THE CITY OF NEW YORK,

DEPARTMENT OF PARKS.

REPORT FOR THE YEAR 1902.

THE PARK BOARD:

WILLIAM R. WILLCOX, PRESIDENT,
Commissioner of Parks for the Boroughs of Manhattan and Richmond.

JOHN E. EUSTIS,
Commissioner of Parks for the Borough of The Bronx.

RICHARD YOUNG,
Commissioner of Parks for the Boroughs of Brooklyn and Queens.

GEORGE S. TERRY, Secretary.
SAMUEL PARSONS, Jr., Landscape Architect.

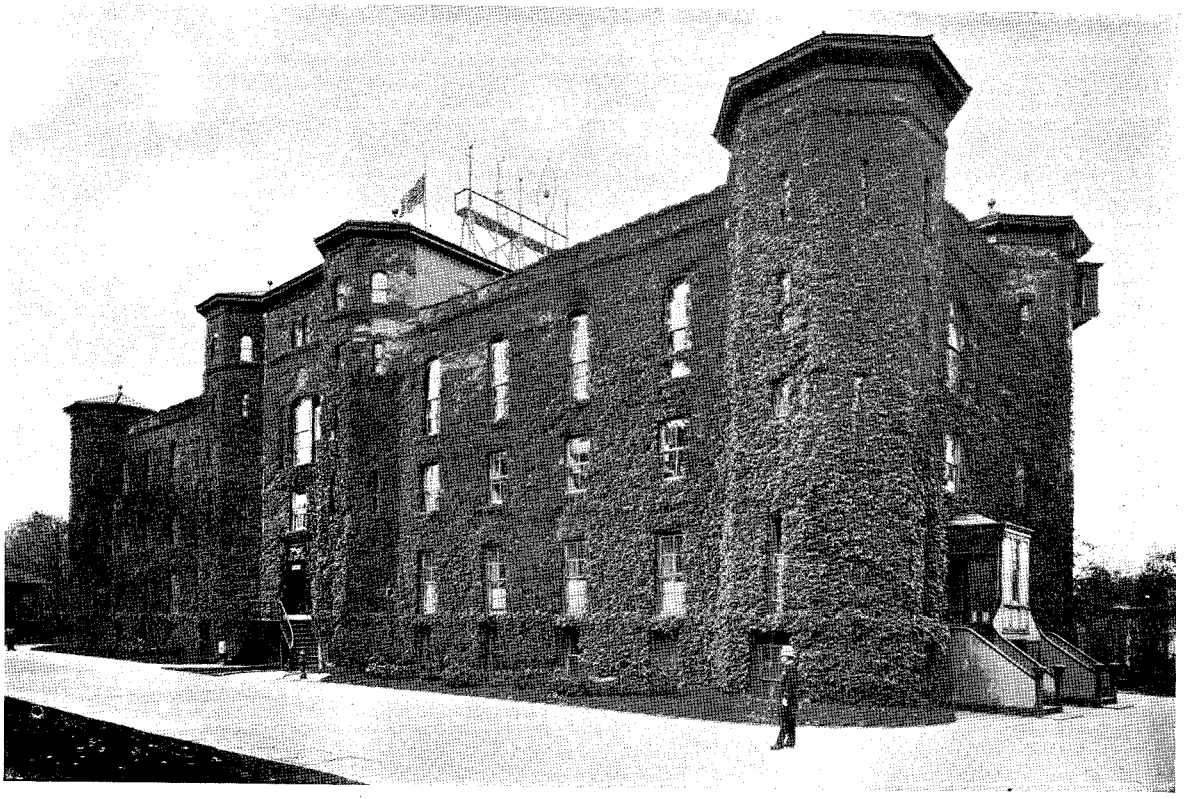
NEW YORK:
MARTIN B. BROWN CO., PRINTERS AND STATIONER
Nos. 49 to 57 Park Place.
1903.

SOUTHERLY ENTRANCE, PROSPECT PARK.

COMPLIMENTS OF

JOHN E. EUSTIS

COMMISSIONER



THE ARSENAL, CENTRAL PARK.
(Offices of the Park Board and the Department of Parks in the Boroughs of Manhattan and Richmond.)

THE PARK BOARD.

The head of the Department of Parks is the Park Board consisting of three commissioners. The Park Board establishes and enforces general rules and regulations for the administration of the Department, and subject to the ordinances of the Board of Aldermen, establishes and enforces rules and regulations for the government and protection of public parks and of all property in charge of said Board or under its control, which rules and regulations so far as practicable are uniform in all of the boroughs.

All rules and regulations of the Park Board which were in force on the first day of January, 1902, were continued in full force and effect by the provisions of the new Charter. Any person violating such ordinances is guilty of a misdemeanor. The Park Board receives bids for works and supplies, lets contracts and has general power over all matters relating to the parks of the city, taken as a whole.

Each Commissioner of Parks, subject to the general rules and regulations established by the Board, has administrative jurisdiction within the borough or boroughs which he was designated by the Mayor to control.

The offices of the Park Board are, under the Charter, in the Borough of Manhattan, and are located in the Arsenal Building, Central Park. Branch offices in the boroughs of Brooklyn and The Bronx are provided also by the Charter, and are located, respectively, in the Litchfield Mansion, Prospect Park, and the Zborowski Mansion, Claremont Park.

The City of New York is divided for purposes of maintaining parks and parkways into the following borough divisions:

1. Boroughs of Manhattan and Richmond.
2. Boroughs of Brooklyn and Queens.
3. Borough of The Bronx.

The assent of the Landscape Architect of the Department of Parks is requisite to all plans and works or changes thereof, respecting the confirmation, development or ornamentation of any of the park squares or public places of the city. It is the duty of such Landscape Architect, from time to time, to prepare and submit to the Board plans for works or changes respecting the parks and parkways of the City.

THE COMMISSIONER'S REPORT

OF THE WORK OF

THE DEPARTMENT OF PARKS

FOR THE

BOROUGHS OF MANHATTAN AND RICHMOND

FOR THE YEAR 1902.

OFFICE OF THE DEPARTMENT OF PARKS,
BOROUGHS OF MANHATTAN AND RICHMOND,
THE ARSENAL, CENTRAL PARK,
NEW YORK, December 31, 1902.

Hon. SETH LOW,
Mayor of The City of New York:

DEAR SIR—In compliance with the provisions of the Charter, I send you herewith the report of work undertaken and accomplished in this Department for the year closing, together with an outline of plans and recommendations for the year 1903.

Respectfully,

WILLIAM R. WILLCOX,
Commissioner of Parks,
Boroughs of Manhattan and Richmond.

REPORT OF THE COMMISSIONER OF PARKS FOR THE BOROUGHS OF MANHATTAN AND RICHMOND.

The Commissioner of Parks for the boroughs of Manhattan and Richmond, in assuming office January, 1902, was able to gauge his expenditures only upon the basis of past appropriations. The appropriation for labor, maintenance and supplies in the boroughs of Manhattan and Richmond was—

For the year 1899.....	$480,000 00
For the year 1900.....	496,000 00
For the year 1901.....	496,000 00

—and the amount appropriated in the fall of 1901 for 1902 was $496,000 for this purpose.

As the revised budget was not passed until May 1, this Department had been conducted upon the basis of $496,000, from January 1 to May 1, and when, in the revised budget, but $433,822 was appropriated for labor, maintenance and supplies during the entire year, it not only necessitated retrenching for the balance of the year, but the expenditure for the first four months on the basis of $496,000 had to be taken into consideration.

The history of the Department of Parks shows a steady increase in park areas, and the year 1902 compares favorably with previous years in this regard so far as the area of improved lands in the boroughs of Manhattan and Richmond is concerned.

The problem of maintaining increased areas with an appropriation decreased some $62,178 had to be very carefully worked out. It was found that in some instances salaries might be reduced without injustice, and that the number of employees of certain kinds might be lessened without material detriment to the work. The action of the Commissioner early in the season was therefore taken with this in view, and it is believed that notwithstanding the great disadvantages indi-

cated, the parks in the boroughs of Manhattan and Richmond have been maintained in 1902 in a manner that reflects credit by comparison with any previous years.

In order to better describe the work accomplished during 1902, and proposed for 1903, a brief history of the development of the park system in the boroughs of Manhattan and Richmond may be of assistance.

The first park space in the City of New York was that now called Bowling Green Park. In 1732 this plot of ground was leased by citizens for playing the game of bowls. The plot was originally square, and in its middle, in 1770, a lead statue of George III. was erected. After the Declaration of Independence the statue was torn down by a mob and the lead used for making bullets for the American army. In 1786 Bowling Green was first laid out as a park. At that time it was the centre of the fashionable residence district.

Open water existed originally where the Staten Island Ferry houses now stand, and the site of the Aquarium was also under water. State street was not laid out until 1789, and was then bounded by the Bay on one side. A ledge of rocks stretched across Manhattan Island, and facing these rocks along the edge of the water there was built in the early days a line of works known as "The Battery." These works extended from Whitehall street to what is now Rector street, and cannon were mounted behind them.

The name "The Battery" has clung to this locality from that time. About 1723 the first steps were taken to fill in to the present water line, but many years passed before this was accomplished.

The present City Hall Park constitutes but a part of what in the latter half of the seventeenth century was known as "The Common Lands," which stretched from the site of the Post-office northward towards the Tombs, and from the line of Broadway across what is now Park Row. This land was originally used for the grazing of cattle, and at its northeasterly end was the "Collect" or "Fresh Water Pond." The lands

originally comprising The Commons were reduced by the laying out of streets and by the construction of buildings. In 1757, the Hall of Records building, now being demolished, was erected for a jail. At the close of the Revolutionary War improvements in this park were begun. The erection of the present City Hall was authorized in 1802, its corner-stone was laid in 1803, and the authorities met there for the first time in 1811. During the Civil War the present site of the Post-office building was occupied by sheds, where the soldiers were supplied with food, and after the war it was ceded to the United States Government as a site for the Post-office.

MADISON SQUARE PARK.

Madison Square Park was laid out as a Potter's Field in 1794, at what was then the junction of the Post and Bloomingdale roads. In 1806 the United States Government erected in Madison square an extensive Arsenal which was subsequently abandoned. Plans for improving this square were adopted in 1870.

UNION SQUARE PARK.

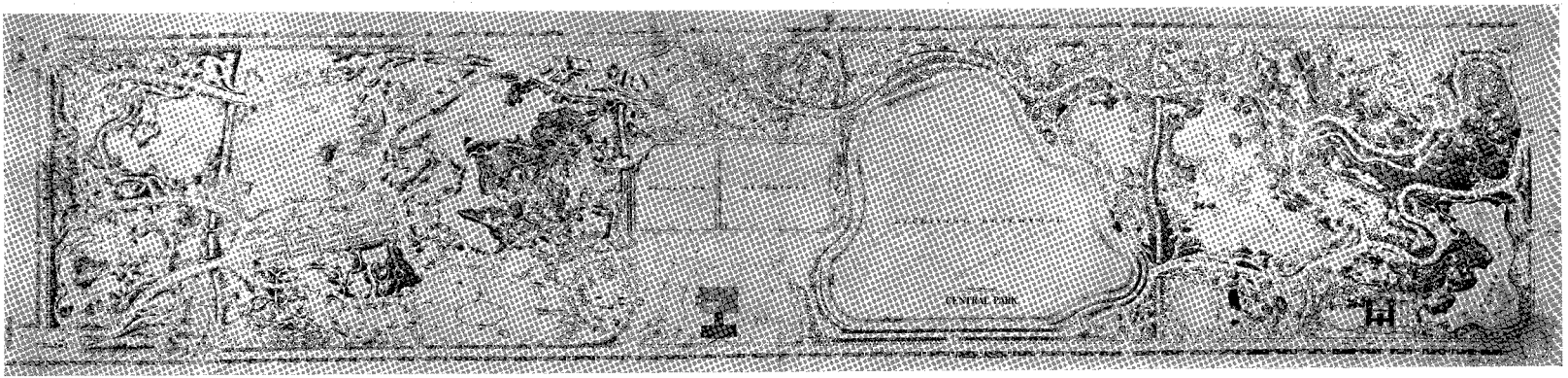
Union Square Park was laid out in 1815, but not until 1832 was it enlarged to its present size. Plans for its improvement were also adopted in 1870.

WASHINGTON SQUARE PARK.

In 1797 the Potters' Field was removed from Madison square to what is now Washington Square Park. Later, Washington square was known as "Washington Parade Ground." Plans for its improvement were adopted in 1870 and carried out during the year 1871.

TOMPKINS SQUARE PARK.

Tompkins Square Park was a parade ground in 1866. It was paved with concrete originally, but has since been remodeled and laid out as a public park.



Map of the Central Park.

CENTRAL PARK.

In April, 1851, Mayor Kingsland transmitted to the Board of Aldermen a special message inviting attention to the limited areas devoted to the use of the public, their inadequacy to the wants of the people and the necessity, both from a moral and sanitary point of view, of securing more lands for the purposes of public recreation. A committee, to whom the matter was referred, reported the ground known as "Jones' Woods" suitable for the required purposes. This report was adopted with the result that an act was passed in the Legislature in 1851 known as the "Jones' Woods Park Bill." After the passage of this act the wisdom of selecting these lands was questioned, and more or less public discussion and agitation ensued, followed by the appointment of a special committee by the Board of Aldermen to investigate whether more suitable lands for a public park could not be obtained.

This committee stated in its report the advantages of a plot of ground lying between Fifth and Eighth avenues, Fifty-ninth and One Hundred and Sixth streets, and recommended its acquisition instead of Jones' Woods. This resulted in the passage by the Legislature in 1853 of an act selecting the ground known as "The Central Park." In November, 1853, the Supreme Court, on the application of the Corporation Counsel, appointed five Commissioners to take the land for the Central Park, and in February, 1856, the report of the Commission was confirmed.

