THE BOARD

or

BROOKLYN PARK COMMISSIONERS.

1870.

JAMES S. T. STRANAHAN,  
JOHN H. PRENTICE,  
EDWARDS W. FISKE,  
WILLIAM MARSHALL,  
ABIEL A. LOW,  

SEYMOUR L. HUSTED,  
ABRAHAM B. BAYLIS,  
STEPHEN HAYNES,  
ISAAC VAN ANDEN,  
MARTIN KALBFLEISCH, Ex-of.

President,  
JAMES S. T. STRANAHAN.  

Secretary,  
JOHN H. PRENTICE.  

Comptroller and Counsel,  
JOHN N. TAYLOR.  

Landscape Architects and Superintendents,  
OLMSTED, VAUX & CO.  

Engineer-in-Charge,  
JOHN BOGART,  

Assistant Engineer,  
JOHN Y. CUYLER.  

Clerk,  
FRANCIS G. QUEVEDO.
STANDING COMMITTEES OF THE BOARD.

EXECUTIVE COMMITTEE:
JOHN H. PRENTICE,  
SEYMOUR L. HUSTED,  
ISAAC VAN ANDEN.

FINANCE COMMITTEE:
ABRAHAM B. BAYLIS,  
MARTIN KALBFLEISCH,  
ABIEL A. LOW,  
WILLIAM MARSHALL.

AUDITING COMMITTEE:
ISAAC VAN ANDEN,  
JOHN H. PRENTICE.
REPORT
OF THE
BROOKLYN PARK COMMISSIONERS.

To the Honorable the Mayor and Common Council of the City of Brooklyn:

The Brooklyn Park Commissioners herewith submit a Report of their proceedings for the year 1870, including a detailed statement of their receipts and expenditures for the same period.

It will be remembered, that in their last Report, and indeed, in several prior Reports, the Commissioners urged the propriety, if not the necessity, especially in view of the City's present extended financial engagements, of selling a portion of that section of Park land which lies east of Flatbush avenue, and which, in their judgment, it was not expedient to improve for Park purposes. A large majority of our tax-payers concurring in the recommendation, application was made to the Legislature to extinguish the Park easement to which the land was then subject, and authorize its sale for the benefit of the City. An act was accordingly passed on the 23d of April, 1870, directing the Commissioners to contract and sell, on behalf of the City, at public auction, and upon such terms and conditions as they should deem expedient, all that part of the Park which lies east of
Flatbush avenue, excepting and reserving such lands around the Reservoir, and along the avenue, not less than two hundred and fifty feet in width, as the Commissioners should think it desirable to retain for public use.

The act further directed that all moneys received from such sales, should be paid over to the Commissioners of the Sinking Fund, for the redemption of the bonds issued by the City for the purchase and improvement of the Park. And as preparatory to the making of sales, the Commissioners were authorized to regulate, drain, and grade the lands proposed to be sold, and to lay out such streets and avenues thereon as they might think proper, and further to improve the land in their discretion, at a total expense not exceeding one hundred thousand dollars.

The legality of this act of the Legislature, was, however, questioned by some of our citizens, who urged that the City had no salable interest in the land; forasmuch as it was taken for the purposes of a park only, and that if it ceased to be used as such, the right of possession would at once revert to its original owners. They further urged, that in any event the land had been pledged to the bondholders, for the payment of the bonds issued by the City for its purchase, and was also virtually pledged for Park purposes to the owners of adjacent property, whose taxes had been largely increased by means of the improvement of the Park. And for these reasons they claimed that the City could not make a good title to the land in the event of a sale.

Notwithstanding these suggestions, and with a view of testing, at as early a day as practicable, the validity of this act of the Legislature, and the right of the City to make an absolute sale of the property, the Commissioners at once proceeded to sell a portion of the land at public auction.
The purchaser, however, acting under the advice of counsel, subsequently declined to accept a deed, or to pay the purchase money. Whereupon an action to enforce a specific performance of the contract of sale was commenced in the Supreme Court, and a case having been made thereon, was speedily submitted to the General Term, and judgment rendered in favor of the Commissioners. The opinion of the Court, as delivered by the Hon. Justice Gilbert, and conurred in by all the other judges, will be found appended to this Report. The purchaser immediately appealed to the Court of last resort, but the Commissioners entertain no doubt that the judgment of the Supreme Court, at least so far as relates to the right of the City to sell and convey the land in fee, will be fully sustained by the Court of Appeals.

The only impediment suggested by a more matured consideration of the questions involved in the case, and developed by the discussion in the Court below, refers to the technical lien which the bondholders have to the same extent upon all Park lands, and which may cast a shade—not upon the City's title, for this is unquestionable, but upon its ability to extinguish the lien, by any shorter or more direct method than that which has been provided by the law creating it.

The Commissioners, in a former Report, expressed the opinion that the interests of the bondholders would be effectually protected, by placing the proceeds of sale in the hands of the Commissioners of the Sinking Fund, for the redemption of these bonds, and they are still of the same opinion. But if a strict construction of this provision of law shall prevail, it may be proper to consider whether any, and if so, what importance is to be attached to the objection, and whether it is likely to operate injuriously upon the market value of the property when offered for sale.
In the first place, it is to be observed that all the City’s property, including its small parks, City Hall, schools, and engine houses, is pledged for the payment of its debts, including the Park debt, but that, of course, the pledge can never be enforced so long as the City is solvent, and facilities for taxation are not withheld. Next, the law creating the Park debt provides a mode of gradual payment by annual tax. This provision will certainly extinguish the debt at maturity, and it can not, moreover, upon constitutional principles, be repealed, or in any manner interfered with so long as the debt, or any part of it, exists. And lastly, if we may be allowed to suggest so improbable an event as the City’s inability to discharge its legal obligations, it is certain that when a creditor proceeds to foreclose his lien, he is always obliged, upon well-established principles of equity, to exhaust his remedy against so much of the pledged property as remains unsold, before he will be allowed to resort to that which the pledger has previously disposed of. Supposing, then, the bondholders lien upon property on the east side of Flatbush avenue to remain after a sale has taken place, they will, in case they shall be obliged to foreclose it for the payment of their claim, be compelled to sell all the small parks, with more than five hundred acres of valuable improved land on the west side, in addition to the large reserved section bordering on the east of the avenue, before they will be allowed to touch any of the residue which shall in the mean time have been sold by the Commissioners.

With so complete a protection to the purchaser, independent of the City’s covenant of indemnity to be embraced in the conveyance, the Commissioners do not apprehend any difficulty in making a fair sale of the property, after they shall have matured a plan for its improvement. Nor do they believe that so unsubstantial and technical an objection
DESIGN FOR SHELTER PROPOSED TO BE ERECTED ON THE CARRIAGE CONCOURSE,
OLMSTED, VAUX & CO., LANDSCAPE ARCHITECTS.
will operate to the prejudice of the sale in the estimation of any considerate person.

In their last communication to the Common Council, the Commissioners stated that they had reached the limit of expenditure authorized by law for Park improvement, and that a considerable portion of the Park, mainly that which had recently been acquired, yet remained to be improved. This suggestion having been made to the Legislature, further facilities were at once granted for carrying on the work, by the passage of an act authorizing an expenditure of five hundred thousand dollars in each year, for four successive years. As soon as the requisite municipal action could be obtained under this law, and funds necessary for the purpose were secured, active operations on the Park were resumed, and have since been vigorously prosecuted. But it was not until the season had advanced far beyond the usual time for commencing spring work, that the Commissioners were enabled to command sufficient means to justify them in proceeding with the rapidity which had hitherto characterized their movements.

A large amount of work, however, has been done during the year, and Prospect Park is fast verging to completion. The coming season will, in all probability, see the Lake, with the entire drive around its margin, finished; an ornamental, as well as useful shelter erected upon the carriage concourse; and an enlarged and much improved pedestrian concourse, with seats, for the convenience of visitors, on the eastern side of the Lake. For a full detail of operations upon the several parks under the charge of the Board, up to the close of the year, with a description of several interesting works now in progress thereon, reference is respectfully made to the subjoined reports of our Landscape Architects and Engineers.
The number of those who resort to the Park increases faster than it seems possible to extend facilities for their reception, the ratio of increase being evidently greater than the City's gain in population. The Commissioners, however, believe that after the proposed rides, drives, and walks have been fully carried out, and thrown open to public use, ample accommodation for locomotion to all parts of the Park will be afforded for visitors, and the increased freedom of circulation thus obtained will obviate the necessity of those crowds which are now occasionally found in certain localities. To the greater number of those who frequent the Park nothing would seem to be more desirable, than simple, straightforward exercise in the open air, and thus far the great effort has been to facilitate free and unobstructed movement everywhere over the Park domain, reference being at the same time had, to the proper development of those landscape conditions which would render such movements interesting. Next to this in importance, the Commissioners have ranked such provisions as would enable feeble persons, convalescents, and especially mothers with children, to remain for considerable periods in the open air, under comfortable and quieting conditions; and some arrangements to this end, of which the Dairy Cottage is the center, are now well advanced, and are expected to be opened next summer.

The opportunity afforded by the Park for general social reunion—although no part of it yet open to the public, has been expressly adapted to the purpose—is already highly appreciated by a large body of our citizens. Better provision, however, for coming together, and for meeting and recognizing friends, is regarded by the Commissioners of equal importance when they take into consideration the true uses and objects of a public park. To accomplish this purpose, arrangements which include a promenade concert
ground on the shore of the Lake, are now in progress, and will be found fully detailed in the report of the Landscape Architects, before referred to.

In estimating the capacity of the Park to meet the probable requirements of the future population of Brooklyn, the proposed improvement of the streets which surround and form the boundary lines of the Park has not been overlooked. Provision has accordingly been made for widening each of these streets, so as to form, when completed, a continuous avenue one hundred feet wide around the whole circuit of the Park, with a shaded walk thirty feet wide on the side adjacent to the Park, and extending in length to a distance of five miles.

An appropriation of twenty-five thousand dollars was authorized last spring by the Legislature, for the improvement of Tompkins Park, in a style corresponding with the other City parks. A plan for its improvement has been prepared and adopted, and is now in the course of execution. The design, with a special report of our Landscape Architects relating thereto, will be found appended to this Report. It embraces a fountain, besides other distinctive features of a novel character. A large amount of filling was required to bring the surface of this Park up to the required grade, but the work is rapidly progressing, and the Commissioners hope soon to present Tompkins Park to the residents of that rapidly growing section of our City, in at least as good a condition as any of the other parks under their charge.

With respect to the several street openings and improvements necessarily connected with the improvement of the Park, and which have from time to time been placed under the direction of the Commissioners, they have further to
report that immediately after the confirmation of the assessment for opening Sackett street was complete, the grading of that rugged and most forbidding of all our streets was put under contract, and the work is now nearly finished. As soon as the deep filling which was required for this street shall have sufficiently settled, to admit of the construction of the central roadway, with the parallel traffic roads and other improvements contemplated by the Commissioners, their design in reference thereto will be fully carried out, and they expect in a short time to be able to throw open to the public this great eastern Parkway, in a style corresponding with the importance to the City, of so grand a leading thoroughfare.

The southern Parkway, leading from the southwestern angle of the Park to the Fair Grounds, and ultimately to the ocean, is still in the hands of the Commissioners of Estimate and Assessment, but it is expected that their report will soon be ready for publication, and when this is confirmed, the Commissioners intend to open the drive without delay, and to continue its further improvement as rapidly as public emergency shall require.

The legal proceedings for the widening of the Coney Island road are not yet consummated. They have been tediously delayed by a litigation which involves the right of the City to be paid a reasonable compensation for the strip of land, twenty-five feet in width, which is taken from the Park for the widening of the road. The opponents of the City claim that she is entitled to a mere nominal award, while the Commissioners can see no good reason why the City should not receive the same compensation which every other owner is to receive for land taken for the widening. The same objection is raised by parties liable to be assessed
for the widening of Ninth avenue, Fifteenth street, and Franklin and Washington avenues, as well as for the laying out of Plaza street; and the decision of the question one way or the other will involve a difference to the taxpayers of our City of several hundred thousand dollars. The General Term of the Supreme Court has already decided in favor of the City, and the opinion of the Court, as delivered by the Hon. Justice Pratt, will be found hereto annexed; but the parties in interest being still dissatisfied, have carried the case to the Court of Appeals. A final determination of the question, however, must soon be reached in that Court.

The legal status of the Parade Ground, with the right of the general public to make use of the same, independently of the control of the county authorities, has recently received consideration from the same Court. This Court decided in a controversy which arose between the Park Commissioners and the County Supervisors, that although the legal estate in the Parade Ground is vested in the County of Kings, yet it is held in trust for public uses. That for all purposes of police and improvement, it is under the exclusive charge and control of the Commissioners, but that at all reasonable times, and subject to proper regulation, it should be open for ball-playing and for military parades, to visitors from all parts of the State; and that its use can not be confined to the residents of Kings County, as contended for by the Supervisors.

The Assessment Commissioners appointed for the purpose of charging a portion of the cost of the Park upon the adjacent land specially benefited by Park improvement, have not yet finished their arduous task, but are expected to have their report ready for confirmation at an early period. This assessment, it will be remembered, is to be collected as a
tax in annual installments, running through a series of twenty years, and will be received by the Commissioners of the Sinking Fund and held for accumulation to pay the Park bonds at their maturity. The Commissioners confidently believe that this fund, together with the proceeds of sales of land on the eastern side of the Park soon to be made, will, with proper management, be amply sufficient for the liquidation of the entire Park debt, without any resort to taxation, further than that which may be required to provide for current interest in the mean time.

The Comptroller's report of the financial condition of the Commission is also annexed, showing the particular items and objects of expenditure during the year. From this report it will be observed that the Maintenance Account is overdrawn to the extent of something over seventeen thousand dollars, in consequence of the insufficient requisition for maintenance which was made upon the Joint Board last year. Such changes, however, have been made in the Executive Department of the Commission as will enable the Commissioners to provide for the deficit out of the current year's allowance, and at the same time to guard against an overdraft in the future. The report also shows a balance in the hands of the Commissioners at this date to the credit of the General Construction Account, of ninety-nine thousand two hundred and ninety-two dollars and eighty-seven cents.

