archer av.
- 1 N.W. " Butterfield and Thirty-second sts.
- 1 N.W. " " Thirty-third sts.
- 1 North side Bryant st., west end of pipe.
- 1 S.W. corner Bushnell and Archer av.
- 1 S.W. " Butler "
- 1 in Court House yard.
- 1 N.W. corner Calumet av. and Twenty-first st.
- 1 S. W. " Cottage place and Thirty-first st.
- 1 West side of Cottage place, at south end of pipe.
- 1 N. E. corner Clark and Fourteenth sts.
- 1 S.W. " Ellis av. and Douglas place.
- 1 S.W. " Eighteenth st. and Alley bet. Stewart and Wentworth avenues.

- 1 S.W. corner Dearborn and Monroe sts.
 1 S. E. " Finnell and Archer av.
 1 N.E. " of the Illinois Central Railroad Depot.
 1 S.W. " Lake av. and Douglas place.
 1 N.W. " " Wahpanseh av.
 1 N.W. " McGregor st. and Wentworth av.
 1 N.W. " " Buddan st.
 1 N.W. " " Stewart av.
 1 N. E. " " Butler st.
 1 S. E. " Market and Madison sts.
 1 S. E. " " Randolph sts.
 1 N.W. " Main and Thirty-first sts.
 1 N.W. " Nineteenth and Blackwell sts.
 1 N. E. " " Purple sts.
 1 N.W. " " Wentworth av.
 1 S. W. " Prairie av. and Twenty-ninth st.
 1 N.W. " " Twenty-fourth st.
 1 S.W. " " Thirty-first st.
 1 S.W. " " Thirty-third st.
 1 N.W. " " Twenty-third st.
 1 S.W. " " Thirty-second st.
 1 S.W. " " Cottage Grove av.
 1 East side of Prairie av., bet. Nineteenth and Twentieth sts.
 1 N.W. corner South Park av. and Twenty-sixth st.
 1 N.W. " " " Twenty-third st.
 1 N.W. " Twenty-eighth st. and Michigan av.
 1 N. E. " Twenty-ninth and Clark sts.
 1 North side of Thirty-third st., at east end of pipe.
 1 N.W. corner Twenty-third st. and Michigan av.
 1 S.W. " Vincennes road and Wahpanseh av.
 1 West side of " " at south end of pipe.
 1 S.W. corner " " and Bryant st.
 1 N.E. " Wentworth av. and Twenty-eighth st.
 1 N.W. " " " Twenty-ninth st.
 1 S.W. " " " Twenty-seventh st.

WEST DIVISION.

1 N.W.	corner of Adams and Laflin sts.
1 N.W.	“ “ Paulina sts.
1 S.W.	“ “ Hamilton sts.
1 S.W.	“ “ Green sts.
1 S.W.	“ “ Jefferson st.
1 N.W.	“ “ Canal sts.
1 N.W.	“ “ Throop sts.
1 S.W.	“ “ Winchester sts.
1 S.W.	“ “ Honore sts.
1 S.W.	Ada and Washington sts.
1 N.W.	“ “ Lake sts.
1 N.W.	Augusta and Will sts.
1 N.E.	“ “ Currier sts.
1 N.E.	“ “ Reuben sts.
1 N.W.	Blackhawk “ sts.
1 N.W.	Bunker and Beach sts.
1 N.W.	“ “ Canal sts.
1 N.W.	Bradley and Noble sts.
1 N.E.	Brown and Sixteenth sts.
1 N.W.	Centre av. and Jackson st.
1 S.W.	Canal and Liberty sts.
1 S.W.	“ “ Barber sts.
1 N.W.	“ “ Catherine sts.
1 N.E.	“ “ Forquer sts.
1 N.E.	“ “ Harrison sts.
1 N.W.	“ “ Wilson sts.
1 N.W.	“ “ School sts.
1 N.E.	Clinton and Lake sts.
1 N.W.	“ “ Quincy sts.
1 N.E.	“ “ Carroll sts.
1 N.W.	Chicago av. and Wood st.
1 N.W.	“ “ Samuel st.
1 N.W.	Carpenter and Carroll sts.
1 N.W.	“ “ Second sts.
1 N.W.	“ “ Milwaukee av.
1 S.W.	“ “ Curtis and Carroll sts.

- 1 S.W. corner Curtis and Fulton sts.
- 1 N.W. " Currier and Wade sts.
- 1 N.W. " Desplaines and Carroll sts.
- 1 S.W. " " Hubbard sts
- 1 N. E. " Ewing and Canal sts.
- 1 S.W. " Eighteenth and Wentworth av.
- 1 N.W. " Eleventh and Blue Island av.
- 1 S.W. " Elston road and N.W.R.R. track.
- 1 N.W. " " Crossing st.
- 1 S.W. " " Clybourn place
- 1 S.W. " " Armitage road.
- 1 N. E. " " Redfield st.
- 1 N.W. " " North av.
- 1 S.W. " Evans and Halsted sts.
- 1 N. E. " Elizabeth and Randolph sts.
- 1 N.W. " " Fourth sts
- 1 N.W. " Fourth and Centre av.
- 1 N.W. " Fig and Wade sts.
- 1 S. W. " Green and Lake sts.
- 1 N.W. " Henry and Blue Island av.
- 1 N.W. " " Margaret sts.
- 1 N.W. " " Waller sts.
- 1 N. E. " " Centre av.
- 1 N.W. " Hubbard and Oakley sts.
- 1 N.W. " " Robey sts.
- 1 N.W. " " Leavitt sts.
- 1 N.W. " " Hoyne sts.
- 1 S.W. " " Lincoln sts.
- 1 N.W. " St. John place and Halsted st.
- 1 N. E. " Jefferson and Quincy st.
- 1 N.W. " " Kinzie sts.
- 1 N.W. " " Twenty-second sts.
- 1 N.W. " Jackson and Wood sts.
- 1 N. E. " " Clinton sts.
- 1 S. W. " " Hermitage av.
- 1 N.W. " " Lincoln sts.
- 1 N.W. " " Seeley sts.
- 1 N.W. " Johnson and Wright sts.

- 1 N. E. corner Johnson and Sixteenth sts.
 1 N. E. " Kansas and Laffin sts.
 1 N.W. " Kinzie and Union sts.
 1 S.W. " Lake and Peoria sts.
 1 N.W. " " Seymore sts.
 1 N.W. " " Cossett sts.
 1 N.W. " Lumber and Halsted sts.
 1 N.W. " May and Fourth sts.
 1 N.W. " " Sixteenth sts.
 1 N.W. " McHenry and Redfield sts.
 1 N.W. " Madison and Stanton sts.
 1 N.W. " Maxwell and Morgan sts.
 1 N.W. " Monroe and Lincoln sts.
 1 N.W. " " Clinton sts.
 1 N.W. " " Paulina sts.
 1 S. W. " " Winchester sts.
 1 N. E. " Nebraska and Laffin sts.
 1 N.W. " Noble and Division sts.
 1 N. E. " " Fry sts.
 1 N.W. " " Cornelia sts.
 1 N.W. " " Chapin sts.
 1 N.W. " " Fourth sts.
 1 N.W. " Nineteenth and Wentworth av.
 1 N.W. " O'Neill and Halsted sts.
 1 N.W. " Oakley and Walnut sts.
 1 N.W. " Paulina and Wabansia av.
 1 N. E. " Rebecca and Morgan sts.
 1 N.W. " " Centre av.
 1 N. E. " " Margaret sts.
 1 S.W. " Ruble and Canalport av.
 1 S.W. " Reuben and Division sts.
 1 S.W. " " Jane sts.
 1 S.W. " " Emily sts.
 1 N.W. " " Walnut sts.
 1 On Redfield st., at the Rolling Mills.
 1 N.W. corner Sangamon and Tyler sts.
 1 S. E. " " Randolph sts.
 1 S. E. " String and Canalport av.

1 N. E.	corner	Smart and Kinzie sts.
1 N. W.	“	Sixteenth and Morgan sts.
1 N. E.	“	“ Newberry sts.
1 N. E.	“	Sloan and Nebraska sts.
1 N. W.	“	“ N. W. Railroad track.
1 N. E.	“	Seventeenth and Halsted sts.
1 S. W.	“	Seward and Canalport av.
1 N. W.	“	Trustee and Kinzie sts.
1 S. E.	“	Twelfth and Lumber sts.
1 N. W.	“	Throop and Henry sts.
1 N. E.	“	Union and Twenty-second sts.
1 N. E.	“	Van Buren and Morgan sts.
1 N. E.	“	Wade and N. W. R. R. track.
1 N. W.	“	Walsh and Halsted sts.
1 N. W.	“	West Water and Kinzie sts.
1 N. W.	“	Western av. and Kinzie st.
1 N. W.	“	“ Fulton st.
1 N. W.	“	Wabansia av. and N. W. R. R. track.
1 N. W.	“	“ Reuben st.
1 N. E.	“	Wright and Rawson sts.
1 N. W.	“	Walnut and Western av.

133 Total in the West Division.

NORTH DIVISION.

1 N. W.	corner	Belden av. and Larrabee st.
1 S. W.	“	Church st. and North av.
1 N. E.	“	Centre and Mohawk sts.
1 N. W.	“	Church and Blackhawk sts.
1 N. E.	“	Dearborn and Indiana sts.
1 S. W.	“	“ North av.
1 N. W.	“	Erie and Sedgwick sts.
1 N. W.	“	“ Townsend sts.
1 N. W.	“	Franklin st. and Asylum place.
1 N. W.	“	“ Linden sts.
1 N. W.	“	Fremont and Clay sts.
1	On Huron,	west side of Roberts st.

- 1 N.W. corner Hammond and Wisconsin sts.
 1 N.W. " " Menominee sts.
 1 N. E. corner Hill and Wells sts.
 1 N. E. " Indiana and "
 1 East side of Kroger st., at north end of pipe.
 1 N.W. corner LaSalle and Linden sts.
 1 N. E. " Linden and Franklin sts.
 1 N. E. " North av. and "
 1 N. E. " Ohio and Wells sts.
 1 N. E. " Pearson and Wells sts.
 1 S. E. " Pine and Huron sts.
 1 N. E. " " Indiana sts.
 1 N.W. " " Ontario sts.
 1 N.W. " Sophia and Franklin sts.
 1 N.W. " street S. of Blackhawk and Clybourn av.
 1 S.W. " Sheffield av. and Kroger st.
 1 N.W. " Wells and Ontario sts.
 1 N. E. " " Illinois sts.
 1 N. E. " " White sts.
 1 N. E. " Wendel and Wells sts.
 1 N.W. " Willow and Fremont sts.

33 Total in the North Division.

Making 224 in all, which, together with those previously in, would give 1,294 hydrants in the city at this date. 162 hydrants had, for various reasons, to be taken out and renewed during the year. 125 were frozen, and had to be thawed out during the winter.

On all new lines of pipe, a hydrant is put in at every street crossing, and on every street that is paved this is done. Originally the plan was to put one at every second corner.

STOP-COCKS.

The following Stop-cocks were put in during the year, viz :

SOUTH DIVISION.

1	4	inch,	Arnold street,	south line of	Thirty-first street.
1	6	"	Buddan	" " "	Archer avenue.
1	6	"	Court House supply pipe,	east line	La Salle street.
1	4	"	"	"	west wing of City Hall.
1	6	"	"	"	west line of Clark street.
1	4	"	"	"	east wing of City Hall.
1	4	"	Cottage place,	south line of	Thirty-first street.
1	6	"	Clark street,	south line of	Thirty-third street.
1	6	"	Dearborn street,	north line of	Adams street.
1	4	"	Ellis avenue,	south line of	Douglas place.
1	4	"	Lake avenue,	"	"
1	4	"	Madison (north side of st.)	west line of	Market street.
1	4	"	" (south side of st.)	"	"
1	4	"	Polk street,	west line of	Wells street.
1	6	"	Prairie avenue,	south line of	Thirty-first street.
1	6	"	Reuben street,	"	Archer avenue.
1	6	"	South Park avenue,	"	Twenty-second street.
1	16	"	Twelfth street,	east of the	bridge.
1	8	"	"	"	" " " blow off.
1	12	"	Twenty-sixth street,	east line of	Wabash avenue.
1	12	"	"	west	" " "
1	6	"	Twenty-ninth street,	east line of	Clark street.
1	8	"	Thirty-first street,	"	"
1	6	"	Thirty-third street,	"	"
1	6	"	Twenty-fourth street,	"	State street.
1	6	"	Vincennes road,	south line of	Douglas place.
1	24	"	Wabash avenue,	south line of	Twenty-second street.
1	8	"	"	north line	Twenty-third st., blow off.

WEST DIVISION.

1	6	inch,	Adams street,	west line	Reuben street.	
1	6	"	"	"	Morgan street.	
1	6	"	"	"	Lincoln street.	
1	8	"	Ada street,	north line	Randolph street.	
1	6	"	Augusta street,	west line of	Reuben street.	
1	6	"	Canalport avenue,	east line of	Ruble street.	
1	6	"	Canal street,	south line of	Twelfth street.	
1	6	"	Centre avenue,	south line	Sixteenth street.	
1	8	"	"	north line	Chicago avenue.	
1	8	"	"	south line	"	
1	16	"	Chicago avenue,	west line	Reuben street.	
1	16	"	"	east	"	"
1	8	"	"	west	"	" blow off.
1	6	"	"	west	"	"
1	6	"	"	east	"	"
1	6	"	"	east line of	Noble street.	
1	6	"	"	west	"	"
1	16	"	"	west	"	Halsted street.
1	6	"	Dunn street,	north line of	Kinzie street.	
1	6	"	Elston road,	north line of	North avenue.	
1	4	"	English street,	west line of	Halsted street.	
1	6	"	Evans street,	"	"	
1	6	"	Fisk street,	south line of	Sixteenth street.	
1	6	"	Fourth street,	west line of	Elizabeth street.	
1	6	"	"	west line of	Centre avenue.	
1	8	"	"	east line of	Reuben street.	
1	8	"	"	west	"	"
1	6	"	Fulton street,	west	"	"
1	12	"	Green street,	south line of	Adams street.	
1	4	"	Hamilton street,	south line	"	"
1	12	"	Harrison street,	east line of	Reuben street.	
1	12	"	"	west line of	Desplaines street.	
1	4	"	Halsted (east side),	south line of	Meagher street.	
1	4	"	" (west side),	"	"	"
1	4	"	" (west side),	north line of	Sixteenth street.	
1	4	"	" (east side),	"	"	"

- 1 6 inch, Jackson street, west line of Lincoln street.
 1 8 " " " west line of Green street.
 1 8 " " " east line of "
 1 4 " John place, west line of Halsted street.
 1 12 " Kinzie street, east line of Reuben street.
 1 12 " " " west " "
 1 6 " Laflin street, south line of Adams street.
 1 6 " Lake street, west line of Western avenue.
 1 12 " Lytle street, south line of Harrison street.
 1 6 " Loomis street, north line of Adams street.
 1 4 " Lumber street, west line of Halsted street.
 1 4 " " " south line of Twelfth street.
 1 8 " Madison street, west line of Western avenue.
 1 8 " Morgan st., in the branch bet. 8 in. and 12 in. pipes
 on Harrison street.
 1 8 " Morgan st., in the branch bet. the 8 in. and 16 in. pipes
 on Twelfth street.
 1 8 " Morgan street, south line of Twelfth street.
 1 4 " Monroe street, west line of Lincoln street.
 1 4 " Newberry avenue, south line of Twelfth street.
 1 8 " Noble street, north line of Division street.
 1 8 " " north line of Chicago avenue.
 1 4 " O'Neill street, west line of Halsted street.
 1 24 " Reuben street, north line of Chicago avenue.
 1 8 " " " " " blow off.
 1 6 " " south line of Kinzie street.
 1 6 " " north " " "
 1 4 " Smart street, north " " "
 1 6 " String street, north line of Canalport avenue.
 1 8 " Sixteenth street, west line of Centre avenue.
 1 8 " " " " Halsted street.
 1 8 " " " east line of "
 1 6 " Samuel street, north line of Chicago avenue.
 1 16 " Twelfth street, west side of the bridge.
 1 8 " " " " " blow off.
 1 16 " " west line of Canal street.
 1 8 " " " "
 1 4 " Trustee street, north line of Kinzie street.

1	8	inch,	Throop street,	north line of Harrison street.
1	6	“	“	north line of Adams street.
1	8	“	Union street,	in the branch between the 8 in. and 16 in. pipes on Twelfth street.
1	6	“	Walnut street,	west line of Reuben street.
1	4	“	Washington street,	(north side) west line Canal st.
1	4	“	“	(south side) “ “
1	6	“	Walsh street,	west line of Halsted street.
1	6	“	Wood street,	north line of Chicago avenue.
1	8	“	Western avenue,	north line of Kinzie street.
1	6	“	Wabansia avenue,	west line of Reuben street.
1	4	“	Winchester street,	south line of Adams street.

83 Total number in the West Division.

NORTH DIVISION.

1	4	inch,	Block street,	north line of North avenue.
1	6	“	Clybourn avenue,	north line “
1	8	“	Clark street,	“ “
1	6	“	“	north line of Schiller street.
1	4	“	Church street,	south line of North avenue.
1	24	“	Division st.,	at east end of Canal pipe-tunnel.
1	24	“	“	west “ “
1	6	“	Halsted street,	south line of Weed street.
1	8	“	North avenue,	west line of Sedgwick street.
1	6	“	Pine street,	north line of Chicago avenue.
1	6	“	White street,	west line of Wells street.

11 Total number in the North Division.

In all 122, making, together with those previously in, 623 Stop-cocks in the city to April 1, 1870. Eleven Stop-cocks had to be renewed during the year.

Stop-cock districts which were originally very large, have in some cases been divided up into much smaller ones, and this system is to continue until all are made conveniently small. This is a necessity, both for the convenience of the citizens, and to

avoid danger in case of fire. This will enable the Board to put in more effective fire hydrants, especially in the business parts of the city, without exposing large districts to fire while putting them in.

LAKE TUNNEL.

The Lake Tunnel has continued to supply the city during the year, satisfactorily and uninterruptedly, except for a few hours on the 24th of December, when a partial stoppage was caused by anchor ice. Fortunately this was not felt in the city, and by constant watching night and day, in very cold weather during the rest of the winter, a recurrence of this evil was prevented.

In consequence of an unexpected amount of sediment being on the screen frames in the gateways of the lake shaft, it was feared that an extensive deposit might be forming in the tunnel. Mr. P. E. Falcon, the diver, was employed to examine each end of the tunnel. He found a considerable deposit in the sumps at the bottoms of the lake and land shafts, a very few inches in the tunnel extending only about 12 feet from each shaft, and then for a little over 200 feet from each shaft; as far in as he went, he found the tunnel perfectly clear of deposits on the bottom. He noticed, however, a great many small and delicate stalactites on the top and sides.

PROPOSED NEW WATER WORKS.

Plans and estimates, and a report on them, were made by the Board to the City Council, Oct. 15, 1869, and published in the proceedings of Feb. 7, 1870, of the latter body.