Under an act for the regulation and government of the Central Park, passed April 17, 1857, Messrs. Robert J. Dillon, James E. Cooley, Charles H. Russell, John F. Butterworth, John A. C. Gray, Waldo Hutchins, Thomas E. Field, Andrew H. Green, Charles W. Elliott, William K. Strong and James Hogg were named as "Commissioners of the Central Park." None of these gentlemen are living save Hon. Andrew H. Green, who was actively and intimately associated with the development of the park, serving as one of the original Commissioners from May 1, 1857, until May 1, 1873. While Com-

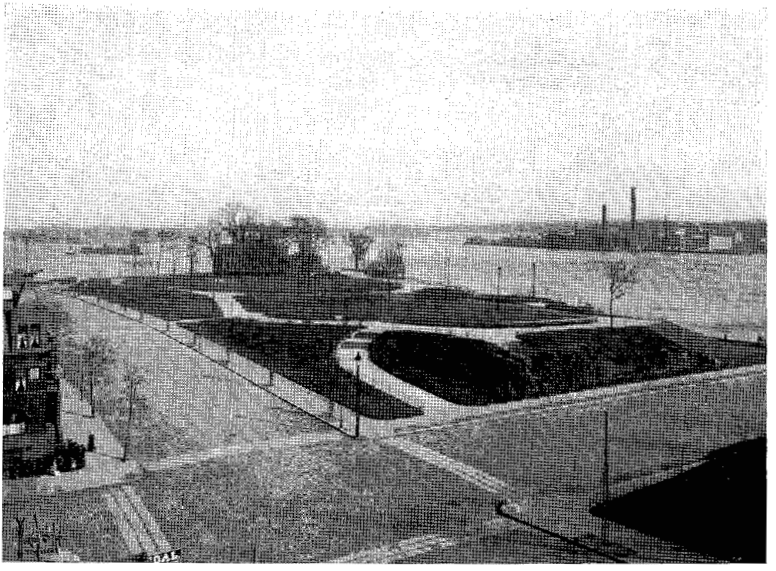
missioner, he filled the office of President and Treasurer, and, for several years, Comptroller of the Park. He was again appointed a Park Commissioner on April 2, 1880, and served until December 31 of that year, when he resigned.

After the passage of the act selecting the ground for the Central Park and the confirmation of the report of the Commission to take the lands, invitations were extended to Washington Irving, George Bancroft, C. A. Dana and others, to attend the meetings of the Central Park Commission and form a Consulting Board in connection with the adoption of a permanent design for the improvement of the park. Washington Irving was subsequently elected President of the Board. A competition was held for plans for the improvement of the park, thirty-three being submitted. The design selected was that of Frederick Law Olmsted and Calvert Vaux. In 1857 Mr. Olmsted was appointed Superintendent to the Board, and George E. Waring, Agricultural Engineer. In June, 1858, the actual work of constructing the park was begun under the supervision of Mr. Olmstead, Mr. Vaux and Mr. J. W. Mould.

Some portions of the Central Park lands were acquired through private sale, while other portions, including the reservoir tract and "Common Lands" taken by the City under the Charters of 1686 and 1730 were already City property. The Arsenal building and surrounding grounds were secured by a grant from the State. The extension of Central Park from One Hundred and Sixth to One Hundred and Tenth streets was authorized under the Laws of 1859, and the lands for this extension were acquired in 1863.

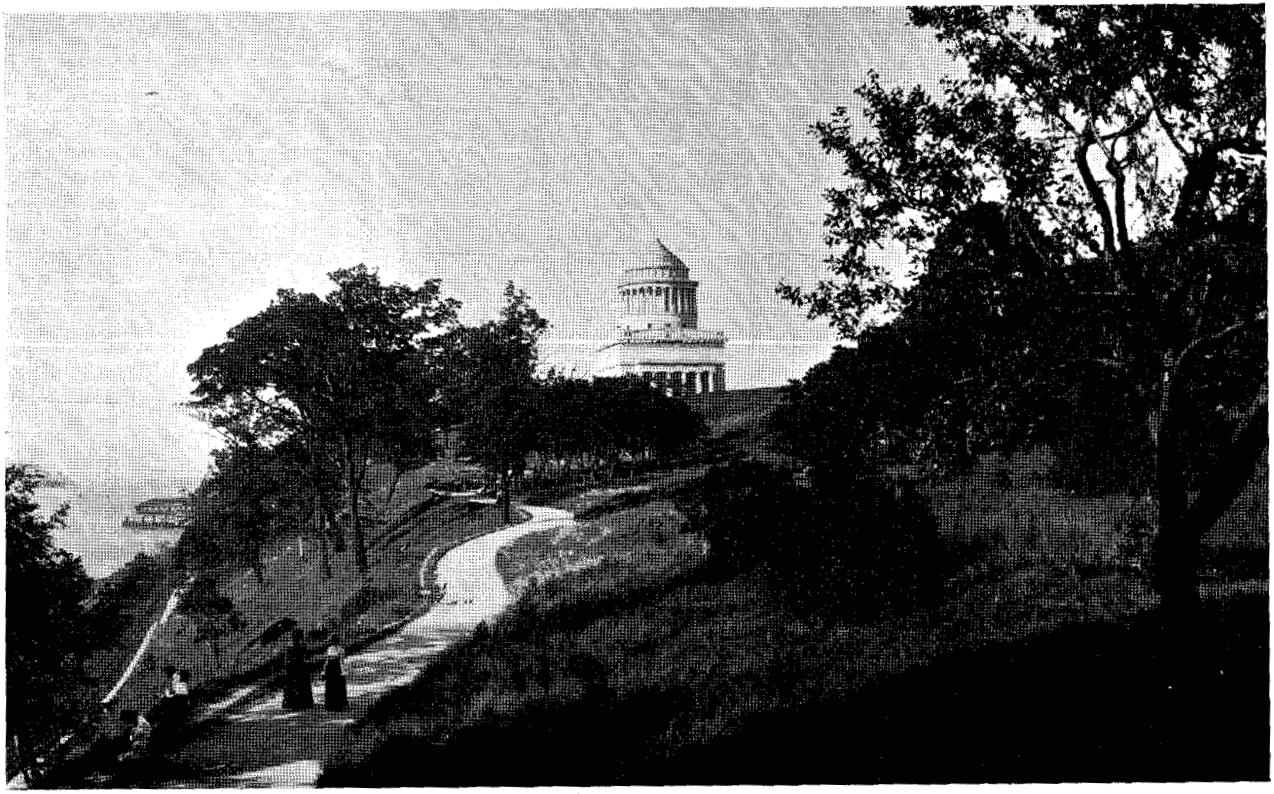
RIVERSIDE PARK.

Riverside Park was acquired under the provisions of chapter 697 of the Laws of 1867, the City obtaining possession of the lands in August, 1872. Under the provisions of chapter 447 of the Laws of 1876, the whole area of what was formerly known as Riverside Park and avenue was placed under the control and management of the Park Department. Under the



SMALL PARKS.

Extension of East River Park. Mulberry Bend Park



RIVERSIDE PARK, SHOWING TOMB OF GENERAL GRANT.

Laws of 1885 the City acquired, in 1891, certain small parcels of land on the westerly side at a cost of about $95,000. In 1900 the City acquired, under the Laws of 1896, the lands north of One Hundred and Twenty-second street, between Claremont avenue and Riverside drive, at a cost of about $370,000. In 1899, under the provisions of the Laws of 1894, and in 1901, certain lands on the westerly side of Riverside Park, west of the railroad tracks, were acquired at a cost of about $24,000. The present area of Riverside Park is about 140 acres, exclusive of the land west of the railroad track.

SMALL PARKS.

Chapter 320 of the Laws of 1887 gave the Board of Street Opening and Improvement of the City of New York power to select, locate and lay out so many public parks in the City of New York, south of One Hundred and Fifty-fifth street, as the Board might from time to time determine. The said Board was empowered to enter upon any property selected, for the purpose of making surveys and performing other similar work, and if any street, avenue or public place was included within the limits of any property so selected, to close and discontinue the same within the limits of the park. On the final confirmation of the report of the Commissioners of Estimate and Assessment appointed under the said law, the City of New York became seized in fee of the lands included in the said report and immediately took possession through the Department of Parks.

The following park lands have been acquired under the provisions of chapter 320 of the Laws of 1887:

Name of Park.	Cost of Land.
DeWitt Clinton Park (7.377 acres)	$1,272,385 00
Mulberry Bend Park (2.750 acres)	1,522,055 60
Hudson Park (1.700 acres)	533,765 04
Park at Worth and Baxter streets adjoining Mulberry Bend Park (0.187 acres)	184,724 67
Washington-Lafayette Park (0.018 acres)	47,000 00
East River Park extension (12.546 acres)	522,118 83

In June, 1897, an advisory committee which became known as the Small Parks Commission was appointed by Mayor Strong to advise as to the acquisition of additional small parks and playgrounds. In October of that year this Commission made an exhaustive report suggesting many places for the creation of small parks. It pointed out that in the original plan of the City of New York the children seemed to have been forgotten. That as the city had grown the unoccupied spaces had been covered by improvements, leaving the children no other place to play but in the public streets, and the streets had become so largely occupied by car tracks and other traffic as to make it dangerous for the children even to play there. A sense of hostility between the children and the guardians of public order had arisen, leading to the growth of a criminal class.

The Committee further stated in its report that from a careful examination it was convinced that the failure to provide for the reasonable recreation of the people, and especially for playgrounds for the rising generation, had been the most efficient cause of the growth of crime and pauperism in New York.

The report of the Small Parks Commission was signed by the following gentlemen:

Abram S. Hewitt, Chairman;
DeWitt J. Seligman,
John B. Devins,
Myer S. Isaacs,
James J. Higginson,
William R. Stewart,
Joseph D. Bryant,
Charles G. Wilson (ex officio),
Samuel McMillan (ex officio),
Jacob A. Riis, Secretary.

In addition to the small parks acquired under chapter 320, Laws of 1887, the following small parks have been acquired:

HUDSON PARK.

Name of Park.	Cost of Land.
Hamilton Fish Park (3.673 acres)	$1,719,455 00
Thomas Jefferson Park (15.409 acres)	2,748,122 50
Colonial Park (12.790 acres)	1,473,071 62
William H. Seward Park (2.651 acres)	1,811,127 00
Corlear's Hook Park (8.300 acres)	1,370,421 00

PARK LANDS IN PROCESS OF CONDEMNATION.

Proceedings are now under way for the acquisition of two parcels of land under the provisions of chapter 320 of the Laws of 1887.

The order confirming the report of the Commissioners for the acquisition of the lands situated at Seventy-sixth to Seventy-eighth street and the East river (3.004 acres) was entered July 11, 1902. From this order the City took an appeal on the ground that the Commissioners had erroneously valued the property taken, on the assumption that it was more valuable to the City for park purposes than for any other purposes. The City has been unable to agree with the representative of the property-owners as to what the papers on appeal shall contain, and the settlement of the papers on appeal has been noticed for early in 1903. It is expected that a decision will be handed down by the Appellate Division in April, 1903.

In the Thirty-fifth street and First avenue Park matter (2.947 acres) it is expected that the City will be able to obtain possession of the lands during the first half of 1903.

Both of the above parks were acquired upon the recommendation of the Small Parks Commission mentioned above, and they will be developed upon the same practical lines as William H. Seward Park, Thomas Jefferson Park, Hamilton Fish Park and DeWitt Clinton Park, with a liberal part of the area devoted to playgrounds. As soon as title to the lands is vested in the City plans will be made, estimates prepared of the cost of the work and appropriations requested to carry it on without delay.

From this brief historical resumé it may be seen that, broadly speaking, the acquisition of parks in the Borough of Man-

hattan may be divided into three periods: First, Central Park, in 1853; second, Riverside Park, in 1872; and third, the small parks in 1897.

CENTRAL PARK.

The area of the Central Park is 839.921 acres, its length a little over 2½ miles, and its width 79 feet over ½ mile. The land cost $5,028,844.10; construction and maintenance to date (approximately), $20,000,000. The present value of the land (estimated) is $200,000,000. The tax valuation of real estate in the Twelfth, Nineteenth and Twenty-second Wards, within which the park is situated, was in 1856, the year before the Central Park was begun, $21,875,230. In 1901 the valuation for the Nineteenth, Twenty-second and part of the Twelfth Wards was $946,021,221.

The drives of the Central Park aggregate 9.452 miles, with an average width of 54 feet, and the bridle roads aggregate 5.503 miles, with an average width of 16 feet 5 inches.

The walks in the park aggregate 31 miles.

During the summer inspections convinced me that the plantations in the Central Park had been deteriorating for a number of years past, owing to improper treatment, and that many of the trees had become diseased and infected with fungi, owing to neglect in properly covering places where limbs had been sawed off. In order that the matter might be fully investigated and the Department advised intelligently as to the best course to pursue, in September I requested Dr. N. L. Britton, Director of the New York Botanical Gardens; Dr. B. E. Fernow, Director, Demonstration Forests of the New York State College of Forestry, Cornell University; Mr. J. A. Pettigrew, Superintendent, Department of Parks, Boston, Mass.; to act with Mr. Samuel Parsons, Jr., the Landscape Architect of this Department, as a Commission to examine into and report upon the natural conditions in the Park. Messrs. Britton, Fernow and Pettigrew promptly agreed to serve on such a Commission, and offered their services without compensation to the City,

CENTRAL PARK (ALONG THE POOL AND IN THE WOODS.)

THE CENTRAL PARK, WINTER SCENES.

taking the attitude that the preservation of the Central Park was a matter of interest to the whole country. The following is the report of the Commission referred to:

NEW YORK, October 13, 1902.

Hon. WILLIAM R. WILLCOX,
Commissioner of Parks,
Boroughs of Manhattan and Richmond:

DEAR SIR—The committee appointed by you to examine and determine the cause of the deterioration of Central Park, and to suggest means for its renovation or restoration, submits the following report:

Pursuant to instructions, your committee caused one hundred and thirty-seven test holes to be dug in various parts of the park, so distributed as to enable us to form a fair judgment of the depth and quality of the soil.