Dated December 31, 1870.

J. S. T. STRANAHAN,
President.

JOHN H. PRENTICE,
Secretary.

JOHN N. TAYLOR,
Comptroller.
AN ABSTRACT OF THE FINANCIAL STATEMENT
OF THE
BROOKLYN PARK COMMISSION,
FOR THE YEAR 1870.

CONSTRUCTION ACCOUNT.

Receipts.
The total receipts on account of Prospect Park during the year 1870, were:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance to the credit of this Park, January 1, 1870</td>
<td>$33,913.44</td>
</tr>
<tr>
<td>Received from the Comptroller of the City</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>&quot; rents of houses in the Park</td>
<td>$6,169.26</td>
</tr>
<tr>
<td>&quot; sales of wood, grass, etc.</td>
<td>$4,019.86</td>
</tr>
<tr>
<td>&quot; interest on bank balances</td>
<td>$2,839.28</td>
</tr>
<tr>
<td>&quot; Park pound</td>
<td>$372.10</td>
</tr>
<tr>
<td>&quot; water sold</td>
<td>$59.46</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>513,459.91</strong></td>
</tr>
</tbody>
</table>

Expenditures.
The total expenditures on this Park, for the same time, were:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid salaries, Comptroller, Superintendent, architects, and engineers</td>
<td>$23,736.20</td>
</tr>
<tr>
<td>&quot; surveyors, draughtsmen, and assistants</td>
<td>$13,334.20</td>
</tr>
<tr>
<td>&quot; laborers, mechanics, horses, and carts</td>
<td>$295,606.72</td>
</tr>
<tr>
<td>&quot; materials of construction, tools, etc.</td>
<td>$88,485.13</td>
</tr>
<tr>
<td>&quot; fitting up of offices, rent and insurance</td>
<td>$3,019.42</td>
</tr>
<tr>
<td>&quot; stationery, printing, and drawing materials</td>
<td>$2,840.74</td>
</tr>
<tr>
<td>&quot; trees, plants, and shrubs</td>
<td>$3,706.90</td>
</tr>
<tr>
<td>&quot; manure, and other fertilizers</td>
<td>$233.50</td>
</tr>
<tr>
<td>&quot; drainage pipe</td>
<td>$2,711.20</td>
</tr>
<tr>
<td>&quot; patent pavements</td>
<td>$7,462.56</td>
</tr>
<tr>
<td>&quot; water-pipe and hydrants</td>
<td>$1,977.98</td>
</tr>
<tr>
<td>&quot; legal expense for additional counsel</td>
<td>$4,965.93</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$448,080.48</strong></td>
</tr>
</tbody>
</table>

Balance to new account | $99,292.87

December 31, 1870.

JOHN N. TAYLOR,
Comptroller.
## Washington Park

The total receipts and expenditures on account of **Washington Park**, for the same time, were:

### Received

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>From City Comptroller</td>
<td>$79,655.00</td>
</tr>
</tbody>
</table>

### Expended

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount overdrawn January 1, 1870</td>
<td>$5,018.95</td>
</tr>
<tr>
<td>Paid surveyor and assistants</td>
<td>$648.63</td>
</tr>
<tr>
<td>&quot; materials of construction, and tools</td>
<td>$1,354.96</td>
</tr>
<tr>
<td>&quot; Scrimshaw pavement</td>
<td>$2,513.98</td>
</tr>
<tr>
<td>&quot; trees, shrubs, and plants</td>
<td>$1,995.00</td>
</tr>
<tr>
<td>&quot; on account of inclosing wall</td>
<td>$3,453.42</td>
</tr>
<tr>
<td>&quot; laborers, horses, and carts</td>
<td>$4,238.05</td>
</tr>
</tbody>
</table>

\[
\text{Balance to new account:} \quad 60,432.01
\]

\[
\text{Total:} \quad 60,432.01 + 19,222.99 = 79,655.00
\]

## Parade Ground

The total receipts and expenditures on account of the **Parade Ground**, during the year 1870, were:

### Received

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>From County Treasurer</td>
<td>$4,000.00</td>
</tr>
<tr>
<td>&quot; rent</td>
<td>$17.50</td>
</tr>
</tbody>
</table>

\[
\text{Total:} \quad 4,017.50
\]

### Expended

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paid surveyors and assistants</td>
<td>$55.33</td>
</tr>
<tr>
<td>&quot; materials of construction</td>
<td>$781.99</td>
</tr>
<tr>
<td>&quot; keepers, mechanics, laborers, and teams</td>
<td>$3,085.02</td>
</tr>
<tr>
<td>&quot; balance due for lodge and shelter</td>
<td>$2,350.00</td>
</tr>
<tr>
<td>&quot; trees and shrubs</td>
<td>$54.60</td>
</tr>
</tbody>
</table>

\[
\text{Total:} \quad 6,326.54
\]
MAINTENANCE ACCOUNT.

Received.

For the maintenance of all the City Parks for 1870 ........ $84,450 00

Expended.

<table>
<thead>
<tr>
<th>For</th>
<th>Prospect.</th>
<th>Washington</th>
<th>Carroll.</th>
<th>City.</th>
<th>City Hall.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roads ..........</td>
<td>$12,815 30</td>
<td>$85 05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walks ..........</td>
<td>460 48</td>
<td>84 97</td>
<td>$54 57</td>
<td>$33 34</td>
<td>$83 79</td>
</tr>
<tr>
<td>Structures .....</td>
<td>1,382 18</td>
<td>20 15</td>
<td>41 95</td>
<td>39 25</td>
<td></td>
</tr>
<tr>
<td>Plantations ...</td>
<td>16,747 64</td>
<td>2,212 90</td>
<td>328 10</td>
<td>6 80</td>
<td>139 17</td>
</tr>
<tr>
<td>Water ..........</td>
<td>1,921 61</td>
<td>3 44</td>
<td></td>
<td>1 00</td>
<td>2 00</td>
</tr>
<tr>
<td>Drainage ......</td>
<td>967 67</td>
<td>14 19</td>
<td>6 40</td>
<td>2 25</td>
<td></td>
</tr>
<tr>
<td>Ice ............</td>
<td>1,760 85</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tools ..........</td>
<td>1,000 05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keepers .. .....</td>
<td>32,324 62</td>
<td>2,179 12</td>
<td>963 67</td>
<td>1,047 25</td>
<td></td>
</tr>
<tr>
<td>General .......</td>
<td>5,755 92</td>
<td>177 33</td>
<td>11 26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total ..........</td>
<td>$75,136 32</td>
<td>$4,777 15</td>
<td>$1,405 95</td>
<td>$1,129 89</td>
<td>$224 96</td>
</tr>
</tbody>
</table>

Deficiency of maintenance in 1869 ......................... 18,817 73

$101,492 00

Received, 1870 ........................................... 84,450 00

Deficiency of maintenance for 1870 ......................... $17,042 00

December 31, 1870.

JOHN N. TAYLOR,
Comptroller.
AN ACT to authorize the improvement and sale of certain portions of Prospect Park, in the City of Brooklyn.

Chapter 373 Passed April 23, 1870; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The Brooklyn Park Commissioners are hereby authorized for, and in behalf of the City of Brooklyn, to contract and sell at public auction, at such times, and on such terms and conditions, as they shall deem expedient, all, or any part of the land within said Park which is bounded westerly by Flatbush avenue, northerly by Vanderbilt avenue, easterly by Warren street and Washington avenue, and southerly by the Town of Flatbush; excepting and reserving therefrom such lands around the Reservoir, and along the line of Flatbush avenue south-easterly from said Reservoir, not less than two hundred and fifty feet in width, as shall, in the judgment of said Commissioners, be considered desirable to be retained for public use.

SEC. 2. For any lands which the said Commissioners shall sell, they may receive in part payment the bonds of the purchaser, for such portion of the purchase money, secured by mortgage on the land sold, as they may deem expedient. And whenever any such sales shall have been made, the Mayor, Comptroller, and Clerk of the City of Brooklyn, shall, at the request of the said Commissioners, affix the corporate seal to good and sufficient deeds of conveyance, with or without covenants of warranty, and such other covenants as the said Commissioners shall from time to time require and prepare; and the said Commissioners shall cause the said deeds to be delivered to the respective purchasers upon the receipt of the consideration stipulated to be paid therefor.

SEC. 3. All moneys that shall be received upon such sales, after deducting the expenses of sale and conveyancing, with the amount hereinafter authorized to be borrowed, with interest, shall be forthwith paid over by the said Park Commissioners to the Commissioners of the Sinking Fund of the said City, to be by them held as part of the general fund created, and to be created, for the redemption, according to their legal priorities, of all bonds issued for the payment of lands taken for Prospect Park; and within four years after the passage of this act,
the said Commissioners shall hand over to the Commissioners of the Sinking Fund all proceeds of sales, with all bonds, mortgages, and other papers and documents appertaining thereto.

SEC. 4. Repealed.

SEC. 5. Preparatory to the making of the said sales, the said Park Commissioners are authorized to regulate, drain, and grade the lands proposed to be sold, and to lay out streets and avenues over or upon the same, of such width, and in such direction, and with such carriage-ways, sidewalks, and areas, as they may deem expedient. They may also grade, pave, curb, and gutter any of the streets or avenues which they shall so lay out, and plant shade trees thereon, in their discretion; but the expense of such measures shall not exceed, in the aggregate, the sum of one hundred thousand dollars. And after they shall have laid out the said streets and avenues, they shall cause a suitable map thereof to be made and filed in the office of the Street Commissioner of said City; and the Commissioners' map of the said City shall thereupon be altered to correspond therewith. The Park Commissioners may borrow, from time to time, such sums of money, not exceeding one hundred thousand dollars in amount, as they may deem necessary to put the said land in proper condition for sale, and to regulate and improve the said streets as above specified, and shall repay the same, with interest, out of the proceeds of said sales.

SEC. 6. This act shall take effect immediately.

SUPREME COURT—SECOND JUDICIAL DEPARTMENT.

THE BROOKLYN PARK COMMISSIONERS

against

JAMES ARMSTRONG.

By the Court:

GILBERT, J.—The parties having agreed upon a case containing the facts upon which the controversy depends, have presented a submission of the same to this Court for determination, pursuant to Section 372 of the Code of Procedure.
The facts are these: By the Act of the Legislature (Chapter 466, Laws of 1859), Commissioners were appointed to select and locate grounds for a park, in or adjacent to the City of Brooklyn, and to report to the next Legislature. They made their selection, and reported to the Legislature in 1860, which passed an act (Chapter 488, Laws of 1860), amended in 1861 (Chapter 340), by which a Board of Park Commissioners was appointed, and a tract of land lying on both sides of Flatbush avenue, was declared from and after the passage of the act to be deemed to have been taken by the City for public use, as and for a public park, and to have been opened as a public place, with the same effect as if the whole of it had been taken and declared open under the provisions of the charter of the City (Chapter 144, Laws of 1850), except as otherwise provided by the act. Commissioners of Estimate and Assessment were to be appointed by the Supreme Court, in the manner provided by the act relative to Fort Greene (Chapter 142, Laws of 1847), who were directed to "make just and true estimate of the value of the lands, and of the loss and damage to the respective owners, lessees, parties, and persons respectively entitled thereto, or interested in the same, together with the tenements, hereditaments, and appurtenances, privileges, or advantages to the same belonging, or in any wise appertaining, by and in consequence of relinquishing the same to the said City" (Sec. 4), which amounts were to be due and payable immediately upon the confirmation of said report. (Sec. 6.) The report was declared to be final and conclusive upon the City, the owners, and all other persons, and upon the confirmation of any such report, and upon payment being made to the owners of the lands in said report mentioned, or upon their assent thereto by deed duly executed, the said lands were "to vest forever in the City of Brooklyn for the uses and purposes of this act mentioned." (Sec. 8.) Bonds of the City were to be issued to pay the awards, and the property of the City, and the lands taken by virtue of the act, were specifically pledged for their payment. In 1865 an act was passed (Chap. 603), entitled "An Act to change the boundaries of Prospect Park, in the City of Brooklyn," authorizing the Commissioners to acquire, for the purposes therein mentioned, an oval-shaped piece of ground for an entrance to the Park. (Sec. 1.) It provided that this land, as well as all other lands mentioned in the Act of 1861, should, "from and after the passage of this act, be deemed to have been taken by the City as and for a public park, and the Commissioners' map shall be altered to correspond therewith." (Sec. 2.) Commissioners were to be appointed as before, to estimate the value of this land, "and also all the estate, right, title, and interest
in all other lands heretofore taken by the Act of 1861, remaining in the
owners thereof, and the loss and damages to be sustained by them in
consequence of their relinquishing the same to the City.” (Sec. 3.)
“And the title of the lands mentioned in (their) such report shall,
after such confirmation, vest forever in fee simple absolute in the said
City of Brooklyn, and the said lands shall thenceforth form part of
Prospect Park.” (Sec. 5.) For the payment of the awards, and the re-
demption of the bonds issued under this act and the Act of 1861, “all
the lands embraced within the boundaries of the said Park, including
those now taken, are hereby specifically pledged.” (Sec. 6.) That part of
the land lying east of Flatbush avenue was never used or improved as
a park, and has laid waste till the present time. In 1870, an act was
passed (Chap. 373), entitled “An Act to authorize the improvement and
sale of certain portions of Prospect Park, in the City of Brooklyn.”
It authorized the Commissioners for and in behalf of the City to sell
the land east of Flatbush avenue (Sec. 1), by deeds with or without
warranty, which deeds should vest in the guarantees an absolute title
in fee simple. (Sec. 2.) The proceeds of sales to be devoted to the sink-
ing fund for the redemption of Park bonds. (Sec. 3.) After deeds are
given, “all lien, rights, and claims, by way of easement or otherwise,
into, over, or upon the lands, * * shall be terminated and extin-
guished.” (Sec. 4.) In pursuance of this act, the Commissioners sold
one lot to the defendant, who refuses to take the title, alleging that the
Act of 1870 is unconstitutional, and that neither the City nor the
Commissioners can give a valid title to the fee, free from all incum-
brance.