In consequence of a doubt in the minds of some intelligent citizens as to the propriety of proceeding with these works at present, a short review of the subject may not be inappropriate here.

The propriety of constructing large elevated reservoirs was discussed when the works were under the care of the late Board of Water Commissioners. Mr. McAlpine, their Engineer, afterwards stated that the conclusion arrived at was, that it would be both cheaper and better for the city to make duplicate pumping works than to erect such reservoirs. Both experience and investigation, under the present Board, have only tended to confirm that conclusion. Accordingly, when the Lake Tunnel was under construction, provision was made for its extension westward, no one dreaming, however, that its use would be called for so soon. But the rapid increase of consumption, the deficient supply to a large portion of the West Side, which existed until quite recently, and especially the break in the Chicago avenue main, caused the City Council to call upon the Board for plans for the extension of the Lake Tunnel to the West Side and the erection of new pumping works. Hence the above mentioned report, in which estimates of the first cost and future maintenance of tunnels five, six, seven and eight feet in diameter were made. After careful discussion between the Board and a committee of the City Council, the seven feet size, with a termination somewhere on the South Branch, west of Halsted street, was recommended to the City Council, and adopted by the latter body. Such a tunnel could be made to supply, under a total head of seven feet,

50,000,000 gallons daily, or under twenty-eight feet head, 100,000,000 gallons daily.

In providing for such large amounts of water, the wants, not merely of the present, but those of the future for a reasonable time, have been considered. Hitherto all estimates for the future have been so far exceeded that improvements and enlargements made under them have proved inadequate almost as soon as completed. To avoid a constant repetition of this state of things, it was thought best to make the tunnel large enough for twenty years to come, according to a moderate estimate of future consumption. But if the enormous rate of increase of the last three years cannot be checked, then even this new and large tunnel, if carried out, will not have been in operation five years before it will be necessary to commence the construction of additional works to prevent a short supply. The construction of the tunnel does not involve the expenditure of any more than may be necessary for the present and immediate future, in the way of pumping engines and large mains. These can be added to or extended as may be required hereafter.

Perhaps a stronger reason than any yet given for an abundant provision for the future, is the necessity of meeting present and prospective wants of the fire department. When it is remembered that the annual losses by fire in this city have already exceeded \$2,000,000 more than once, the question of saving a few hundred thousand dollars in the first cost of new works sinks into utter insignificance, compared with the importance of insuring an abundant supply. If the new pumping engines are made capable of raising water two hundred feet high, it would at all times, and in all parts of the city, be practicable to put out fires in ordinary dwellings by simply attaching hose to the hydrants, if the system of large mains, commenced by the Board, is everywhere carried out, and sufficient power kept at convenient points.

The actual height to which it would be best to raise the water at any particular time, must depend upon the quantity demanded, the points of delivery, and the sizes of the distributing mains, all of which will vary from year to year, and cannot be foretold.

SEWERAGE.

CHICAGO, *April 30*, 1870.

TO E. S. CHESBROUGH, Esq.,
City Engineer.

SIR: Herewith I hand you report of sewers built during the past year in the three divisions of the city, with location of the same; of the repairs and cleansing of the sewers, and of the private drains connected with them.

The amount of sewers built has been very large, being about 50 per cent. more than that done any previous year since the beginning of the sewerage work, and amounts to about twenty-six and a half miles.

The most important of the works executed was the main sewer on Douglas place, from the Lake to State street, which will give an outlet to the sewerage of the whole of that part of the city south of Thirty-first street extending west to Clark street. A part of this sewer was built at a depth of twenty feet cutting, in very wet sand, and extraordinary precautions were required in passing some important buildings, to prevent their being undermined. The whole of the work was carried on without any accident, and it was built in a firm, substantial manner. To the contractors, Messrs. Haines & Hallanin, and to the inspector, Mr. George Everett, much credit is due, for the thoroughness of the work. The whole was under the immediate charge of Mr. W. M. R. French, assistant engineer. The cost of this sewer, which is about a mile in length, was not far from \$100,000. The tributary sewers to it will not cost more than the average for their respective sizes. The general cost of the sewers built during the year was about ten per cent. less than that of the work done the previous year, and had not so large an amount of work been done simultaneously, the cost would have been still less. It is expected that the work done during the year 1870 will be at quite a reduction in cost.

LENGTH IN FEET OF SEWERS BUILT TO APRIL 1, 1870.

Diameters in feet.	S. DIVISION.		W. DIVISION.		N. DIVISION.		TOTALS THREE DIVISIONS.				
	Previous to April 1, 1869.	From April 1, 1869, to April 1, 1870.	Previous to April 1, 1869.	From April 1, 1869, to April 1, 1870.	Previous to April 1, 1869.	From April 1, 1869, to April 1, 1870.	Totals previous to April 1, 1869.	Totals April 1, 1869, to April 1, 1870.	Total Sewers built up to April 1, 1870.	Average cost per foot, 1869-70.	Remarks.
6	1,419	989	1 292	.....	3,895	.....	6,606	989	7,595	23 36	20 ft. cut in
5	4,988	1,048	30,855	1,320	13,756	.....	49,599	2,368	51,967	28 72	quicksand.
4½	1,033	1,316	31,569	7,723	6,238	3,377	38,840	12,416	51,256	6 65	" " "
4	4,317	1,083	24,058	7 396	7,053	.....	35,428	8,479	43,907	8 87	11 ft. " "
3½	.....	912	2,083	6,149	.....	.....	2,083	7,061	9,144	6 89	10.5 av. cut.
3	18,977	4 964	7,673	3,291	8,090	.....	34,740	8,255	42,995	5 86	8 3 " "
2½	45,365	4,253	575	2,856	5,870	7 266	51,810	14,369	66,179	4 46	8.8 " "
2¼	6,359	.....	.....	.....	.....	.....	6 359	.....	6 359	3 25	8.0 " "
2	41 231	14,373	80,057	27,537	57,373	11,637	178,661	53,547	232,208	2 39	7.6 " "
1	80,893	8,235	53,956	17 136	43,316	6,850	178,165	32,221	210,386	1 56	7.0 " "
	204,582	37,173	232,118	73,408	145,591	29,124	582,291	139,705	721,996		
Total by Div's.	241,755		305,526		174,715		1101 4 0 1 5 2 8 0 Miles.	26 2 4 2 5 5 2 8 0 Miles.	136 3 9 1 6 5 2 8 0 Miles.		

CATCH BASINS AND MANHOLES BUILT.

	Built from April 1, 1869 to April 1, 1870.			Previously Built.	Total.	Average Cost, 1869-70.
	S. Div'n.	W. Div'n.	N. Div'n.			
Catch Basins ..	201	365	205	3,132	3,903	\$76.28
Manholes.....	325	423	180	3,875	4,803	18.55

DETAILED STATEMENT OF SEWERS BUILT FROM APRIL 1, 1869, TO APRIL 1, 1870.

SOUTH DIVISION.

LOCATION.			LENGTH OF SEWERS BUILT IN FEET.									
ON WHAT STREET.	FROM		TO	6 ft	5 ft.	4½ ft	4 ft.	3½ ft	3 ft.	2½ ft	2 ft.	1 ft.
Douglas pl. (35th)	Lake Michigan	Cottage Grove av	989									
"	Cottage Grove av	Moonaway place.		1048								
"	Moonaway place	Forest av.			1816							
"	Forest av.	Michigan av.				1088						
"	Michigan av.	State					912					
Deering	So. branch of riv.	Archer av.						1619				
Main.	"	"						1804				
Archer av.	Halsted	McGregor.						588				
Twenty-third.	Archer av.	Buddan						1003				
"	Buddan	Wentworth av.							768			
South Park av.	Twenty-second.	Twenty-third.							644			
"	Twenty-fifth	Twenty-sixth							695			
"	Thirty-fifth	Northward							365			
State	Twenty-sixth.	Twenty-ninth							1864			
Fourteenth	Michigan av.	Indiana av.							417			
Archer av.	McGregor.	Wallace								742		
"	Halsted	Line								837		
"	Alley E. of Joseph	Alley E. of Church								2294		
Wentworth av.	Twenty-third.	Alexander								194		
"	Eighteenth	Seventeenth.								411		
"	Nineteenth	Northward								465		
Buddan	Twenty-third.	Alexander								201		
"	Twenty-second.	Finnell								228		
Seventeenth	Wentworth av.	Arnold								258		
"	Burnside.	Butterfield								234		
Twenty-ninth	South Park av.	Cottage Grove av								656		
Twenty-fifth	Calumet av.	"								84		
South Park av.	Twenty-ninth	Thirtieth								893		
"	Twenty-third	Twenty-fifth								1279		
Northern av.	South Park av.	Cottage Grove av								201		
Indiana av.	Fourteenth.	Sixteenth								1401		
Twenty-fourth	Prairie av	Cottage Grove av								245		
Hanover	Twenty-third.	Bushnell								376		
"	Twenty-fourth.	McGregor								365		
Calumet av.	Twenty-ninth	Thirtieth.								892		
Indiana av	"	"								891		
Wabash av	"	"								877		
Michigan av.	"	Southward								374		
Purple	Nineteenth	Twentieth								475		
Hanover	Bushnell	Twenty-fourth									265	
Thirteenth	State	Michigan av.									813	
Twenty-first	"	Alley E of Prairie									1608	
Twenty-third	Prairie av	Calumet av.									408	
Twentieth.	State	Prairie av.									1382	
Twenty-fourth	"	Wabash av.									413	
"	Indiana av.	Eastward									227	
Twenty-fifth	State	Wabash av.									416	
Prairie av.	Twenty-fourth	Northward									268	
Fourteenth.	State	Wabash av.									421	
Dearborn	Monroe	Jackson									920	
Clark	Nineteenth.	Twentieth									397	
Twenty-eighth	Michigan av.	Westward.									254	
Twenty-fifth.	Wings across South Park av.	"									85	
Twenty-third.	"	"									81	
Twenty-ninth	Wings across Calumet & Prairie av's	"									148	
McGlashen	" " Archer av.	North									54	
Stewart av	" " " "	South									29	
Butler	" " " "	"									51	
Totals—37,173 feet.			989	1048	1816	1083	912	4964	4253	14373	8235	

WEST DIVISION.

LOCATION OF SEWERS BUILT.			LENGTH OF SEWERS BUILT IN FEET.						
ON WHAT STREET.	FROM	TO	5 ft.	4½ ft	4 ft.	3½ ft	3 ft.	2½ ft	2 ft.
Division	The river	Noble	1320						
Adams	Loomis	Reuben		1328					
Kinzie	Halsted	Morgan		1275					
Centre av.	So. branch of river.	Twenty-second		1422					
Van Buren	Loomis	Reuben		1328					
Harrison	Green	Centre av.		2370					
Fulton	Reuben	Robey		2501					
Centre av.	Twenty-second	Clayton		723					
Lake	Paulina	Robey		1997					
Mitchell & Stewart av	So. branch of river.	Wright		1875					
Fulton	Robey	Leavitt			1330				
Madison	"	"			1329				
Lake	"	"			1331				
Wright	Stewart av.	Union			2159				
Milwaukee av.	Elston road	Centre av.					351		
Fulton	Leavitt	Westward					201		
Madison	"	Western av.					1339		
Lake	"	Westward					423		
Wright	Union	Halsted					420		
Eighteenth	Canal	Seward					273		
Sixteenth	Halsted	Newberry					255		
Milwaukee av.	Centre av.	Will						392	
Canalport av.	Eighteenth	Jefferson						651	
"	Halsted	Union						564	
Twenty-second	John	"						1051	
Centre av.	Indiana	Hubbard							499
Morgan	"	"							489
"	Fulton	Kinzie							825
Green	Lake	Hubbard							1553
Sangamon	Carroll	Third							2008
Reuben	Madison	Tyler							2336
Ada	Randolph	Washington							496
Throop	Van Buren	Jackson							487
"	"	Tyler							461
Union	O'Brien	Meagher							1815
Jefferson	Twelfth	Maxwell							889
"	Mitchell	Meagher							551
Canal	Sixteenth	Eighteenth							373
Peoria	Van Buren	Tyler							464
Loomis	Madison	Monroe							457
"	Adams	Van Buren							896
Sangamon	Van Buren	Harrison							833
Wood	Madison	Warren							375
Hoyne	Washington	Park av.							365
Roby	Madison	Warren							373
Leavitt	Washington	Park av.							364
Lincoln	"	"							387
"	Madison	Monroe							709
Oakley	"	Warren							373
DesPlaines	Harrison	Twelfth							2604
Bickerdyke	Chicago av.	First							365
Milwaukee av.	Will	Augusta							750
Canalport av	Jefferson	Union							846
Bishop court	Madison	Washington							467
Halsted	No. branch of river.	Chicago av.							482
"	73 sec. of Chicago								
Centre av.	av. sewer.	Fourth							1402
"	Madison	Monroe							417
Amounts forward			1320	7723	7396	6149	3291	2595	26181

WEST DIVISION—CONTINUED.

LOCATION OF SEWERS BUILT.			LENGTH OF SEWERS BUILT.							
ON WHAT STREET.	FROM	TO	5 ft.	4½ ft	4 ft.	3½ ft	3 ft.	2½ ft	2 ft.	1 ft.
		Amount forward.	1820	7723	7396	6149	3291	2598	26181	
Hubbard	Peoria	Morgan								689
Park av	Page	Leavitt								1797
Warren	"	"								2640
Depuyster	DesPlaines	Halsted								731
Sebor	Clinton	Jefferson								406
Mather	Canal	"								753
Rickerdyke	First	Southward								150
Kramer	Halsted	Jefferson								1250
Liberty	"	"								1246
Forquar	Canal	W. of DesPlaines.								1352
Mitchell	Union	Eastward								840
Indiana	Milwaukee av.	200 f. E. of DesPl								956
Monroe	Throop	Westward								262
"	Loomis	Eastward								135
Liberty	Canal	Jefferson								750
DesPlaines	Fourth	Northward								100
Lytle	Twelfth	Taylor								862
Sheldon	Madison	Northward								320

WING SEWERS ACROSS STREETS BEING PAVED.

Canalport av	31 f. E. of Halsted.	27 f. W. of Halsted						130		
Luke	Sewer on "	Westward						65		
Evans	"	"						63		
Lumber	27 f. E. of Halsted.	25 f. W. of Halsted							120	
Eighteenth	Sewer on "	64 f. W. of "							64	
Ada	" Madison.	Northward							50	
Loomis	"	Southward							43	
S. Western av	"	North-easterly							49	
Paulina	6 f. N. of "	6 f. S. of Madison.							88	
Page	Sewer on "	Northward							41	
Wood	" "	Southward							42	
Winchester	" "	"							45	
Robey	" "	"							48	
Seely	" "	"							45	
Hoynes	6 f. N. of "	6 f. S. of Madison.							88	
Western av	" "	"							86	
Leavitt	Sewer on "	Southward							62	
Oakley	" "	"							42	
Honore	" "	"							42	
Paulina	2 f. S. of Lake	10 f. N. of Lake							92	
Page	Sewer on "	Southward							42	
Wood	2 f N. of "	2 f. S. of Lake							87	
Lincoln	Sewer on "	Southward							47	
Lafin	6 f N. of Adams	6 f. S. of Adams							77	
Dunn	Sewer on Kinzie	Northward							56	
Pratt	" Halsted	Westward								49
Ridgley	" "	"								49
O'Neill	" "	"								58
John	" "	"								58
Lisle	" "	Eastward								60
English	" "	61 f. E. & 61 f. W.								122
Mark	" "	Eastward								65
Luke	" "	"								61
Evans	" "	"								61
Seventeenth	" "	"								61
Canalport av	" "	Westward								62
Across Canal st., at Sebor, 54 f. E., Mather 116 f. E. } and W. from Canal st. sewer, Ewing 120 f. E. and } W., Forquar 122 f. E. and W., Dekoven 117 f. E. and } W., Bunker 117 E. and W }										646
Amounts forward			1320	7723	7396	6149	3291	2856	27537	16041

WEST DIVISION—CONTINUED.

LOCATION OF SEWERS.			LENGTH OF SEWERS BUILT.							
ON WHAT STREET.	FROM	TO	5 ft.	4½ ft	4 ft	3½ ft	3 ft.	2½ ft	2 ft.	1 ft.
		Amounts forward	1320	7723	7396	6149	3291	2856	27537	16041
Judd	15 f. E. of sewer on Canal	20 f. E. of E. line of Canal.....								45
Wilson	20 f. E. of E. line of do.....	20 f. W. of W. line of do.....								85
Liberty	20 f. do. do	“ “ “ “ “ “								81
Mitchell	Sewer on Canal...	20 f. E. of E. line of do								60
Barber	20 f. E. of W. line of do.....	20 f. W. of W. line of do.....								86
Catherine	“ “ “ “ “ “	“ “ “ “ “ “								116
Meagher.....	“ “ “ “ “ “	“ “ “ “ “ “								78
May	6 f. S. of S. line of Lake.....	Northward.....								32
Elizabeth	“ “ “ “ “ “	“ “ “ “ “ “								34
Ada	6 f. N. of N. line of Lake.....	Southward.....								14
Sheldon	6 f. S. of S. line of Lake.....	Northward.....								26
Bryan place	Sewer on Lake ...	South-eastward ..								107
Milwaukee av....	Fulton st. sewer...	N W. and S.E....								106
Quincy	Sewer on Clinton..	20 f. W. of W. line of Clinton								62
“	“ Jefferson...	20 f. E. of E. line of Clinton								64
Alley op. Bishop ct.	“ Washington	6 f. N. of N. line of Washington ...								52
Reuben.....	“ Madison ...	“ “ “ “ “ “								47
Totals—73,408 feet			1320	7723	7396	6149	3291	2856	27537	17136

NORTH DIVISION.