With the exception of a small area newly filled, near the sheepfold, the depth of good loam mixed with organic matter was found to average about ten inches. The subsoil, which was examined to a depth of three feet from the surface, was found to be loam, generally of the same character as that of the first ten inches, but containing less organic matter. Beyond a depth of three feet no examination was made further than by the use of an iron rod, which indicated by the ease with which it could be thrust into the earth at the bottom of the holes, that the loam extended to a still greater depth. No glacial gravel was found, and it may be fairly presumed that most of the soil of Central Park originated from the decomposition of gneissic rocks and that it is of good character and well suited for producing fine trees. This is attested by the trees themselves, which show vigorous growth in the open places and in the natural forests. Sufficient good soil was evidently used in the original grading operations.

The original plan of a park plantation made for immediate effect always contemplates the necessity of timely changes by the removal of trees originally planted much closer together than they are intended to stand finally. The primary and principal cause of the present condition of the trees in Central Park is the lack of thinning out. So general is the damage to the trees from overcrowding that a perfect specimen can rarely be found. The trees should have been thinned out at least

twenty years ago, and all cuts of branches should have been properly covered from the air so as to have prevented the access of fungus spores.

While it is not desirable, in groups or masses intended for natural effect, that each tree should be a perfect specimen of its kind, yet sufficient light and air are necessary that each one may thrive. Many of the trees are badly infected by fungi, which have obtained access to them through unprotected pruning scars, and have caused widespread rot in the trunks and branches, their presence being proven by the numerous toadstools seen on the limbs and trunks; this is particularly evident in the elms. Much damage has also been done by ice and wind storms.

In many parts of the park its borders are so bare of trees that street life, with its hurry and bustle, its noise and dust, is disagreeably apparent to those who resort to the park to seek relief from such distractions.

The evident intent of the original designer has in many instances been frustrated by the planting of exotic and incongruous material in otherwise beautiful glades and openings in the woodlands. This has produced a confused result instead of the simple effect of woodland border and turf.

The shrubberies are generally in a dilapidated condition. The growth is spindling and weak, the result of overcrowding and lack of proper cultivation, fertilizing or renewal.

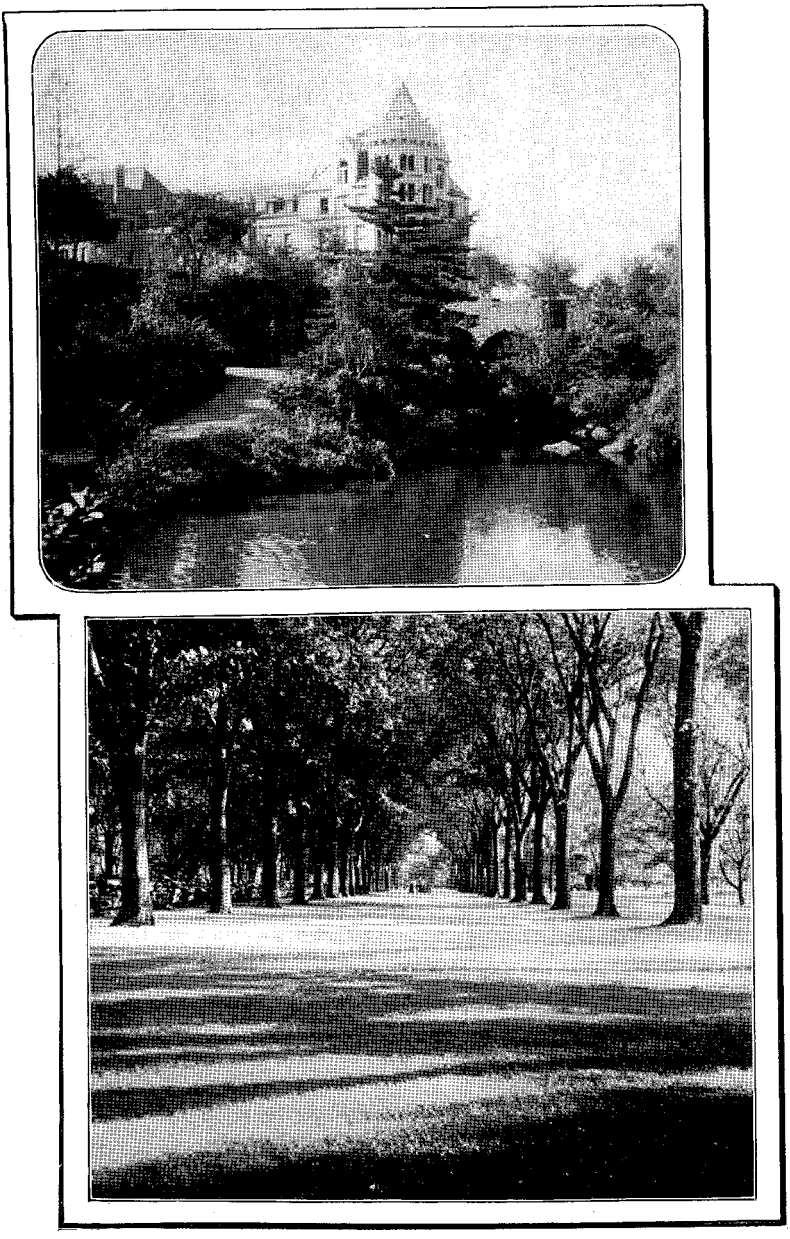
Much valuable fertilizing material has been removed from the ground by raking off of leaves and other organic matter in places where such removal is unnecessary, as, for example, among shrubberies and in woodlands. Not only is this practice wasteful of humus, but it detracts from the natural appearance of the woods.

The large number of cocoons of the tussock moth show that this insect has obtained a strong foothold in Central Park. We also found scale on the shrubs in many places.

On Eighth avenue and on Fifth avenue two lines of trees are planted, one on each side of the street walk; they are injuring each other by crowding.

RECOMMENDATIONS.

1. A thorough thinning out of all surplus, diseased, unsightly and crowded trees, including those on the sidewalks of Fifth and Eighth avenues, on the lines indicated by sample



THE CENTRAL PARK. LIGHTS AND SHADOWS OF SUMMER.

markings made by your committee in section 1 and on the Mall.

2. The removal of short-lived trees and those not suitable for city conditions, such as poplars, hemlocks, pines, spruces and retinosporas. Conifers cannot endure the smoky air of dense cities. The amount of California privet should be very much reduced.

3. The careful and competent pruning of trees and the removal of dead limbs, and especially the proper protection of cut surfaces to avoid rot.

4. A clearing out of all trees, shrubs and herbaceous plantations in open glades and from bays in the foliage lines; also the removal of all incongruous planted material which disturbs the harmony of the landscape.

5. Allow fallen leaves to remain in shrubberies and woodlands, and spread those raked from ornamental grounds over the woodlands; cover thick deposits of them with a sprinkling of loam mixed with a little lime to assist decomposition, to prevent liability to fire and at the same time to produce invaluable leaf-mold.

6. The regular application of manure and commercial fertilizers to the groves, plantations and lawns, and the addition of top-soil in certain limited areas in which the rock comes close to the surface where new shrub planting is to be done, and in some of the existing dilapidated shrubberies; on the Mall the application of four inches of manure, mixed with potash, to be spaded in.

7. Plant and thicken border plantations where necessary, using for this purpose such trees as English elms, oaks, gingkes, plane trees, lindens and sweet gums.

8. Improve the margins of woodlands by appropriate planting of such native shrubs and small trees as thorns, dogwoods, viburnums, redbuds, shadbush and witchhazel. The fruits of many of these are very attractive in the fall and serve as food for numerous songbirds.

9. Modify or reconstruct the shrubberies; many require replanting after first thoroughly preparing the ground.

10. The construction of a system of water distribution for the irrigation of lawns and newly planted grounds.

It is clear from our study that an immense amount of work will be necessary to put the park in a healthy condition, and that it should be done at once, for if not attended to promptly much more serious conditions may be expected, inasmuch as

the deterioration will otherwise proceed with constantly increasing rapidity.

In carrying cut our recommendation relative to the removal of surplus trees, no diminution of the park's beauty need result; on the contrary, the grounds will be greatly increased in attractiveness and this will be immediately apparent.

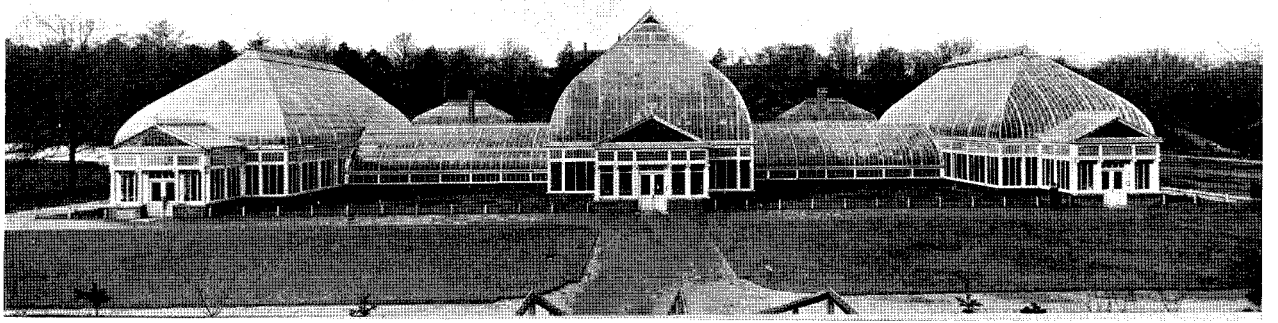
(Signed) N. L. BRITTON,
B. E. FERNOW,
J. A. PETTIGREW,
SAMUEL PARSONS, JR.

To carry out the work of restoring and renovating Central Park, as recommended by the Committee of Experts, the sum of $50,000 will be included in the request for funds to be provided in 1903 by the sale of corporate stock for various park improvements.

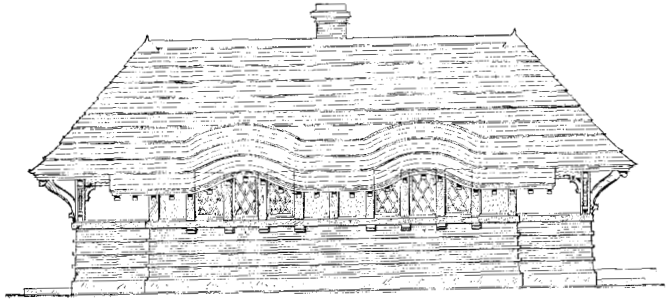
THE LAKES, CENTRAL PARK.

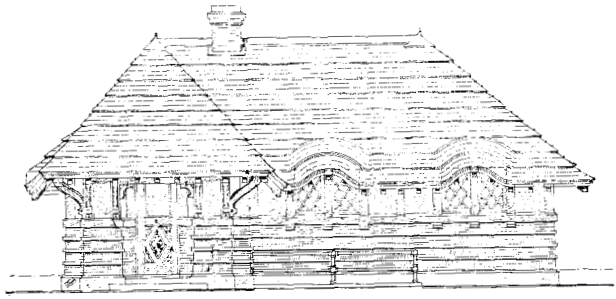
An item has been included in the departmental estimate of the Park Department for cleaning the Central Park lakes, and the necessity for this work has never been so forcibly shown as during the past summer, when this Department was served with notice by the Board of Health that something must be done to improve the condition of these bodies of water. An investigation brought to light the fact that in many instances the public toilets in Central Park drain directly into the Park lakes, contaminating the water and making the pools and ponds unsanitary and dangerous to the public health.

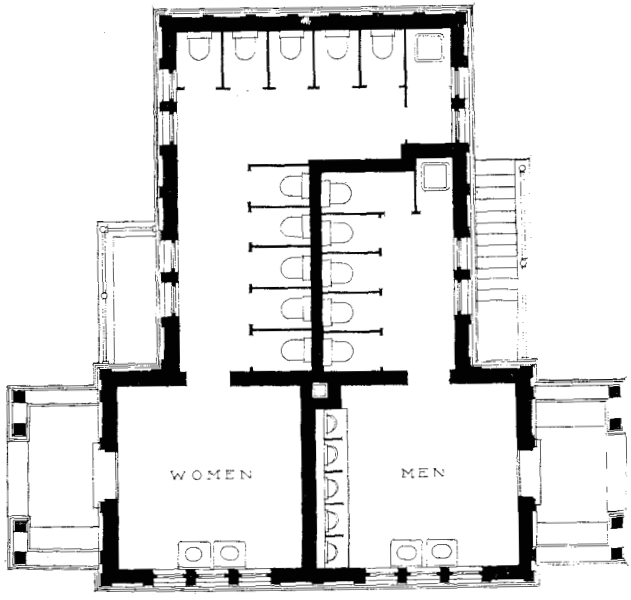
With its limited appropriations, the Department has done its utmost to keep the water in the Central Park lakes from becoming stagnant, but it is obvious that this can only be effected by draining the comfort stations into the city sewers and thoroughly cleaning the bottoms of the lakes and concreting the same, and reconstructing the side walls and introducing a proper circuit of water. It is estimated that to do this work properly at least $300,000 will be required. It certainly seems, however, that a beginning should be made without delay, and a sum of $50,000 will be asked in 1903



THE CONSERVATORIES, CENTRAL PARK.







PUBLIC COMFORT STATION—THE NORTH MEADOW, CENTRAL PARK.

to commence the work, in addition to $38,000 for drainage from the cottages to the city sewers, and $13,000 for constructing a sewer from the Mineral Springs Building in Central Park to the city sewer in Central Park, West.

THE CONSERVATORIES, CENTRAL PARK.

Many interesting specimens of plants have been added to the collection in the Central Park conservatories during the year. Several formal floral exhibitions were held and were largely attended. An exhibition of Easter flowers in the spring and of chrysanthemums and orchids in the fall drew large crowds of people and seemed to furnish much pleasure to the many who took advantage of the opportunity offered.

Through the growth of bedding plants used in the parks of the boroughs of Manhattan and Richmond, which, before the construction of the conservatories, were purchased by the Department, the conservatories have become practically self-supporting. In other words, the exhibitions of flowers given throughout the year and the bedding plants are provided at no greater cost than that of the bedding plants alone heretofore.

PUBLIC COMFORT STATIONS, CENTRAL PARK.