The question to be determined is whether a conveyance to the defend-
ant of the premises in question, executed in pursuance of the said Act
of 1870, will vest in him a good title in fee thereto.

It is objected that an absolute title in fee simple was not acquired
under the Act of 1861, and that the Act of 1865 violates Sec. 16 of
Article 3 of the Constitution.

We do not deem it necessary to decide upon the validity of the last-
named act, for we are clearly of opinion that the language of the Act
of 1861 imports a title in fee simple. This act makes provision for
ascertaining the value of the lands taken in the mode provided by
the Constitution, for the payment of such value to the former owner,
and then declares that thereupon said lands shall vest forever in the
City of Brooklyn. Full effect can not be given to the words "shall vest for ever" without divesting the entire estate of the former owner and vesting it in the City of Brooklyn. And such, we think, was the intention of the Legislature. Where an individual buys land and pays for it, he becomes entitled to a conveyance in fee simple, and we can perceive no good reason why the same effect should not be given, to a purchase made on behalf of the State. While, therefore, the private interest of the citizen is never to be sacrificed to a greater extent than is necessary to secure the particular public object, yet the State is considered in all such transactions as an individual treating with an individual for an exchange.

All that the Legislature does is to oblige the owner to alienate his property for a reasonable price. The constitutional restriction upon the power of the Legislature on this subject, at most only prohibits a taking of it for private use, and requires a just compensation to be made. But it contains no restriction whatever, express or implied, upon the power of the Legislature to decide whether a necessity for taking the property exists, and if land is to be taken, what estate in it shall pass. As was said by Chapman, C. J., in Dingly vs. City of Boston, 100 Mass., 560: "In the taking of other property, no one would doubt that an absolute title might be acquired. If, for example, in time of war, Government were to take timber for a ship of war, or horses for the army, and pay for them, no one would suppose that the owner could reclaim his property after the war was over, or that the Government, having ceased to use it, could not sell it and give a good title to it." And yet the provision of the Constitution on this subject applies to all property alike, and makes no distinction between land and chattels. Whether an absolute or qualified title has been acquired, therefore, must be determined by a construction of the legislative act. We have already expressed the opinion that the Legislature intended the City to acquire, and that it did acquire a fee simple, absolute in the lands taken for the Park. It follows, that the Legislature may authorize a sale, or any other disposition of the lands, as the public welfare or convenience may demand. They certainly have as complete a dominion over property belonging to the State as any private owner has over property owned by himself. The right of alienation is an inseparable incident of every ownership.

There is no ground for saying that the case shows an attempt to transfer private property from one man to another. When the property
was taken, it was acquired in good faith for a legitimate public use. The Legislature had the unquestioned right to create a large or a small Park, and to take as much land as they deemed necessary. Their right to diminish the size of the Park, and to sell land no longer needed, whenever the public interest will, in their judgment, be promoted by it, is also unquestionable. The case shows such a public exigency, and we have no doubt of the power of the Legislature to meet it by authorizing a sale of any part of the land originally taken.

Indeed, the question of the power of the Legislature to acquire an absolute estate in land, and to sell the same when no longer needed for public use, can not now be considered an open one in this State. (Heyward vs. the Mayor, 3 Seld., 314. Rexford vs. Knight, 11 N. Y. R., 314.)

It only remains to notice one other objection taken by the defendant, which relates to the effect of a pledge said to be contained in the Act of 1861, of the lands authorized to be taken, for the payment of the bonds issued for the purchase of said lands. It is claimed on behalf of the defendant that it creates a contract between the public and the bondholder, the obligation of which the Act of 1870 seeks to impair, and, that, therefore, the latter act is void by reason of that provision of the Constitution of the United States which prohibits any State from passing any law impairing the obligation of contracts. The answer to this is that no contract was created. The Act of 1861 is merely restrictive of the corporate power of the City of Brooklyn in respect to the lands so taken and other property, and in no sense affects the power of the Legislature over them.

Upon the whole, we are of opinion that the plaintiffs are entitled to judgment.
NINTH AVENUE WIDENING.

SUPREME COURT—GENERAL TERM—JUDGE PRATT.

The General Term of this Court, at the last session thereof, in the case of the Park Commissioners against Armstrong, held that the fee of the land included in the Park became vested in the City of Brooklyn, under Chapter 340 of the Laws of 1861.

The Act of May 7, 1869, directs Ninth avenue to be widened so as to include a portion of the land included in the Park.

By Section 2 of said act the Commissioners of Estimate and Assessments are directed to estimate the damage and expense of such widening, together with the amount of damages sustained by owners of land so taken.

It having been settled that the City of Brooklyn is the owner, for the purposes of a park, of the land in question, it only remains to determine whether the Commissioners of Estimate have adopted an erroneous rule in making their estimate.

The taking of this land for the use contemplated was probably considered by the Legislature as imposing upon it a perpetual easement, and rendering it valueless to the owner (the City of Brooklyn) as a park, and hence the Legislature provided that the damage to the owner should be estimated and paid.

I can not perceive upon what ground it can be claimed that the estimate is erroneous. It does not appear that the land taken will not compare favorably in value with any included in the Park, and taking the whole Park at its cost, we find that the quantity taken here leaves the same proportion to the whole Park that the estimated damages bears to the whole price paid. If, then, the Legislature considered that the easement was to be perpetual, so as to forever divest the City of the
use of this land as a park, there can be no error in the estimate as made up by the Commissioners.

Suppose a railroad company should hereafter take proceedings to acquire the fee of this land, would not the Courts hold that the damages should be nominal to the owner, it being already burthened with the easement of a public street?

Although the nominal fee is not taken from the City by this proceeding; yet its whole value is destroyed, except for a nominal amount, so that the City only obtains in damages what the land originally cost.

It will be observed that the Statute of 1869 requires the damages to the owners to be estimated, and it may well be, that, considering the nature and extent of the easement, the damages awarded or estimated are the full sum the land originally cost. At all events, the amount was vested in the discretion of the Commissioners.

It is immaterial to consider whether this law was an attempt on the part of the Legislature to exercise the right of eminent domain. Concede that it was not, yet the act is not invalid. The Legislature had previously vested the fee of this land in the City of Brooklyn. By the act in question, it is provided that a certain portion of it should be taken for the use of the general public; that the owners (the City of Brooklyn) should be paid the amount of damages as estimated by a commission provided for in said act; and that two-fifths of said damages should be paid by parties owning land on the opposite side of the street. It was competent for the Legislature to do this under its power of taxation.

It is claimed by the appellants that the terms of the act are answered by its application to Fifteenth street. But this is answered by the terms of the act itself (Section 4), wherein it is careful to provide that three-fifths of the expense and damage to be caused by the widening Ninth avenue should be assessed upon the Park side.

(See also Section 11, page 1,106, R. S. Banks and Brothers, 5th ed., Vol. 3.)

But the act in question went further than to provide for an award of damage to the owner of the fee. It provided that said Commissioners should assess the damages that might be sustained by any person affected by such taking of land.
The Act of 1861, which authorized the original acquisition of the land by the City, authorized the City to issue bonds to raise money to pay for the land, and created a sinking fund for the redemption of said bonds.

Section 12 of that act also pledged the land widened to the Park for the payment of the bonds to be so issued. Two acts were afterward passed in 1868, Chapters 314 and 419 of the Laws of that year, pledging in different forms the land included in the Park for the payment of bonds issued for its extension and improvement. These laws, taken together, included all the land taken for the widening of Ninth avenue.

At the time of the passage of the Act of May 7, 1869, bonds were outstanding that had been issued under these previous acts.

The Commissioners construed the act so as to give effect to the words "all other persons affected thereby," and while they in form awarded the damages sustained to the owner, they added the words "The Commissioners of the Sinking Fund of the City of Brooklyn, to be applied to the redemption of Park bonds."

This was a construction of the act in harmony with all the previous legislation on the subject, and gave effect to all the provisions it contained.

It was immaterial how they designated the estate taken, so long as it does not appear that any erroneous rule controlled them in estimating the damages.

I can not perceive that the Commissioners have erred in any material respect. The act plainly required that Ninth avenue should be widened; that the damages for such widening should be estimated and awarded to the owner, and that two-fifths of the amount should be borne by the land on the opposite side of the street, and the City of Brooklyn being such owner, and the land being under this act substantially taken, the Commissioners could not have done less than award the sum they did.

The order appealed from is affirmed with costs.
AN ACT to lay out, open, and improve a street in the Plaza of Prospect Park, in the City of Brooklyn.

Passed May 3, 1870; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. The Brooklyn Park Commissioners are hereby authorized and directed to lay out a public street, eighty feet wide, within the Plaza of Prospect Park, in the City of Brooklyn, commencing at the westerly corner of Ninth avenue, at its junction with the said Plaza, and running thence northerly, easterly, and again southerly, around the circumference of the said Plaza, and terminating at the junction of the said Plaza with Flatbush avenue; and the street so described shall be laid down upon and form part of the Commissioners' map of the City of Brooklyn.

SEC. 2. No building shall at any time be erected upon any lot of land facing on the said Plaza street, unless it be constructed with brick, stone, or iron, at least forty feet high from sidewalk to cornice, with metallic or slate roof. Nor shall there be at any time erected or carried on upon any of said lots, any slaughter-house, tallow-chandlery, furnace, foundry, nail or other factory, or any manufactory for making starch, glue, varnish, vitriol, oil or gas, or for tanning, dressing, repairing or keeping hides or leather, or any distillery, brewery, or sugar-bakery, lime kiln, railway or other stable or depot, or any manufactory, trade, or business which may be in any wise dangerous, noxious, or offensive to the neighboring inhabitants. And the said street shall include a sidewalk, twenty-five feet wide, to be laid out adjoining the houses to be built thereon, ten feet in width of which shall be allowed to the owners or occupants of said houses adjoining their premises for court-yards or areas, within which to erect porches or stoops to their houses, provided they will inclose such court-yards or areas with good and sufficient iron fences, not exceeding five feet high, and of a pattern to be approved of by said Commissioners.

SEC. 3. The said Park Commissioners are hereby also directed to take proceedings within sixty days after the passage of this act, to open, grade, and otherwise improve the said street; and, in order to determine the amount to be paid to the owners of the lands and tenements required to be taken for the purposes of this act, they shall first fix a
district of assessment, beyond which the property to be benefited by the said opening, as well as the subsequent improvement thereof, shall not be assessed to defray the expenses thereof; they shall then apply to the Supreme Court, at a special term thereof, to be held in the Second Judicial District, upon a notice to be published ten days consecutively in two newspapers printed and published in the said City, for the appointment of three Commissioners to estimate the expense of such opening, and the damages to be sustained by any person interested therein, as well as by the reason of the said taking, as by the creation of the restriction or easement upon the land specified in the second section of this act, and to apportion and assess the same upon the property to be in their judgment benefited by the said improvement within the district of assessment so to be fixed by the said Park Commissioners, and the Court shall thereupon proceed to make such appointment.

Sec. 4. Upon the appointment of such Commissioners, they shall, after having been duly sworn, proceed to make the said estimate and assessment, and after their report thereon shall have been confirmed by the said Court, the said Park Commissioners shall cause the said street to be graded, paved, curbed, and guttered, and shade trees planted thereon, using such pavements and materials of construction as they shall deem best, and shall certify the costs and expenses thereof to the Board of Assessors of the City of Brooklyn. The said Board of Assessors shall thereupon apportion and assess the said costs and expenses upon the property to be benefited thereby, within the district of assessment so to be fixed by the said Park Commissioners.

Sec. 5. After the appointment of Commissioners of Estimate and Assessment, all the provisions of the act entitled "An Act to open and widen portions of Sackett, Douglass, and President streets, and otherwise alter the Commissioners' map of the City of Brooklyn," passed May sixth, eighteen hundred and sixty-eight, and of the acts herein referred to which relate to the duties and emoluments of Commissioners of Estimate and Assessment to be appointed under that act, and the confirmation of their reports by the Supreme Court, or which relate to and prescribe the powers and duties of the said Park Commissioners in reference to the subject-matters of that act, and to the levy and collection of all assessments and the lien thereof, and to payment for improvements and work done thereon; or which relate to and prescribe the duties of the said Board of Assessors; and all other provisions of laws referred to in that act, so far as they are not inconsistent with the pro-
visions of this act, shall apply to regulate and govern all the powers, duties, and proceedings of all persons, officers, and Boards of Commissioners or Assessors who shall or may be employed or appointed under this act, or who are designated or referred to in this act.

Sec. 6. This act shall take effect immediately.

AN ACT to widen and improve a portion of Washington avenue, in the City of Brooklyn, and extend the same into the Town of Flatbush.

Passed April 23, 1810; three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Washington avenue, in the City of Brooklyn, is hereby widened so as to be eighty feet wide, from Atlantic avenue southerly to the city line of Brooklyn, and shall be opened to that width by adding ten feet in width to the westerly side thereof, as the same is now laid down on the Commissioners' map of the City of Brooklyn. And the said avenue so widened is hereby extended southerly, in a direct line, into the Town of Flatbush, until the easterly side thereof intersects a line drawn at right angles to East New York avenue, from a point on the northerly side of said avenue, which point is distant nine hundred and eighty feet westerly from the northwest corner of Perry avenue and East New York avenue, as said avenues are designated by a stone monument, and thence along said right-angled line to the northerly side of said East New York avenue, and which said right-angled line forms the said easterly side of said extended avenue. And the said avenue is hereby further extended by the name of Washington place, from said avenue, and westerly to Flatbush avenue, which last extension shall be seventy feet wide, and its northerly side shall begin at a point on the westerly side of said Washington avenue, at a point which is five hundred and ninety-five feet southerly from a point on the westerly side of Washington avenue, formed by extending the southerly line of Montgomery street westerly, and running thence westerly, at right angles, to Flatbush avenue until it reaches said Flatbush avenue; and all those two triangular pieces of land, at or near the junction of Washington and Underhill avenues, lying between
Atlantic avenue and Pacific street, and between the westerly side of Underhill avenue and a line drawn parallel with and one hundred and seventy-four feet easterly therefrom, are hereby added to said Washington avenue, and shall form part thereof, and be so laid down on the Commissioners’ map of the City of Brooklyn.