LOCATION OF SEWERS BUILT.			LENGTH OF SEWERS BUILT.			
ON WHAT STREET.	FROM	TO	4½ ft.	2½ ft.	2 ft.	1 ft.
N. Clark & Lincoln av.	North av	Centre	3377			
Sedgwick	Centre	Grant place		1698		
"	Division	Linden		3348		
Larrabee	Blackhawk	"		1391		
"	Division	Vedder		374		
North av	Clark	Dearborn		449		
Sedgwick	Linden	Menominee			660	
Larrabee	"	"			650	
"	Vedder	Blackhawk			1538	
Granger	Sedgwick	Wells			1021	
Goethe	"	"			1019	
Sigel	"	"			1020	
Schiller	"	"			1018	
White	Rush	Cass			80	
Whitney	"	Eastward			439	
Hinsdale	"	Cass			163	
Hobbie	Larrabee	Bremer			564	
Wendell	Wells	Franklin			426	
Elm	"	"			427	
"	Larrabee	Bremer			566	
Oak	"	Market			1571	
W. Pearson	Franklin	Wells				381
E. "	State	Cass				350
Whiting	Franklin	Market				369
Hills	Wells	Eastward				260
Wendell	"	"				239
White	State	Cass				321
Cass	Chicago av.	Hinsdale				601
Franklin	No. of Oak	Division				111
Bremer	Division	Goethe				1916
Dearborn	North av	Southward				149
Grant place	Sedgwick	Westward				265
WING SEWERS ACROSS STREETS BEING PAVED.						
Sigel	Sewer on Sedgwick	6 f. W. of W. line of Sedgwick				39
Blackhawk	"	Wells	8 f. do. do.			41
Hills	"	Wells	20 f. do do			55
Hurlbut	"	Clybourn av.	8 f. N. of N. E. line of Sedgwick			33
Rees	"	"	56 f. W. of W. line of Larrabee			86
Blackhawk	"	"	N. E. 54 f., S. W. 60 f.			114
Halsted	"	"	58 f. S. of S. W. line of Clybourn av.			104
LaFayette place	"	Dearborn	4 f. W. of W. line of Dearborn			66
Alley W. of Franklin	"	Division	8 f. S. of S. line of Div'n			44
Sedgwick place	"	"	15 f. " " "			46
Sedgwick	"	"	17 f. " " "			50
Twomey	"	Sedgwick	13 f. W. of W. line of Sedgwick			47
Hein	"	"	4 f. W. of W. line of do			36
Sullivan	"	"	6 f. " " " "			39
Connor	"	"	5 f. " " " "			39
North av.	"	Clark	9 f. " " " Clark			46
Eln	"	Dearborn	4 f. E. of E. line of Dearborn			32
Ohio	"	St. Clair	12 f. do. do			70
St. Clair	11 f. S. of S. line of Ohio		11 f. N. of N. line of Ohio			96
Halsted	Sewer on Clybourn av.		54 f. N. of N. E. line of Clybourn av.			100
Mohawk	"	"	30 f. do. do.			67
Hinsche	"	"	51 f. N. E. of do.			51
Lingdon	"	"	54 f. S. W. of do			54
Orchard	"	"	50 f. N. E. of do.			50
Weed	"	"	55 f. W. of do.			55
Totals—29,124 feet			3377	7260	11637	6850

REPAIRS OF SEWERS.

The following table shows the repairs of sewers, catch basins and covers done during the past year. The effect of the raising to grade and paving of the streets in diminishing the cost of both the repairs and cleansing of the sewers begins to be apparent. Notwithstanding the great increase in the extent of the sewers, the cost of repairs is one-third less than for the previous year, while the cleansing account is nearly \$1,000 less.

REPAIRS OF SEWERS, CATCH BASINS AND COVERS FOR 1869-70.

DIVISIONS.	Repairs of Sewers.			Repairs of Catch Basins & Manholes.		Repairs of Covers.		Totals Each Division.
	Size	Ft. rep'd & relaid	Cost.	No. repair'd	Cost.	No. rep'd & resto'd.	Cost.	
South Division ..	Ft. 2½	106	\$585.00	40	\$410.97	595	\$1455.49	\$2,481.46
West Division..	2	150	823.82	53	560.07	558	1470.77	2,854.66
North Division..	2 & 1	492	1015.04	18	175.77	399	999.33	2,191.04
Totals		748	\$2424.76	111	\$1146.81	1582	\$3955.59	\$7,527.16-1869-70 11,287.08-1868-69

CLEANSING OF SEWERS FOR 1869-70.

METHOD OF CLEANSING.	S. DIVISION.		W. DIVISION.		N. DIVISION.		TOTALS.		
	Feet Cleansed.	Cost.	Feet Cleansed.	Cost.	Feet Cleansed.	Cost.	Feet Cleansed.	Cost.	Per 100 ft.
By Flushing.....	121,679	\$2,523.90	69,230	\$1,556.89	40,251	\$1,267.31	231,160	\$5,348.10	2.31
By Chain Machine	39,861	3,940.30	27,582	3,528.03	9,821	1,883.18	77,264	9,356.51	12.11
Main Sewers, with scrapers.	9,981	472.50	46,156	2,188.49	16,430	745.84	72,567	3,406.83	4.69
Totals—Sewers ...	171,521	6,936.70	142,968	7,273.41	66,502	3,901.33	380,991	18,111.44	Av'g 4.75
Catch Basins cln'd	No. of 1,174	2,678.20	781	2,802.53	780	2,423.01	No. of 2,735	7,903.74	Each 2.89
Total Sewers and Catch Basins ...	.....	\$9,614.90	.....	10,075.94	.....	\$6,324.34	For 1869-70, \$26,015.15 For 1868-69, 26,954.06		

PRIVATE DRAINS.

Permits issued from April 1, 1869, to March 31, 1870:

DIVISIONS.	6 in.			9 in.	12 in.	Total.	Totals previously	Total April 1, 1870.
	Private.	Special Assess't.	Total.					
South	355	438	793	24	13	830	.....	.....
West	1296	795	2091	17	2	2110	.....	.....
North	840	194	1034	5	..	1039	.....	.....
Totals	2491	1427	3918	46	15	3979	15,824	19,803

The above is respectfully submitted.

WILLIAM H. CLARKE,
Principal Assis't Engineer.

Mr. Clarke's report shows the gratifying fact that, notwithstanding the unusual length of sewers laid last year, the expense of maintaining them has not increased. This is attributable mainly to the great increase in length of paved streets. It was observed before that the paving of the streets had an important effect in reducing the cost of cleansing the sewers, but this effect was never so manifest before.

For some time the practicability of still further reducing the cost of cleansing the sewers and catch-basins by the use of steam and the application of the pneumatic process, has been under discussion. Hitherto there have appeared to be practical objections, especially in the sticks and other rubbish admitted into the sewers and catch-basins, but it is hoped that before long the improved pavements and other means, will overcome those objections.

CONDITION OF THE RIVER.

The condition of the North Branch for several years past has been a frequent cause of complaint, and the call for some plan for purifying it is becoming more and more urgent.

The necessity of preventing the river from becoming offensive has been seen from the very commencement of the sewerage system of this city, and was provided for in the plan adopted; but, for reasons it would be useless to discuss here, that portion of the plan has never been carried out. It was hoped that by arranging the sewerage system so as to have but very little filth discharged into the North Branch, it might be many years before it would be necessary to carry out any expensive works to purify that stream. Up to this time it has not received five per cent. of the sewage of the city, and it is very difficult to see why it should be so foul, unless it is caused mainly by the distilleries on its banks. The vigorous measures of the Board of Health seem to have diminished very much the nuisances caused by those establishments, and yet there are offensive peculiarities in the North Branch almost impossible to trace to any other cause.

Of the numerous plans proposed for cleansing the North Branch, four classes may be mentioned, viz :

- 1st. Intercepting sewers.
- 2nd. Canals between the river and the lake.
- 3rd. Reservoirs high up the river.
- 4th. Artesian wells.

By intercepting sewers, it is proposed to prevent the drainage of the city from being discharged into the river, and thus avoid polluting it. Such sewers should be made near to and parallel with the river. They would necessarily be lower than the lake, and incline towards their outlet, requiring their contents to be

pumped up. Here arises an important question as to whether there should be but one outlet for the whole city, and where that should be. A proper answer to this question must depend upon the right answer to the first, if not to all, of three others, viz :

1st. What is to be the final use or disposal of the sewage of the city ?

2nd. What the probable cost of any plan of intercepting sewers ?

3rd. The cost of maintenance ?

The proper or best disposal of city sewage has been the subject of much inquiry and extensive experiments in Great Britain and on the continent of Europe, during the last twenty years. The course of all these has been observed with great interest here. The result thus far seems to be that no city containing a population of 100,000 or upwards, has been able to utilize the contents of all its sewers in the irrigation of land, and yet, of all the methods hitherto tried, this has by far the greatest number of able advocates, both in England and France. The attempt to manufacture sewage into solid manure has proved a commercial failure. The process of deodorization by means of lime or chemicals is enormously expensive, and has not proved satisfactory in its results. As yet there seems to be no alternative for large cities but to discharge the contents of their sewers into some running or large body of water, and at the nearest point compatible with public health. What the future may develop it is difficult now to foresee, but in the light of experience thus far gained, the strong probability is that the ultimate receptacle of the sewage of this city must be the lake, either from the river, or from the outlets of intercepting sewers. In the latter case, the contents of the intercepting sewers would descend towards the lake, and there be pumped up. If, however, irrigation of the land should ever prove advantageous here, then the intercepting sewers should incline towards the districts to be fertilized, and their contents there pumped up.

The dry earth system, including the use of earth-closets, has some advocates, but is not yet known to have been introduced extensively into any large European city, and does not grow in

favor, as it was hoped would be the case. If this system could be carried out, it would be more applicable than irrigation to a climate like ours, very cold part of the year; but the objection to giving up water-closets, inside of respectable dwellings, for earth-closets, seems to be very great to most persons. Besides, human excrements, though undoubtedly the most valuable portion of the sewage of a city, do not constitute one-fifth part of it. How the remainder is to be successfully treated by the dry earth system, is a problem not yet solved.

The probable cost of a complete system of intercepting sewers for the whole city, would depend upon the district and population it might be determined to provide for. From different trial estimates, it would be safe to say that such a system could not cost much if any less than \$3,000,000.

The cost of maintenance would necessarily depend upon the plan adopted with regard to outfalls and machinery, as well as the population to be provided for, and could not, therefore, be the same year after year, unless the city should cease to grow.

Canals between the lake and the river, on various lines and of different dimensions and forms, almost countless in number, might be proposed. The result of investigation with regard to what the city has the power at present to do, leads to the recommendation of a covered canal or conduit, circular in form and 12 feet in diameter, on the line of Fullerton avenue, with the requisite machinery for pumping or driving water in either direction, near the North Branch. Such a canal would be two miles long and, with a bottom 24 feet below low water and a head of $4\frac{1}{2}$ feet, could be made to discharge 24,000 cubic feet per minute, or sufficient to change all the water in the North Branch and main river every thirty-six hours.

The estimated cost of the canal is \$480,000, including machinery. The machinery recommended is a 300 horse-power engine and a propeller wheel so placed as to draw or drive the water in the direct line of the canal.

To avoid a large portion of the estimated cost of a covered canal, it has been proposed to make an open one. The damage to real estate alone, by such a work, would probably be greater than the entire estimated cost of the covered canal.

A navigable canal has also been proposed, sufficient to pass the largest vessels navigating the lakes, thus creating four miles of additional dock front, and rendering it much less expensive to force the necessary quantity of water either into or out of the river, because six inches difference of level in the navigable canal, would produce more effect than sixty would in the proposed covered one. But both the authority and propriety of the city's undertaking such a work are very doubtful.

This is perhaps the most proper place to mention that some of our ablest citizens have started the project of a ship canal between the North Branch and the lake, two and a half miles north of the city limits, where the ground is very favorable for such a purpose, and the land much cheaper. Should this work ever be carried out, and the North Branch be made navigable to it, the owners of such a canal could easily supply the current desired, and a much greater one than it would be practicable to supply through the covered canal.

To avoid the expense of steam machinery for producing the requisite current in the covered canal, it has been proposed to construct a long basin, with sloping sides, on the lake shore, and let the winds and waves drive water enough into it to supply the canal. Besides the various doubts with regard to the working of such an arrangement, the necessity of always relying upon a current from the lake into the river would be very objectionable.

It is expected that by next spring the South Branch will be drained into the Illinois river, through the deepened canal, but it was never supposed that this would purify the North Branch. If the North Branch must discharge its filth, in all stages of the stream, and at all seasons of the year, into the main river, then the water to flow from the main river into the South Branch, instead of being drawn from the lake, would be the foul discharge of the North Branch. It is easy to see that in that case there would be great disappointment with regard to the expected benefit of deepening the canal. It would therefore be necessary, in constructing a canal between the North Branch and the lake, for the purpose of purifying the former, to provide for discharging into the lake, whenever there might be very little or no natural current in the river.

A reservoir high up the stream, sufficient to supply for one month the quantity it is proposed to drive through the covered canal, would, it is estimated, cover about 2,500 acres. When it is considered that not merely one month's supply, but four, and possibly six or even more, might be needed, it seems useless to discuss such a plan. But if the great cost of this plan did not stand in the way, the impossibility of producing any current, except towards the mouth of the river, would be a great objection. Besides, the necessary exposure of such large surfaces as a reservoir would cover, by the drawing down of the water, in warm weather, could not be tolerated.

Supposing it practicable to get water enough from artesian wells to produce the requisite current, leaving out of view the objection that it would be impossible to turn that current from its natural course into the main river, the number of such wells, judging from the most successful one yet bored in this city—that of the Union Stock Yard Co.—would have to be 405, that is, if 24,000 cubic feet per minute should be required. All experience thus far, in other cities and countries, where many artesian wells have been bored, goes to show that their enlargement, either in size or number, does not produce a corresponding increase in the quantity of water furnished. There is no good reason why a different result should be expected here, but strong proof to the contrary.

In view of present knowledge and experience, it does not seem advisable to commence the construction of a system of intercepting sewers just yet, though the probability of having to do so ultimately seems rather to increase from year to year. More time seems to be needed to determine upon all the conditions that should be required of such a system.

If nothing more can be done to prevent nuisances in the North Branch, and the measures of the Board of Health seem to discourage hope in this direction, then the most advisable course the city has power at present to adopt appears to be to construct the proposed covered canal on Fullerton avenue, and for the following reasons :

1st. It could be made to discharge either into the lake or the river, as circumstances might require. During wet seasons, in

the spring and fall, nothing is needed besides the natural flow to cleanse the river. An artificial current from the river to the lake would be needed when that of the river was very slight, and in an opposite direction when the natural discharge from the North Branch was too great to be overcome by the amount the canal could discharge into the lake, and yet not strong enough to cleanse the river.

2nd. It could be made the outlet of a system of intercepting sewers for the northern portion of the city, supposing the limits to be extended by future legislation, several miles further north.

3rd. It would afford a very convenient and economical outlet for the sewers of a large part of the district likely to be annexed to the city north of the present limits, between the lake and the river. It is doubtful if, in view of the probable future growth of the city, a better location could be selected for the outlet of a northern system of intercepting sewers.

An apparently serious objection has been raised to this plan. It is that the outfall of sewage on the lake shore, at the end of Fullerton avenue, would create a nuisance on the Lake Shore Drive.

There can be no doubt that the water of the lake shore would be sometimes discolored when it might otherwise be clear; but lake water enough introduced into the North Branch to render it inoffensive to the smell, and then discharged through the proposed canal into the lake, would be equally inoffensive.

Let what may be done, such a city as this cannot get rid of all its filth without producing something unpleasant to sight or smell somewhere, and no more convenient or economical receptacle for the whole of it can be suggested at present than the lake, if the objectionable condition of the North Branch is to be remedied.

H A R B O R .

The necessary works for the preservation of the entrance to the harbor have been performed by the National Government entirely, even to the maintaining of a light at the end of the north pier extension.

The past year will be of special note in the history of this city, in consequence of the construction of what may be considered the beginning of a system of outside docks or harbors, by the Chicago Canal and Dock Co., on the north side of the north pier extension. Plans have also been formed by the Government for the extension of the south pier, and the commencement of a harbor of refuge south of this pier. These, together with the extensive works the Illinois Central Railroad Co. are carrying out, will soon make a great change in the map of that part of the city.

WASHINGTON STREET RIVER TUNNEL.

This work continues to prove its importance to the city, by the increasing use made of it. There are times already when a line 1,000 feet long of vehicles, as near to each other as they could be safely, may be seen passing through it.

The leakage at the west end has been very much diminished, and with the exception of the appearance of damp walls, has ceased to be annoying.

LASALLE STREET RIVER TUNNEL.

The City Council, having decided that the tunnel under the main river should be on LaSalle street, plans and specifications were prepared, proposals advertised for and received by the Board, and the work let to Mr. R. E. Moss, of this city. Mr. Moss and his associates, Messrs. George Chambers and A. J. McBean, commenced the construction of their north coffer dam on the 3rd of November, 1869, and had, by the 31st of March, completed the masonry of the tunnel from the centre of the river to 50 feet north of the north dock line.

The preparation of the plans and the immediate supervision of the work have been committed to Mr. William Bryson, who so satisfactorily performed the same duties on the Washington street river tunnel.

In its main features, this tunnel is like that on Washington street, but in some respects it is believed that it will be a decided improvement on that work. The steepest grade, instead of being 1 in 16, will be 1 in 20, which will of course make the approaches longer. The south one will begin about 40 feet north of Randolph street, and the north one terminate at Michigan street. The freer use of asphaltum, by laying two courses of brick in it, over the arches in the river section, already gives proof that this tunnel will be much dryer than the other, although leakage has not been entirely prevented. The footway will have two feet more of head room, which, it is believed, will add much to its comfort.

There is good reason to believe that this pressing important work will be satisfactorily completed by the time required in the contract, July 1, 1871, when a description of it, together with the difficulties encountered in its construction, may be expected.

Respectfully submitted.

E. S. CHESBROUGH,
City Engineer.

FINANCIAL STATEMENT.

TRIAL BALANCE LEDGER, BOARD OF PUBLIC WORKS,
MARCH 31, 1870.

WATER DEPARTMENT.

	<i>Dr.</i>		<i>Cr.</i>
Water Works	\$3,676,698	65	
Water Works Income.....			\$3,142,404 49
Water Fund in hands of City Treasurer	48,667	46	
Water Loan Bonds, 6 per cent.....			1,030,000 00
Water Loan Bonds, 7 per cent.....			2,290,000 00
Water Loan Interest	1,368,029	96	
Water Expense and Repairs	1,139,803	71	
Discount on Water Loan Bonds, 6 per cent	38,358	88	
Duncan, Sherman & Co. (Coupon account)	9,261	00	
Water Works Coal account.....	1,304	84	
Water Works Stock account.....	32,142	70	
Water Works New Engine	706	04	
Water Pipe account.....	101,707	23	
Water Works Service-cocks	5,702	99	
Water Pumping Works account	7,903	55	
R. D. Wood & Co.....			14,256 75
Wm. Smith.....	146	46	
Warren Foundry and Machine Company.....			12,107 95
Van Buren Street Water Service pipe	1,757	04	
Clark Street " "	1,019	86	
Halsted Street " "	1,042	53	
Blue Island Avenue " "	780	11	
Adams Street " "	650	03	
Washington Street " "	1,979	88	
Amounts carried forward	\$6,437,662	92	\$6,488,769 19

Amount brought forward	\$6,437,662 92	\$6,488,769 19
West Adams Street Water Service-pipe.....	2,048 88	
Prairie Avenue " "	1,106 20	
Harmon Court " "	163 22	
Twelfth Street " "	1,883 29	
Sangamon Street " "	1,324 52	
Clinton Street " "	2,713 64	
Canal Street " "	3,069 92	
Jefferson Street " "	786 87	
Dearborn Street " "	3,680 11	
Huron Street " "	899 54	
N. Wells Street " "	1,536 40	
Lake Street " "	5,366 44	
Monroe Street " "	409 60	
Pine Street " "	413 42	
Ohio Street " "	503 75	
Division Street " "	448 29	
DesPlaines Street " "	1,518 71	
Madison Street " "	8,211 48	
Eighteenth Street " "	720 12	
Kinzie Street " "	140 50	
Polk Street " "	366 08	
Wabash avenue " "	1,916 65	
Fourteenth Street " "	72 24	
Indiana Avenue " "	935 67	
Calumet Avenue " "	611 00	
Randolph Street " "	1,534 90	
Harrison Street " "	1,044 18	
Park Avenue " "	1,486 60	
Archer Avenue " "	1,669 15	
Jackson Street " "	1,590 68	
Chicago Avenue " "	186 33	
North Avenue " "	846 91	
Clybourn Avenue " "	851 00	
LaSalle Street " "	1,049 98	
	<u>\$6,488,769 19</u>	<u>\$6,488,769 19</u>

WATER FUND.