Notwithstanding the tremendous attendance at functions held in the Central Park in the neighborhood of the North Meadow, the toilet facilities there have been so inadequate that it became necessary, for hygienic and other reasons, that a proper building should be constructed without delay. An illustration of the architect's drawing of this new structure is given with this report. The building has been designed with a view of making the exterior appropriate to the park surroundings and the interior to furnish the best accommodations possible, taking into consideration sanitary and other questions. The inadequacy of the old building can be indicated in no better way than the statement that there is no drain connection between that structure and a sewer, and it will be necessary to construct a pipe sewer 1,700 feet long for the new building.

Plans have also been prepared for a new public comfort station to be erected upon the site of the present structure in Central Park, near the Menagerie, and just north of the Sixty-fifth street transverse road. The facilities at present afforded to the great multitudes of people who visit the Menagerie and vicinity are very inadequate, consisting of a small frame building for women and an antiquated station for men in the basement of the Arsenal Building, the latter being extremely unsanitary. The new building will provide stations for both sexes and will be a great improvement.

IMPROVEMENT OF TERRITORY NORTH OF THE METROPOLITAN MUSEUM OF ART BUILDING.

Among the improvements worthy of mention in this report is the laying out of the territory in the Central Park, between the Museum of Art Building and the Eighty-sixth street transverse road, where a tree nursery once existed. Many of the trees had not been removed, but had grown close together, to the detriment of a proper landscape effect. The poorer specimens have now been taken down, the beeches, oaks and elms being left, and the ground has been regraded and given a graceful contour. It was then sodded or seeded, as the circumstances required, and a fine turf was grown.

The completion of the new wing of the Metropolitan Museum of Art necessitated the construction of an approach, and this work was finished in November. A wide opening was made in the park wall and a carriage entrance, new curb and asphalt walk were laid out, the arrangement of the improvement being in keeping with the architectural character of the building.

ENTRANCE AT FIFTY-NINTH STREET AND SEVENTH AVENUE.

Owing to the congested state of traffic at the Grand Circle it was found necessary to construct an entrance to the park at Fifty-ninth street and Seventh avenue. The lines follow in a general way the temporary entrance that has existed at

that point for several years, the access to the park drives being made as direct and convenient as possible, taking into consideration the preservation of the original beauty and topography of the region. It was found possible to do this work without sacrificing any important tree, a large elm at the edge of the temporary drive being saved by blasting considerable rock on the opposite side. In this way the entrance was left picturesque and natural in effect, and a problem in landscaping of some difficulty solved.

SEWER FROM MINERAL SPRINGS BUILDING.

One of the improvements in the Central Park for which funds are to be asked, to be provided through the issue of corporate stock for general park improvements in 1903, is the construction of a sewer from the Mineral Springs Building to the city sewer at Sixty-sixth street and Central Park, West. It is found that the sewage from a large number of public toilets in the basement of this building is drained directly into the park lake, polluting the water and being largely responsible for the unsatisfactory conditions existing. That such a state of affairs should have existed in the heart of The City of New York is almost beyond comprehension, and the granting of an appropriation for this very necessary improvement will be strongly urged.

REPAIRS TO WALKS AND ROADWAYS.

The main drive from the entrance at Fifth avenue and Fifty-ninth street to the Mall was entirely resurfaced, as well as the southwesterly drive to the Circle at Eighth avenue and Broadway and the westerly drive to the Webster statue. The Seventy-second street parkway was repaired from Central Park, West, to the Riverside drive. The poor condition of the bridle paths demanded attention, and during the summer months they were resurfaced and put in thorough order, to the satisfaction of the large number of equestrians who daily use them. It is my purpose during the coming year to resurface

the easterly drive from the Mall to One Hundred and Tenth street, if sufficient funds are provided.

The walks in the Ramble, Central Park, were in an unsatisfactory condition and required repaving. This work was accomplished during the year, the adjacent lawns being regraded to fit the new work.

The site of the old greenhouses, Central Park, was sodded after a new slope had been constructed, making the place artistic in appearance. The slope also acts as a support for the retaining-wall on the west side of the Magown's Pass Tavern sheds.

PLANTING AND FERTILIZING.

Much attention has been paid to the restoration of the wild flowers in the Central Park, and through replanting and the application of natural conditions as nearly as possible, many varieties of these interesting plants are now found in the woods and other sections.

Some 110,000 plants grown in the Central Park conservatories were used by the Department for bedding, and much attention was given to sodding defective borders and edges of lawns, about 350,000 square feet of sod being used in this work. It is believed that many of the lawns in Central Park can only be restored by a thorough renovation. The removal of leaves and continual cutting and removing of the grass has had a tendency to impoverish the soil, and large quantities of the necessary ingredients to properly fertilize the ground have been lost in this way. This practice is of necessity carried on to a considerable extent for the sake of appearance. The result in the long run, however, will inevitably be that the lawns will have to be plowed up and reseeded.

During the early part of the year the gardening forces were compelled to devote a great deal of time to pruning trees. In February during mild weather there was a heavy fall of rain, followed by a very rapid change in the temperature, causing the water to freeze upon the trees, which resulted in appalling

damage in all of the parks, and particularly in Central Park. Much of this damage is irreparable and many fine trees were ruined. Extra men, however, were at once hired and no expense was spared by the Department to put the trees in a safe condition and to make good by prompt pruning any damage that was done where such prompt attention would be of value.

Through a liberal use of fertilizers the lawns were kept in excellent condition during the summer. The mild weather contributed much to this, and the burning up of the grass, which has been so notable for so many summers past, was happily avoided this year. Every hot summer shows more forcibly the need for completing the irrigation system in the Central Park. Owing to the nature of the soil during extremely hot weather the turf is invariably burned unless frequently watered, and until the present system is completed this condition is to be expected in at least a part of the park.

In common with the other city parks, Central Park was visited the past summer by an unusual number of tussock moths. The trees, settees, park walls and fences were literally covered with the caterpillars, and the public press printed alarming accounts of the tremendous damage that was being done to the trees of the Central Park. This part of the maintenance of the park is treated more at length in the portion of the report touching upon the work of the entomologist, but as the pests were particularly numerous in the Central Park, and as their extermination there was so completely and quickly accomplished, it is believed that the visitors to the Central Park could not fail to realize the splendid work done in this direction.

THE MENAGERIE.

During the year 1903 the buildings and fittings have been kept in thorough repair. A new prairie dog enclosure has been constructed and a new winter-house for the water fowl has been built near the lake. The cages on the hill have been doubled in size, making them much more humane and attractive in every way.

The Menagerie has been kept in a clean and attractive condition and the mortality of the collection is very low. In October, 1902, it became necessary to kill the Indian elephant in the Menagerie, he having become unmanageable and vicious. His death was accomplished by the administration of 590 grains of cyanide of potassium.

While the Charter provides that whenever the Park Board shall determine to discontinue the maintenance of the zoological collection in the Central Park, it shall be lawful for the said Board, with the approval of the Mayor and the Board of Estimate and Apportionment, to transfer said collection to the New York Zoological Society, it is believed that it would be unwise to consider this question at the present time. It is estimated that over 3,000,000 persons visited the Menagerie during 1902.

On December 31, 1902, the collection consisted of—

381 mammals,
498 birds,
59 reptiles.

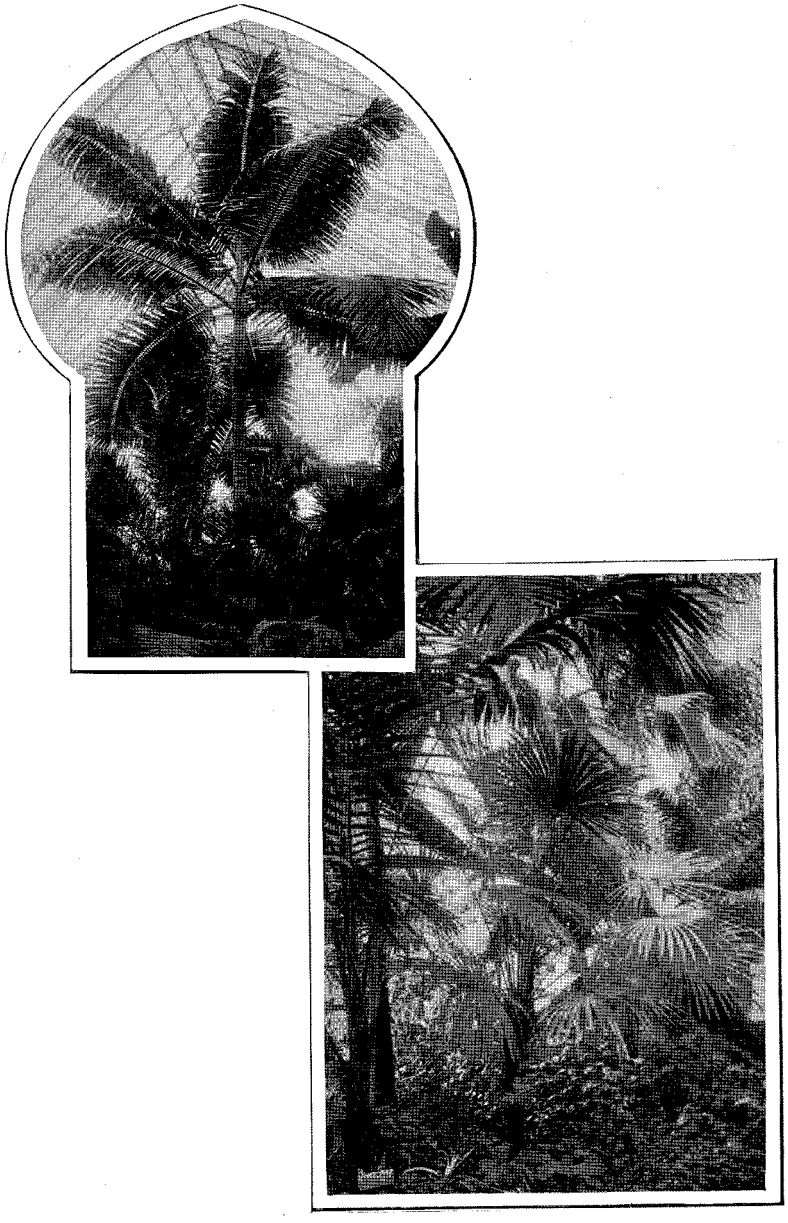
It is conceded that the hippopotami are the finest specimens in captivity.

THE METEOROLOGICAL OBSERVATORY.

The Meteorological Observatory of the Department of Parks, with quarters in the Arsenal building, was established in 1869 under an act of the Legislature. In the year 1868 Mr. Andrew H. Green advocated the permanent establishment of a Meteorological and Astronomical Observatory in the City of New York, and the following May the act became a law.

At the time of its creation the Central Park Commissioners ordered the observatory to be installed in the Arsenal building "until a suitable building for the purposes could be erected," and the present director, Professor Daniel Draper, was then appointed to take charge.

When the observatory was opened observations were made several times each day from six o'clock A. M. until ten o'clock



IN THE PALM HOUSE, CENTRAL PARK CONSERVATORIES.

P. M., and much attention was devoted to the designing of self-recording apparatus and to the study of atmospheric problems. From 1869 to the present time Professor Draper has designed many self-recording instruments, and all of the observations now made by this Department are registered automatically, duplicate instruments being used to guard against a lapse due to the breaking down of any instrument.

Not until 1870 were steps taken by the United States Government to establish a storm signal corps, at which time, at the request of the Government, the Central Park observatory co-operated in establishing the national organization.

The records and observations of the observatory have played an important part in the settlement of meteorological problems, such as:

D'd the clearing of land diminish the fall of rain?

Was the climate of New York changing?

Had the summer temperature of the Atlantic States undergone a modification?

What was the direction in which atmospheric fluctuations crossed the United States?

Was it possible to trace the passage of American storms across the Atlantic, and predict the time of their arrival on the European coast?

Did the rainfall of New York diminish, and would it continue to do so?

Did the variation occur in the early or latter portion of the year?

Since the installation of the self-recording barometer several interesting and practical facts have been noted by the observatory. For instance, in a certain section of the city, the gas lights were extinguished at 2 o'clock one morning. The cause remained a mystery for some time. There was no wind at the time and the officials of the gas company were at a loss to account for the occurrence. An examination was made of the records of the Central Park Observatory in the hope that some solution of the question might be found. The self-

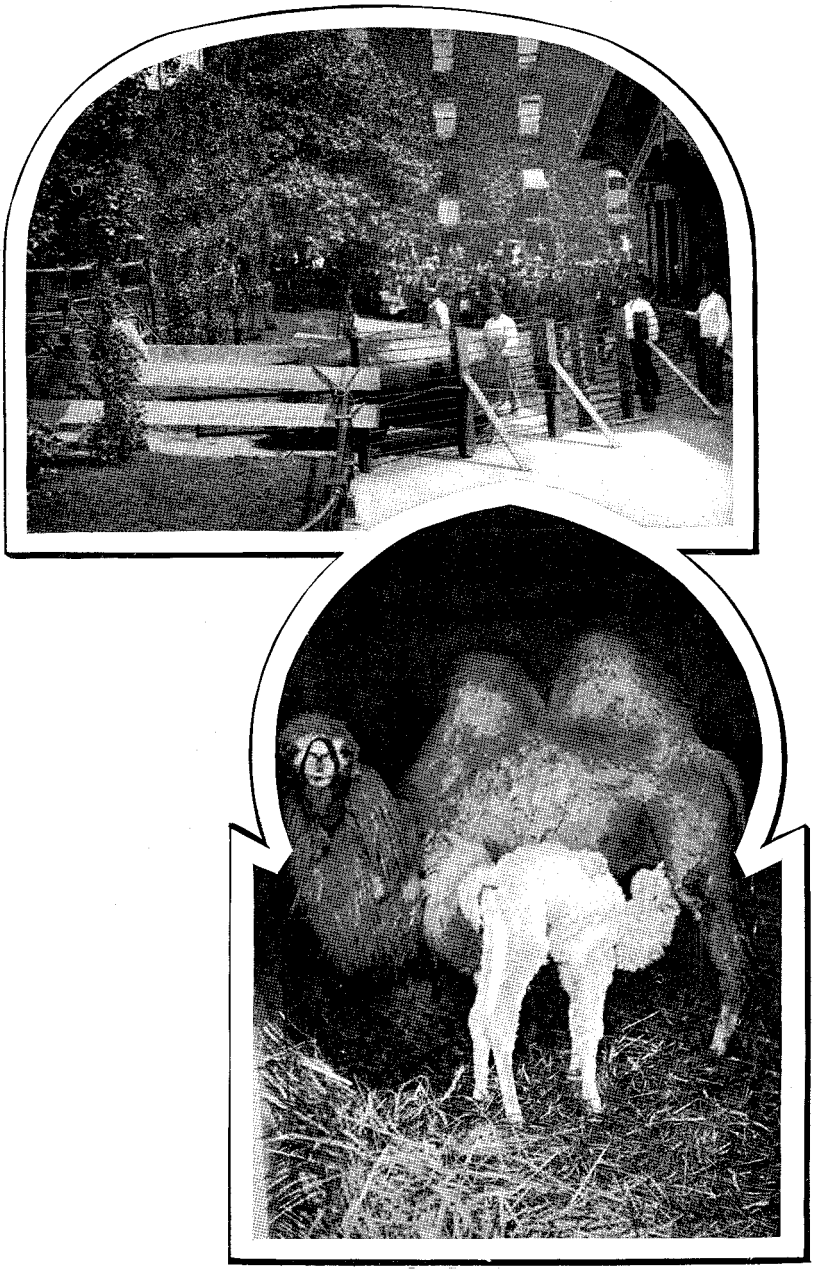
recording barometer showed that a very sudden fluctuation had occurred at the time indicated. The release of pressure on the outside of the gasometer due to this fluctuation was found to have been sufficient to stop the flow of gas into the street supply pipes, which in turn caused all of the lights in the district to be suddenly extinguished, as stated.