Sec. 2. The Brooklyn Park Commissioners are hereby directed to open, grade, and otherwise improve the said avenue so widened, and the said extension thereof. And, for the purpose of determining the amount to be paid to the owners of the lands and tenements required to be taken for the purposes of this act, and the expenses thereof, they shall first fix a district of assessment, within which the property to be benefited by the improvements shall be assessed to defray the said damages and expenses, and shall then cause application to be made to the Supreme Court, at a special term thereof, to be held in the Second District, upon a notice to be published not less than ten days consecutively in two daily newspapers printed in the City of Brooklyn, for the appointment of three Commissioners of Estimate and Assessment.

Sec. 3. The Commissioners so to be appointed shall, after being duly sworn, estimate the expenses of the said widening and extension, and the damages to be sustained by the owners of land, and all other persons to be affected thereby; and, after their report thereon shall have been confirmed, they shall apportion and assess the same as they shall deem just and equitable upon any lands and premises to be benefited by the said improvement within the district of assessment so to be fixed by the said Park Commissioners.

Sec. 4. After the apportionment of the said Commissioners, all laws now in force relative to the opening, widening, and extending of streets and avenues in the City of Brooklyn, and the proceedings thereon, and duties of the several persons to be employed therein, substituting the said Park Commissioners in the place of the Common Council of said City, and the said Commissioners of Estimate and Assessment in place of the Board of Assessors in relation to the opening of streets; including, also, payment for the work to be done, the lien of assessments for the opening of streets, as well as for the improvement thereof, and the levy and collection of the same so far as they are not inconsistent with the provisions of this act, shall apply to, regulate, and govern all proceedings which may be had or taken under this act. And the Park Commissioners shall employ an attorney and counsel, and all such clerks, surveyors, and other agents as may be required for the purposes of this act.
Sec. 5. The said avenue so widened, and the said extensions there-of, shall be laid out according to a plan to be devised or adopted by the said Park Commissioners, and shall be graded, paved, curbed, and guttered, and shade trees planted thereon, as they shall direct. And the Park Commissioners may construct such carriage ways, sidewalks, and areas, and make use of such materials of construction or pavements as they shall deem best, and may make all necessary contracts for carrying out the said improvements. And all such contracts, with all other expenses incident to the improvement of the said widened avenue, or the extension thereof, shall be certified by the said Park Commissioners to the Board of Assessors of the City of Brooklyn, and shall be by said Board apportioned and assessed as other local assessments are by law directed to be apportioned and assessed in said City, within the district of assessment so to be fixed by the said Park Commissioners, for the said opening.

Sec. 6. All assessments to be laid under this act, whether they relate to the opening of the said avenue, or of the extensions thereof, or the improvement of the same, shall constitute liens upon the several pieces or parcels of property to be charged therewith, whether such parcels are in the City of Brooklyn or elsewhere in the County of Kings; and so far as they relate to property lying within the said City, they shall be levied and collected in the same manner as other local assessments are, by law, levied and collected in said City; and, so far as they relate to property outside of said City, they shall be collected in the manner hereinafter described.

Sec. 7. The said Park Commissioners are hereby authorized and directed to appoint a collector of all such assessments to be laid under this act as are chargeable upon property lying outside of the said City and within the Town of Flatbush. The said collector shall give bonds to the said Commissioners for the faithful discharge of his duties, and the prompt payment to the Comptroller of the City of Brooklyn of all moneys to be collected by him, and shall be entitled to receive five per cent. for all moneys so to be collected and paid over by him. Upon the receipt of such moneys by the Comptroller, he shall forthwith pay them to the several persons entitled to receive the same.

Sec. 8. Immediately after the appointment of the said collector, he shall give ten days' notice of a time and place where he will attend to receive payment of the said assessments, which notice shall be posted in at least four conspicuous places in the Town of Flatbush, and also
at the City Hall, in the City of Brooklyn; and, if the said assessments shall remain unpaid for twenty days after the expiration of the said ten days, he shall proceed to sell such of the said several parcels of lands, upon which the said assessments shall remain unpaid, at public auction, for the lowest term of years for which any person will take the same, and pay the amount remaining due, with ten per cent. interest added thereto, the said collector first giving thirty days' notice of the time and place of sale, by affixing the same in at least four conspicuous places in the Town of Flatbush, and also at the City Hall, in the City of Brooklyn.

Sec. 9. Upon such sale being made, the said collector shall give certificates of sale to the purchasers, and shall also execute and deliver conveyances of the lands so purchased, unless the same shall have been redeemed within two years from the time of sale, by the payment to the purchaser, or to the said Comptroller, for his use, of the sum paid by him, with interest at the rate of twelve per cent. per annum.

Sec. 10. This act shall take effect immediately.
REPORT ON TOMPKINS PARK IMPROVEMENT.

To the Brooklyn Park Commissioners:

Gentlemen:—

Where public places in the midst of large towns, are not intended for public meetings, military parades, or other special purposes, the motives to be served in planning them are of two classes. It may be proposed, first, simply to form a cheerful, bright, and refreshing object to be observed from the adjoining streets and houses; or, secondly, it may be intended to provide accommodation for agreeable exercise, rest, and social intercourse in the open air, for such portion of the surrounding population as may be induced to resort to the ground. In providing for the latter intention, it is usual to arrange trees and shady walks in the exterior parts, with central, open spaces of turf. Unless the ground is very large, the turf spaces are not designed to be walked over or played upon, but simply for the eye to rest upon, and as landscape features. To secure the slightest landscape effect, however, a close background of low verdure, as well as of high-topped trees, is necessary, and this involves the planting of shrubs or underwood in the outer part of the ground.

Where this course is adopted in spaces of ground not larger than Tompkins square, certain undesirable results eventually follow, viz:

1st. The shrubs suffer from the shade and from drip and drafts upon the soil of the trees, and, as a natural consequence, are drawn up, and, in a few years, become poor and sickly, and cease to bloom.

2d. The double shade of trees and shrubs, with their draft upon the soil, makes good turf and herbaceous decoration also impossible.

3d. In the attempt to mitigate these evils, the beauty of the trees is often destroyed by mutilation of their lower limbs, and much labor is vainly expended in attempting to renew and improve the shrubs, turf,
and flowers. Residents of houses facing the ground then complain that they see nothing beyond the fence but a dull, high wall of foliage.

4th. On account of the narrow, winding walks, and the obstruction of vision by bushes in the outer parts, it is difficult for the guardians of the ground to observe or control the conduct of visitors, or to protect the borders of flowers. The place is therefore resorted to for clandestine purposes, and by people of bad character. It becomes untidy, loses reputation, and there is a complaint of the noise and bad language heard at the windows of the neighboring houses. This occurs the more because visitors are led to congregate near the outside, where there is the most shade, and where their voices readily reach the adjoining houses.

These evils are in a great degree avoided, and the square is made cheerful, elegant, and refreshing to the eye, as seen from the adjoining streets and houses, by the adoption of the other motive, which dispenses entirely with trees, and studies to produce beauty of detail, and flowering shrubs and plants, and by sculptural decoration, as in some of the smaller places in European cities. This, however, involves larger expense at the outset, and gives much less of substantial advantage to the citizens at large.

If a compromise be attempted between the two, the result is, that an expensive system of maintenance is necessary to preserve any tolerable degree of neatness and order, while a high degree of beauty or usefulness in any way is impossible to be attained.

These objections to the usual methods suggest the inquiry, whether it is not possible to design a public ground of moderate extent, which, while presenting a bright and beautiful front upon the adjoining streets, shall, at the same time, offer the public an attractive recreation ground, with shady walks and seats, under conditions favorable to free observation, good order, and economy of maintenance.

To solve this problem on a piece of ground not larger than Tompkins square, it is obviously necessary to discard all attempts to form effects of natural landscape. It is necessary that shade and beauty of trees should be provided for only in the interior, and that flowers, turf, shrubbery, and decoration of the ground surface should be sought for only in the exterior parts.
Our plan herewith presented provides for a spacious central quadrangle, planted only with large trees, which are arranged symmetrically, but not in avenues or straight rows. It will be observed that a portion of the ground is shown in turf, and a portion in gravel, but no restriction upon walking or playing upon the turf is intended to be maintained, and whenever, owing to the increase of population in the neighborhood, and the growth of the trees, it is found impracticable to keep the interior spaces of turf in good order, the turf is expected to be wholly obliterated and the entire area graveled. While the trees are young and small, so large a space of unshaded ground will appear hot and dreary, unless covered with turf.

On each side of the central umbrageous quadrangle, and between it and the streets, there is a garden, which being unshaded by trees, may be made very bright and elegant with flowering shrubs and plants, and perfect turf, and these will be equally well presented to the view of passers-by and the residents of the opposite houses. These garden spaces are proposed to be inclosed by a very light and open fence on the street side, and by a low rail on the promenade side. The turf and flowering plants within being thus protected from close approach, the expense of keeping them in order would be comparatively small.

Four entrances to the quadrangle through the garden are provided for, and these are placed at the corners, because they will here give the most direct access to the promenade ground to those approaching from without the square, while the inhabitants of the square, on an average, are equally well accommodated. At each of these entrances four trees are placed, because in these positions they will not obstruct the view from the houses of the garden, nor injure them by the shade. By this arrangement, also, decorative border planting is admissible opposite every house fronting the square.

The original expense of construction, under this plan, would be less than for a ground laid out in the manner of which Carroll Park is an example, while the results would, it is believed, be much more satisfactory.

Respectfully,

OLMSTED, VAUX & CO.,

*Landscape Architects.*
REPORT
OF THE
LANDSCAPE ARCHITECTS AND SUPERINTENDENTS.

Brooklyn, January, 1871.

To the Brooklyn Park Commissioners:

Gentlemen:—

The primary construction of the Park is now essentially complete in all of the territory which was at first placed under your control, and in the greater part of the remainder, or in all of the Park from the Plaza Gate to the Lookout Hill, the design is so thoroughly fixed upon the ground that the character of the scenery, and of the public accommodations aimed at, can hardly be questioned.

As mistaken ideas of the intention of the design have evidently gained some currency, it seems timely, before referring to what is now in course of preparation, to review what has thus far been done.

When the formation of the Park was begun, there was little pleasure-driving in Brooklyn, except of fast trotters; the gay procession which is now to be seen, every fine day, was scarcely at all foreshadowed, there were fewer private carriages relatively to the population than there had been at an earlier period, and probably fewer than in any other city of equal population in the country. In driving for pleasure,—not merely for conveyance from point to point,—it had always been an object to get as soon as possible out into the country, and, if tolerable roads could be found, into the midst of woods and scenes of a secluded and rural character. It was even more of an object to do so with those who walked or rode for recreation, and still again more so with those who made up picnic parties for a holiday. It was from the rapid destruction of all rural charm in the suburban roads, and the constantly increasing difficulty of finding any place near the city in which natural landscapes or a rural ramble could be quietly enjoyed, that the want of a public park was experimentally known.
After the works on the ground appropriated to a park were begun, it was for a year or two impossible for most observers to see any intention in them of developing natural scenes, while their obvious extent and costliness, and the amount of building material which seemed to be accumulating, gave the impression that the original features of the site were to be utterly destroyed, and a stiff, formal, garden-like ground was to be formed, dependent largely for its interest on artificial objects. Such an apprehension was not unreasonable, for, under the name of the gardenesque style, a method of treatment of public grounds has been much advocated, the result of which is very liable to be an incongruous mixture of nature, with what is called art. An impression that such would be the prevailing character of the Brooklyn Park became at this period so strongly fixed, that with many no confidence seems even yet to be felt that a different result has at any time, or in any place, been designed.

It is therefore more especially with reference to this question that an examination of the completed construction is invited.

A considerable part of the ground in question was originally wooded. None of this, with the exception of swampy spots where the trees were sickly and decaying, has been cleared further than necessary to open the way for the roads, nor has its original form been anywhere more than slightly modified, and this chiefly in the filling up of depressions, mostly artificial, of the surface. The cleared land of the site was in many places crossed by the excavations and embankments of the old country roads and the later formation of the rectangular system of streets, and there were several large clay and gravel pits upon it, as well as many acres of peat swamps, some of which had been partially excavated and some partially filled over. The heaviest earthwork has been in draining, filling, and restoring the surface in and about these places to a natural character. No hill, not previously marred by excavations in street construction, has been leveled or its general elevation reduced. The tendency of all the changes of the surface has been to enlarge and make more distinct the original natural features. Swamps, pond-holes, and hillocks which obstructed the general flow of the surface, alone have been obliterated.

There are two small districts in which it may be questioned if this general intention of magnifying the natural features, and idealizing the natural suggestions, has been strictly adhered to. Even in these cases,
however, it will be seen that depressions have been deepened and steep hill-sides made steeper. One of the districts referred to is designed especially for the amusement and education of children; the other, with reference to objects which will be hereafter described. In neither case have the special purposes to which the locality is devoted, been pursued at the expense of the general intention. In looking over either district from the surrounding parts of the Park, nothing is observable that does not harmonize with and aid intended landscape effects.

The drives, rides, and walks, the grading for which has given occasion for the largest disturbance of the ground not directed, as above stated, to the restoration and emphasizing of its original characteristics, are nowhere designed to arrest or withhold attention from the natural features, but are solely adapted, and are no more spacious or multiplied than is necessary, for the convenient passage of the number of persons who even now occasionally resort together to the Park. It is common, in public pleasure grounds, to make prominent circumstances of the ways through them, and to emphasize their course so that they can not escape attention, even from a distance, by continuous rows of trees or distinct borders, with various decorations, architectural and otherwise.