STATEMENT of the cash receipts by the Board of Public Works, from April 1, 1869, to March 31, 1870, inclusive, and detailed statement of the cost of various operations conducted by the Board during the same time:

RECEIPTS.

Proceeds of 600 Bonds, including interest.....	\$573,163 73
Water Tax collected	477,170 74
Received for Tapping Pipes	15,008 78
Received for Letting on Water	1,131 55
Received for Setting Meters	2,961 71
Received for sale of Hydrants, Pipe and Labor.....	6,769 56
Received from Special Assessments	8,927 20
Received for Work at Shop and Labor	832 99
Received from Plumbers' Licenses	69 00
Sand sold	190 00
Old Iron.....	100 00
Coal sold.....	504 86
Stop cocks sold.....	52 50
Lumber sold	9 15
Dredging Machine.....	187 50
Total cash receipts	
	\$1,087,079 27
Balance due City Treasurer, April 1, 1869	12,390 49
Total	
	\$1,074,688 78

EXPENDITURES.

ADDITION TO WATER WORKS.

DISTRIBUTING PIPES AND SUPPLY MAINS LAID.

	<i>Cash Payment.</i>	<i>True Cost.</i>
Cast iron pipe, 4, 6, 8, 12, 16 and 24 in.	\$302,064	83
Trenching and backfilling	27,741	91
Coal used	610	53
Labor	39,147	54
Lead	24,133	67
Constructing Chicago Avenue and } Division Street Tunnels }	24,414	20
Castings	10,333	80
Cement	1,911	06
Brick	5,787	55
Distributing pipe	7,672	21
Horse shoeing	34	90
Macadam	247	70
Assistant Engineer	780	00
Advertising	340	58
Pipes	478	82
Plumbing	379	89
Harness and repairs	102	25
Rubber Clothing	42	25
Tape line	4	00
Hardware	230	22
Pat. fee on Hydrants	25	00
Packing	103	55
Steel	104	90
Pails	22	50
Salt	15	30
Smoke pipes	52	14
Repairing wagon	95	35
Candles	8	25
One bay horse	175	00
Use of docks	107	29
Sand	210	00
Coal	56	00
Lanterns	78	38
Ga-cket	517	64
Horse feed	281	32
Nails, etc.	12	25
Stationery	11	85

Amount carried forward \$448,334 63

	<i>Cash Payment.</i>	<i>True Cost.</i>
Amount brought forward	\$448,334 63	
Lead kettles.....	143 70	
Oil	3 35	
Lumber.....	497 57	
	<hr/>	
		\$448,979 25
ADD—		
Pipe used previously paid for.....	\$33,863 96	
Discount on Water Loan Bonds.....	26,836 27	
New hydrants, stop-cocks, and labor } at shops	15,046 30	
	<hr/>	
		\$75,746 53
DEDUCT—		
Labor and material for private parties.	10,073 24	
	<hr/>	
		\$65,673 29
		\$514,652 54

NEW ENGINE HOUSE.

J. Clark & Bro., paid in full	\$2,847 94		
A. Wallbaum, " "	952 53		
F. Letz & Son, " "	174 13		
Floor and tiles.....	179 00		
Repairing roof.....	215 14		
Gas fitting.....	94 27		
Painting and glazing	1,828 35		
Paid Architect in full	1,134 76		
Heating apparatus.....	293 40		
Brass screws	7 15		
Brick	660 00		
Extras to A. Wallbaum	55 00		
	<hr/>		
		8,441 67	
ADD—			
Scrap iron sold and deducted from } F. Letz' estimate	\$1,240 05		
Labor at shop	590 65		
	<hr/>		
		1,830 70	10,272 37

NEW TOWER.

Paid A. Wallbaum in full	\$736 80		
Sign and paint.....	5 00		
F. Letz & Son (Est. No. 4).....	1,077 50		
Paid Architect in full.....	976 27		
Two No. 3 valves.....	1,300 00		
	<hr/>		
		4,095 57	4,095 57
Amount carried forward.....		<hr/>	<hr/>
		\$461,516 49	\$529,020 48

	<i>Cash Payment.</i>	<i>True Cost.</i>
Amount brought forward	\$461,516 49	\$529,020 48
NEW INLET.		
Paid Fox & Howard for dredging	1,385 00	
ADD—		
Labor moving sand.....	\$100 03	
DEDUCT—		
Amount received for sand sold	190 00	
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
	\$89 97	1,295 03
NEW ENGINE.		
Stationery and labor charged Pumping Works		706 04
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
Total addition to Water Works.....	<u>\$462,901 49</u>	<u>\$531,021 55</u>

WORKING EXPENSES AND REPAIRS.

EXPENSES AT PUMPING WORKS.

		<i>Cash Payment. True Cost.</i>
Salary of engineer and assistants.....	\$7,680	00
Labor.....	20,634	08
8,769 $\frac{120}{2000}$ tons of coal.....	59,151	80
Iron and nails.....	1,020	77
Oil, etc.....	1,174	25
Castings.....	9,317	10
Gas.....	952	13
Traveling expenses to New York.....	178	76
Saw and table.....	66	40
One No. 1 drill....	191	00
Pipe.....	761	79
Hardware.....	216	36
Lumber.....	891	31
Bolts and washers.....	444	28
Keeping horses.....	1,090	46
Packing.....	165	98
Repairing boilers.....	418	11
134 loads of dirt.....	67	00
Fodder cutter.....	17	00
Chain.....	10	50
One horse.....	150	00
Harness and repairs.....	55	90
One vice....	77	95
Plumbing.....	43	07
Waste.....	112	08
Drain pipe.....	40	75
Sole leather.....	72	78
Brooms.....	14	86
Chambers.....	96	42
Repairing roof.....	74	02
Pails.....	3	00
Soap.....	32	05
Sundry cash items.....	32	93
Scale.....	63	25
Draughtsman.....	101	50
Amount carried forward.....	\$105,419	64

Cash Payment. True Cost.

Amount brought forward.....	\$105,419 64
Gas fitting.....	13 62
Repairing wagon.....	112 30
Engraving engine.....	470 60
Rope and oakum.....	43 40
Jute twine.....	1 23
Handles.....	18 01
Grading lot.....	36 00
Coal, Bloss.....	74 50
Horse blankets.....	45 00
Brass tubes.....	112 08
Scavenger work.....	16 00
Photographing.....	17 00
Lead and packing.....	672 00
Paint.....	49 10
Stationery.....	38 80
Speaking tube.....	25 00
Tape line.....	10 50
Rubber clothing.....	27 75
Ice.....	12 15
Grind stone.....	10 00

\$107,225 68

ADD—

Castings rec'd and paid for with scrap iron.....	\$2,800 80	
Coal used prev'ly paid for.	828 57	
	<u>\$3,629 37</u>	\$3,629 37

DEDUCT—

Hydrants, stop-cocks and labor used for and cha'gd to extension repairs and other water accounts...	\$27,289 98	
Labor at shop in 1868....	859 39	
Material paid for and now on hand.....	1,520 62	
	<u>\$29,669 99</u>	
		<u>\$26,040 62</u>

\$81,185 06

LAKE TUNNEL.

Keeper of crib.....	\$949 00
Oil.....	178 25
Supplies.....	10 00
Coal.....	25 00

Amounts carried forward..... \$1,162 25 \$107,225 68 \$81,185 06

		<i>Cash Payment.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$1,162 25	\$107,225 68	\$81,185 06
Use of tug.....	1,166 00		
Lamp glass, etc.....	5 50		
Draughtsman.....	60 00		
Hardware.....	78 21		
Boat.....	50 00		
Examining shaft.....	207 50		
		\$2,729 46	
ADD—			
Labor at shop in 1869.....	\$23 75		\$2,753 21

OFFICE EXPENSE AND SALARIES.

Salaries of Commissioners.....	3,999 96		
Salaries of Secretary and assistant....	1,433 32		
Salary of City Engineer.....	1,500 00		
Salary of book-keepers and clerks....	3,548 92		
Salary of Superintendent.....	1,000 00		
Salary of Assistant Engineer.....	773 33		
Salary of Draughtsman.....	2,716 63		
Salary of Janitor and Watchman.....	615 67		
Salary of Water Assessor and assistant.	3,506 58		
Salary of Collectors.....	4,900 00		
Office clerks.....	2,862 87		
Printing.....	1,170 84		
Stationery.....	1,632 68		
Revenue stamps.....	221 12		
Furniture and repairs.....	161 58		
Oil.....	8 32		
Car fares.....	50 00		
Hardware.....	138 31		
Plumbing.....	85 72		
Advertising.....	934 44		
Engraving.....	845 00		
Pipe fitting.....	131 36		
Office rent.....	2,300 00		
Subscription to papers.....	40 63		
Express on bonds.....	271 50		
Telegrams.....	10 95		
Horse feed.....	113 13		
Engraving bonds.....	137 50		
Gas.....	196 38		
Washing towels.....	20 00		
Amounts carried forward.....	\$35,326 74	\$109,955 14	\$83,938 27

		<i>Cash Payment.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$35,326 74	\$109,955 14	\$83,938 27
Lumber.....	96 66		
Ice.....	28 19		
Labor.....	1,575 92		
Miscellaneous cash items.....	65 09		
Calcimining office.....	12 34		
Rent of stable lot.....	41 67		
Sprinkling.....	15 00		
Warrant 369 overpaid.....	57 49		
Inspectors.....	375 00		
Interest on loan.....	40 60		
Cost of water warrant.....	39 35		
Coal.....	133 00		
New awnings.....	40 00		
Coal.....	561 63		
		38,408 68	

ADD—

Labor at shop in 1868..... \$91 00 \$91 00

DEDUCT—

Am't rec'd from water serv-
ice pipe assets..... 1,204 18
Amo'nt rec'd from plumbers
license..... 53 00
Voucher canceled..... 99 88

\$1,357 06 1,266 06

37,142 62

REPAIRS OF PIPE, HYDRANTS, STOP-COCKS AND
MISCELLANEOUS OPERATING EXPENSES.

Labor.....	\$28,192 75
Hydrant inspectors.....	5,247 00
Repairing Chicago avenue main.....	9,011 67
Pipe used.....	1,090 00
Assessments on reservoir lots.....	1,221 17
Repairing wagon.....	2 75
Cement.....	177 24
Brck.....	30 00
Repairing leaks.....	221 73
Rope, etc.....	28 05
Lead.....	842 94
Repairing State street main.....	666 62
Plumbing.....	342 27
Sundry cash items.....	18 25

Amounts carried forward..... \$47,092 44 \$148,363 82 \$121,080 89

Cash Payment. True Cost.

Amount brought forward...	\$47,092 44	\$148,363 82	\$121,080 89
Iron works.....	63 45		
Express on diving apparatus.....	4 00		
Dredging at State street.....	83 95		
Dredging at Adams street.....	616 12		
Lumber	141 20		
Horse shoeing.....	41 20		
Castings.....	306 49		
Repairing lamps.....	16 75		
Rent of block 77, school section.....	900 00		
Shutting off water.....	60 00		
Sewerage works.....	10 00		
Car fares.....	75 00		
Hardware.....	58 89		
Salt.....	3 00		
Damage by water.....	51 50		
Oakum	18 62		
Painting.....	1 75		
Damage to Buggy.....	10 00		
Stationery	146 00		
Advertising.....	197 75		
Printing.....	230 40		
Coal used.....	1,592 27		

51,720 78

ADD—

Hydrants and Stop-cocks used.....	\$6,828 41
Repairing permanent tools .	1,670 57
Watching reservoir, grading lot, etc.....	620 64
Depreciation in meters.....	6,183 00

\$15,302 62

DEDUCT—

Received for shutting off and letting on] water.....	\$963 32
Received from water service pipe assessments.....	905 53
Received from old iron sold.	100 00

1,968 85

\$13,333 77

65,054 55

WATER METERS.

78 new meters.....	\$5,069 27
Machinist.....	1,245 14
Labor	1,888 38

Amounts carried forward\$8,202 79 \$200,084 60 \$186,135 44

Cash Payment. True Cost.

Amounts brought forward.....	\$8,202 79	\$200,084 60	\$186,135 44
Castings	1,226 10		
Printing	46 00		
Oil	4 00		
Hardware.....	24 78		
Meter counters.....	36 50		
Plumbing.....	43 42		
Iron and nails.....	83 50		
Lumber	268 48		
Pipe Fitter	833 30		
Stationery	40 64		
Freight on meters	234 19		
Rubber clothing.....	13 25		
		11,056 95	
ADD—			
Labor at shop.....	\$10 48		
DEDUCT—			
New meters charged stock. \$4,510 00			
Amount received for setting meters.....	2,961 71		
		7,471 71	
	\$7,461 23		3,595 72
Total operating expenses.....		\$211,141 55	\$189,731 16

MISCELLANEOUS.

	<i>Cash Payment.</i>	<i>True Cost.</i>
SERVICE COCKS.		
Taps and cast iron boxes purchased	\$11,497 00	
Services of tappers and labor	5,011 25	
Permit clerks	1,403 33	
Advertising	106 89	
Four permits not issued	16 40	
Horse feed	163 32	
One wagon	145 00	
Repairing wagon	67 30	
Horse shoeing	73 00	
Harness	23 10	
Hardware	12 45	
Stationery	51 65	
Oil, etc	5 01	
One Horse	125 00	
Use of horse	35 00	
Plumbing	17 99	
Sewer pipe	63 60	
Coal used	14 88	
	<u> </u>	
		\$18,832 17
ADD—		
Addition to stable for tappers \$208 61		
Tappers' tools, includ'g wagon 1,393 50		
	<u> </u>	
		\$1,602 11
DEDUCT—		
Cash receipts for tapping \$15,008 78		
Service cocks sold 62 25		
	<u> </u>	
		15,071 03
	<u> </u>	
		\$13,468 92
		\$5,363 25
COAL ACCOUNT.		
Coal purchased and not used	504 86	504 86
WATER PIPE.		
Pipe purchased and not used	79,077 11	79,077 11
INCOME.		
Tax overpaid refunded	202 50	202 50
	<u> </u>	<u> </u>
Amount carried forward	\$98,616 64	\$85,147 72

Cash Payment. True Cost.

WATER SERVICE PIPE.

Amount brought forward	\$98,616 64	\$85,147 72
Van Buren street.....	\$1,757 04	
N. Clark street.....	1,019 86	
Halsted street.....	1,042 53	
West Adams street	650 03	
Washington street.....	1,920 44	
Adams street.....	1,284 42	
Prairie avenue	1,106 20	
Twelfth street.....	1,767 69	
Sangamon street	1,428 02	
Clinton street.....	2,713 64	
Canal street.....	3,219 22	
Jefferson street.....	894 42	
Dearborn street.....	3,807 91	
Huron street.....	899 54	
North Wells street	1,558 40	
Lake street	5,440 14	
Monroe street.....	409 60	
Pine street.....	413 42	
Ohio street	503 75	
Division street.....	448 29	
Desplaines street.....	1,607 94	
Madison street	8,313 44	
Eighteenth street.....	720 12	
Kinzie street	140 50	
Polk street	366 08	
Wabash avenue	1,916 65	
Fourteenth street.....	72 24	
Indiana avenue.....	935 67	
Calumet avenue.....	611 00	
Randolph street.....	1,534 90	
Harrison street.....	1,044 18	
Park avenue.....	1,486 60	
Archer avenue	1,669 15	
Jackson street	1,590 68	
Chicago avenue	186 33	
North avenue.....	846 91	
Clybourn avenue.....	851 00	
La Salle street	1,049 98	
	<hr/>	57,227 93
Deduct amount received from assessments	\$6,901 74	
	<hr/>	50,326 19
Total miscellaneous expense	\$155,844 57	\$135,473 91

WATER LOAN INTEREST.

Interest on Water Loan Bonds July 1st, 1869.....	\$81,287 71	
Interest on Water Loan Bonds January 1st, 1870	88,621 00	
Coupons paid by City Treasurer.....	26,225 00	
	<u> </u>	\$196,133 71
ADD—		
Amount transferred from Discount Ac- count.....	\$4,279 22	
	<u> </u>	\$200,412 93

RECAPITULATION—WATER FUND.

Total Addition to Water Works brought forward.	\$462,901 49	\$531,021 55
Total Operating Expenses brought forward	211,141 55	189,731 16
Total Miscellaneous Expenses brought forward...	155,844 57	135,473 91
Total Water Loan Interest	196,133 71	200,412 93
	<u> </u>	<u> </u>
Totals	\$1,026,021 32	\$1,056,639 55
Total Cash Expenditures.....	\$1,026,021 32	
Balance in Treasurer's hands April 1st, 1870.....	48,667 46	
	<u> </u>	\$1,074,688 78
Total Receipts for year..	\$1,087,079 27	
Due City Treasurer April 1st, 1869.....	12,390 49	
	<u> </u>	\$1,074,688 78

SEWERAGE DEPARTMENT.

 TRIAL BALANCE, LEDGER, BOARD OF PUBLIC WORKS,
 MARCH 31, 1870.