In August, 1883, the self-recording barometer registered a fluctuation of a very unusual character. At the time this was supposed to be due to an atmospheric wave caused by an earthquake and volcanic eruptions that were occurring at the Straits of Sunda. Subsequently a letter was received from the Meteorological Office of London inquiring whether the instruments of the Central Park Observatory had registered a severe fluctuation at the time indicated, and stating that one had been recorded at their stations and at all of the European observatories.

Hourly writings showing the direction, velocity and force of the wind, temperature and rainfall were first published in 1889. In 1892 the United States Weather Bureau requested permission to copy from the Central Park records the hourly rainfalls given by the self-recording rain gauge, and a transcript was made by officers of the Government.

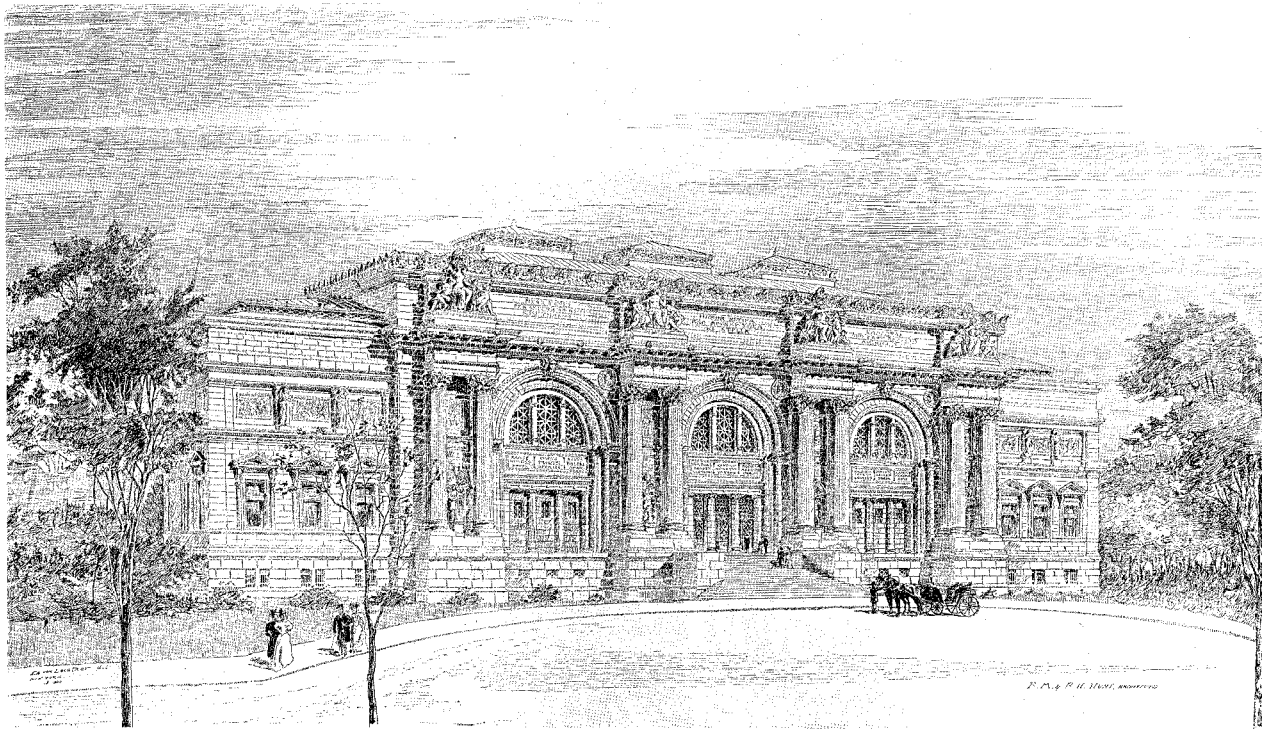
In 1893, a paper prepared by the Director of the Central Park Observatory on "The Relative Merits of the Various Types of Registering Maximum and Minimum Thermometers" was read at the Columbian Exposition.

The observatory has, on numerous occasions, been called upon to present its records in court and to give testimony as to the weather conditions affecting matters at issue. In 1901 it testified in behalf of the City, and the evidence produced was instrumental to a large degree in obtaining a decision favorable to the City. In this one case a suit against The City of New York involving many thousands of dollars was materially affected. In this way the records have been produced in court many hundreds of times, and they have, at times, been used in two different courts on the same day where such



THE MENAGERIE, CENTRAL PARK.

1. Moving the HIPPOPOTAMI to Summer quarters. 2. CAMEL, with baby two days old.



METROPOLITAN MUSEUM OF ART, NEW EAST WING.

testimony was required. They are regarded as very valuable evidence in deciding questions in suits pertaining to accidents, exposure of perishable property and extensions of time on contracts due to weather conditions.

The daily work of the observatory has been continued for thirty-four years without interruption, not a day being missed, including Sundays and holidays, and the records for all of this period, obtained from the various self-recording instruments, are available when required. The self-recording instruments used are the following:

Barometer,
Direction of wind,
Velocity of wind,
Force of wind,
Sun thermometer,
Wet and dry thermometer,
Hygrometer,
Rain and snow gauge,
Dial thermometer.

METROPOLITAN MUSEUM OF ART.

The new east wing of the Metropolitan Museum of Art Building, Central Park, at Eighty-second street and Fifth avenue, was formally opened to the public, with appropriate ceremonies, on December 22, 1902. The ceremonies consisted of prayer, delivery of the building to the Trustees by the President of the Park Board, acceptance of the building on behalf of the Trustees of the Museum by President F. W. Rhinelander, and an address by the Mayor. A large number of distinguished people were present and several interesting collections were exhibited for the first time.

The new east wing was designed by the late Richard Morris Hunt, and constitutes the main entrance and central portion of the general plan for the development of the building. This plan was accepted by the Trustees of the Museum in November, 1895, and in December, 1896, it was decided to construct the portion now completed and known as the east wing.

The structure is classic in design, the central bay of the east façade forming the entrance to the main lobby. Beyond the lobby is the great hall, covered by three great domes, pierced at the top to furnish light. At either end of the great hall, 170 feet long by 52 feet wide, there is a colonnade, beyond which are corridors and to the north and south of the corridors are galleries or exhibition rooms, 96 feet 8 inches by 44 feet.

The second floor consists of two large galleries and a wide corridor gallery running around the great hall and open on the inner side, permitting persons in the corridor to view the great hall and contents through the arches supporting the domes.

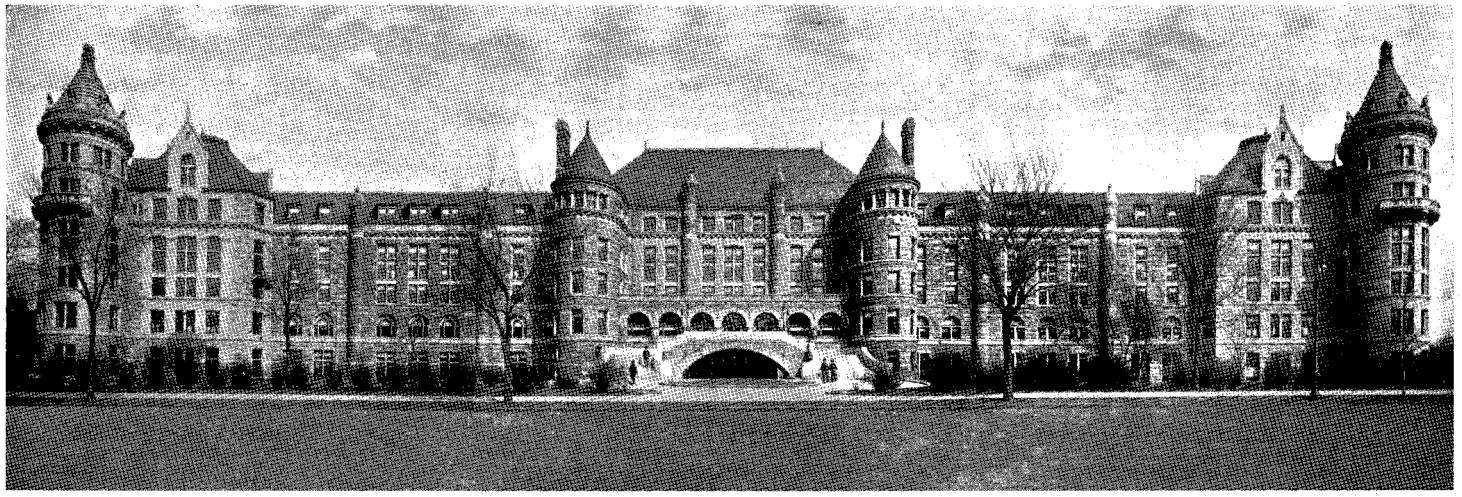
Another colonnade is situated west of the great hall, beyond which is a corridor gallery, and beyond that a grand staircase, connecting the old and new portions of the building. On either side of the staircase a corridor gallery of communication is built. The dimensions of this staircase, with its adjacent corridors, are 107 feet by 57 feet. The steps are 21 feet broad.

The total length of the new east wing is 303 feet, the width 103 feet 2 inches. The staircase wing is 107 feet by 64 feet. The height from ground line to top of attic is 95 feet 1 inch. The cubical area is about 3,772,400 cubic feet.

The exterior walls of the new east wing are of Indiana limestone and the lower exterior courses and steps are of granite. The great hall and that portion of the corridor gallery between the great hall and staircase are of limestone, and the other walls are plaster tinted in color. The roof is of copper. The structure is provided with a very complete heating, lighting and ventilating system of modern construction.

THE AMERICAN MUSEUM OF NATURAL HISTORY.

Notwithstanding the enlargements made to the building of the American Museum of Natural History, the structure has never been adequate for the display of the rapidly increasing amount of material acquired through the various expeditions



American Museum of Natural History.

supported by the trustees and its friends. These investigations could not have been suspended without seriously retarding the growth and usefulness of the institution, and for this reason exploration work was continued in the hope that the required facilities would be provided.

During the early part of the session of the last Legislature a law was enacted authorizing the municipal authorities to grant a further sum for the maintenance of the Museum, not to exceed $25,000, in addition to the amount then authorized by law for this purpose. This made the total amount available $160,000, and the Board of Estimate and Apportionment, upon a presentation of the needs of the Museum, granted the full amount of the appropriation for the current year. This sum has enabled the trustees to prepare and place on exhibition a large amount of the material heretofore stored in the several departments, but the relief is only temporary, as the expeditionary work will in no manner be curtailed. The Museum maintains field parties in several of the United States and Territories, Mexico, Alaska, British Columbia, Siberia and several of the provinces of China.

Application was also made to the Board of Estimate and Apportionment for a special appropriation of $350,000 for the construction of a new heating and lighting plant, and for the renovation of the old lecture hall. The Board granted $200,000 for a part of the proposed work, the Board of Aldermen concurring July 22. Plans for this improvement have been prepared and been approved by the trustees of the Museum and the Park Board.

One of the most gratifying features of the Museum is its importance as an educational factor in the public school system of the city. This is constantly shown by the use of its collections by the teachers and classes from the public schools who visit the Museum during the regular school hours for the purpose of study. The number of such visitors is increasing annually and will probably exceed five thousand for the current year.