It will be readily seen that there has been, so far, no such purpose in your park; the least possible break in the turf and natural plantations which is consistent with convenient movement, is everywhere studied in their course, grading, and method of construction. The walks are parted from the drives, in order that the necessary breaks of the turf and trees may be as narrow as possible, and except where elevation is sought to open a distant view, both are kept below the general level and are without guards or distinct curbs, so that the range of vision passes over them and catches only the green swells upon their borders.

At a short distance from the principal entrance, the course of the walks is designed to invite dispersion; for this purpose, and to aid in inducing a feeling of security and of freedom from the hurry, bustling, and watchfulness necessary to safety while walking in the streets of the City, two of the four archways which have been built on the Park are used. By means of these, the drives which must otherwise need to be crossed, can, if desired, be passed without dodging among carriages, and without compelling drivers or horsemen to pull up. The lack of a provision of this kind in most of the popular parks abroad leads to
many accidents and much inconvenience. The arches are as short, as narrow, and in all respects as unobtrusive as they can well be made, consistently with their objects, with sound, permanent construction, and with an honest expression of their purpose. They are always in recesses and depressions of the general surface of the ground, are always flanked and additionally secluded by thickets of foliage, and their masonry is half covered with vines and creepers. Generally, they have no parapet, but a ridge of earth and rocks, covered by a loose hedge of shrubs with a falling habit, rambling over their face. In the Enterdale and Eastwood arches (which were the first built), the planting has now been done long enough to fully exhibit this character. If the object of these constructions, instead of the simple safety and convenience of those using both drives and walks, had been, as seems to be yet quite generally supposed, the making of an architectural display, none of these precautions would have entered into their design. As it is, so far from being obtrusive objects, they are passed by those in carriages, in most cases, without being observed. They serve the purpose of shelter, upon occasion, from showers, and make a less number of special structures necessary for this purpose. They are lined with wood to avoid the drip which would occur from the condensation of moisture on stone under the circumstances.

Such other sheltered seats as have been thought to be required, are mainly low structures of sassafras logs, are, or are to be, in the shadow of trees, and draped with creeping foliage, and are as modest and secluded as is consistent with their purpose, which requires that they should be readily distinguished when the need for them arises. Besides these shelters, and some low, vine-covered trellises, only two buildings, a cottage and barn, have been placed on the ground. These are in the midst of woods, and only their roof-trees can be discerned from the more frequented parts of the Park. The cottage commands a distant view through a vista among the trees, but itself enters decidedly into no landscape. With one exception, the bridges thus far built are of wood, or rude field-stones, low, for the most part lost in foliage, and as inconspicuous as without greatly increased expense it would have been possible to make them. There is one bridge which serves four different routes of connection, besides spanning a water-course, and which commands two distinct districts seen comprehensively from no other point. A considerable and prominent construction was here a necessity, and it has received a careful architectural treatment. Its position is nevertheless retired rather than conspicuous, and it will be flanked
and deeply shadowed by the associated plantations. When the colors of the now fresh cut stone shall have been subdued, the bridge will be much less obtrusive in the landscape than an ordinary farm-house or barn.

As to the apprehension sometimes expressed, that the Park is to be everywhere disturbed, as some foreign parks are, with artificial objects, such as monuments, statues, temples, kiosks, pagodas, obelisks, fountains, vases, terraces, stiff avenues, and trim parterres, there is nothing of the kind to be found upon all this ground, and except the indication of a site for a simple block of stone, three or four feet high, as an historical landmark (and this in a position where it could not be observed from any of the drives or leading walks), no proposition or suggestion for the introduction of any thing of the kind upon it has ever been presented to you or appeared upon any of your plans. There is not a single construction or artificial object upon all this ground which is designed to attract the eye or arrest attention.

But the question will be asked, if the scenery of the Park is, after all, only of a commonplace, natural, rural character, why has its preparation needed so much more labor than a farmer ordinarily bestows upon his woodlands and pastures? These may often be found, in parts at least, much more beautiful than any part of the Park, and may be bought outright with every thing on them, for a tithe of what has been spent in the construction of the Park. It may be answered that the object of the larger part of the study, skill, and labor expended, has been to reconcile the purpose of a gradual and slow development of a special type of rural landscape, with the constant convenient use of the ground as a place of recreation by a very great number of people; and if it appears to have been unnecessarily large, it is in part because the difficulty of maintaining a natural and rustic character, and at the same time of keeping the ground in neat and convenient order, under these circumstances, is much greater than is generally realized. The character of the evidence which shows this difficulty may be indicated by a reference to what has passed under the eyes of many citizens of Brooklyn upon the Park.

During the first two years of the work, interest in what was promised, and curiosity as to the progress of construction, led many to visit the site of the Park, and, as much of the ground was constantly crossed by trains of carts and thus made dusty or miry, or was freshly dug or manured or otherwise rendered disagreeable by the works in progress,
most of these visitors were driven to find a place of more quiet and comfort in the uninclosed woods, a little on one side of the line of operations. In the parts of these to which the largest numbers came, and where there was most lounging, though constantly patrolled by the Park Keepers, and though all convenient pains were taken to preserve order and neatness and prevent injury to the trees and shrubs, all of the herbage, and of the foliage growing within six feet of the ground, except a few briery thickets, wholly disappeared; the soil was worn to dust, and blown and washed away so much that within two years the roots of the trees everywhere protruded, and many withered in consequence. Whenever it rained, the old wood trails were gullied, the hollow places became sloughs, and the whole surface slimy and disagreeable to see or to walk upon.

Reflecting that the number of people using this ground was hardly as one to a hundred of those to be expected in the future upon the Park, no one could observe the progress of wear and tear, under these circumstances, without being convinced that to permanently secure a high degree of rural charm in the public ground of a large city, special preparations are required of a skillful, elaborate, and substantial character. The result of acting upon the contrary assumption was shown in Washington Park, before it was revised by your Commission. Nine-tenths of the trees originally planted on it had received serious injuries, and much the larger part were, upon inspection, condemned as damaged beyond recovery, and have been burned. The spaces laid with turf had been worn bare, or had become everywhere untidy and forlorn. It was not an attractive, a suitable, hardly a safe resort for women and children, and was regarded rather as a nuisance than as an advantage to the neighborhood. This experience has been gone through with many times, in many places, in Europe and America. The common result, after the shabbiness and uselessness becomes scandalous, is that which is illustrated in Boston Common, and which is now being applied to the Battery in New York, a style of improvement being adopted in which an evident effort is made to avoid formality, but in which, nevertheless, not the least approach to a free, natural, rural character is attempted, and the public is then invited to pass through the grounds by a complicated series of gangways guarded by chains or rails. Recreation may be obtained in such grounds, but it can hardly be called rural recreation, and it is even a question whether convenience, economy, and good taste would not all have been better served by the adoption, at the outset, of a formal and elegant architectural style.
As the Park has come more and more into use, new habits and customs, and with them new tastes, have been developed. There is already many times as much pleasure-driving as there was five years ago, and not a few persons are more attracted to the Park by what is to be seen upon the road than by any conscious enjoyment of the inanimate nature to be seen from it; consequently, a new class of comments upon the design are now sometimes heard; unfavorable comparisons are made between the Park and certain foreign pleasure grounds, both with respect to the lack of opportunity for enjoying the sight of a large, gay assemblage, and its entire want of stateliness and artistic grandeur. In these comparisons, and in the demands which they suggest, there are some important considerations which are generally overlooked.

In Southern Europe, where the ground is parched, and turf and delicate low foliage withers unless carefully and laboriously watered and tended; where also, in most cases, rambling in the country, or beyond the outskirts of towns, is not only toilsome but dangerous; where ladies seldom go out of doors until after sunset, unless closely vailed; and where the people look for amusement almost exclusively to social excitements, public pleasure grounds have usually been important, chiefly, as places of rendezvous and general congregation. Their plans have been characterized by formal and stately plantations, and much architectural and floral decoration. Where any thing like landscape effects have been attempted to be added to these, it has generally been, not as an invitation to exercise, but simply as a picture usually of a romantic, and often of a distinctly theatrical character.

The primary and avowed object of such grounds is to supply people with accommodation for coming together to see one another, not merely as personal acquaintances, but as an assemblage.

A style of laying out grounds adapted to this purpose has, till recently at least, prevailed, not only in Italy, Spain, and Portugal, but throughout France, and where French influence has been strong, the woods and lawns of both public and private parks and chases are nearly always traversed by straight avenues with well-defined circular carrefours, often emphasized by architectural objects at their points of junction, as may be seen in the Bois de Boulogne. While, however, the custom of out-door assemblage, and of the promenade for recreation has been maintained, and has even become more important, a tendency to a different style in the preparation of pleasure grounds has been
growing wherever the climate admits of its being adapted with success. The changes made in the plan of the Bois de Boulogne under the late Empire, those also in the Bois de Vincennes, the Parc de Monceau and other grounds in France, and the plan of the new park at Brussels, all show progress in this direction, though the liking for detached scenic effects which might be suitable for framing, or for the background of a ballet, still influences most French landscape work.

It is to be observed, too, that upon the completion of the Avenue de l'Impératrice as an approach to the Bois de Boulogne, and of the informal and narrow drive around the Lake with its various landscape effects, that part of this system of pleasure grounds which is laid out in the natural style was immediately adopted as the daylight promenade ground of Paris, in preference to the much wider, more accessible, more stately, and in every way more convenient and magnificent avenue of the Champs Elysees.

It will thus be seen that the grander and more splendid style of public pleasure grounds, while it is peculiarly adapted to display a great body of well-dressed people and of equipages to advantage, and is most fitting for processions, pomps, and ceremonies, while also it seems admirably to extend and soften architectural perspectives, and to echo and supplement architectural grandeur, is not preferred where there are moderate advantages for the adoption of a natural style even for the purposes of a promenade. The reason may be that where carriages are used, in the frequent passing over the long spaces of bare surface which they make necessary, formal arrangements and confined scenes become very tiresome. In passing along a curving road, its borders planted irregularly, the play of light and shade, and the succession of objects more or less distinct which are disclosed and obscured in succession, is never wholly without interest, while an agreeable open landscape is always refreshing, in contrast to the habitual confinement of the city.

In Northern Europe, congregative recreation has, until recently, been a comparatively unimportant object in public parks, the popular idea of them being that of grounds in which people could stray away from the towns, either apart or in small detached parties. The difference of the two tastes and customs is shown by the fact that, while before the recent improvements, the roadways of the Bois de Boulogne (although then only an occasional resort for the Parisian public) were
nearly a hundred feet wide, with clean-cut borders, the principal promenade drive of London, though right in the midst of the town, was, so late as twelve years ago, a mere rural road from thirty to forty feet wide, encroached upon and made still narrower at some points by trees growing naturally.

If parks laid out in the manner of those of the North were attempted on the Mediterranean, or in this country on the Gulf of Mexico or in California, they would be exceedingly dreary. Under such circumstances it is not, therefore, simply a matter of taste or convenience, but, in some degree, a necessity that devices of an obviously artificial character are used to make public grounds attractive.

In this latitude on the Atlantic slope, however, although a formal and highly ornate treatment is perfectly appropriate where the chief object of a public ground is that of a social rendezvous and promenade, it is not the only, nor always the most desirable treatment of it. If it is so situated as to command interesting views, for instance, it may be better that it should be laid out and furnished in such a way that these views will be seen through harmonious and suitable foregrounds. If there are disagreeable or incongruous objects near by, it is better that it should be supplied with boscage borders which will be manageable screens against them.

In the nature of the case, adequate provision for simple, rural recreation requires large space of ground, it being a primary object to secure the greatest possible change of scene from the confinement and rigidity of the city, and to induce a sense of freedom and a disposition to ramble. This object has, moreover, to be reconciled, as has been shown, with that of maintaining neatness and good order, in spite of the careless and often reckless movement of many thousand people all turning out for exercise and recreation at once; and it is impossible of accomplishment, except on a site of considerable breadth, where large opportunity and invitation for dispersion can be given. It is better, on the other hand, that a drive intended to be used as a promenade, should not be so far extended that a long period will be required to pass through it and see all who are upon it, nor should it be so wide that friends can not be easily distinguished when passing on the opposite side. The avenue beyond the Arch, and the drive about the Lake in the Bois de Boulogne, which is preferred to the wide avenues nearer Paris, is everywhere less than sixty feet wide, and in some parts less than forty.
It may then be said, that in the design of public grounds, two quite different uses of them, and two quite different artistic ideals, may properly be had in view, and that under certain conditions of situation, soil, climate, and society, one only of these uses, and one only of these ideals can properly be controlling. Individuals must be expected to place a greater value on one or the other use, and to be better pleased with one or the other style of grounds, according to their habits and the bias of their natural or acquired tastes. There can be no greater mistake, however, than to suppose that what has given great gratification in one place, or under one class of circumstances, will do so everywhere and anywhere, and that the neglect to use every opportunity of introducing it is an evidence of ignorance or bad taste. Because it is a very pleasant thing to see a great body of well-dressed people enjoying themselves in the open air, it does not follow that every pleasure ground should be designed with reference exclusively to that pleasure and all its parts, furniture, and decorations, be specially adapted to it; nor because, also, it is a very pleasant thing to find in the midst of a large town, a winding road or walk, with borders on either side of dense luxuriant foliage, or with a fair landscape opening from it as completely free, as far as the eye can see, of any thing artificial as if in the country, that nowhere in a public ground should there be conveniences for congregation or any obvious display of human handiwork. In a park of five hundred acres, provision of both kinds may be furnished, but it is not wise to undertake to provide both at all points, and if the ground has a varied surface, it is unwise to pursue the congregative purpose in those parts where the suggestions of natural scenery are most interesting.

When the plan of your park was first outlined, it was intended to provide a ground within which citizens could not only withdraw themselves at some few points from the sight of town houses and town traffic, but in which they could wander for hours at a time, constantly finding new scenes of natural beauty. The whole of it was laid out with this purpose in view. At the same time, the growth of the tastes and habits which are gratified by joining a gay assemblage or throng was anticipated, and, to provide more completely for the demand which was thus expected to arise, it was recommended that two series of stately avenues should be provided outside the Park. This recommendation was repeated and urged in three of your Annual Reports, and measures were at length taken to carry out the suggestion before any public demand for the purpose began to be manifested.
But experience teaches, as we have indicated, that no matter how fine and well adapted to their purpose such avenues may be made, even when their drives are exclusively used for pleasure carriages, where there is a rural park with good roads through it, also conveniently accessible, it will likewise be more or less used as a promenade, and this whether well adapted to that purpose or not.