	<i>Dr.</i>	<i>Cr.</i>
Sewerage Fund due City Treasurer.....		\$55,835 80
Sewers, North Division.....	\$580,407 28	
“ South Division.....	812,548 21	
“ West Division.....	1,220,867 80	
S. Lynd, Treasurer of Sewerage Commissioners.	109,245 48	
Sewerage Loan Bonds, 6 per cent.....		87,000 00
“ “ “ 7 per cent.....		2,538,000 00
“ “ “ cancelled.....		200,000 00
“ Sinking Fund.....		89,868 40
“ “ “ Mortgages.....	6,245 28	
Discount on Sewerage Loan Bonds.....	19,266 71	
Sewerage Loan Interest.....	56,477 54	
“ Brick.....	25,669 18	
“ Pipe.....	11,456 35	
“ Stock.....	2,694 45	
American Exchange National Bank coupon ac't.	4,895 00	
Sewerage Sinking Fund in hands of City Treas'r.	70,369 73	
“ Manhole and Catch Basin Covers....	4,146 60	
“ Expense and Repairs.....	16,036 19	
South Park Avenue Sewer.....	334 00	
House drains.....		2,104 19
T. W. Phinney.....		320 05
S. S. Hayes.....		1,069 50
William Giles.....		381 72
Chas. Messenger.....		339 87
C. T. Bowen.....		118 98
Dennis Coughlin.....	1,561 51	
Z. Cobb.....	31 53	
Chicago, Burlington and Quincy R. R. Co.....		6,744 01
Owners lots 1, 2, 7 and 8, block 5, J. R. & S. add.	94 54	
Amounts carried forward.....	<u>\$2,942,347 38</u>	<u>\$2,981,682 52</u>

	<i>Dr.</i>	<i>Cr.</i>
Amounts brought forward.....	\$2,942,347 38	\$2,981,682 52
Healy Slough improvement.....	72 14	
N. Clark Street drains.....	73 87	
S. ½ lot 5, block 123, School Section.....	22 18	
N. State Street drains	582 82	
W. Adams Street “	2,070 80	
W. Madison “ “	7,815 73	
S. Wells “ “	405 96	
Washington “ “	96 25	
LaSalle “ “	3,630 31	
Michigan Avenue “	648 42	
Halsted Street “	2,224 17	
Clark “ “	745 84	
Indiana Avenue “	198 38	
Kinzie Street “	69	
Archer Avenue “	157 28	
Franklin Street “	232 40	
Prairie Avenue “	1,177 00	
DesPlaines Street “		325 00
Canal “ “	3,475 68	
Clinton “ “	1,626 94	
N. Dearborn “ “	2,504 69	
Twelfth “ “	330 75	
W. Lake “ “	3,857 60	
Filling N. Market Street.....	1,205 70	
Filling Harrison and Polk Streets.....	529 71	
Polk Street drains.....	127 68	
Jefferson Street drains.....	639 93	
N. Wells “ “	448 10	
Randolph “ “	641 59	
Eighteenth “ “	391 86	
W. Washington Street drains	1,537 51	
Wabash Avenue “	1,379 58	
Division Street “	298 20	
Fourteenth Street “	75 00	
Calumet Avenue “	736 65	
Harrison Street “	969 00	
Jackson “ “	396 00	
South Park Avenue “	2,197 75	
North Avenue “	1,661 75	
Kelly, Langan & McGrath, Contractors.....		1,958 00
Brown & Flannery, “		1,389 97
Woodruff & Raffin, “		1,695 25
Galena and Chicago U. R. R. Co.....		382 55
	\$2,987,533 29	\$2,987,533 29

EXPENDITURES.

Cash Payments. True Cost.

SEWERS, NORTH DIVISION.

Salary of Engineers	\$ 2,626 20	
Inspecting and labor	12,050 26	
Constructing sewer	2,328 81	
Cement	1,255 81	
Hardware	54 66	
Stationery	21 00	
Lumber	109 45	
Sand used	180 00	
Inspector	419 11	
Plumbing	104 61	
Repairing wagon.....	3 92	
Advertising.....	16 80	
Soap	1 20	
Oil, etc	8 48	
Nails, etc.....	6 83	
Pipe	7 50	
Lanterns	13 00	
Horse feed.....	31 27	
Rope and oakum.....	4 17	
Car fares	9 50	
Pails	12 00	
Rubber clothing	6 00	
Water used.....	48 67	
	<hr/>	\$19,319 25

ADD—

Expense of sewer, Oak street	\$ 2,453 32
“ “ N. Clark street....	37,035 07
“ “ North avenue	2,137 27
“ “ Larrabee street....	8,807 32
“ “ Whitney street....	1,391 50
“ “ Wendell street....	698 77
“ “ Sedgwick street....	18,204 16
“ “ Elm street.....	642 52
“ “ Schiller street	2,553 81
“ “ Siegel street.....	2,560 23
“ “ Goethe street.....	2,304 94
“ “ Cass street	857 29
“ “ Franklin street....	1,131 91
“ “ Bremer street	2,316 57
“ “ Grant street.....	229 94
“ “ Pearson street	844 82
“ “ Hill street.....	242 15
“ “ White street	600 87

Amounts carried forward....	\$85,012 46	\$19,319 25
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		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward	\$85,012 46	\$19,319 25	
Expense of sewer, Hinsdale street	432 34		
“ “ Granger street.....	2,491 17		
N. Clark street sewer.....	340 07		
Labor on Pay-roll charged South Div.	747 15		
Proportion of int. on Temporary Loan.	147 91		
Proportion of discount on Bonds sold.	6,524 45		
Cement used.....	26 31		
Depreciation in stock.....	216 92		
Covers used	783 00		
Brick used.....	3,302 25		
Pipe used.....	2,800 46		
	\$102,824 49		
DEDUCT—			
Amount rec'd for plumbing..\$	3 65		
Pipe charged house drains....	1,237 25		
	1,240 90		
	\$101,583 59		\$120,902 84
SEWERS, SOUTH DIVISION.			
Inspectors and labor	\$18,367 91		
Engineer and Assistants.....	2,602 98		
Cement	2,043 66		
Constructing sewers	1,142 57		
Sand used.....	240 00		
Lumber.....	109 34		
Chain, oakum, etc.....	3 50		
Plumbing	82 93		
Hardware.....	51 17		
Ft. on lumber	16 00		
Oil, etc.....	9 68		
Nails, etc.....	5 33		
Pipe.....	7 50		
Lanterns	16 00		
Cement.....	95 73		
Keeping horse.....	31 26		
Rubber clothing.....	12 00		
Repairing wagon.....	3 92		
Stationery	21 49		
Car fares.....	40 00		
Advertising	16 80		
Water used	48 66		
	\$24,968 43		
ADD—			
Expense of sewer, Thirteenth street..	\$ 329 87		
“ “ Douglass place....	98,291 05		
	\$98,620 92	\$44,287 68	\$120,902 84

		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward	\$98,620 92	\$44,287 68	\$120,902 84
Expense of sewer, Kankakee avenue .	10,250 28		
“ “ Purple street	712 82		
“ “ Wentworth avenue.	1,648 02		
“ “ Prairie avenue.	229 30		
“ “ Thirteenth street. . .	1,254 93		
“ “ Deering street	6,734 21		
“ “ Main street	7,208 61		
“ “ Stewart avenue.	27 30		
“ “ Archer avenue.	8,107 31		
“ “ Fourteenth street.	1,988 82		
“ “ Indiana avenue	6,255 81		
“ “ Calumet avenue	2,378 65		
“ “ Michigan avenue.	1,046 90		
“ “ Wabash avenue.	2,385 27		
“ “ State street.	5,502 16		
“ “ Twenty-third st.	6,487 08		
“ “ Seventeenth street.	806 20		
“ “ Twenty-ninth st.	1,610 88		
“ “ Twenty-fifth street.	987 24		
“ “ Twentieth street	3,318 96		
“ “ Twenty-fourth st.	1,518 39		
“ “ Fimmel street	21 00		
“ “ Buddan street.	680 47		
“ “ Northern street.	525 05		
“ “ Quarry street.	150 50		
“ “ Twenty-first street.	3,417 34		
“ “ Wells street	122 50		
“ “ Hanover street	1,961 87		
“ “ Sanger street	15 00		
Proportion of int. on Temporary Loan,	295 84		
Proportion of discount on Bonds	13,048 94		
Cement used	52 62		
Depreciation in stock	433 84		
Covers used	490 00		
Brick used	2,817 43		
Pipe used	3,881 12		
	\$196,993 58		
DEDUCT—			
Amount received for labor			
and material.	\$2,098 64		
Pipe charged house drains.	1,596 60		
	3,695 24		
	\$193,298 34		
		218,266 77	
Amounts carried forward.	\$44,287 68	\$339,169 61	

Cash Payments. True Cost.

Amounts brought forward

\$44,287 68 \$339,169 61

SEWERS, WEST DIVISION.

Inspecting and labor	\$32,272 90
Engineer and assistant	2,821 65
Cement.... ..	3,192 85
Constructing sewers	4,104 62
Freight on cement.....	33 54
Lumber	109 35
Car fares	58 50
Water used	48 67
Sand used.....	300 00
Hardware	16 67
Rope, oakum, etc.....	21 50
Rubber clothing.....	6 00
Repairing wagon.....	37 16
Oil can, etc.....	20 69
Nails, etc	3 00
Tools, shovels, etc	36 00
Teaming.....	10 00
Stationery	23 01
Plumbing	69 07
Pipe.....	7 50
Oak Pails.....	12 00
Stone.....	50 40
Lanterns.....	13 00
Horse keeping	49 50
Advertising.....	16 78
Short salary of Assistant Engineer.....	10 00

 \$43,344 36

ADD—

Constructing sewers for which money was advanced	383 25
Expense of sewer—Robey street	755 77
“ “ Oakley street	765 42
“ “ Centre avenue.....	16,388 56
“ “ Adams street... ..	8,858 69
“ “ Ada street	1,450 40
“ “ Wright street.....	11,053 12
“ “ Morgan street.....	3,051 04
“ “ Halsted street.....	4,095 09
“ “ Madison street	13,345 93
“ “ Washington street..	20 00
“ “ Adams street	15 00
“ “ Sixteenth street	37 50
“ “ Mitchell street	10,579 31

 Amounts carried forward.....\$70,799 08

 \$87,632 04 \$339,169 61

		<i>Cash Payments. True Cost.</i>	
Amounts brought forward.....	\$70,799 08	\$87,632 04	\$339,169 61
Expense of sewer—Kinzie street.....	9,698 46		
“ “ Sheldon street.....	509 10		
“ “ Jefferson street.....	3,575 24		
“ “ Union street.....	3,319 89		
“ “ Lake street.....	27,188 68		
“ “ Lincoln street.....	2,012 64		
“ “ Loomis street.....	3,820 77		
“ “ Fulton street.....	26,426 71		
“ “ Peoria street.....	1,422 20		
“ “ Sangamon street ...	6,617 38		
“ “ Throop street.....	2,446 14		
“ “ Harrison street....	17,095 85		
“ “ Hoyne street.....	754 72		
“ “ Aberdeen street....	4 75		
“ “ Desplaines street...	6,827 35		
“ “ Union street.....	13 50		
“ “ Division street.....	9,366 82		
“ “ Mill avenue.....	4,786 87		
“ “ Kramer street.....	1,713 40		
“ “ Park avenue ..	2,818 72		
“ “ Warren avenue....	3,903 05		
“ “ Liberty street.....	1,594 03		
“ “ Forquer street.....	1,812 39		
“ “ Canalport avenue..	4,541 71		
“ “ Monroe street.....	40 00		
“ “ Eighteenth street ..	1,156 74		
“ “ Canal street.....	1,942 60		
“ “ Leavitt street.....	815 38		
“ “ Wood Green street .	794 67		
“ “ Hubbard street.....	2,943 98		
“ “ Van Buren street...	7,836 11		
“ “ Reuben street.....	5,594 26		
“ “ Bickerdyke street ..	1,199 40		
“ “ Sebor street.....	672 83		
“ “ Mather street.....	930 18		
“ “ Dupuyser street...	608 60		
“ “ Green street.....	2,929 57		
Proportion of interest on temporary loan	443 74		
Proportion of discount on bonds.....	19,573 41		
Cement used.....	78 93		
Depreciation in stock.....	650 76		
Covers used.....	1,364 65		
Brick used.....	6,997 63		
Pipe used.....	7,580 93		
Amounts carried forward.....	\$275,223 82	\$87,632 04	\$339,169 61

Cash Payments. True Cost.

Amounts brought forward\$275,223 82 \$87,632 04 \$339,169 61

DEDUCT—

Amount received for puddling sewers,
and pipe charged house drains 3,596 53
\$271,727 29 314,971 65

REPAIRS SEWERS, NORTH DIVISION.

Labor \$1,446 59
Cement..... 104 43
Plumbing 1 31
Sand used..... 6 00

1,558 33

ADD—

Depreciation in stock... \$132 81
Covers used 460 00
Brick used..... 39 90

\$2,191 04 2,191 04

REPAIRS SEWERS, SOUTH DIVISION.

Labor \$1,544 94
Cement..... 92 78
Plumbing 1 31

1,639 03

ADD—

Depreciation in stock\$150 52
Covers used.....\$644 00
Brick used 44 10
Pipe used 3 30

691 40

\$841 92 2,480 95

REPAIRS SEWERS, WEST DIVISION.

Labor \$1,531 75
Cement..... 63 23
Car fares 31 25
Sand used..... 12 00
Plumbing 1 31

1,639 54

ADD—

Depreciation in stock..... \$150 51
Covers used..... 1,016 60
Brick used..... 25 72
Pipe used 22 80

\$1,215 63 2,855 17

Amounts carried forward.....

\$92,468 94

\$661,668 42

Cash Payments. True Cost.

Amounts brought forward..... \$92,468 94 \$661,668 42

CLEANING SEWERS, NORTH DIVISION.

Labor \$5,949 62
 Water used 396 64
 Oil, etc..... 13 42
 Boots..... 5 34
 Pipe couplings..... 23 00
 Hardware 13 17
 Acid 6 02
 Canvas spout 2 33

6,409 54

ADD—

Depreciation in stock..... \$216 92

DEDUCT—

Amount received for cleaning..... 302 12

\$85 20

6,324 34

CLEANING SEWERS, SOUTH DIVISION.

Labor \$8,893 98
 Water used 396 64
 Repairing wagon..... 7 45
 Candles 10 79
 Oakum, etc. 2 17
 Oil..... 2 63
 Boots..... 5 33
 Pipe coupling..... 23 00
 Canvas spout 2 33
 Hardware..... 11 92
 Acid 6 03

9,362 27

ADD—

Depreciation in stock \$ 325 38

DEDUCT—

Amount received for cleaning 72 25

\$253 13

9,615 40

CLEANING SEWERS WEST DIVISION.

Labor..... \$9,291 76
 Repairing wagon..... 7 46
 Oakum..... 2 16
 Oil, etc..... 14 61
 Boots..... 5 33
 Pipe couplings..... 23 00
 Canvas spout..... 2 34
 Hardware..... 15 41

Amounts carried forward..... \$9,362 07 \$108,240 75 \$677,608 16

		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$9,362 07	\$108,240 75	\$677,608 16
Water used.....	396 64		
Acid.....	2 75		
Salt.....	4 60		
		9,766 06	
ADD—			
Depreciation in stock.....	\$325 38		
DEDUCT—			
Amount received for cleaning.....	15 50		
	309 88		10,075 94

SEWERAGE STOCK.

Tools.....	\$368 62		
Sheeting....	938 87		
870 feet of hose.....	652 50		
Repairing tools.....	432 85		
Freight on sheeting.....	48 00		
Wheel barrows.....	15 00		
		2,455 84	

SEWERAGE MAN HOLES AND CATCH-BASIN COVERS.

Labor.....	\$3,781 50		
Nails.....	1,017 20		
Lumber.....	5,281 07		
Freight on lumber.....	1,168 00		
Tar.....	175 18		
Cement.....	35 00		
		11,457 95	
DEDUCT—			
Covers used for sewers and repairs..	\$10,841 25		
Covers sold.....	405 10		
	\$11,246 35		211 60

SEWERAGE LOAN INTEREST.

Remittance to Am. Exc. Natl. Bank to pay July interest.....	\$69,425 63		
Remittance to Am. Exc. Natl. Bank to pay January interest.....	82,806 50		
Remittance to Am. Exc. Natl. Bank to pay short remittance.....	1,012 50		
Paid river improv't fund for its propor- tion of tax for 1866, 1867 and 1868.	96,457 32		
Interest paid in Chicago.....	390 00		
		250,091 95	250,091 95
Amounts carried forward.....		\$382,012 55	\$937,987 65

Cash Payments. True Cost.

Amounts brought forward..... \$382,012 55 \$937,987 65

CERTIFICATES OF INDEBTEDNESS.

Temporary loans..... 27,887 49

DEDUCT—

Am't rec'd from temporary loans... \$27,887 49

SEWERAGE BRICK.

Brick purchased.....	\$156,889 90	
Labor.....	512 61	
Advertising.....	102 45	
	<u> </u>	157,504 96

DEDUCT—

Brick charged sundry sewers..... \$140,413 53 17,091 43

SEWERAGE PIPE.

Pipe purchased.....	\$37,149 15	
Labor.....	1,275 02	
	<u> </u>	38,424 17

DEDUCT—

Pipe charged sundry sewers..... \$36,226 48 2,197 69

OFFICE EXPENSES AND SALARIES.

Salaries of Commissioners.....	\$3,999 96
Salary of Secretary and assistant. ...	1,666 65
Salary of City Engineer.....	1,500 00
Salary of Book keeper and clerks....	3,983 26
Salary of Superintendent	1,000 00
Salary of Watchman.....	181 00
Stationery.....	532 52
Furniture	182 30
Advertising.....	343 34
Revenue stamps.....	215 10
Rent of office.....	2,250 00
Eng. clerk.....	550 00
Lumber.....	15 83
Papers.....	40 63
Gas fitting.....	38 72
Painting	12 34
Labor on coupons.....	124 67
Car fare.....	58 17
Gas.....	122 70
Rent of room 15.....	50 00
Rent of stable lot	31 26

Amounts carried forward..... \$16,898 45 \$605,829 17 \$957,276 77

Cash Payments. True Cost.

Amounts brought forward.....	\$16,898 45	\$605,829 17	\$957,276 77
Bond Book clerk.....	50 55		
Commission on Temporary Loan.....	129 67		
Draughtsman.....	879 87		
Office clerk.....	255 50		
Sprinkling.....	15 00		
Oil, etc.....	7 97		
Printing.....	832 61		
Labor.....	1,241 18		
Horse-keeping.....	197 04		
Express on Bonds.....	460 40		
Coal.....	353 00		
Engraving Bonds.....	209 83		
Miscellaneous cash items.....	103 53		
Hardware.....	123 93		
Washing towels.....	20 00		
Ice.....	28 18		
Interest on advance.....	95 66		
	<hr/>	21,902 37	
 DEDUCT—			
Am't rec'd from Contract forfeit, \$400 00			
“ “ “ Drain license .. 28 00			
“ “ “ Assessments ...3,010 30			
	<hr/>	3,438 30	18,464 07
 ROBEY STREET SEWER.			
Dickey & O'Brien, constructing sewer.....		512 55	
 OAKLEY STREET SEWER.			
Dickey & O'Brien, constructing sewer.....		522 20	
 DOUGLASS PLACE SEWER.			
Haines & Hallalin, constructing sewer...\$80,629 13			
Labor.....	2,988 04		
Plumbing.....	132 06		
Cement.....	38 12		
	<hr/>	83,787 35	
 CENTRE AVENUE SEWER.			
M. McNichols, constructing sewer.....	\$ 807 76		
John Duffy “ “.....	836 91		
Kelly, Langan & McGraw, const'g sewer..	8,239 03		
Cement.....	24 43		
Labor.....	785 17		
	<hr/>	10,693 30	
Amount carried forward.....		<hr/>	<hr/>
		\$723,246 94	\$975,740 84

Cash Payments. True Cost.

Amount brought forward..... \$723,246 94 \$975,740 84

ADAMS STREET SEWER.

M. McNichols, constructing sewer	\$4,900 32	
Cement	11 25	
Labor	584 50	
	<hr/>	5,496 07

KANKAKEE AVENUE SEWER.

P. Doyle, constructing sewer	\$1,607 40	
P. D. Betticher	5,154 58	
Cement	9 02	
Labor	1,291 24	
	<hr/>	8,062 24

ADA STREET SEWER.