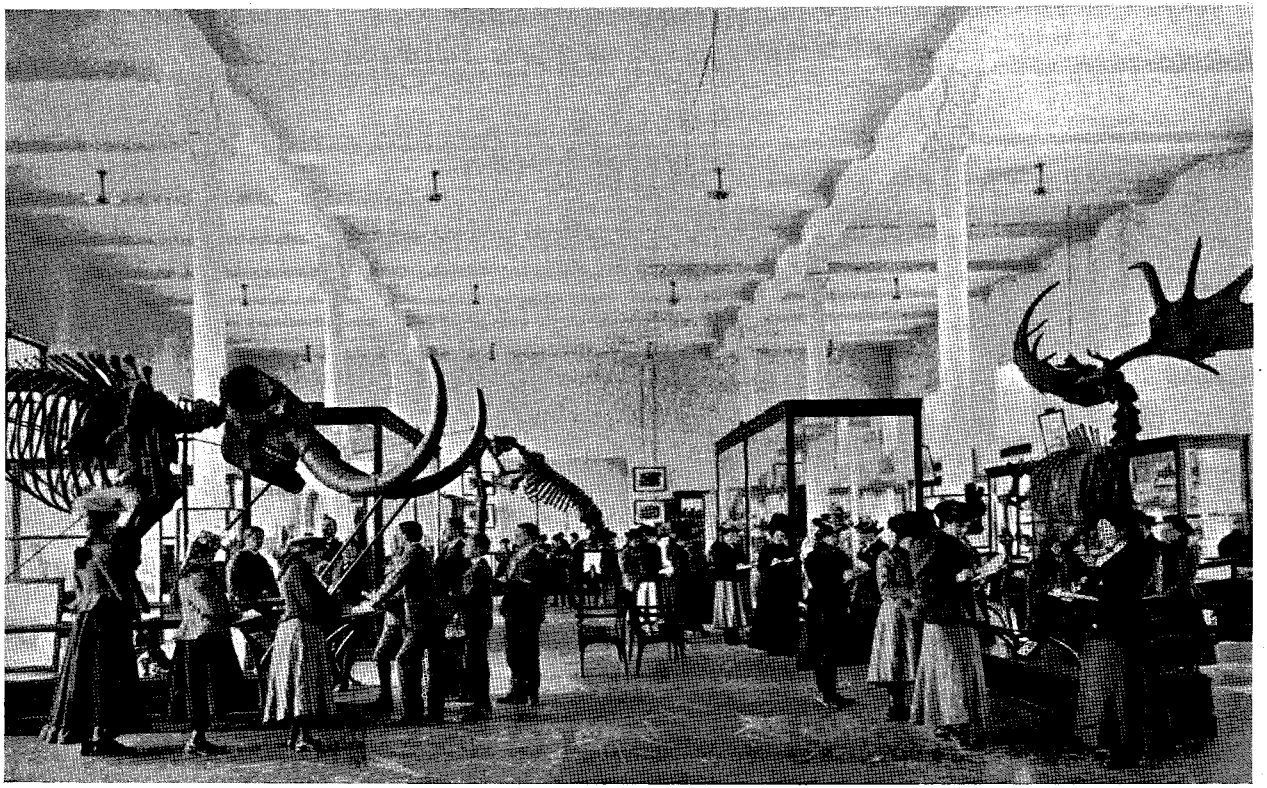
The trustees of the Museum have granted the use of the new lecture hall on Tuesday and Saturday evenings for the free lectures given under the auspices of the Department of Education. On Washington's Birthday, Thanksgiving Day, Christmas and New Year's Day free public lectures are delivered by a curator of the Museum under the joint auspices of the trustees and the State Superintendent of Public Instruction.

In conformity with an agreement between the State Department of Public Instruction and the trustees, the use of the lecture hall and apparatus are given for the series of lectures delivered to the teachers of the public schools during the autumn and winter by a curator of the Museum.

In March, 1902, an announcement was made to teachers that on Saturday afternoons during April and May informal laboratory work would be given to those desirous of acquainting themselves with native birds. The applications for places in this class exceeded all expectations, and more than three hundred teachers have sought admission in addition to those originally invited.

As soon as the news of the disasters at Martinique and St. Vincent reached the trustees, the opportunity for scientific investigation was appreciated, and it was determined at once to send the associate curator of the department of geology to investigate the phenomena of these tremendous eruptions. He spent about three weeks on the island of St. Vincent, in the course of which he made three ascents of "La Soufriere," and about four weeks on the island of Martinique, making four ascents to the crater of Mt. Pelee. A preliminary report of about 40 pages, illustrated by 19 plates, was prepared immediately upon his return and published in the Museum Bulletin for October.

Extensive repairs to the interior and exterior of the Museum building have been made possible with the increased appropriation. New sashes have been provided for all of the dormer windows of the east building, sashes have been rehung and



EXHIBITION HALL, AMERICAN MUSEUM OF NATURAL HISTORY.
(Demonstration in Zoölogy to High School Class.)

repaired, and all exterior window frames, sashes, doors and exposed ironwork have been repainted.

In the interior of the building all sashes, frames and trim have been refinished, cases have been repaired, toilet-rooms renovated, wooden floors refinished and tiled floors repaired. The elevators have been regularly inspected and equipped with new cables.

The east gallery has been equipped with new cases and is now occupied by the Hoffman representative collections of moths and butterflies. The west gallery has been tiled and equipped and the installation of material is in progress. The southwest hall leading from the Mexican hall is being tiled.

The Siberian collections of the Jesup North Pacific expedition are being installed in the southwest hall of the ground floor. The southeast hall of the same floor is now provided with cases, and collections are being installed for exhibition.

Apart from the fund received for maintenance ($160,000), the receipts from the income of invested funds, dues of annual members, patrons and life members, subscriptions of the trustees, bequests and special contributions for expeditions and collections aggregate more than $162,000 for the current year.

RIVERSIDE PARK AND DRIVE.

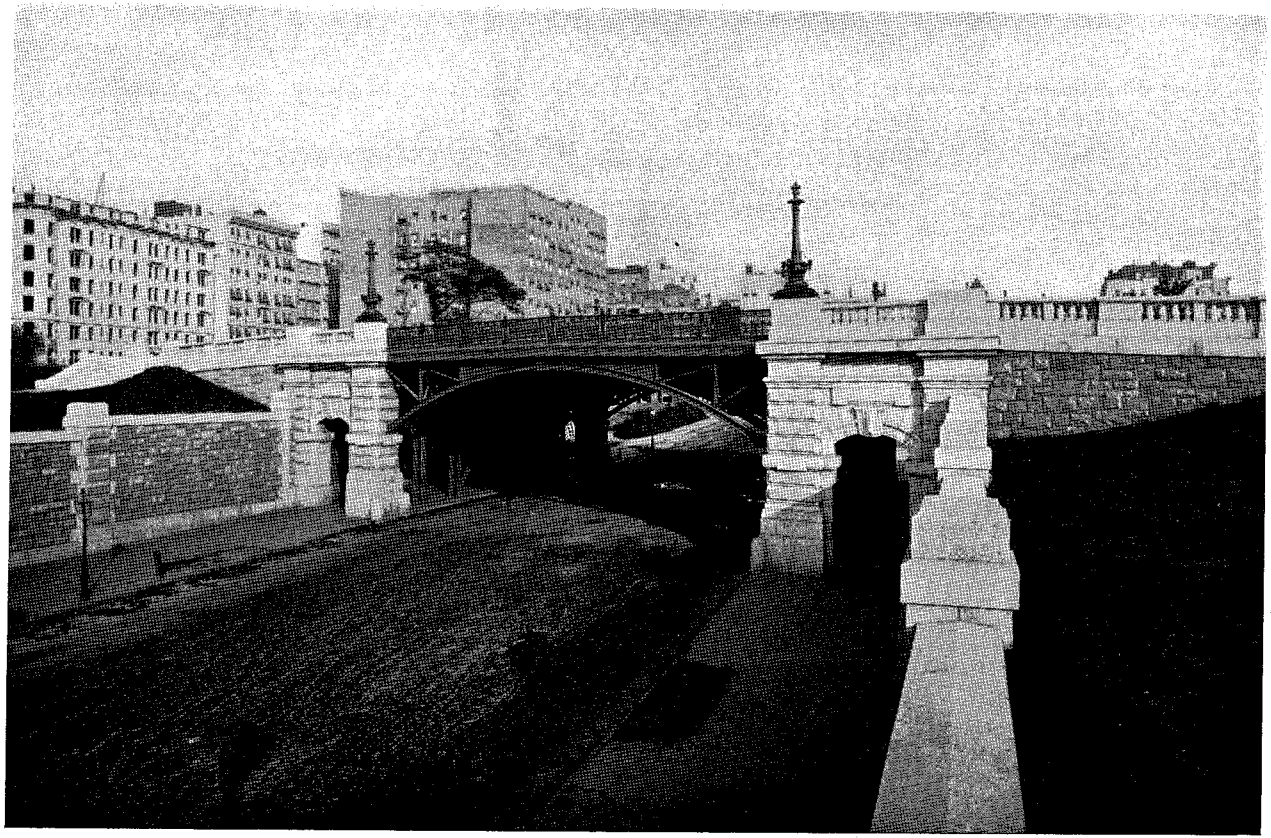
Viaduct over West Ninety-sixth street. The necessity for this structure had been apparent for many years. Owing to the public docks at the foot of West Ninety-seventh street, the trucking over the western portion of West Ninety-sixth street had been very heavy, making the junction of Riverside drive with this thoroughfare a dangerous point. The plan for the viaduct was adopted by the previous administration and a contract let for the work. The plan for the viaduct included the erection of comfort stations, tool-houses and other features on quite an elaborate scale. This work was completed during the year 1902 and has added greatly to the beauty and safety of Riverside drive, and at the same time has facilitated business traffic over Ninety-sixth street.

The construction of this viaduct made it necessary to improve Riverside Park adjacent to its approaches, and new walks, drainage and slopes were constructed. This improvement was also completed during the year, and proper approaches to the equestrian roads and walk systems in Riverside Park have been constructed, making a continuous thoroughfare from Seventy-second street to One Hundred and Twenty-ninth street. Along Riverside drive a number of tree pits were dug, filled with mould and elm, linden and other trees set out. This work was done principally along the eastern portion of the drive and in the plots between the drive and the Property road, from Ninety-seventh to One Hundred and Twenty-fourth streets. These plantations will be carefully inspected, and whenever the trees die they will be replaced until the park is completely planted.

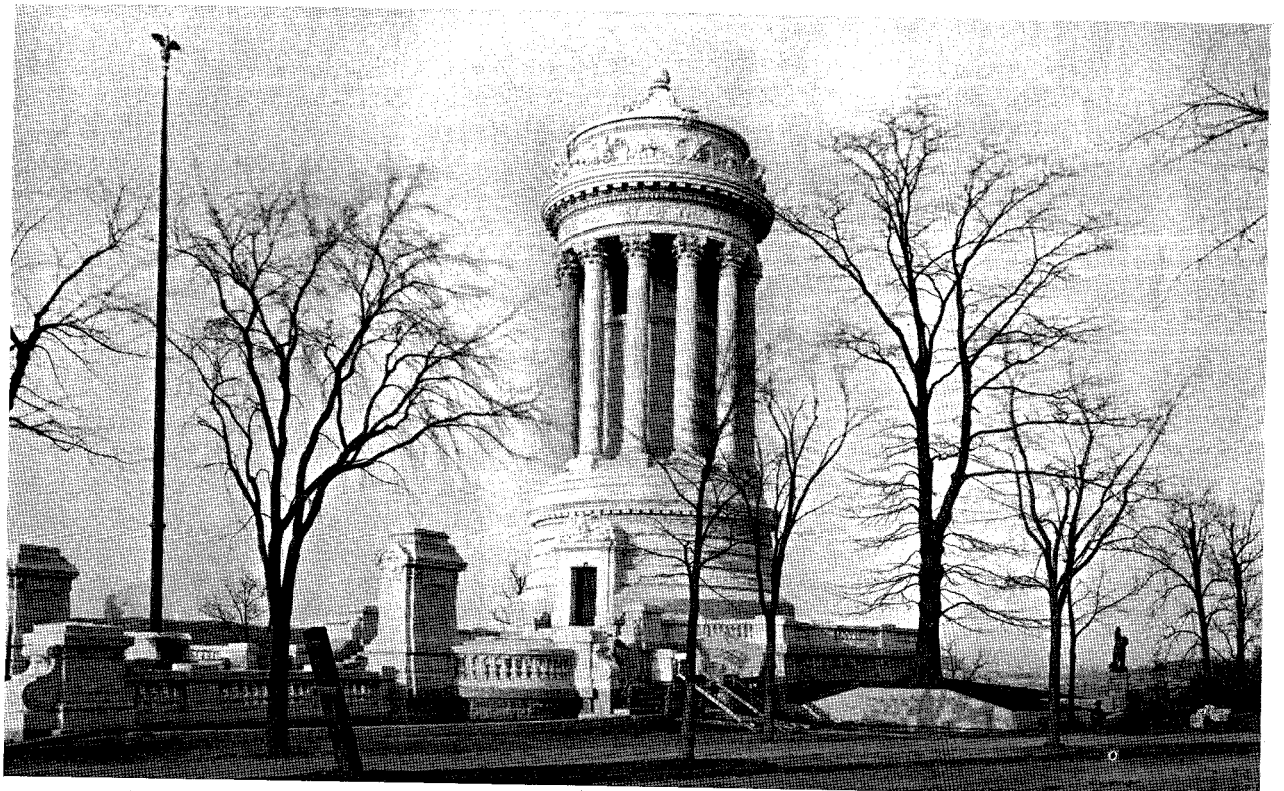
SOLDIERS AND SAILORS' MEMORIAL MONUMENT.

This beautiful memorial to the soldiers and sailors of New York who died in the service of their country in the late war for the Union was dedicated on Memorial Day, 1902, with appropriate ceremonies. The exercises included a parade by bodies representing the Army and Navy of the United States, the National Guard of the State of New York, the Grand Army of the Republic and Cadet Corps. The ceremonies were conducted by the Grand Army of the Republic, and included addresses by the Mayor and others and the formal turning over of the monument to the Park Commissioner.

This monument was erected pursuant to the provisions of chapter 522 of the Laws of 1893, the Mayor, the Commissioner of Public Works, the President of the Board of Parks, the Recorder, the Comptroller, together with the Chairman of the Memorial Committee of the Grand Army of the Republic, being designated as a Board of Commissioners authorized in its discretion to carry into effect the provisions of the act. The law further authorized the Board of Estimate and Appor-



RIVERSIDE DRIVE VIADUCT (96TH STREET AND RIVERSIDE DRIVE.)



THE SOLDIERS AND SAILORS' MEMORIAL MONUMENT.

tionment to provide funds not exceeding $250,000 for the construction of the memorial.

In the fall of 1897 the Monument Commission conducted a competition for designs for the memorial, Fifty-ninth street and Fifth avenue being selected as the proposed site. A number of models were submitted, and that of Messrs. C. W. & A. A. Stoughton was finally accepted; but it was subsequently decided that the Plaza site was not suited, and after several changes and considerable delay, Riverside Park, at Ninetieth street, was determined upon and approved by the necessary municipal authorities.