Accommodations for large throngs of people, and advantages for observing these throngs, are then at some points desirable and necessary, and means must be carefully studied of reconciling such accommodations with the purpose of giving the public the largest practicable extent of rural scenery, and of rural exercising ground. As for this purpose the drives must not, as already explained, be very wide, and as the movement both ways (in order to give opportunity for the recognition of acquaintances) must be slow, it is desirable that such provision should be originally secured in such a place that people can make a considerable circuit within the Park, if they choose, without entering upon them at all.

The part of your park thus intended exclusively for rural recreation is complete within itself, and a circuit of it can be made upon both its drives and walks without entering upon the promenade district, which, indeed, lies completely hidden from it, except as the tree-tops and the water within it extend the background of the view from certain points.

According to the plans you have approved, the portion of the drive more especially intended to be used as a promenade, is to be nowhere less than fifty feet in width; in the greater part, sixty feet. Its length, not including the turning-places at the ends, is to be three-quarters of a mile. A pad for saddle-horses will adjoin it, thirty feet wide. At certain points it will be separated a short distance from the drive in order to avoid too extended a bare surface. Adjoining the pad, and again on the opposite side of the drive, are to be walks fifteen to twenty feet wide. Near the middle of the system, sheltered galleries are arranged, where those who wish can sit and look upon those moving by. The width of the whole promenade ways at this point, for a distance of two hundred and fifty feet, is to be one hundred and eighty feet, the pad and the drive being thrown together, and the walks brought to curbs upon them. One of the walks will spread laterally to beaches or bays of the Lake, and there will be an outlet from it upon
a boat-landing. Throughout the whole extent of the promenade ways a succession of views will be commanded with the back to the sun over the Lake. On the side toward the sun will be a dense plantation of trees and underwood. Planted points and islands are arranged to cover the broader bare spaces of the promenade from the view of boating parties and the opposite shores, and to supply strong foregrounds to the views northward. There are to be rows of trees within and upon the edge of the drive, it being impossible to avoid long spaces, which would be unpleasantly exposed to the sun by any wholly natural arrangement of trees consistently with convenience of movement where so many are expected to be passing together, but the bordering plantations are so arranged, that the formality of these rows will not be noticed, except when close upon them. Looking beyond the exterior lines of the promenade walks, the scene will be perfectly natural and rural in character; so also the whole Lake shore, except at one point, where preparation is making for promenade concerts.

Promenade concerts are common in many European pleasure grounds, but nowhere are the arrangements for them such as would be at all satisfactory to an American audience of the number which has frequently been found already in your park. They may be divided into two classes: those universal in German towns, common in French and less so in British, where the audience is standing, walking, or sitting upon chairs, and frequently at tables at which refreshments are served, and those in which the greater part of the audience is in carriages; or walking about among carriages, as the Cascine at Florence, and on the Pincian Hill at Rome.

The music of a proper promenade band can be best heard only at a greater distance from the instruments than is desirable when listening to an ordinary indoor orchestra. It does not require close attention, and may be enjoyed while walking among the trees. It is common, however, for at least the central part of the audience to rest during the performance of each piece, and for the greater part of it to stroll or drive off and return between the pieces. Where the audience is largely in carriages, there is always more or less movement in its outer part, and this, with the room necessarily taken by each vehicle and its horses, makes the number of those who can enjoy the music at all, with any arrangement hitherto used, very small. There is no carriage promenade concert in Europe which is largely attended by people on foot. In the best and most popular promenade concerts, it is customary for
all who come in carriages to leave them on arriving at the ground, and
this both in small and large towns.

The plan of the concert grounds in your Park is designed to secure
the advantages of both the classes which have been described, and to
avoid, as far practicable, their disadvantages.

The orchestra is to be placed upon a small island, about one hundred
feet from a semicircular sweep of shore, in the direction where the
audience is expected chiefly to congregate. It is believed, that with
suitable instruments, at this distance over water nothing will be lost of
the sound, while it will prevent the disagreeable crowding together of
a large number of persons close before the stand where the music can
not be heard to advantage. Provision, however, is made for small
boats to fasten along the shore below the level of the audience
and of the floor of the music-stand, and a large fleet may lie about it.
The circuit drive of the Park passes parallel with the shore, at a
distance of five hundred and thirty feet; a short loop from it opens
into a concourse, nearly five acres in area, sloping toward the shore, and
occupying a quadrant of the circle surrounding the music-stand. All
parts of this are open to drivers and riders. Its southward outlets open
into the promenade drive and ride.

A smaller carriage concourse (two acres) is situated upon the top of
an eminence, five hundred feet to the northward, and carriages can
either be driven to this and back, or a turn be taken in the promenade
drive, if desired, between the pieces. It is believed that most music
will be heard very well upon the higher concourse, which has the
advantage for a hot summer’s day of being strongly swept by the sea
breeze passing over the music island.

North of the principal carriage concourse is an esplanade, with a
grove, for a promenade on foot. The lower part of this, for a distance
of one hundred and seventy-five feet, is to be planted with plane trees,
arranged at the intersection of concentric circular lines with others
radiating from the music island, as may be understood from the plan
accompanying this report. Back of this, at a higher elevation, is to
be a grove, pierced by three alleys on the lines of vistas opening toward
the music island. In the rear will be an open pavilion, with tables and
seats, and back of it a low house containing cloak and dressing rooms,
and from which coffee and ices may be served. A series of awnings on
fixed standards will cover seats in front of the trees on the esplanade, the passage in front of which is to be closed during the performance of music. There are also to be seats in the rear of the esplanade. It is expected, however, that the larger part of the audience collecting here will be moving during the intervals of the music, and will stand among the planes or continue walking in the alleys of the upper grove during its performance. There are walks leading from the concert ground along the shore each way, and upon the face of Breeze Hill, looking toward the music-stand. The music will float across the Lake, and be heard very well on the opposite shore, and more or less clearly at various more distant points.

As an agreeable, natural decoration of a space like the concert ground, designed to be mostly occupied by an audience, is impracticable, its plan is formal, and its decorations will be mainly architectural.

The ground-work of the whole of the Park south of the Lookout Hill, having to be made from material excavated from the Lake site, and every tree, shrub, and stone to be moved to it, and every variation from a plain surface to be formed, it will be some time before the design can be fully realized, but it is hoped that this statement of its intention will sufficiently show, that while the simplest form of healthful and educative rural education has been studiously provided for, the use of a park as a place to see people under pleasant circumstances, and in which to be cheered by the pervading gayety of a great company coming together simply for pleasure, has not been neglected.

No part of the Park is designed with reference to use after nightfall. There are many reasons why it should not be. The attempt to light any large ground, planted closely, or with underwood in the natural style, sufficiently to make it a safe resort, always fails. If in the midst of a large town, its use for immoral and criminal purposes more than balances any advantages it may offer. It has been shown that where the climate makes the night the most agreeable time for open-air recreation, formal promenades between rows of trees on regular, strongly defined, and well-lighted walks are customary. Not only the parkways now under construction are of this character, but the Park is designed to be surrounded on all sides with a broad avenue for carriages, and a well-lighted mall, thirty feet wide, for walking. Wherever practicable, this is made to overlook the Park, from which it is to be divided by a parapet three feet in height, the total height of the
interior wall being eight feet. The Plaza is designed with a similar purpose, and the planting and lighting arrangements have been studied with special reference to night effects.

In our last Report we spoke of that intention of the plan which is to be more especially realized in the pastoral district of the Long Meadow, and among the scattered trees in the West and Mid woods which border it. The central walk leading from the Plaza to the hills and the promenade district, after passing through this open, and for the present rather too sunny ground, reaches the edge of a pool of water in the lowest part of the meadow, which is also intended to be sunny and bright; it is then carried to the left, and passes through a shady ravine, from which it issues through the Nethermead Arches upon another broad and open space of greensward, with placid water in view beyond it. This ravine is designed to provide favorable conditions for rich, dark, cool, and secluded effects in contrast with the neighboring meadow, and with the scenery of the Park generally, and connects with a small district of similar character, now under construction, which extends with a series of rambling walks and sheltered seats to the Dairy Cottage.

The usual statistics of construction, of the force employed, and of the public use of the Park (which, it will be observed, has largely increased during the year), will be found in the appended reports of the Engineers.

Respectfully,

OLMSTED, VAUX & CO.,

Landscape Architects and Superintendents.
OBSERVATORY PROPOSED TO BE ERECTED ON LOOK-OUT HILL
REPORT OF ENGINEER-IN-CHARGE.

PARK COMMISSION, CITY OF BROOKLYN,
ENGINEER'S OFFICE, January 1, 1871.

Messrs. Olmstead, Vaux & Co.,

Landscape Architects and Superintendents:

GENTLEMEN:

I submit a report of operations of construction for the past year.

The granite steps, the coping, and the stone and brick panels for the fountain basin at the Plaza have been finished. A temporary arrangement of pipes, for jets at the center of the basin, has been used during the season.

The track of the Brooklyn City and Hunter's Point Railroad has been laid across the Plaza from Vanderbilt to Ninth avenue. The Belgian pavement in the Plaza, near the fountain, has been completed. Connections have been made with a sewer laid through the West Plaza street by the Water Board.

A wood lining has been put under the Meadow Port Archway. The Nethermead Arches have been pointed and finished. Foundations have been built for a stable near the Dairy, and the stable, of wood, is in progress of construction by contract. Stone inclosing walls have been built for a stable yard. Two rustic shelters have been built, one overlooking the meadows from a point near the west drive, the other on the north side of the Ambergill.

A bridge of bowlder stone has been built, carrying a walk over the Ambergill, and a large amount of rock-work has been constructed at various points.
The carriage concourse east of the Lake has been graded, and only requires surface metal for its completion. A considerable amount of work has been done on the adjacent pedestrian concourse, in accordance with a plan for its completion, adopted during the year. The portion of the ride near the Dairy has been finished, and a branch to the Dairy begun.

The main walk leading to the Dairy has been finished, and the system of walks in that neighborhood has been graded, and will be ready for completion in the spring. Numerous stone steps have been set in the different walks, also one carriage landing-step.

The walks between the carriage concourse, east of the Lake, and the entrance from Franklin avenue, have been finished. The walks on the Lake peninsula have been sub-graded.

Franklin avenue has been graded, the curb and gutter set, and the street opened for use from the eastern boundary of the Parade Ground to Flatbush avenue.

The entrance drive at the southeasterly angle of the Park has been finished.

The Ambergill Brook has been finished to its connection with the large pools.

The slopes of these pools have been formed and shaped. The peat has been removed from them and piled for future use. A dam and waterfall has been built between the two pools, and one commenced at the head of the upper pool.

A large amount of excavation has been made for the main Lake. About eight and three-quarter acres of additional Lake surface has been puddled and finished. A dam has been built in connection with this work, and the area of finished water surface increased to about twenty-three acres.

Tile drainage has been put in near the Third street entrance, and some stone drainage in a portion of the West Woods. A fifteen-inch main sewer has been extended to the lower pool. A sewer connection has been made between the Dairy and the stable. The basins and pipes have been put in for the drainage of the walks constructed during the year.
Early in the spring, a system of perforated pipes was laid in the sand between the outer and inner curbs of the well, for the purpose of obtaining a more rapid flow of water. The result has been quite favorable, increasing the supply to the pumping-engine.

The boiler-house, at the well, has been finished. The interior walls of the well have been pointed. The Reservoir on the summit of Lookout Hill has been constructed, and is nearly complete.

The inclosing walls, and the bottom of this Reservoir, are formed entirely of concrete. The roof is of brick arches, sprung from piers and counter-arches. It is intended to use the roof as a concourse for pedestrians. The capacity of the Reservoir is 750,000 gallons.

The ground adjacent to the Third street entrance has been shaped and seeded, and also a small portion of that west of the drive, between Third and Ninth streets. The woodland east of the west drive, and the meadows, as far as the pools, have been finished; also the grounds in the vicinity of the Dairy, along the ride, and through the Amber-gill hollow. The Nethermead has been completed and seeded. The ground near the southeasterly angle of the Park has been seeded.

A large portion of the peninsula has been graded, and has received the necessary top soil.

WASHINGTON PARK.

An arbor has been built and painted, and a tar concrete pavement laid under it. Tar concrete pavement has also been laid on a number of walks. Granite steps have been set in the walk running from Canton street to Fort Greene place. A portion of the inclosing wall of the Park has been built by contract.

TOMPKINS SQUARE.

A portion of the filling required to grade this square has been made by contract. The soil has been stripped and piled for future use.

The customary tables of statistics of the work done on the parks are as follows:
TABULAR STATISTICS OF CONSTRUCTION UP TO
JANUARY 1, 1871.