Woodruff & Raffin, constructing sewer ...	\$1,066 40	
Labor	61 50	
	<hr/>	1,127 90

WRIGHT STREET SEWER.

M. Mulany, constructing sewer	\$6,277 63	
Cement	11 87	
Plumbing	215 51	
Labor	11 25	
	<hr/>	6,516 26

MORGAN STREET SEWER.

Haines & Hallalin, constructing sewer....	\$ 723 75	
Finnucan & Hallalin, " "	1,443 75	
Labor	78 75	
	<hr/>	2,246 25

HALSTED STREET SEWER.

John Duffy, constructing sewer.....	\$1,827 48	
Cement	113 05	
Plumbing	7 70	
Labor	76 00	
	<hr/>	2,024 23

OAK STREET SEWER.

Bartley Langan, constructing sewer	\$959 10	
Cement	144 05	
330 loads dirt ...	198 00	
Labor	116 00	
	<hr/>	1,417 15

PURPLE STREET SEWER.

M. Mulany, constructing sewer	407 25	
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Amounts carried forward.....	<hr/>	<hr/>
	\$750,544 29	\$975,740 84

Cash Payments. True Cost.

Amounts brought forward \$750,544 29 \$975,740 84

WENTWORTH AVENUE SEWER.

M. Mulany, constructing sewer	\$371 85	
T. McQueeney, constructing sewer	502 15	
Labor	58 83	
Plumbing	7 55	
	<u> </u>	940 38

WEST MADISON STREET SEWER.

Woodruff & Raffin, constructing sewer . .	\$8,336 25	
“ “ extras	32 62	
Labor	186 38	
	<u> </u>	8,555 25

WEST WASHINGTON STREET SEWER.

Labor		35 00
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SIXTEENTH STREET SEWER.

Labor		37 50
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PRAIRIE AVENUE SEWER.

Labor	\$ 9 25	
Cement	22 50	
	<u> </u>	31 75

NORTH CLARK STREET SEWER.

Labor	\$308 47	
Cement	31 60	
	<u> </u>	340 07

MITCHELL STREET SEWER.

M. Mulany, constructing sewer	\$6,356 25	
“ extras	97 50	
Labor	58 00	
	<u> </u>	6,511 75

KINZIE STREET SEWER.

Finnucan & Hallalin, constructing sewer . .	\$6,375 00	
“ “ extras	40 50	
Labor	50 09	
	<u> </u>	6,465 59

THIRTEENTH STREET SEWER.

Woodruff & Raffin, constructing sewer . .	\$ 778 75	
“ “ extras	22 55	
Labor	16 00	
	<u> </u>	817 30

NORTH AVENUE SEWER.

Labor	\$1,703 50	
Cement	109 20	
	<u> </u>	1,812 70

Amounts carried forward \$776,091 58 \$975,740 84

Cash Payments. True Cost.

Amounts brought forward..... \$776,091 58 \$975,740 84

SHELDON STREET SEWER.

Labor..... 509 10

JEFFERSON STREET SEWER.

M. Mullany, constructing sewer \$2,401 05
 " extras 3 38
 Plumbing..... 30 01
2,434 44

DEERING STREET SEWER.

T. McQueeney, constructing sewer \$3,772 27
 Labor 177 30
 Plumbing..... 39 52
 Cement..... 2 00
3,991 09

MAIN STREET SEWER.

T. McQueeney, constructing sewer \$4,113 12
 " extras..... 28 19
 Plumbing..... 10 50
4,151 81

STEWART AVENUE SEWER.

Plumbing..... 27 30

UNION STREET SEWER.

M. Mulany, constructing sewer..... \$2,087 25
 " extras..... 9 12
 Plumbing..... 22 05
2,118 42

WEST LAKE STREET SEWER.

Woodruff & Raffin, constructing sewer... \$18,758 95
 " " extras 267 47
 Labor 582 26
19,608 68

ARCHER AVENUE SEWER.

T. McQueeney, constructing sewer \$4,446 75
 " extras 24 98
 Labor 383 91
4,855 64

LINCOLN AVENUE SEWER.

John Duffy, constructing sewer..... \$26,972 40
 " extras 1,330 82
 Labor 206 50
28,509 72

Amounts carried forward..... \$842,297 78 \$975,740 84

Cash Payment. True Cost.

Amounts brought forward.....		\$842,297 78	\$975,740 84
LINCOLN STREET SEWER.			
Dickey & O'Brien, constructing sewer...	\$1,345 05		
" " extras	5 62		
Labor	69 00		
Plumbing.....	5 58		
	<u> </u>	1,425 25	
LOOMIS STREET SEWER.			
M. Mulany, constructing sewer	\$2,820 25		
" extras	17 70		
Labor	92 50		
	<u> </u>	2,930 45	
LARRABEE STREET SEWER.			
M. McNichols, constructing sewer.....	\$5,971 25		
" extras.....	75 07		
Labor	21 75		
	<u> </u>	6,068 07	
FOURTEENTH STREET SEWER.			
P. D. Betticher, constructing sewer	\$1,326 06		
Labor	51 75		
	<u> </u>	1,377 81	
FULTON STREET SEWER.			
Kelley, Langan & McGraw, const. sewer.	\$17,238 75		
" " " extras.....	66 50		
Labor	238 87		
	<u> </u>	17,544 12	
PEORIA STREET SEWER.			
M. Mulany, constructing sewer.....	\$1,044 00		
Labor	67 00		
	<u> </u>	1,111 00	
INDIANA AVENUE SEWER.			
P. Doyle	\$1,692 90		
P. D. Betticher.. ..	2,802 00		
Labor	274 42		
	<u> </u>	4,769 32	
CALUMET AVENUE SEWER.			
P. Doyle, constructing sewer	\$1,650 20		
" extras.....	73 30		
Labor	52 25		
	<u> </u>	1,775 75	
MICHIGAN AVENUE SEWER.			
P. Doyle, constructing sewer.....	\$710 60		
" extras....	32 25		
Labor	61 25		
	<u> </u>	804 10	
Amounts carried forward.....		\$880,103 65	\$975,740 84

Cash Payments. True Cost.

Amounts brought forward		\$880,103 65	\$975,740 84
 WABASH AVENUE SEWER.			
P. Doyle, constructing sewer	\$1,666 30		
“ extras.....	75 25		
Labor	66 50		
	<hr/>	1,808 05	
 WHITNEY STREET SEWER.			
J. McHugh, constructing sewer	\$1,000 15		
“ extras	109 65		
Labor	11 63		
	<hr/>	1,121 43	
 WENDELL STREET SEWER.			
J. McHugh, constructing sewer	\$98 45		
“ extras	2 75		
Labor	3 50		
	<hr/>	104 70	
 STATE STREET SEWER.			
P. Doyle, constructing sewer	\$4,255 68		
“ extras.....	144 48		
Labor	55 50		
	<hr/>	4,455 66	
 SANGAMON STREET SEWER.			
Finnucan & Hallalin, constructing sewer.	\$2,811 20		
“ “ extras.....	49 75		
M. Mulany, constructing sewer....	1,874 25		
“ extras	21 50		
Labor	54 00		
	<hr/>	4,810 70	
 SEDGWICK STREET SEWER.			
M. McNichols, constructing sewer....	\$7,688 55		
M. McNichols, extras.....	353 38		
John Duffy, constructing sewer.....	5,518 50		
John Duffy, extras.....	187 00		
Labor	214 75		
	<hr/>	13,962 18	
 THROOP STREET SEWER.			
M. Mulany, constructing sewer.....	\$1,815 45		
M. Mulany, extras.....	10 75		
Labor	29 50		
	<hr/>	1,855 70	
Amounts carried forward.....		\$908,222 07	\$975,740 84

Cash Payments. True Cost.

Amounts brought forward \$908,222 07 \$975,740 84

TWENTY-THIRD STREET SEWER.

T. McQueeney, constructing sewer.....	\$3,552 90	
T. McQueeney, extras.....	2 25	
Woodruff & Raffin, constructing sewer.	714 00	
Labor.....	109 50	
	<hr/>	4,378 65

HARRISON STREET SEWER.

M. Malony, constructing sewer.....	\$10,786 80	
Labor.....	252 00	
	<hr/>	11,038 80

HOYNE STREET SEWER.

Dickey & O'Brien, constructing sewer.	\$511 00	
Labor.....	3 50	514 50
	<hr/>	

ABERDEEN STREET SEWER.

Labor.....		4 75
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DE-PLAINES STREET SEWER.

Brown & Flanery.....	\$5,077 80	
Brown & Flanery, extras.....	47 60	
Labor.....	43 00	
	<hr/>	5,168 40

ELM STREET SEWER.

Labor.....		16 00
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UNION STREET SEWER.

Labor.....		13 50
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DIVISION STREET SEWER.

C. Gladding, constructing sewer.....	\$4,641 67	
Cement.....	24 43	
Labor.....	952 62	
	<hr/>	5,618 72

MILWAUKEE AVENUE SEWER.

J. Duffy, constructing sewer.....	\$1,990 79	
Kelly, Langan & McGraw, const'g sewer..	1,246 05	
Labor.....	185 00	
	<hr/>	3,421 84

SEVENTEENTH STREET SEWER.

T. McQueeney, constructing sewer.....	\$418 00	
“ extras.....	19 40	
Labor.....	46 50	
	<hr/>	483 90

Amounts carried forward..... \$938,881 13 \$975,740 84

Cash Payments. True Cost.

Amounts brought forward..... \$938,881 13 \$975,740 84

SCHILLER STREET SEWER.

M. McNichols, constructing sewer.....	\$1,781 50	
" extras.....	55 46	
Labor	74 00	
	<hr/>	1,910 96

SIEGEL STREET SEWER.

M. McNichols, constructing sewer.....	\$1,785 00	
" extras.....	79 03	
Labor	49 50	
	<hr/>	\$1,913 53

GOETHE STREET SEWER.

M. McNichols, constructing sewer.....	\$1,528 50	
" extras.....	70 47	
Labor	53 00	
	<hr/>	1,651 97

TWENTY-NINTH STREET SEWER.

P. D. Betticher, constructing sewer.....	\$1,155 66	
" extras.....	19 57	
Labor	29 00	
	<hr/>	1,204 23

TWENTY-FIFTH STREET SEWER.

P. D. Betticher, constructing sewer.....	\$150 60	
" extras.....	25 63	
Woodruff & Raffin, constructing sewer ...	416 00	
Labor	51 50	
	<hr/>	652 73

TWENTIETH STREET SEWER.

Woodruff & Raffin, constructing sewer....	\$2,418 50	
Labor.....	18 50	
	<hr/>	2,437 00

TWENTY-FOURTH STREET SEWER.

P. D. Betticher, constructing sewer.....	\$465 50	
" extras.....	38 87	
Woodruff & Raffin, constructing sewer....	413 00	
Labor	10 50	
	<hr/>	927 87

CASS STREET SEWER.

J. McHugh, constructing sewer.....	\$420 70	
" extras.....	2 25	
Labor	39 50	
	<hr/>	462 45

Amounts carried forward..... \$950,041 87 \$975,740 84

Cash Payments. True Cost.

Amounts brought forward... \$950,041 87 \$975,740 84

KRAMER STREET SEWER.

Brown & Flanery, constructing sewer	\$812 50	
“ “ extras	20 25	
Labor	25 50	
	<hr/>	858 25

PARK AVENUE SEWER.

Dickey & O'Brien, constructing sewer....	\$1,523 70	
“ “ extras... ..	11 25	
Labor	33 00	
	<hr/>	1,567 95

WARREN AVENUE SEWER.

Dickey & O'Brien, constructing sewer....	\$2,095 25	
“ “ extras.....	9 00	
Labor	69 00	
	<hr/>	2,173 25

LIBERTY STREET SEWER.

Brown & Flanery, constructing sewer	\$685 30	
“ “ extras.....	10 12	
Labor	68 25	
	<hr/>	763 67

FORQUER STREET SEWER.

Brown & Flanery, constructing sewer	\$811 20	
“ “ extras.....	2 25	
Labor	96 25	
	<hr/>	909 70

FINNEL STREET SEWER.

Labor.....		21 00
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FRANKLIN STREET SEWER.

J. McHugh, constructing sewer	\$454 95	
“ extras	7 50	
Labor	20 00	
	<hr/>	482 45

BUDDAN STREET SEWER.

T. McQueeney, constructing sewer	\$364 65	
Labor	29 00	
	<hr/>	393 65

BREMER STREET SEWER.

J. McHugh, constructing sewer	\$958 00	
“ extras.....	4 81	
Labor	81 50	
	<hr/>	1,044 31

Amounts carried forward..... \$958,256 10 \$975,740 84

Cash Payments. True Cost.

Amounts brought forward..... \$958,256 10 \$975,740 84

NORTHERN AVENUE SEWER.

P. D. Betticher, constructing sewer	\$381 90	
" extras	5 23	
Labor	17 00	
	<hr/>	404 13

CANALPORT AVENUE SEWER.

T. McQueeney, constructing sewer.....	\$2,729 75	
" extras	211 12	
Labor	322 92	
	<hr/>	3,263 79

QUARRY STREET SEWER.

Labor		150 50
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GRANT STREET SEWER.

Labor		45 50
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SOUTH PARK AVENUE SEWER.

Labor		8 00
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MONROE STREET SEWER.

Labor		40 00
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PEARSON STREET SEWER.

J. McHugh, constructing sewer	\$393 95	
" extras.....	5 00	
	<hr/>	398 95

HILL STREET SEWER.

J. McHugh, constructing sewer		110 00
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WHITE STREET SEWER.

J. McHugh, constructing sewer		384 70
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HINSDALE STREET SEWER.

J. McHugh, constructing sewer	\$326 00	
" extras.....	3 27	
	<hr/>	329 27

GRANGER STREET SEWER.

M. McNichols, constructing sewer.....	\$1,786 75	
" extras.....	51 60	
	<hr/>	1,838 35

EIGHTEENTH STREET SEWER.

M. Mulany, constructing sewer.....		690 52
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CANAL STREET SEWER.

M. Mulany, constructing sewer		1,013 08
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Amounts carried forward.....	<hr/>	<hr/>
	\$966,932 89	\$975,740 84

Cash Payments. True Cost.

Amounts brought forward	\$966,932 89	\$975,740 84
LEAVITT STREET SEWER.		
Drekey & O'Brien, constructing sewer	574	48
WOOD STREET SEWER.		
Drekey & O'Brien, constructing sewer	549	20
GREEN STREET SEWER.		
Finnucan & Hallalin, constructing sewer	1,941	25
HUBBARD STREET SEWER.		
Finnucan & Hallalin, constructing sewer.....	511	20
HANOVER STREET SEWER.		
P. Doyle, constructing sewer	1,307	37
VAN BUREN STREET SEWER.		
Woodruff & Raffin, constructing sewer	4,476	49
REUBEN STREET SEWER.		
Woodruff & Raffin, constructing sewer	4,105	41
WELLS STREET SEWER.		
Labor	122	50
SANGER STREET SEWER.		
Labor	15	00
TWENTY-FIRST STREET SEWER.		
Woodruff & Raffin, constructing sewer	2,425	27
BICKERDYKE STREET SEWER.		
Brown & Flanery, constructing sewer.....	831	25
SEBOR STREET SEWER.		
Brown & Flanery, constructing sewer	\$243	60
“ “ extras.....	11	37
	<hr/>	254 97
MATHER STREET SEWER.		
Brown & Flanery, constructing sewer.....	427	90
DUPUYSTER STREET SEWER.		
Brown & Flanery, constructing sewer.....	423	42
SUNDRY SEWERS.		
Amount paid back for money which was advanced to construct sewers built by private parties	5,872	63
Amounts carried forward	\$990,771 23	\$975,740 84

Cash Payments. True Cost.

Amounts brought forward \$990,771 23 \$975,740 84

SINKING FUND.

Amount paid Sewerage and River Improvement
Sinking Funds, for their proportion of Sewer-
age Tax for 1868 and 1869 118,715 40 118,715 40

PRIVATE DRAINS.

North Clark street drains.....	\$707 82	
West Adams street drains.....	2,140 80	
West Madison street drains	7,705 07	
Washington street drains	88 20	
La Salle street drains.....	3,173 99	
Halsted street drains.....	2,614 25	
Kinzie street drains	190 35	
Archer avenue drains.....	332 28	
Prairie avenue drains.....	1,227 00	
Canal street drains	2,846 26	
Clinton street drains.....	1,216 12	
Dearborn street drains.....	689 02	
Twelfth street drains	219 60	
Lake street drains.....	2,725 64	
Filling Harrison and Polk streets.....	367 20	
Polk street drains	127 68	
Jefferson street drains	639 93	
Wells street drains	448 10	
Randolph street drains	641 59	
Eighteenth street drains	391 86	
West Washington street drains.....	1,537 51	
Wabash avenue drains....	1,511 18	
Division street drains	298 20	
Fourteenth street drains	75 00	
Calumet avenue drains.....	736 65	
Harrison street drains	969 00	
Jackson street drains	396 00	
South Park avenue drains	2,214 90	
North avenue drains.....	1,661 75	
	<hr/>	37,892 95

DEDUCT—

Amount rec'd from private drains.. \$23,273 01 14,619 94

HOUSE DRAINS.

Labor	\$3,090 63	
Inspectors	1,881 00	
Draughtsmen	1,200 00	
Permit clerk.....	924 40	
	<hr/>	
Amounts carried forward	\$7,096 03	\$1,147,379 53 \$1,109,076 18

	<i>Cash Payments.</i>		<i>True Cost.</i>	
Amounts brought forward	\$7,096	03	\$1,147,379	58
Car fares		204	60	
Advertising		410	13	
Printing		13	50	
Cement		22	41	
Stationery		16	70	
Constructing drains		26	66	
Repairing pipe		14	45	
Hardware		5	50	
				7,809 98
ADD—				
Pipe used	\$6,355	25		
DEDUCT—				
Amount received from assessments and permits issued	13,080	39		1,084 84
Total cash expenditures			<u>\$1,155,189</u>	<u>56</u>
			<u>\$1,110,161</u>	<u>02</u>

SEWERAGE SINKING FUND.

RECEIPTS.

Proportion of Sewerage Tax for 1868	\$31,069 20	
“ “ “ “ 1869	43,885 24	
	<u> </u>	\$74,954 44
Balance in hands of Treasurer, April 1, 1869		32,938 00
		<u> </u>
		<u> </u> \$107,892 91

EXPENDITURES.

Forty Bonds purchased and cancelled, } Nos. 2651, 2652, 2654 to 2691 }	\$37,200 00	
Expense of foreclosure of mortgage	323 18	
	<u> </u>	\$37,523 18
Balance in hands of Treasurer, April 1, 1870		70,369 73
		<u> </u>
		<u> </u> \$107,892 91

RIVER IMPROVEMENT FUND.

TRIAL BALANCE, LEDGER, BOARD OF PUBLIC WORKS, MARCH 31, 1870.