The changes of sites involved changes in the design of the monument, the structure finally erected being totally different in design from the model originally submitted by the architects.

A contract for the construction of the monument was let on October 8, 1900, and the corner-stone was laid on December 14 of that year. The estimated cost of the structure and its approaches is $275,000, the amount in excess of the $250,000 provided by chapter 522 of the Laws of 1893 being obtained through premiums on bonds sold for the purpose.

The Soldiers and Sailors' Monument is a circular structure with a high base, a colonnade of twelve Corinthian columns, with rich entablature and cresting. The diameter at base is 40 feet, the height above the platform 98 feet. The interior forms a circular marble chamber 16 feet in diameter and 50 feet high, with five niches around it. The door and window filling are of bronze. The platform on which the monument stands is about 100 feet in diameter, with side steps at the south leading to a terrace and a lower platform with pedestals, steps and a flagstaff. On the north a long flight of steps lead down to a belvedere with seats overlooking the valley at this point. The entire length from north to south is 300 feet. The greatest width, 109 feet.

The materials employed in the memorial are pink Milford and Leet's Island granite and East Dorset (Vermont) marble.

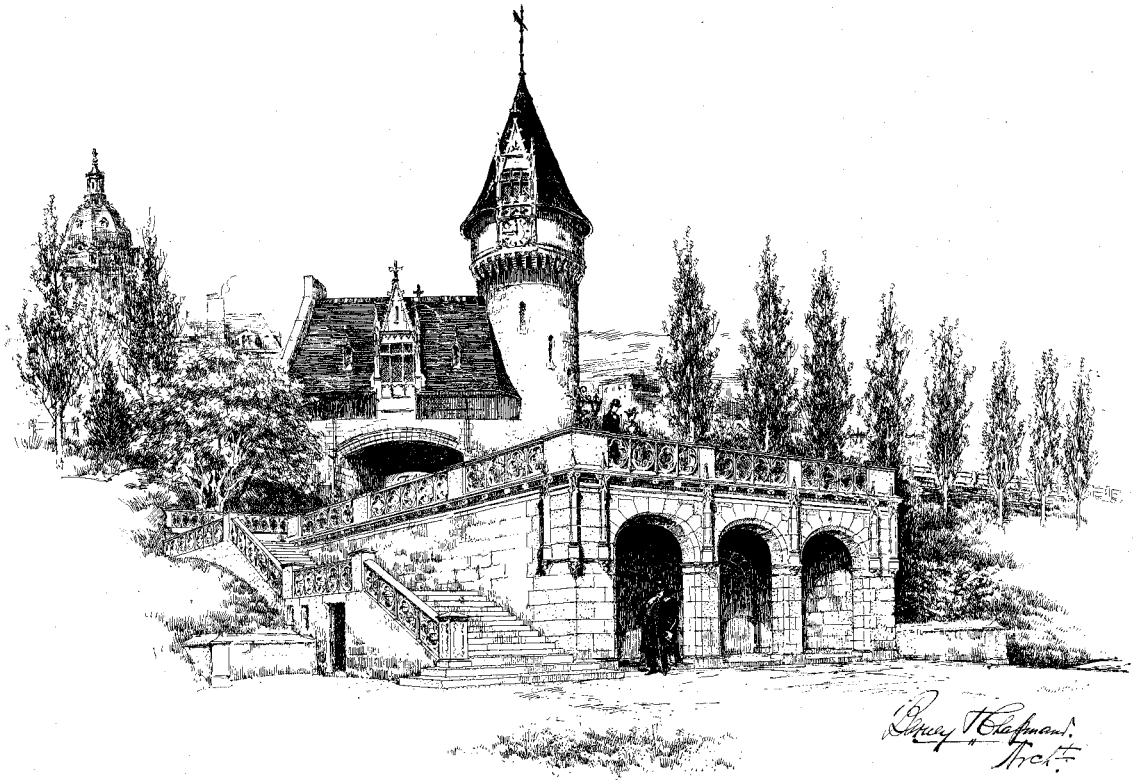
The pavements are of English clinker brick, laid in patterns with marble borders. The work is complete and requires no further sculpture or other embellishment.

In connection with the erection of the Soldiers and Sailors' Monument it was found necessary to reconstruct the lawns and walk system adjacent in Riverside Park. Top soil was spread where required and the lawns sodded. Owing to the lateness of the season the walks were not asphalted, but were treated with gravel. During 1903 they will be concreted and an asphalt surface laid.

MORNINGSIDE PARK.

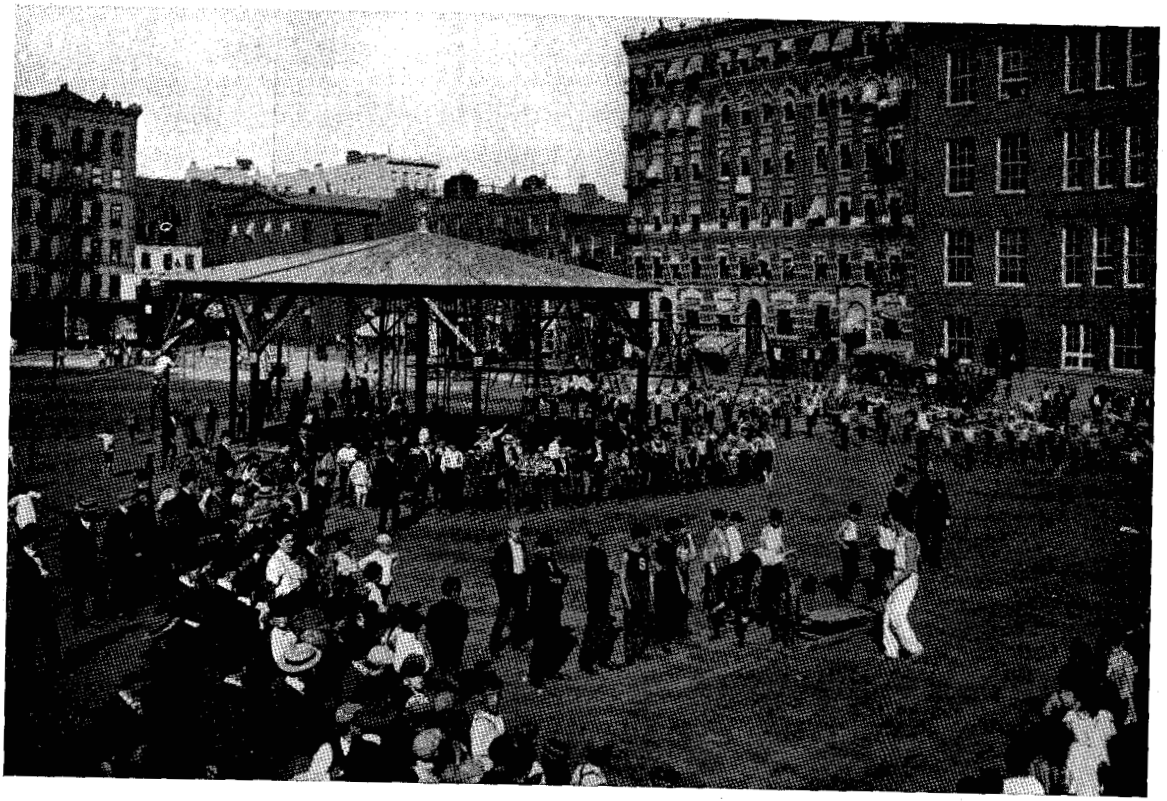
Notwithstanding the popularity of Morningside Park, no toilet facilities have ever been provided there, and the only structure available for storing tools and implements was a temporary wooden shanty, unsightly, inadequate and objectionable from a park standpoint. During the year 1902 plans for an appropriate building were prepared and an illustration of the architect's design is published herewith. The architect's description of the structure states that he has adopted the late French Gothic style, and in designing the detail he has tended to throw it into the transition rather than back into the earlier periods, believing that the style indicated would lend itself to the rugged surroundings and be appropriate to the architecture of the Cathedral on Morningside Heights and the other important structures in that vicinity.

It is now proposed to construct only that portion of the building on the lower level which will contain comfort stations for both sexes and provide a flight of steps in Morningside Park, where one is much needed. The building will also have ample accommodations for the storage of the tools and implements of the Department required for Morningside Park. The portion of the structure built on the higher level, including the tower, is a matter for future consideration, the lower portion of the building being in no way dependent upon it. The new building will also provide a bandstand, which is much needed



MORNINGSIDE PARK. PAVILION.

Portion in foreground to be erected at once. Portion in background (including tower) for future consideration.



THE GYMNASIUM, HAMILTON FISH PARK.

in Morningside Park, there being no structure there available for this purpose at the present time.

SMALL PARKS WITH PLAYGROUNDS.

The principal feature of park work in the boroughs of Manhattan and Richmond during the year 1902 has been the development of playgrounds and kindergartens and the extension of the recreation areas in the larger parks. Playgrounds are being constructed in four new parks in crowded sections of the city, and an effort is being made to build these parks upon lines recognized as best accomplishing the purposes for which the lands were acquired.

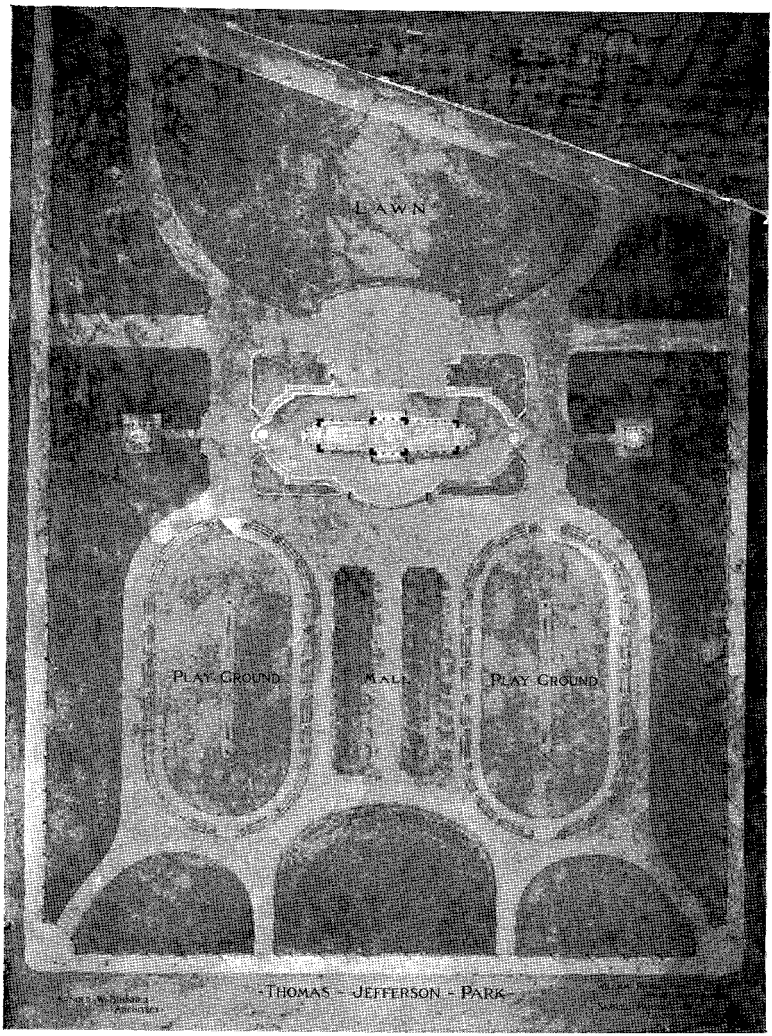
Hamilton Fish Park, Houston, Stanton and Sheriff streets (3.673 acres).—In this park through co-operation with the Department of Education, a playground, kindergarten and gymnasium were operated during the summer, and the reports received indicate that the experiment was successful to a high degree, and that a great deal of good was derived by the people living in densely populated sections of the neighborhood. It is proposed to still further develop this feature of Hamilton Fish Park and to construct playgrounds of an up-to-date character, remodel the building by placing baths therein, and to generally improve the condition there. An appropriation will be asked for this work the coming year. Although this park was improved but a few years ago, the work was not of a character to bring forth the best results, and it is believed that with the improvements now proposed it can be made to serve much better the purposes intended when the land was acquired.

These improvements will include the construction of a running track, kindergarten grounds, the erection of an ornamental iron fence around the play-grounds and of a pipe fence around the lawns; the asphalting of the plaza in front of the building, reshaping the grounds, spreading of garden mold, sodding, preparation of tree plots for planting, remodeling of the public comfort station, the removal of existing house connections

with street water-mains and properly capping the pipes, and the laying out of a gymnasium and equipment of the same with parallel bars, swinging rings, vaulting horses and other apparatus.

De Witt Clinton Park, Fifty-second to Fifty-fourth streets, Eleventh avenue and the Hudson river (7.377 acres).—The buildings were removed from the site of this park early in 1902. No appropriation had been made for the improvement of the lands until late in the year, but in order that the public might derive benefit from its possessions by the city, a tent was erected for nature study classes, and a plot of ground was set aside for children's farm gardens. The experiment of allowing children to cultivate small plots of public ground had already been tried in some of the other cities, particularly in Boston, and the work in the De Witt Clinton Park, conducted under the supervision of Mrs. Henry Parsons of the Local School Board, was watched with a great deal of interest, not only by residents of New York who have studied this phase of park work, but throughout the country. It was believed that by interesting the children in this way, love of the beautiful in nature would be stimulated, and that the people at large would become better acquainted with the true value of park features, and would better appreciate the money expended by the city in this direction, and that eventually less vandalism would be practised upon the shrubbery and plantations in the parks. The actual results obtained from these children's gardens in the short time available were little short of marvelous. Vegetables grown to maturity were proudly brought to the Commissioner by the young gardeners of both sexes as an evidence of their success, and it is believed that the children participating have become imbued with a love of nature and an appreciation of the beauties of the parks, as they could have become in no other way. Another feature of this children's garden work was the distribution from time to time of cut flowers to the children by the ladies interested in the work.