<table>
<thead>
<tr>
<th>DRIVES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Drives finished, 60 feet wide</td>
<td>379 lineal feet.</td>
<td></td>
</tr>
<tr>
<td>&quot; 52 &quot;</td>
<td>&quot; 52 &quot;</td>
<td>277 &quot;</td>
</tr>
<tr>
<td>&quot; 50 &quot;</td>
<td>&quot; 50 &quot;</td>
<td>1,441 &quot;</td>
</tr>
<tr>
<td>&quot; 46 &quot;</td>
<td>&quot; 46 &quot;</td>
<td>5,546 &quot;</td>
</tr>
<tr>
<td>&quot; 40 &quot;</td>
<td>&quot; 40 &quot;</td>
<td>12,598 &quot;</td>
</tr>
<tr>
<td>&quot; 30 &quot;</td>
<td>&quot; 30 &quot;</td>
<td>1,500 &quot;</td>
</tr>
<tr>
<td>&quot; 27 &quot;</td>
<td>&quot; 27 &quot;</td>
<td>1,610 &quot;</td>
</tr>
<tr>
<td>&quot; 22 &quot;</td>
<td>&quot; 22 &quot;</td>
<td>1,550 &quot;</td>
</tr>
<tr>
<td>&quot; 50 &quot; (Franklin avenue)</td>
<td>3,100 &quot;</td>
<td></td>
</tr>
<tr>
<td>Total length of drive finished.</td>
<td>28,001 &quot;</td>
<td></td>
</tr>
<tr>
<td>or 5 3-10 miles.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drives in progress, 50 feet wide.</td>
<td>750 lineal feet.</td>
<td></td>
</tr>
<tr>
<td>&quot; 40 &quot;</td>
<td>&quot; 40 &quot;</td>
<td>1,610 &quot;</td>
</tr>
<tr>
<td>&quot; 50 &quot; (Franklin avenue)</td>
<td>650 &quot;</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,010 &quot;</td>
<td></td>
</tr>
<tr>
<td>or 57-100 miles.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONCOURSES</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Finished concourse for carriages — Plaza</td>
<td>276,112 sup. feet.</td>
<td></td>
</tr>
<tr>
<td>&quot; &quot; &quot;</td>
<td>&quot; &quot; Park</td>
<td>119,350 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; for pedestrians—Plaza</td>
<td>167,762 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; Park</td>
<td>59,300 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; Washington Park</td>
<td>78,832 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; Parade Ground</td>
<td>21,600 &quot;</td>
</tr>
<tr>
<td>Total area of finished concourse.</td>
<td>581,936 &quot;</td>
<td></td>
</tr>
<tr>
<td>or 13 36-100 acres.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concourse in progress, for carriages — Park</td>
<td>203,650 sup. feet.</td>
<td></td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; for pedestrians—Park</td>
<td>163,200 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; Washington Park</td>
<td>93,960 &quot;</td>
</tr>
<tr>
<td>&quot; &quot;  &quot;</td>
<td>&quot;  &quot; Parade Ground</td>
<td>4,000 &quot;</td>
</tr>
<tr>
<td>Total</td>
<td>454,810 &quot;</td>
<td></td>
</tr>
<tr>
<td>or 10 44-100 acres.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
RIDES.

<table>
<thead>
<tr>
<th>Width</th>
<th>Length (feet)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>625</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>2,050</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>600</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7,465</td>
</tr>
</tbody>
</table>

or 1 41-100 miles.

<table>
<thead>
<tr>
<th>Width</th>
<th>Length (feet)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>950</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>1,825</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>275</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3,950</td>
</tr>
</tbody>
</table>

or 75-100 miles.

WALKS.

<table>
<thead>
<tr>
<th>Width</th>
<th>Length (feet)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>16,761</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>10,035</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1,444</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>515</td>
<td></td>
</tr>
<tr>
<td>52/3</td>
<td>496</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>775</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>4,300</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1,857</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>622</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>505</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2,275</td>
<td></td>
</tr>
</tbody>
</table>

Total length of finished walks.

or 7 75-100 miles.

Finished walk at Prospect Park.

Washington Park.

Carroll Park.

Walks in progress, 30 feet wide.

<table>
<thead>
<tr>
<th>Width</th>
<th>Length (feet)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>2,175</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>8,943</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>1,436</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>5,625</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>1,773</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>164</td>
<td></td>
</tr>
</tbody>
</table>

Total...

or 5 52-100 miles.
## DRAINAGE

18 inch vitrified pipe laid...

<table>
<thead>
<tr>
<th>Size</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>15&quot;</td>
<td>8,437 &quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>9,370 &quot;</td>
</tr>
<tr>
<td>10&quot;</td>
<td>2,684 &quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>10,253 &quot;</td>
</tr>
<tr>
<td>7&quot;</td>
<td>305 &quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>21,619 &quot;</td>
</tr>
<tr>
<td>5&quot;</td>
<td>1,619 &quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>2,785 &quot;</td>
</tr>
<tr>
<td>2½&quot;</td>
<td>675 &quot;</td>
</tr>
<tr>
<td>10&quot;</td>
<td>315 &quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>680 &quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>2,066 &quot;</td>
</tr>
<tr>
<td>5&quot;</td>
<td>1,234 &quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>2,707 &quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>97 &quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>310 &quot;</td>
</tr>
<tr>
<td>6&quot; cement pipe laid</td>
<td>142 &quot;</td>
</tr>
</tbody>
</table>

Total: 67,080 "

or 12 7-10 miles.

Tile pipe laid, 3 inch...

<table>
<thead>
<tr>
<th>Size</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>2½&quot;</td>
<td>20,556 &quot;</td>
</tr>
<tr>
<td>2&quot;</td>
<td>28,400 &quot;</td>
</tr>
<tr>
<td>1½&quot;</td>
<td>7,837 &quot;</td>
</tr>
</tbody>
</table>

Total: 56,618 "

or 10 72-100 miles.

## WATER DISTRIBUTION

Wrought iron and cement pipe, 16 inch...

<table>
<thead>
<tr>
<th>Size</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot;</td>
<td>3,023 &quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>10,550 &quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>3,407 &quot;</td>
</tr>
</tbody>
</table>

Total: 19,528 "

or 3 7-10 miles.

Cast iron pipe, 20 inch...

<table>
<thead>
<tr>
<th>Size</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot;</td>
<td>347 &quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>2,842 &quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>191 &quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>78 &quot;</td>
</tr>
<tr>
<td>4&quot;</td>
<td>53 &quot;</td>
</tr>
<tr>
<td>3&quot;</td>
<td>10 &quot;</td>
</tr>
<tr>
<td>2½&quot;</td>
<td>29 &quot;</td>
</tr>
</tbody>
</table>
Cast iron pipe, 1\(\frac{1}{2}\) inch galvanized ........................................ 450 lineal feet.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 inch</td>
<td>1,427</td>
</tr>
</tbody>
</table>

Total ........................................ 5,435

or 13\(\frac{2}{3}\)-100 miles.

Lead and tin pipe, 3 inch ........................................ 862 lineal feet.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\frac{1}{2}) inch</td>
<td>294</td>
</tr>
<tr>
<td>(\frac{3}{4}) inch</td>
<td>1,064</td>
</tr>
</tbody>
</table>

Total ........................................ 2,160

or 41\(\frac{1}{2}\)-100 miles.

Check valve ........................................ 1
Blow-off and branches ........................................ 76
Stop-cocks ........................................ 40
Air-cocks ........................................ 12
Hydrants ........................................ 35
Reducers ........................................ 4
Meters ........................................ 2
Stop-cocks, Washington Park .............................. 11
Gas pipe laid, 4 inch ........................................ 700 lineal feet.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 inch</td>
<td>88</td>
</tr>
</tbody>
</table>

Total ........................................ 788

or 15\(\frac{1}{2}\)-100 miles.

Iron fence set—Washington Park ........................................ 703 lineal feet.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AREA OF OPERATIONS UP TO JANUARY 1, 1871.

Area worked over up to Jan. 1, 1871 .................................... 411 acres.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>117</td>
</tr>
</tbody>
</table>

Washington Park ........................................ 30

Surface finished, meadows and slopes .................................... 172

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>woodland</td>
<td>51</td>
</tr>
<tr>
<td>water surfaces</td>
<td>23</td>
</tr>
<tr>
<td>roads and walks</td>
<td>50</td>
</tr>
</tbody>
</table>

Total ........................................ 296

Surface seeded ........................................ 216

Surface finished—Washington Park .................................... 23

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MASONRY.

Amount of brick masonry ........................................ 3,573 cubic yards.

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>76</td>
</tr>
</tbody>
</table>

Washington Park ........................................ 6,883

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>stone masonry</td>
<td>468</td>
</tr>
<tr>
<td>concrete</td>
<td>3,697</td>
</tr>
<tr>
<td>steps set</td>
<td>397</td>
</tr>
<tr>
<td></td>
<td>5,843</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Amount of steps set at Washington Park

- curb set ............................................. 72,335 "
- Washington Park ................................... 677 "
- Belgian pavement laid ........................................ 298,822 sup. feet.
- cobble " ............................................. 70,016 "
- brick " ................................................... 27,114 "
- gutter " ................................................... 21,148 "
- Telford " .................................................. 51,249 "
- cobble " ............................................. 19,582 "
- flag-stone " ............................................. 9,653 "

Tar concrete pavement laid ........................................ 429,871 "

Washing Park .............................................. 210,051 "

AMOUNT OF STONE BROKEN.

- Macadam stone, by stone-breaker .................................. 15,214 cubic yards.
- Telford and building stone, by hand .............................. 9,653 "
  Washington Park ........................................ 2,569 "
- Spall stone, by hand ........................................ 12,956 "

MATERIAL MOVED.

For grading and shaping drives, rides, walks, meadows, and slopes, cubic yards 44,910 461,280
- For lakes, pools, and streams ......................................... 145,425 626,483
- For Plaza .......................................................... 172,355
- For sewers, drains, and water distribution ................................ 4,839 90,681
- Soil ............................................................. 45,201 455,973
- Peat .............................................................. 5,636 72,202
- Clay ............................................................... 7,261 37,411
- Manures and compost .................................................. 6,117 42,217
- Stone ............................................................... 3,863 87,129
- Gravel and sand ..................................................... 13,596 98,962
- Miscellaneous ....................................................... 18,446

Total cubic yards .................................................. 276,848 2,168,140
Material moved at Washington Park ....................................... 2,335 92,249

Total cubic yards .................................................. 279,183 2,255,389

ENGINEER CORPS.

The Assistant Engineers engaged during the past year have been Mr. Thomas Stratford and Mr. John B. Duncklee, at Prospect Park, and Mr. Thomas P. Kinsley, on the Parkway.

Respectfully submitted,

JOHN BOGART,

Engineer-in-Charge.
REPORT OF ASSISTANT ENGINEER.

PROSPECT PARK, January 1, 1871.

JOHN BOGART, Esq., Engineer-in-Charge:

SIR:—

I submit herewith a report of details concerning the management and operations of the force, together with an account of the means and materials employed in the construction and maintenance of the several parks under the control of the Commissioners, for the year ending December 31, 1870.

The usual inventory of tools and supplies accompanies this report.

The larger part of the year's operations have been confined to the lower end of the Park, or Lake District, and the development of the ground about the Glen Farm House and picnic grounds.

The mechanical work has been less than the previous season, and has mainly consisted in the completion of the Nethermead and Meadowport arches, a rustic bridge, or culvert, in the Glen, the boiler house, the Reservoir on Lookout Hill, and four rustic shelters.

In addition to this, an ornamental structure for a shelter and lookout on the east drive is in hand and approaching completion.

The work of completing the cover or roof to the Well is in progress, the wood and iron work being nearly ready to be put up.

FORCE.

During the working season the average of men and teams employed was 794, being a less force than has been engaged during any previous season of the same duration.

The following statement shows the average number of employed force during each month of the year, and also for the preceding years since the organization of the work in 1866:
STATEMENT SHOWING THE AVERAGE NUMBER OF EMPLOYED FORCE FOR
THE MONTHS AND YEARS NOTED.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1866</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>300</td>
<td>335</td>
<td>450</td>
<td>550</td>
<td>620</td>
<td>700</td>
<td>725</td>
</tr>
<tr>
<td>1867</td>
<td>700</td>
<td>630</td>
<td>410</td>
<td>800</td>
<td>1,000</td>
<td>1,150</td>
<td>1,200</td>
<td>1,525</td>
<td>1,750</td>
<td>1,825</td>
<td>1,800</td>
<td>1,100</td>
</tr>
<tr>
<td>1868</td>
<td>944</td>
<td>812</td>
<td>508</td>
<td>1,215</td>
<td>1,047</td>
<td>1,189</td>
<td>1,095</td>
<td>1,090</td>
<td>1,116</td>
<td>1,118</td>
<td>1,167</td>
<td>912</td>
</tr>
<tr>
<td>1869</td>
<td>740</td>
<td>698</td>
<td>746</td>
<td>946</td>
<td>959</td>
<td>988</td>
<td>991</td>
<td>1,006</td>
<td>975</td>
<td>946</td>
<td>552</td>
<td>204</td>
</tr>
<tr>
<td>1870</td>
<td>139</td>
<td>134</td>
<td>134</td>
<td>164</td>
<td>594</td>
<td>721</td>
<td>661</td>
<td>730</td>
<td>806</td>
<td>839</td>
<td>853</td>
<td>845</td>
</tr>
</tbody>
</table>

EXHIBIT OF THE DAYS DURING WHICH THE MAIN FORCE WAS EMPLOYED,
AND OF THE DAYS WHEN THE WEATHER PARTIALLY OR ENTIRELY
PREVENTED THE PROSECUTION OF THE WORK.

Whole number of full days when the main force was employed.... 282
Whole number of days when the weather interrupted the work.... 26

WASHINGTON PARK.

The operations on this Park during the past year have mainly con-
sisted of a small amount of finishing surfaces and completing planting,
for which a small force of twenty-six men for one month, and seven
gardeners for the working season only have been employed. The large
trellis was completed early in the season, and was much used by the
public during the summer months.

The work was entirely suspended from January 1 until May 9,
1870.

The following table shows the average force employed by months
during the years 1868, 1869, and 1870:
ORGANIZATION.

The force for the year was made up as follows:

One General Foreman.

Nine barrow gangs (one at Washington Park), average 31 men each.

Three cart gangs, average 33 men, 34 carts each.

One team gang, average 28 men, 33 teams.

One stone-breaking gang, 15 men.

One miscellaneous gang, 22 men.

Of this force, 25 men, 5 teams, and 10 sprinkling-carts were required for the work of maintenance, repairs, and cleaning of roads, basins, and water-ways; to which is added a force of gardeners in the spring and summer, for the care of shrubbery, mowing, etc.

MECHANICAL FORCE—STONE-CUTTERS, STONE AND BRICK MASONS.

One foreman of stone-cutters, averages 13 stone-cutters.