	<i>Dr.</i>	<i>Cr.</i>
River Improvement Fund in hands of Treasurer.	\$152,511 03	
Expense of Survey previous to adoption of plan .	1,269 23	
American Exchange National Bank coupon acc't.	1,680 00	
River Improvement Loan Interest.....	112,265 57	
Expense of Survey	28,943 19	
River Improvement Salary Account.....	30,683 37	
" " Office Expense	1,582 16	
Geo. Taylor, Comptroller	92,000 00	
River Improvement Sinking Fund		\$ 54,635 18
River Improvement Bonds, 7 per cent.		1,923,000 00
Discount on River Improvement Bonds.....	70,567 87	
River Improvement Miscellaneous Expense	32,613 84	
C. B. Kimball, Contractor	75,286 98	
Sanger, Steel & Co., Contractors	62,292 59	
Fox, Howard & Walker, "	128,649 95	
" " " " "	244,255 08	
" " " " "	63,114 13	
" " " " "	94,103 50	
Hosch & Harroon, "	42,028 25	
C. E. Boyer, "	232,569 70	
Hosch & Van Slyck, "	70,244 00	
S. W. Norton, "	74,608 98	
Lee & Graham, "	67,723 75	
J. A. Hendricks & Co., "	49,748 30	
Carlin & Kimball, "	98,487 91	
Hugh Maher, "	30,202 20	
Barnard & Gowen, "	50,333 60	
J. J. Parry, "	55,598 50	
Fox, Howard & Walker, "	14,271 50	
	\$1,977,635 18	\$1,977,635 18

RIVER IMPROVEMENT FUND.

STATEMENT of Cash Receipts and detailed statement of the cost of various operations conducted by the Board of Public Works from April 1st, 1869, to March 31st, 1870, inclusive:

RECEIPTS.

Proceeds sale of 844 River Improvement Bonds, including accrued interest	\$804,691 25	
River Improvement Sinking Fund tax.....	50,751 53	
Amount of tax for interest	96,457 32	
Stone sold	1,352 00	
		\$953,252 10

EXPENDITURES.

	<i>Cash Payments.</i>	<i>True Cost.</i>
INTEREST ACCOUNT.		
Amount of remittance to pay July, 1869, and January, 1870, interest. \$79,498 25		
Coupons paid by City Treasurer	6,776 39	
		\$86,274 64
	\$86,274 64	\$86,274 64
MISCELLANEOUS EXPENSE.		
Pumping at Bridgeport	\$15,499 58	
Tolls lost	9,811 85	
Extra labor	4 460 00	
Labor on dams.....	1,639 02	
Engraving bonds.....	218 00	
Interest on advance.....	156 98	
Labor and material.....	728 37	
Labor on coupons	293 21	
Express on bonds.....	543 80	
Advertising	424 00	
Telegrams	4 10	
Inspecting sold stone	27 04	
One desk	25 00	
Rent of office	35 01	
Car fares.....	2 70	
Hardware	10 00	
Stationery	87 18	
		33,965 84
DEDUCT—		
Amount received for stone sold	\$1,352 00	32,613 84
Amounts carried forward.....	\$120,240 48	\$118,888 48

	<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$120,240 48	\$118,888 48
EXPENSE OF SURVEY AND SALARIES.		
Salary of Commissioners.....	\$5,750 00	
“ Secretary	183 37	
“ Engineer.....	2,433 30	
“ Ass’t Engineer, rodman and axeman.....	3,343 25	
	<hr/>	
	11,709 92	11,709 92
CONTRACTS.		
C. B. Kimball, on account contract...\$18,156 35		
Fox, Howard & Walker, “ ...	30,000 00	
“ “ “ “ ...	46,796 75	
“ “ “ “ ...	45,005 00	
“ “ “ “ ...	86,916 75	
Hosch & Harroon, “ ...	20,429 75	
C. E. Boyer, “ ...	54,804 94	
Hosch & Van Slyck, “ ...	30,493 75	
S. W. Norton, “ ...	22,000 00	
Lee & Grlham, “ ...	44,353 00	
J. A. Hendricks, “ ...	11,648 38	
Carlin & Kimball, “ ...	89,509 78	
Hugh Maher, “ ...	23,684 10	
Barnard & Gowan, “ ...	40,898 60	
J. J. Parry, “ ...	55,598 50	
Fox, Howard & Walker, “ ...	14,271 50	
	<hr/>	
	639,567 15	639,567 15
Total cash expenditures.....	\$771,517 55	\$770,165 55
Balance in hands of Treasurer April 1st, 1870 ...	152,511 03	
	<hr/>	
	\$924,028 58	

CITY DEPARTMENT.

TRIAL BALANCE LEDGER, BOARD OF PUBLIC WORKS,
MARCH 31, 1870.

	<i>Dr.</i>	<i>Cr.</i>
Appropriation Fund in hands of Treasurer.....	\$617,911 33	
North Division	2,008 17	
South Division.....		\$1,073 01
West Division		26,401 09
City Office Expense.....	2,508 87	
North Division Sidewalks		2,942 17
South " "		373 87
West " "		4,097 00
Public Parks		17,702 76
Washington Street Tunnel	4,408 25	
Public Buildings.....		22,701 55
Chicago Cemetery		3,978 85
Lumber account	890 00	
LaSalle Street Tunnel.....	1,266 64	
House Moving and Street Permits		18,481 88
Street Signs		2,004 78
Street Lamps		8,391 41
Public Hydrants.....		507 65
Samuel Polkey, Receiving Clerk.....	308 12	
Warrant No. 480		308 12
City Proportional Expense		7,452 24
House Numbers		2,044 53
Public Benefits.....		350,427 75
Chicago Harbor		26,905 42
Land Damages		57,262 00
Bridge Department		5,505 15
Archer Road Bridge.....		6,000 00
Indiana Street "		1,925 00
Eric Street "		20,000 00
Western Avenue "		4,195 50
Adams Street "		4,582 74
Division Street "		4,037 41
Twenty-second Street Bridge		30,000 00
	<u>\$629,301 38</u>	<u>\$629,301 38</u>

BOARD OF PUBLIC WORKS APPROPRIATION FUND.

STATEMENT of the cash receipts by the Board of Public Works, from April 1, 1869, to March 31, 1870, inclusive, and detailed statement of the cost of various operations conducted by the Board during the same time:

RECEIPTS.

Amount appropriated by Common Council.....	\$1,216,581 01	
Amount of Temporary Loans for running expenses,	352,343 67	
Received from Special Assessments for expenses ..	96,713 22	
Permits issued	6,065 40	
Repairing Streets	3,924 42	
Vouchers cancelled.....	8,046 82	
Received for Numbers.....	240 00	
" " Constructing Walks	369 70	
" " Damages to Bridges	745 73	
" " Cleaning Snow.....	417 00	
Lamp-posts	88 50	
Sand sold.....	147 20	
Surveyor's License.....	51 00	
Old awning sold	1 25	
		\$1,685,734 92
Balance in hands of City Treasurer, April 1, 1869..	385,118 97	\$2,070,853 89

EXPENDITURES.

NORTH DIVISION.

		<i>Cash Payments.</i>	<i>True Cost.</i>
Labor on streets	\$39,981 07		
Cleaning streets.....	7,399 06		
Labor repairing streets.....	2,600 36		
Lumber	1,920 26		
Cindering streets.....	1,810 75		
Iron and nails.....	543 73		
Cement	426 21		
Brick used.....	629 65		
Amount carried forward	\$55,311 09		

	<i>Cash Payments.</i>	<i>True Cost</i>
Amount brought forward	\$55,311 09	
Gravel	220 50	
200 loads clay.....	137 50	
Hardware, tools, etc	128 52	
Work at shop in 1868.....	103 04	
Composition	42 00	
Freight on lumber	22 00	
Repairing curb wall.....	20 50	
Lanterns	10 00	
Lumber used charged lumber account... 5	282 02	
Interest on temporary loans.....	1,644 67	
	<hr/>	
		\$62,921 84

DEDUCT—

Amount received for labor.....	\$614 45	\$62,307 39
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SOUTH DIVISION.

Labor on streets.....	\$58,343 48	
Cleaning streets	24,715 89	
Lumber.....	7,024 37	
Lumber used charged lumber account... 7	925 04	
Cinders... ..	3,151 00	
Paving cement	2,701 20	
Interest on temporary loans.....	2,467 01	
Stone used charged stone account	1,573 02	
Iron and nails.....	1,113 09	
Gravel.....	1,350 45	
Brick used	629 65	
Freight on lumber	420 00	
Hardware, repairing tools, etc.....	131 47	
Curbing	153 00	
Labor at shop in 1868.....	103 05	
McAdam	520 34	
Scavenger work.....	175 00	
Miscellaneous cash items.....	40 70	
Advertising	25 50	
Rubber clothing.....	6 00	
Lantern	2 90	
Broom.....	1 75	
	<hr/>	
		\$112,573 91

DEDUCT—

Amount received for labor	\$3,433 92	
“ voucher drawn in error.....	102 00	
“ received for cleaning snow... 1	11 00	
	<hr/>	
	\$3,646 92	
		<hr/>
		\$108,926 99

Amounts carried forward.....	<hr/>	<hr/>
	\$175,495 75	\$171,234 38

Cash Payments. True Cost.
 \$175,495 75 \$171,234 38

Amounts brought forward.....

WEST DIVISION.

Labor on streets	\$108,653 52	
Cleaning streets	12,752 20	
Lumber.....	7,032 81	
McAdam.....	2,869 88	
Iron and nails	1,779 13	
Paving cement.....	1,244 66	
Cinders	980 50	
Brick used	629 65	
Damage to carriage.....	300 00	
Planking Main street	200 00	
Building walls	111 32	
Labor at shop in 1868.....	103 05	
Hardware, repairs, tools, etc.....	133 86	
Freight on lumber.....	80 00	
Scrapers	43 50	
Plows	32 00	
Painting.....	11 50	
Scavenger work.....	4 00	
Brooms	1 50	
Interest on temporary loans	2,467 01	
Lumber used charged lumber account..	7,925 05	
Stone used charged stone account	1,158 23	
	<hr/>	148,513 37

DEDUCT—

Amount received for labor.....	\$101 25	
“ rec'd for cleaning snow..	28 00	
	<hr/>	\$329 25
		148,184 12

SIDEWALKS, NORTH DIVISION.

Building walk	\$244 44	
Superintendent's salary.....	400 00	
Salaries of Inspectors.....	1,797 32	
	<hr/>	2,441 76

DEDUCT—

Amount rec'd for const'g walk...	\$22 45	
Voucher cancelled	2 52	
	<hr/>	\$24 97
		2,416 79

SIDEWALKS, SOUTH DIVISION.

Building walk	\$1,935 25	
Salary of Superintendent	400 00	
Salaries of Inspectors	2,687 50	
Labor	24 50	
	<hr/>	5,047 25

Amounts carried forward.....

\$331,498 13 \$321,835 29

Cash Payments. True Cost.

Amounts brought forward.....	\$331,498 13	\$321,835 29
DEDUCT—		
Amount rec'd for const'g walk...\$36 40		
“ voucher cancelled 52 12		
	\$88 52	4,958 73

SIDEWALKS, WEST DIVISION.

Building walks	\$605 77	
Salary of Superintendent	400 00	
Salary of Inspectors.....	3,534 61	
	4,450 38	

DEDUCT—

Amount rec'd for const'g walk..\$310 85		
“ “ “ vouchers cancd, 15 89		
	\$326 74	4,213 64

CERTIFICATE OF INDEBTEDNESS.

Temporary loans.....	352,343 67
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DEDUCT—

Amount received for temporary loans, \$352,343 67

OFFICE EXPENSES AND SALARIES.

Salary of Commissioners.....	\$3,999 99
Salary of Secretary and Assistant.....	1,424 98
Salary of City Engineer.....	1,500 00
Salary of Superintendent	983 33
Salaries of Book-keeper and Clerks	3,222 41
Salary of Assistant Engineers	8,746 93
Salaries of draughtsmen	8,581 75
Salaries of special assessment clerks	17,921 09
Salaries of mes'nger, janitor and watchman	796 52
Stationery and blank books	1,425 09
Advertising.....	12,119 46
Office rent.....	2,300 00
Printing Seventh Annual Report.....	330 83
Printing Eighth “ “	574 70
Coal used.....	362 00
Miscellaneous cash items.....	142 77
Commissions on temporary loan.....	152 36
Notary fees	229 90
Pay roll rodmen and labor.....	3,765 58
Hardware	110 56
Printing.....	858 32
Furniture.....	195 98
Keeping horses.....	222 31

Amounts carried forward.....	\$688,387 18	\$331,007 66
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Cash Payments. True Cost.

Amounts brought forward	\$	\$688,387 18	\$331,007 66
Revenue stamps.....	215 08		
Ice.....	121 73		
Gas.....	122 68		
Draughtsmen's tools.....	59 00		
Subscription to daily papers	55 49		
Map of Chicago.....	6 00		
Tape line	41 50		
Gas fitting	60 06		
Matches	21 22		
Sprinkling	15 90		
Examining title.....	20 00		
Use of steamer	50 00		
Expense to Springfield.....	12 20		
Sub. to London Engineering	7 00		
New awnings.....	35 00		
Oakum, etc.....	11 00		
Car fares, washing towels, painting, etc..	111 93		
		<u>70,930 85</u>	

DEDUCT—

Cost of proceed'gs on sundry assessm'ts.....	\$96,693 22
Surveyor's license and scale permit	72 25
Old awning sold.....	3 00
	<u>\$96,768 47</u>

LAKE PARK.

Lawn mower	\$74 00		
Planting trees	2,660 00		
Hauling dirt.....	1,964 09		
Building sidewalks	1,565 90		
Building band house	651 72		
Labor	335 43		
Salary of Superintendent.....	400 00		
Salary of Inspector.....	975 00		
Lumber	86 48		
Grass seed	63 75		
Coal.....	7 50		
		<u>8,783 87</u>	8,783 87

UNION PARK.

Labor, mowing grass, carpenter work, etc.....	\$12,075 75		
Lumber	1,353 45		
Roofing	510 00		
Plumbing	682 78		
Gravel.....	364 00		
		<u>14,985 98</u>	<u>\$768,096 90</u>
Amounts carried forward			<u>\$339,791 53</u>

Cash Payments. True Cost.

Amounts brought forward	\$14,985 98	\$768,096 90	\$339,791 53
Feed for animals	632 33		
Trees.....	828 75		
Stone for fountain.....	841 76		
Painting	348 30		
Sprinkling wagon.....	260 00		
Wire work.....	103 26		
Iron works... ..	145 91		
Laying sewer	197 95		
Lawn mowers.....	111 60		
Hardware	227 61		
Salary of Superintendent.....	400 00		
Fountain fixtures	175 00		
Chairs.....	35 00		
Miscellaneous items	5 14		
Painting signs.....	3 00		
Iron and nails	82 86		
Ashes	40 00		
One flag	38 70		
Water permit	20 90		
Advertising	15 00		
Gas	19 25		
Tools	63 96		
Grass seed	38 80		
	<hr/>	19,621 06	19,621 06

JEFFERSON PARK.

Labor.....	\$5,374 91		
Stone	29 30		
Plumbing	94 50		
Miscellaneous items	4 10		
	<hr/>	5,502 81	5,502 81

LINCOLN PARK.

Paid Nelson & Benson for grading, cinder- ing, building walks and drives, planting trees, and keeping park in repair	\$28,837 66		
Interest on temporary loans	832 50		
Feed for animals.....	242 10		
Iron work	357 91		
Lamps	211 35		
Wire fence	270 70		
Labor.....	318 60		
Lumber	174 39		
Salary of Superintendent	400 00		
Painting	5 00		
Amounts carried forward.....	31,700 21	\$793,220 77	\$364,915 40

		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward	\$31,700 21	\$793,220 77	\$364,915 40
One flag.....	\$67 50		
Miscellaneous items.....	4 14		
Chairs.....	31 00		
Advertising.....	15 50		
Repairing hydrant.....	12 37		
		31,830 72	31,830 72
WASHINGTON PARK.			
Labor.....	\$98 00		
Repairing fence.....	130 00		
Planting trees.....	467 00		
		695 00	695 00
DEARBORN PARK.			
Labor.....	\$33 12.		
Lumber.....	90 00		
Sprinkling.....	180 00		
Dirt.....	71 50		
Planting trees.....	300 00		
		674 62	674 62
ELLIS PARK.			
Labor.....	\$4,513 13		
Plumbing.....	315 96		
Lumber.....	25 20		
Repairing pipe.....	2 50		
		4,856 79	4,856 79
PUBLIC BUILDINGS—ARMORY			
Labor, carpenter work.....	\$752 00		
Painting.....	87 00		
Glazing.....	21 51		
		860 51	860 51
COURT HOUSE.			
Engineer.....	\$40 00		
Sprinkling.....	120 00		
Glazing.....	12 77		
		172 77	172 77
NORTH MARKET.			
Carpenter work.....	\$209 00		
Painting.....	490 00		
Advertising.....	46 50		
		745 50	745 50
BRIDEWELL.			
Carpenter work.....	\$437 38		
Painting.....	8 91		
Gas-fitting.....	36 09		
Amounts carried forward.....	\$482 38	\$833,056 68	\$404,751 31

		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward	\$482 38	\$833,056 68	\$404,751 31
Hardware	22 60		
Oil and lead	27 41		
Lumber	211 94		
Nails	1 22		
One scale	88 82		
	—	834 37	834 37
LUMBER ACCOUNT.			
Lumber purchased and not used		150 00	150 00
CHICAGO HARBOR.			
Dredging	\$56,035 73		
Building docks	4,111 95		
Salary of Harbor Master and Assistant	2,505 96		
Interest on temporary loans	1,543 38		
Labor	408 75		
Inspectors	165 00		
Sounding	273 00		
Use of tug	183 00		
Oil for lighthouse	18 60		
Lighthouse tender	69 72		
Paint and lead	4 25		
Painting sign	6 60		
Printing	41 50		
Rope, etc.	12 80		
Use of docks	50 00		
Advertising	36 88		
Stone	18 00		
	—	65,485 12	65,485 12
CHICAGO CEMETERY.			
Gate keeper	\$900 00		
Advertising	9 00		
	—	909 00	909 00
HOUSE MOVING AND STREET PERMITS.			
Special constables	\$2,000 00		
Permit clerks	254 89		
	—	2,254 89	
Received for permits	\$6,062 40		
STREET SIGNS.			
Putting up signs		995 22	995 22
STREET LAMPS.			
New lamps and posts	\$404 00		
Repairs on lamps	5 00		
	—	409 00	
DEDUCT—			
Amount received for broken posts	\$88 50		320 50
Amounts carried forward		\$904,094 28	\$473,435 52