One foreman of stone-masons, averages 11 stone-masons.

One foreman of brick-masons, averages 15 brick-masons.

One foreman of carpenters, averages 15 carpenters.

One foreman of blacksmiths, averages 2 blacksmiths.

One foreman of rustic work, averages 2 rustic carpenters.

PLANTING AND GARDENING FORCE,

under the supervision and direction of the Park Inspector, Mr. O. C. Bullard, as follows:

One foreman.

One assistant foreman.

Six skilled gardeners.

Ten skilled laborers.

One hundred and one laborers.
The division and arrangements of labor remain the same as heretofore, as does also the keeping of time and accounts of work, and of complete vouchers and records.

APPOINTMENTS.

During the year there have been appointed:

1,187 laborers.
207 horses and carts.
66 teams.
144 miscellaneous appointments.

DISCIPLINE.

The following is an abstract of the record regarding promotions, suspensions, and discharges occurring during the year:

APPOINTMENTS AND PROMOTIONS.

Number of foremen appointed........................................ 21
Number of assistant foremen promoted to foremen.................. 3
Resignation of foremen.................................................. 2
Foreman died.............................................................. 1

SUSPENSIONS.

Number of assistant foremen suspended for breach of discipline... 2
Number of laborers " " " .............................................. 175
Number of horses and carts " " " .................................... 43
Number of teams " " " .................................................. 21

DISCHARGES.

Number of foremen discharged for intoxication..................... 1
Number of laborers discharged for inefficiency...................... 349
Number of horses and carts discharged for inefficiency............ 39

In this connection, I would call your attention to the report of the General Foreman, as a matter of interest, concerning the force, for whose management he is directly responsible:

John Y. Cuyler, Engineer-in-Charge:

Sir:

For the year ending December 31, 1870, I feel gratified in being able to report a smaller number of discharges and suspensions of foremen and assistant foremen com-

December 31, 1870.
pared with what it has heretofore been my duty to bring to your notice. All the fore-
men employed during the year have been at least three years under the present
management, a majority of them since the commencement of the work, and all thoroughly
disciplined and drilled in its requirements. They have done well throughout the year,
seeming to vie with each other, as well in executing the work rapidly as in conforming
to the rules. All of the assistant foremen have been employed on the Park upward of
three years, with one exception, Wm. H. Furey, who was appointed in May last.

The men applying for work on the laboring force have hardly been up to the average
of those employed during 1869. This will account for the unusually large number of
discharges and suspensions recorded in the Discipline Book.

There have been three promotions of assistant foremen to the rank of foremen, viz.,
John Wallace, Andrew Veith, and Hugh Thompson. One foreman discharged for in-
toxication; two have resigned; one has died; and one assistant has been suspended
for neglect of duty. The highest number of foremen employed at any time, has been
fifteen, and of assistant foremen, five.

Respectfully submitted,
JOHN MAGUIRE,
General Foreman.

ACCIDENTS.

One case of sunstroke occurred during the extreme heat of the sum-
mer, which, owing to prompt application of the remedies provided by
the Commission for such cases, did not result fatally.

Twenty runaways have been reported; no fatal accident has occur-
red; no serious result has followed, except in two cases.

Two laborers were seriously injured by the falling of earth; to
neither, however, has the accident proved fatal.

The body of a man was found in the Lake District in the early part
of the year. The result of the Coroner’s inquest was, that the man
had been intoxicated, and losing his way across the Park, was frozen
to death.

A child was drowned in the fountain-basin during the summer, the
result of gross carelessness on the part of those having charge of her.

KEEPERS.

The Keeper force has remained substantially as previously reported.

The organization is made up as follows: two Head Keepers, one
Station Officer, four Wardens, twelve Range Keepers, and twenty-six
Post Keepers.
It is to be understood that this force maintain police supervision upon all the parks under the control of the Commission, and during the year was distributed as follows:

12 Rangers, Prospect Park,
20 Post Keepers, Prospect Park,
3 Post Keepers, Washington Park,
1 Post Keeper, Carroll Park,
2 Post Keepers, City Park,

and comprehends a daily inspection by a Head Keeper of all the smaller parks under the jurisdiction of the Commissioners.

During the year, two Wardens, one Ranger, and two Post Keepers have resigned. One Warden has been promoted to Station Officer, one Ranger to Warden, and one Post Keeper to Ranger. One Station Officer, two Wardens, five Rangers, and twelve Post Keepers have been suspended for breach of discipline. One Station Officer, two Rangers, and four Post Keepers have been discharged for neglect of duty and inefficiency.

ARRESTS.

Thirty-one arrests were made during the year, of which the following is the summary:

For fast driving................................. 17
For disorderly conduct............................ 10
For interfering with Keepers...................... 4

PARK POUND.

The continuance of the Park pound has had the effect of keeping in restraint numbers of animals, in the neighborhood of the Park, which formerly ran at large to the detriment of the grounds.

PUBLIC USE OF THE PARKS.

During the year records have been made of the number of people visiting the Park, and the results, in detail, will be found in the following statement:
<table>
<thead>
<tr>
<th>Month</th>
<th>Vehicles</th>
<th>Equestrians</th>
<th>Pedestrians</th>
<th>Total Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1868</td>
<td>1869</td>
<td>1870</td>
<td>1868</td>
</tr>
<tr>
<td>January</td>
<td>11,440</td>
<td>36,719</td>
<td>57,936</td>
<td>1,301</td>
</tr>
<tr>
<td>February</td>
<td>16,476</td>
<td>37,588</td>
<td>37,385</td>
<td>510</td>
</tr>
<tr>
<td>March</td>
<td>16,085</td>
<td>43,740</td>
<td>39,402</td>
<td>3,304</td>
</tr>
<tr>
<td>April</td>
<td>19,089</td>
<td>53,430</td>
<td>69,599</td>
<td>5,287</td>
</tr>
<tr>
<td>May</td>
<td>38,871</td>
<td>75,636</td>
<td>93,713</td>
<td>7,623</td>
</tr>
<tr>
<td>June</td>
<td>65,485</td>
<td>82,620</td>
<td>102,647</td>
<td>8,825</td>
</tr>
<tr>
<td>July</td>
<td>52,877</td>
<td>68,226</td>
<td>100,658</td>
<td>5,214</td>
</tr>
<tr>
<td>August</td>
<td>51,133</td>
<td>80,339</td>
<td>87,703</td>
<td>6,369</td>
</tr>
<tr>
<td>September</td>
<td>37,349</td>
<td>70,717</td>
<td>106,183</td>
<td>4,663</td>
</tr>
<tr>
<td>October</td>
<td>49,684</td>
<td>80,417</td>
<td>127,442</td>
<td>8,329</td>
</tr>
<tr>
<td>November</td>
<td>44,909</td>
<td>50,073</td>
<td>90,025</td>
<td>10,113</td>
</tr>
<tr>
<td>December</td>
<td>18,200</td>
<td>34,435</td>
<td>57,813</td>
<td>3,180</td>
</tr>
<tr>
<td>Total</td>
<td>421,598</td>
<td>714,240</td>
<td>970,486</td>
<td>64,918</td>
</tr>
</tbody>
</table>
The whole number for the year is 3,843,980. The largest number of visitors on any one day was 50,274, October 28. 856,005 persons visited the Park on Sundays. 74,484 equestrians have made use of the Park; this is 4,730 in excess of the preceding year.

During the summer and fine fall weather, the West Woods were in constant use for large social parties, and the pic-nics of friendly associations, Sunday-school, church, and temperance societies. There have been four hundred and forty-nine of these gatherings during the season.

Tables, seats, and swings were provided, as heretofore, without charge. No accident has occurred.

PARADE GROUND.

The shelter erected for the use of the military, was put into use during the spring parades.

The turf of the Parade Ground, by frequent cutting and rolling, has become firm and even. Preceding each parade, the whole area was closely mowed and otherwise put into a condition to facilitate, as far as possible, the operations of the military.

There have been six parades; two division and four brigade parades. The ground has also been made use of by ball clubs, and three hundred and ten games of ball, seven of Lacrosse, and ten games of cricket were played in the course of the year.

SKATING.

During the latter part of 1869, and early in 1870, owing to the peculiar weather that prevailed, it was found that the ice remained at no period sufficiently firm to justify the use of the pond by the public for skating purposes.

There were six days' skating during the current year, from 26th to 31st December, inclusive. The pond area has been increased to twenty-two acres, making it the most extensive sheet of ice in this City, and about the same area as the largest pond at Central Park.

TREES AND SHRUBS.

The following statements show the number of deciduous trees, shrubs, evergreens, etc., purchased; also the stock on hand, together with the number of each that have been planted during the year.
On Prospect Park.

Statement showing the number of trees, shrubs, etc., received during the year ending December 31, 1870.

<table>
<thead>
<tr>
<th>Deciduous Trees</th>
<th>Deciduous Shrubs</th>
<th>Evergreens</th>
<th>Deciduous Evergreens</th>
<th>Vines and Creepers</th>
<th>Herbaceous Plants</th>
<th>Bedding Plants</th>
<th>Flower Bulbs</th>
<th>Ferns</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>682</td>
<td>6,105</td>
<td>1,200</td>
<td>111</td>
<td>296</td>
<td>1,400</td>
<td>20,000</td>
<td></td>
<td>28,843</td>
</tr>
</tbody>
</table>

Stock in nursery, December 31, 1870.

<table>
<thead>
<tr>
<th>Deciduous Trees</th>
<th>Deciduous Shrubs</th>
<th>Evergreens</th>
<th>Deciduous Evergreens</th>
<th>Vines and Creepers</th>
<th>Herbaceous Plants</th>
<th>Bedding Plants</th>
<th>Flower Bulbs</th>
<th>Ferns</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>19,087</td>
<td>31,523</td>
<td>32,407</td>
<td>3,160</td>
<td>1,237</td>
<td>14,000</td>
<td></td>
<td></td>
<td></td>
<td>101,463</td>
</tr>
</tbody>
</table>

Statement showing the number of trees, shrubs, etc., set in permanent plantations during the year.

<table>
<thead>
<tr>
<th>Deciduous Trees</th>
<th>Deciduous Shrubs</th>
<th>Evergreens</th>
<th>Deciduous Evergreens</th>
<th>Vines and Creepers</th>
<th>Herbaceous Plants</th>
<th>Bedding Plants</th>
<th>Flower Bulbs</th>
<th>Ferns</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,104</td>
<td>19,646</td>
<td>5,031</td>
<td>4,780</td>
<td>10,179</td>
<td>11,728</td>
<td>296</td>
<td>1,400</td>
<td></td>
<td>57,162</td>
</tr>
</tbody>
</table>

Six trees, twenty-seven shrubs, seventy-five herbaceous plants, and a quantity of myrtle were presented to the Park by Mr. Stella, corner of Wyckoff street and Carlton avenue; several fine oleanders, by Mrs. S. B. Freeman, 89 Houston street; two large evergreen trees by Mr. Henry Wall, Flatbush; one maple tree, by Mr. Jonathan Longmeyer, Flatbush; one fine specimen golden arbor vitae, and several evergreens and perennial plants, by Mr. A. G. Burgess, East New York.

Washington Park.

Statement showing the number of trees, shrubs, etc., planted on Washington Park during the year.

<table>
<thead>
<tr>
<th>Deciduous Trees</th>
<th>Deciduous Shrubs</th>
<th>Evergreens</th>
<th>Vines</th>
<th>Aggregate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,534</td>
<td>3,382</td>
<td>556</td>
<td>120</td>
<td>5,592</td>
</tr>
</tbody>
</table>
CARROLL PARK.
STATEMENT SHOWING THE NUMBER OF TREES, SHRUBS, ETC., PLANTED AT CARROLL PARK DURING THE YEAR.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>207</td>
<td>143</td>
<td>378</td>
</tr>
</tbody>
</table>

PARADE GROUND.
Deciduous trees planted during the year............................. 108

CITY HALL PARK.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>18</td>
<td>24</td>
</tr>
</tbody>
</table>

AMOUNT OF PEAT AND FERTILIZERS ON HAND AT PROSPECT PARK.

Crude peat, 4,856 cubic yards.
Stable manure, compost, 2,437 “
Fish, 276 “
Nightsoil, 962 “

WASHINGTON PARK.

Stable manure compost, 120 cubic yards.

The tree-moving machines constructed in 1867, have been in effective use during the season for transplanting trees.

During the year 843 trees have been moved either by means of these trucks or stone boats.

During the past season the two temporary places for refreshment, established two years since, and found to extend desired facilities to the public, have been continued.

Among the gifts to the Commission is included a Turkish caique, brought from Europe especially for the Park, by Mr. Beach, of Columbia street.
Also an Indian birch bark canoe, of a picturesque form, which forms a striking contrast with the one just noted, as they float together upon the water.

This canoe, in complete condition, was presented to the Commission by Mr. Wm. H. Hallock, formerly editor of the *Journal of Commerce*, and now resident of Brooklyn.

The stock of machinery and implements, such as engines, derricks, trucks, and tools of a larger and more bulky description, is ample for the ensuing season, and this portion of the property of the Commission is now being put into good working condition. In this connection, it may be proper to refer to the necessity for an early execution of the plan for a substantial maintenance store-yard for the care and accommodation of supplies and materials.

During the year two large flag-staffs have been prepared for the Parade Ground.

PARK SETTEES OF IRON AND WOOD.

100 seven feet long.
50 five feet long.
40 four feet long.
36 rustic bird-houses.

A sufficient water supply has been maintained throughout the season for the public benefit.

A supply of building-stone is on hand, consisting of sand-stone and granite, suitable for dressed foundation wall, the exact quantities of which will be found in the inventory.

HORSES AND WAGONS.

There are eight horses in good condition, the property of the Commission; also three heavy wagons, two one-horse heavy wagons for field use, and two one-horse wagons for use of the Landscape Architects and Superintendents.

The several assistants connected with the Supply and Disbursing Departments, have intelligently and faithfully performed their duties throughout the year.

Respectfully submitted,

JOHN Y. CUYLER,
*Assistant Engineer-in-Charge.*