	<i>Cash Payment. True Cost.</i>	
Amounts brought forward.....	\$904,094 28	\$473,435 52
PUBLIC HYDRANTS.		
Putting in hydrants.....	\$186 92	
Repairs of hydrants	92 31	
	279 23	279 23
HOUSE NUMBERS.		
Replating plate for number		22 00
Amount received for numbers..\$1,240 00		
WASHINGTON STREET TUNNEL.		
Engineer and fireman	\$494 66	
Labor	1,334 51	
Bricks.....	787 05	
Coal.....	118 10	
Cleaning tunnel.....	699 30	
Gas fixtures and fitting	309 94	
Cement.....	181 50	
Broom.....	1 75	
Hardware	27 13	
Salt	8 35	
Packing	37 36	
Repairing pipe....	70 00	
Step ladder	7 00	
Carpenter work	44 00	
Hose	14 00	
Gas	28 10	
	4,163 25	4,163 25
LA SALLE STREET TUNNEL.		
Engineer	\$800 00	
Draughtsman	466 64	
	1,266 64	1,266 64
BRIDGE DEPARTMENT.		
Carpenter work.....	\$12,350 39	
Lumber	4,867 20	
Driving piles.....	3,712 39	
Painting and glazing	1,422 68	
Interest on temporary loans.....	1,290 45	
Assistant Superintendent's salary and car fares	2,014 61	
Balance of contract Twelfth street bridge.	1,853 88	
Repairing bridges	3,208 12	
Iron and nails.....	1,246 30	
Waste	46 42	
Repairing clocks	11 00	
Brooms.....	91 95	
Amounts carried forward	32,115 39	\$909,825 40 \$479,144 64

		<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$32,115 39	\$909,825 40	\$479,144 64
Use of tugs.....	\$197 00		
Stationery	12 00		
Salt	3 25		
Car fares	17 00		
Chain, oakum, etc	169 55		
Castings	870 56		
Rollers	13 50		
Labor at shop.....	250 56		
Horse feed.....	10 15		
Bells	18 00		
Blacksmith work.....	288 75		
Tar kettle	14 00		
One pair oars.....	9 75		
Pails	8 50		
Axle grease	3 50		
Coal.....	467 50		
Hardware	74 00		
Printing.....	46 00		
Advertising	268 44		
Lanterns and repair of same.....	334 16		
Oil and lard.....	266 35		
		35,457 91	
DEDUCT—			
Am't rec'd for damages	\$345 73		
“ “ from State st. viaduct, 400 00	400 00	745 73	34,712 18
RUSH STREET BRIDGE			
Tending bridge		2,300 00	2,300 00
STATE STREET BRIDGE.			
Tending bridge		1,960 00	1,960 00
CLARK STREET BRIDGE.			
Tending bridge		1,940 00	1,940 00
WELLS STREET BRIDGE.			
Tending bridge		1,940 00	1,940 00
LAKE STREET BRIDGE.			
Tending bridge		1,940 00	1,940 00
RANDOLPH STREET BRIDGE.			
Tending bridge		1,780 00	1,780 00
MADISON STREET BRIDGE.			
Tending bridge		1,700 00	1,700 00
Amounts carried forward.....		\$958,843 31	\$527,416 82

	<i>Cash Payments.</i>	<i>True Cost.</i>
Amounts brought forward.....	\$958,843 31	\$527,416 82
VAN BUREN STREET BRIDGE.		
Tending bridge.....	1,660 00	1,660 00
POLK STREET BRIDGE.		
Fox & Howard, constructing bridge.....	\$29,708 68	
A. Wallbann, building abutment.....	2,217 83	
Tending bridge.....	1,600 00	
Fox & Howard, extras.....	987 80	
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
	34,514 31	34,514 31
TWELFTH STREET BRIDGE.		
Tending bridge.....	1,600 00	1,600 00
EIGHTEENTH STREET BRIDGE.		
Tending bridge.....	1,600 00	1,600 00
HALSTED STREET BRIDGE.		
Tending bridge.....	1,600 00	1,600 00
ARCHER AVENUE BRIDGE.		
Fox & Howard, Est. No. 1, const. bridge	\$6,000 00	
Tending bridge.....	520 00	
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
	6,520 00	6,520 00
FULLER STREET BRIDGE.		
Tending bridge.....	520 00	520 00
REUBEN STREET BRIDGE.		
Tending bridge.....	520 00	520 00
KINZIE STREET BRIDGE.		
Fox & Howard, constructing bridge...	\$15,850 00	
Tending bridge.....	1,715 00	
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
	17,565 00	17,565 00
INDIANA STREET BRIDGE.		
Fox & Howard, constructing bridge...	\$43,500 00	
Tending bridge.....	1,460 00	
Inspector.....	75 00	
	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>	
	45,035 00	45,035 00
ERIE STREET BRIDGE.		
Tending bridge.....	1,460 00	1,460 00
CHICAGO AVENUE BRIDGE.		
Tending bridge.....	1,380 00	1,380 00
NORTH AVENUE BRIDGE.		
Tending bridge.....	780 00	780 00
CLYBOURN AVENUE BRIDGE.		
Tending bridge.....	520 00	520 00
Amounts carried forward.....	<hr style="width: 100%;"/>	<hr style="width: 100%;"/>
	\$1,074,117 62	\$642,691 13

	<i>Cash Payments. True Cost.</i>	
Amounts brought forward	\$1,074,117 62	\$642,691 13
NORTH HALSTED STREET BRIDGE.		
Tending bridge	1,040 00	1,040 00
THROOP STREET BRIDGE.		
Tending bridge	1,460 00	1,460 00
WESTERN AVENUE BRIDGE.		
F. E. Canda, constructing bridge	8,925 00	8,925 00
ADAMS STREET BRIDGE.		
Fox & Howard, constructing bridge . . .	\$40,947 04	
Building viaduct	3,640 51	
" abutment	2,943 05	
Inspector	50 00	
Interest on temporary loan	666 66	
	<hr style="width: 100px; margin-left: 0;"/>	
	48,247 26	48,247 26
DIVISION STREET BRIDGE.		
Fox & Howard, constructing bridge . . .	\$3,294 84	
Tending bridge	607 75	
	<hr style="width: 100px; margin-left: 0;"/>	
	3,902 59	3,902 59
LAND DAMAGES.		
For land damages at Adams st. bridge.	22,738 00	92,738 00
PUBLIC BENEFITS.		
Paving intersections of streets	\$267,625 19	
Labor on catch basins	7,482 25	
Improvement of sidewalks	3,045 77	
Opening streets	4,599 81	
Widening streets	2,897 78	
Filling intersections	1,336 42	
Graveling	2,068 03	
Cement for catch basins	1,147 09	
Lumber " " "	832 19	
Patent fees on pavement	701 13	
Lamp posts	258 33	
Planking alleys	446 20	
Drains	61 90	
Ashes	10 00	
	<hr style="width: 100px; margin-left: 0;"/>	
	292,512 09	292,512 09
Total cash expenditures	<hr style="width: 100px; margin-left: 0;"/>	<hr style="width: 100px; margin-left: 0;"/>
	\$1,452,942 56	\$1,021,516 07

CITY BRIDEWELL FUND.

TRIAL BALANCE, LEDGER, BOARD OF PUBLIC WORKS, MARCH 31ST, 1870.

	<i>Dr.</i>	<i>Cr.</i>
City Bridewell Funds in hands of Treasurer	\$27,977 06	
City Bridewell Bonds		\$250,000 00
Discount on City Bridewell Bonds	12,897 43	
Miscellaneous expense	11,224 49	
J. M. Van Osdell, Architect.	4,000 00	
Kavanagh & Merriman, Contractors.	89,743 54	
Clancey, Webb & Co., "	1,900 00	
Carter Brothers, "	65,000 00	
Stewart & Eddy, "	11,500 00	
Keeney & Campbell, "	17,413 48	
J. W. Newell, "	1,000 00	
A. Knisely, "	5,000 00	
Richard Riley, "	2,244 00	
Peterson & Patterson, "	200 00	
	\$250,000 00	\$250,000 00

CITY BRIDEWELL FUND.

STATEMENT showing the cash receipts and detailed account of work done under the charge of the Board of Public Works, during the year ending March 31, 1870:

RECEIPTS.

Proceeds of 219 Municipal Bonds \$206,827 57

EXPENDITURES.

MISCELLANEOUS EXPENSE.

	<i>Cash Payments.</i>	<i>True Cost.</i>
Dredging	\$7,892 48	
Labor	1,250 50	
Lumber	1,126 20	
Express on Bonds	76 00	
Engraving Bonds	120 00	
Nails	101 50	
Constructing drain	366 35	
Advertising	46 50	
Hardware	15 00	
Watchman	180 65	
	<u> </u>	<u> </u>
	\$11,175 18	\$11,175 18

CONTRACTS.

J. M. Van Osdel	\$ 2,000 00	
Kavanagh & Merriman	87,943 54	
Clancey, Webb & Co.	1,900 00	
Carter Brothers	65,000 00	
Streeter & Eddy	11,500 00	
Heeny & Campbell	17,413 48	
J. W. Newell	1,000 00	
A. Knisely	5,000 00	
Richard Riley	2,244 00	
Peterson & Patterson	200 00	
	<u> </u>	<u> </u>
	194,201 02	194,201 02
Total cash expenditures	<u>\$205,376 20</u>	<u>\$205,376 20</u>

CITY HALL FUND.

TRIAL BALANCE, LEDGER, BOARD OF PUBLIC WORKS, MARCH 31, 1870.

	<i>Dr.</i>	<i>Cr.</i>
City Hall Funds in hands of City Treasurer	\$45,866 70	
City Hall Bonds		\$327,000 00
Discount on City Hall Bonds.....	17,417 95	
City Hall miscellaneous expense.....	14,350 93	
N. P. Loberg, Contractor.....	42,500 00	
L. H. Boldenweck, "	108,500 00	
Rose & Chapman, Architects	7,500 00	
Allen & Bartlett, Contractors	9,750 00	
F. Letz & Son, "	47,000 00	
Walworth, Twohig & Furze, "	21,540 00	
J. Hogan, "	6,479 83	
A. Knisely, "	3,294 59	
R. M. Welch, "	2 000 00	
Clark, Raffin & Co., "	800 00	
	\$327,000 00	\$327,000 00

CITY HALL FUND.

STATEMENT showing the Cash Receipts and detailed account of work done during the year ending March 31st, 1870.

RECEIPTS.

Proceeds of 267 Municipal Bonds\$251,286 31

EXPENDITURES.

MISCELLANEOUS EXPENSES.

Cash Payments. True Cost.

Gas	\$601 69		
Coal	1,420 90		
Extension of pipe	527 28		
Labor	280 58		
Sewer pipe	273 22		
Engraving bonds	112 00		
Vault lights	118 66		
Salary of engineer and fireman	993 00		
Express on bonds.....	88 00		
Felting pipe.....	23 75		
Stationery.....	3 50		
Cement	27 68		
Interest on loan.....	60 16		
Advertising	65 00		
Caulking walks.....	60 32		
Hardware.....	95 04		
Hose.....	12 55		
		\$4,763 33	\$4,763 33

CONTRACTS.

N. P. Loberg, Contractor.....	\$37,500 00		
L. H. Boldenwiek "	103,500 00		
Rose & Chapman, Architects	5,500 00		
Allen & Bartlett, Contractors.....	9,750 00		
F. Letz & Son, "	47,000 00		
Walworth, Twohig & Furse, Contractors.	21,540 00		
Joseph Hogan, Contractor.....	6,479 83		
A. Knisely	3,294 59		
R. M. Welch	2,000 00		
Clark, Raffin & Co.....	800 00		
		237,364 42	237,364 42
Total cash expenditures.....		\$242,127 75	\$242,127 75

LA SALLE STREET TUNNEL FUND.

TRIAL BALANCE, LEDGER, BOARD OF PUBLIC WORKS,
MARCH 31ST, 1870.

	<i>Dr.</i>	<i>Cr.</i>
La Salle St. Tunnel Fund.....	\$89,991 22	
Miscellaneous expense	12,060 23	
R. E. Moss, Contractor	45,098 66	
Discount on La Salle St. Tunnel Bonds	7,849 89	
La Salle St. Tunnel Bonds		\$155,000 00
	\$155,000 00	\$155,000 00

LA SALLE STREET TUNNEL FUND.

STATEMENT of the Cash Receipts and detailed account of work done under the charge of the Board of Public Works, during the year ending March 31, 1870:

RECEIPTS.

Proceeds of 155 Municipal Bonds	\$147,150 11	
Contract forfeit.	200 00	
		\$147,350 11

EXPENDITURES.

Cash Payments. True Cost.

Sewer pipe	\$1,350 00	
Assistant Engineer	1,200 00	
Inspectors	2,043 92	
224,172 lbs. asphalt	5,716 39	
Labor	690 00	
Draughtsman	699 96	
Engraving bonds	130 00	
Lamps	9 20	
Advertising	100 45	
Stationery	23 00	
Printing	60 00	
Hardware	11 85	
Cement	109 13	
Express on bonds	100 00	
Nails	7 33	
Coal	9 00	
	\$12,260 23	
DEDUCT—		
Amount received for contract forfeit.	\$200 00	\$12,060 23
CONTRACT.		
R. E. Moss, on account	45,098 66	45,098 66
Total cash expenditures	\$57,358 89	\$57,158 89

WASHINGTON STREET TUNNEL FUND.

STATEMENT showing the Cash Receipts and detailed account of
work done under the charge of the Board of Public Works
during the year ending March 31st, 1870.

RECEIPTS.

Proceeds of 117 Municipal Bonds.....\$110,707 57

EXPENDITURES.

	<i>Cash Payments.</i>	<i>True Cost.</i>
Rent of Dock.....	\$325 00	
Coal.....	81 00	
Tape.....	7 20	
Advertising.....	54 38	
Hardware.....	49 55	
Assistant Engineer.....	452 58	
Draughtsman.....	233 32	
Repairing gas pipe.....	365 45	
Iron fence... ..	1,160 74	
Painting.....	135 02	
Pay-roll Inspectois.....	777 78	
Repairing dock.....	397 66	
Cement.....	186 80	
Paint brushes.....	7 20	
Gas fitting.....	22 85	
Miscellaneous cash items.....	33 54	
Ladder.....	5 00	
Building sewer torn up for construction..	1,668 75	
Labor.....	1,114 30	
Plumbing.....	794 26	
Damages.....	7,406 00	
Repairing dock.....	139 50	
Labor at shop.....	238 79	
Lumber.....	65 59	
One dump cart.....	125 00	
Engraving.....	368 00	
Pumping engine and fixtures.....	2,592 36	
Brick.....	1,488 70	
	\$20,296 32	\$20,296 32

CONTRACT.

Paid James K. Lake & Co., in full.....	61,832 46	61,832 46
Total cash expenditures.....	\$82,128 78	\$82,128 78

RECAPITULATION.

RECEIPTS.

Water Fund	\$1,087,079	27
Sewerage Fund	1,167,479	97
River Improvement Fund	953,252	10
City Appropriation Fund	1,685,734	92
City Bridewell Fund	206,827	57
City Hall Fund	251,286	31
LaSalle Street Tunnel Fund	147,350	11
Washington Street Tunnel Fund	110,707	57
Sewerage Sinking Fund	74,954	44
Total receipts	—————	\$5,684,672 26

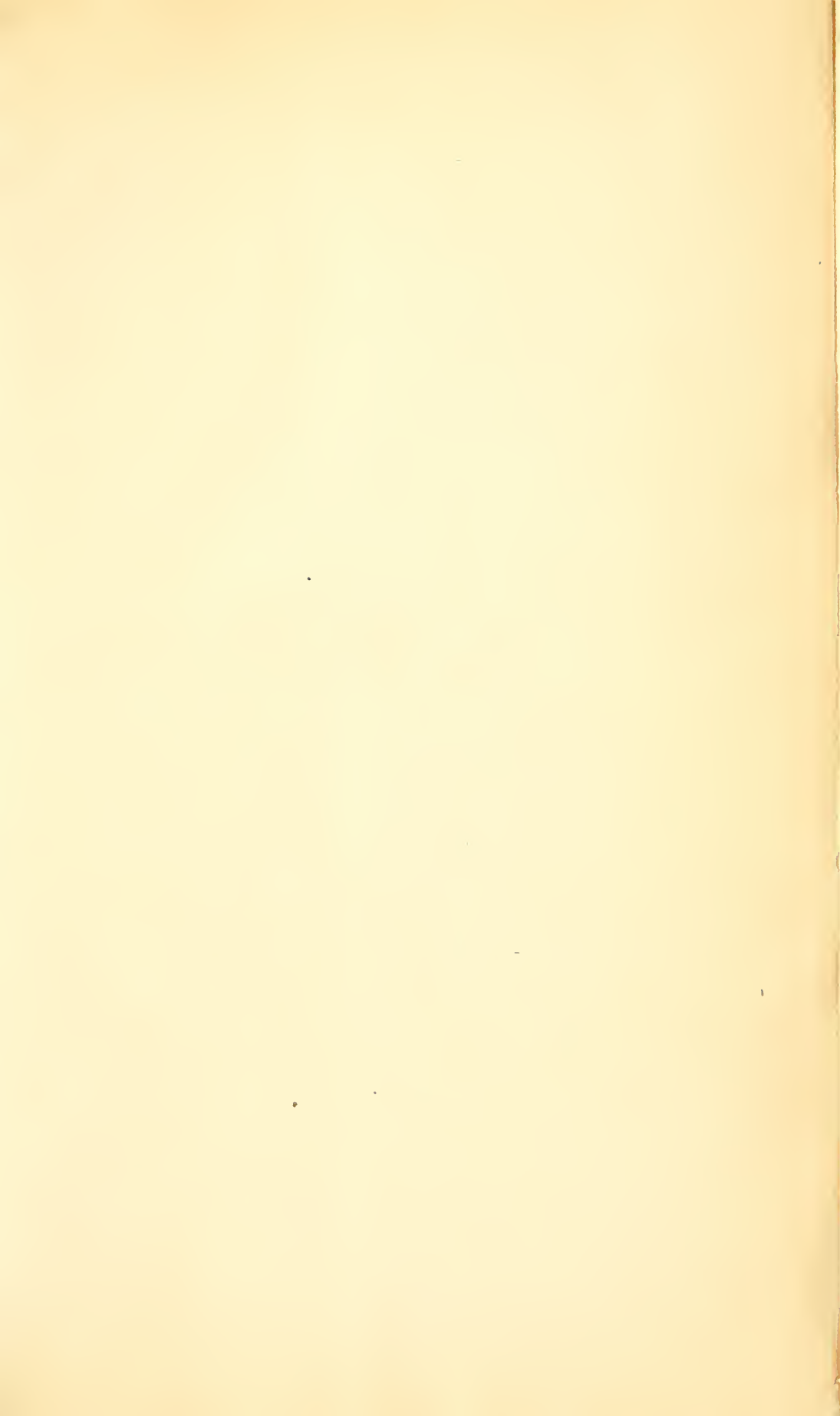
EXPENDITURES.

Water Fund	\$1,026,021	32
Sewerage Fund	1,155,189	56
River Improvement Fund	771,517	55
City Appropriation Fund	1,452,942	56
City Bridewell Fund	205,376	20
City Hall Fund	242,127	75
LaSalle Street Tunnel Fund	57,358	89
Washington Street Tunnel Fund	82,128	78
Sewerage Sinking Fund	37,523	18
Total expenditures	—————	\$5,030,185 79

Respectfully submitted,

E. M. JOHNSON,
Bookkeeper.





TD
25
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9th (1870)
RARE
BK RM