CHILDREN'S FARM GARDENS, DE WITT CLINTON PARK.



THOMAS JEFFERSON PARK. PLAN FOR IMPROVEMENT.

The land for De Witt Clinton Park was acquired in 1901, and a contract has been let for regulating and shaping the lands and furnishing filling where required. This work will cost about $20,000. Plans are now under way to complete the improvement of the park at an estimated cost of $200,000. This work contemplates the construction of playgrounds, gymnasia, farm gardens and a park building to contain comfort stations and shower baths, all to be constructed upon lines now recognized as producing the very best results for small parks in crowded sections of large cities.

Thomas Jefferson Park, One Hundred and Eleventh, One Hundred and Fourteenth streets, First avenue and the East River.—The lands for this park were acquired early in 1900. During the latter part of that year the buildings were taken down, the rubbish removed and filling to bring the surfaces up to a proper grade was deposited and other minor improvements completed. At the time the contracts for this work were let the Department had not been advised as to whether One Hundred and Twelfth and One Hundred and Thirteenth streets within the boundaries of this park could be closed. When this information was obtained a contract was entered into for removing the paving stones, curb stones and flagging within these streets, which work was accomplished early in 1902. No appropriation was available during the summer for the further development of this park, but it was believed that with a comparatively small expenditure the lands could be made available for temporary use by the people in the densely settled sections immediately surrounding it. The Department erected a number of large tents, placed settees and other park fittings upon the grounds, laid out a baseball diamond and opened the whole for temporary use during the heated term. The people of "Little Italy" and other sections nearby flocked to the place, several band concerts were given, and this temporary use of the lands proved a success even beyond expectations.

The work of constructing new bulkheads on the established bulkhead line of this park was begun in the latter part of 1902,

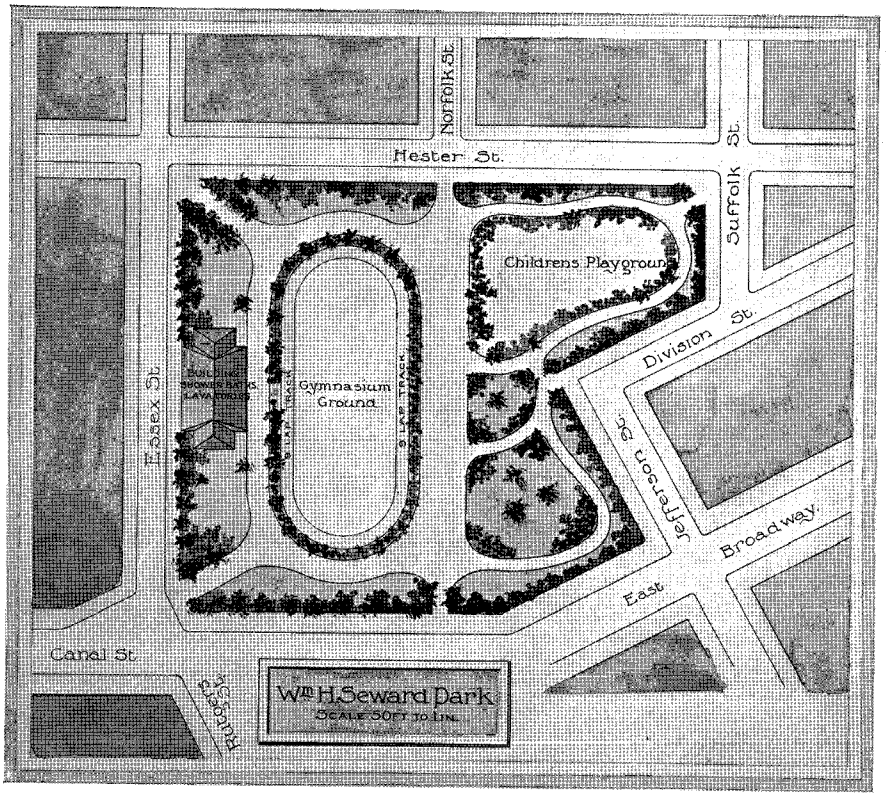
and it is expected that this work will be completed early in 1903. Plans have been adopted for laying out the lands in playgrounds, outdoor gymnasia, running tracks, walks and lawns, and a fine park building, to contain shower baths and comfort stations, will be constructed in this park. The whole improvement will be pushed forward to an early completion.

When the present administration assumed office, it was found by this Department that the New York, New Haven and Hartford Railroad Company had been using a portion of the water-front of Thomas Jefferson Park and had paid no rent for such occupancy since the City acquired the lands, February 16, 1900. Investigation brought to light the fact that the railroad had, prior to that date, paid rent for the land indicated at the rate of twenty-five hundred dollars per annum. Demand was at once made of the railroad company for the full amount. On October 1, 1902, it became necessary to compel the railroad company to vacate the water-front of Thomas Jefferson Park owing to the work of improvement under way, but in December, 1902, this Department was able to collect from the railroad company the sum of six thousand five hundred and fifty-four dollars and forty cents ($6,554.40), which amount was turned into the City Treasury with other collections.

William H. Seward Park, Canal, Hester, Suffolk and Division streets.—The lands for this park were acquired in 1897, but nothing was done in the way of opening it for public use until 1902. Work on the contract for completing the construction of this park, including the laying out of a children's playground, a gymnasium ground, a nine lap track, lawns, walks and drainage was practically completed in 1902. A splendid park building to contain bathing facilities, locker rooms, comfort stations and other features will be begun early in 1903.

In laying out this park the Department was confronted with the proposition of devoting a large part of the area to playground purposes and still preserving the usual park features. The general outlay of the park is shown on the sketch set forth on another page, and illustrations are also presented showing

THOMAS JEFFERSON PARK.
(Showing temporary use by means of tents, etc.. pending improvement)



WILLIAM H. SEWARD PARK. PLAN FOR IMPROVEMENT.

the proposed new building, together with its interior arrangements.

The pavilion in William H. Seward Park will be a structure 138 feet long and 50 feet wide, the main floor consisting of a large recreation room or a play-ground. It will also serve as a shelter to view the games in the park, and will be separated from the street by offices and retiring rooms. The portion facing the park will be approached by a wide flight of steps and terraces.

On the floor below will be built public comfort stations at either end, for men and women, and baths, twenty-one baths for women and thirty for men. The stalls to separate the baths will be of marble, the floors and walls will be tiled and special care will be given to proper ventilation. The water will descend at an angle from each shower bath and each bathroom will be divided into two compartments, providing a small dressing-room. This type of bath is believed to be the most sanitary, and it will permit the greatest number of people to bathe at a given time with the least expense for attendants.

The building will also contain a cellar, in which will be the boilers, hot-water tanks, coal vaults and storage-room for materials used in the park.

The building is a light arcaded structure, constructed of brick with terra cotta arches resting on polished granite columns. The color is very light gray. It is arranged so that in the winter time temporary sash and enclosures may be erected, permitting the building to be used throughout the entire year.

The gymnasium in William H. Seward Park will be equipped with an iron pipe frame 80 feet long, 20 feet wide and 16 feet high, attached to which will be portions of the apparatus, such as the climbing poles and ropes and inclined poles, chest bars, traveling rings and flying rings; also with parallel bars, vaulting parallel bars, horizontal bars, inclined bars, vault horses, vault bucks, jumping boards, spring boards, vaulting standards, vaulting poles, punching-bag drums and punching bags, horizontal and peak ladders, captive tennis balls, merry-go-rounds

or giant strides, basket balls and goals and other apparatus. On the play-ground smaller apparatus, such as the giant strides, teeter ladders, balance beams, captive tennis balls, large and small swings, sand courts, croquet sets, golf or shinney sticks and a round foot ball will be installed.

BATTERY PARK.

At Battery Park a new asphalt pavement was constructed between Pier A and the Aquarium, adjacent to the seawall. The old cement walk pavement had become badly disintegrated and dangerous. It was used for the delivery of supplies at the Aquarium and the fire boat piers and was never intended for such heavy trucking. The new asphalt pavement is of a sufficient stability to meet these requirements. The entire coping adjacent to this work was reset and pointed, and that portion of Battery Park now presents a much improved appearance.

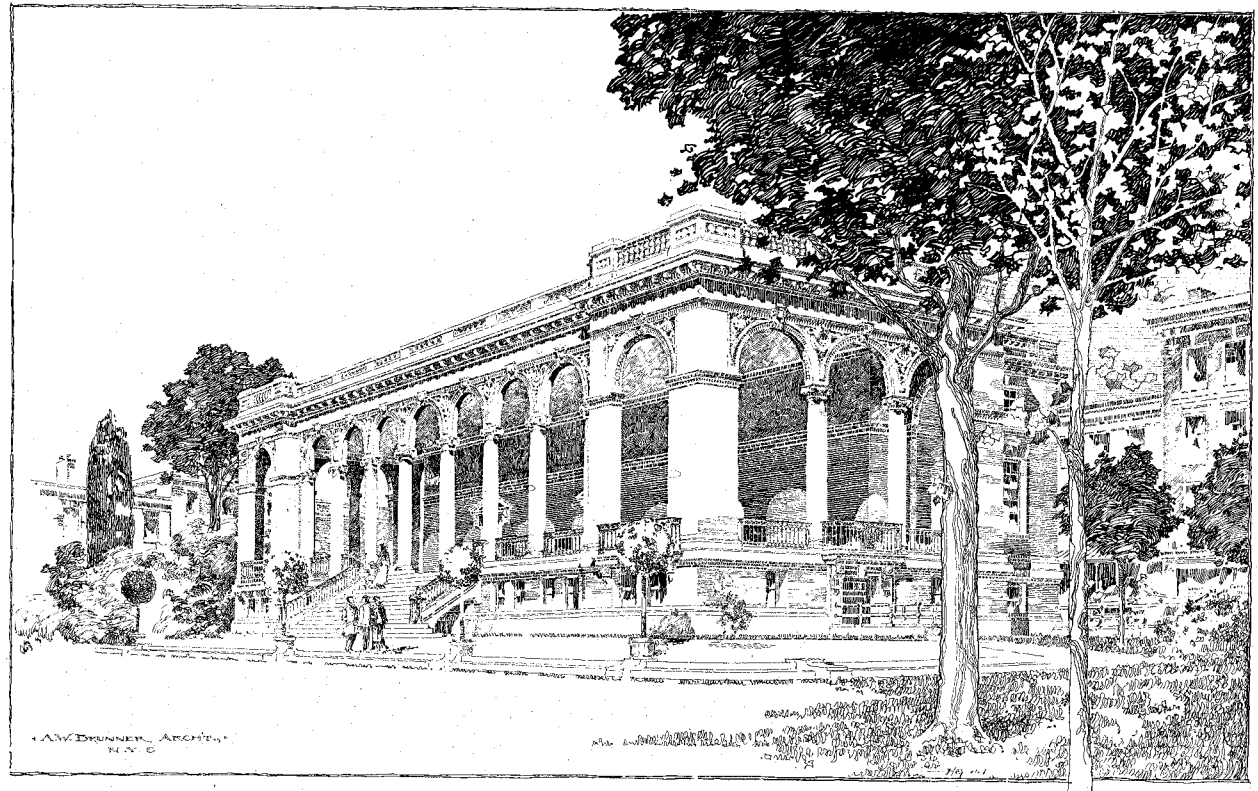
HUDSON PARK.

During the latter part of 1901 a contract was entered into to construct asphalt walks in this park, new drainage systems and basins and to set edging and reform and sod the lawns. The greater portion of the work was done during the year 1902, and this park has been much improved.

GENERAL MAINTENANCE AND REPAIRS.

The general routine work, such as the cleaning of the drives and walks, the sprinkling of the drives, keeping the walks clear of snow in winter, removing discarded material to the dumps, repairs to all the buildings, bridges, rolling stock and other department property, has been attended to, the standard of efficiency, it is believed, being raised over previous years. The reduced appropriations made it necessary to rearrange the working forces, but it is believed that this has been done without detriment to the general maintenance work and that the

WILLIAM H. SEWARD PARK. TEMPORARY IMPROVEMENT WITH GYMNASIUM.



PAVILION. WILLIAM H. SEWARD PARK.

parks were never cleaner or better maintained than at the present time.

Particular attention was given during the year to increasing the number of settees in the parks. For a number of years past there has been a public clamor for more settees, and during the year 1902 the seating capacity of the parks has been increased 17 per cent., eighteen hundred and eighty-seven (1887) new settees being constructed and distributed.

WIDENING FIFTY-NINTH STREET.

The work of widening Fifty-ninth street was begun in June, 1902, and completed in September. The roadway of Fifty-ninth street, between Fifth and Eighth avenues, had for a number of years been badly congested. The park sidewalk on the north side of the street was unusually broad and much wider than its use warranted. The space between the north car-track and the park sidewalk was so narrow that it was useless for public purposes. By this improvement this space was widened from four to nineteen feet, leaving the sidewalk on the north side of the street still twenty-five feet wide. This practically doubled the capacity of the roadway of Fifty-ninth street between Fifth and Eighth avenues and still left the sidewalk ample.

In connection with this improvement it became necessary to remove the trees on the north side of Fifty-ninth street adjacent to the park, and it is the intention of the Department to replace the same with elms of a large size as soon as proper specimens can be procured. The trees heretofore planted at this place have been unhealthy, being set in made ground of a porous character, which permitted the water to drain off rapidly. The newly constructed tree pits in which a generous supply of mould has been placed are built with an irrigation system, and it is believed that Fifty-ninth street, when thus newly planted, will present a greatly improved appearance and be a more fitting boundary to the south side of Central Park.

STATUE OF GENERAL W. T. SHERMAN.

Application was made in the spring of 1902 for a suitable site for the statue of General W. T. Sherman, designed by Mr. Augustus St. Gaudens, and donated to the City of New York by the New York Chamber of Commerce. Many locations were considered, but it was finally decided that the north circle of the Plaza at the Fifth avenue and Fifty-ninth street entrance to the Central Park would be the most appropriate, and the statue will be erected at that point in the spring of 1903.

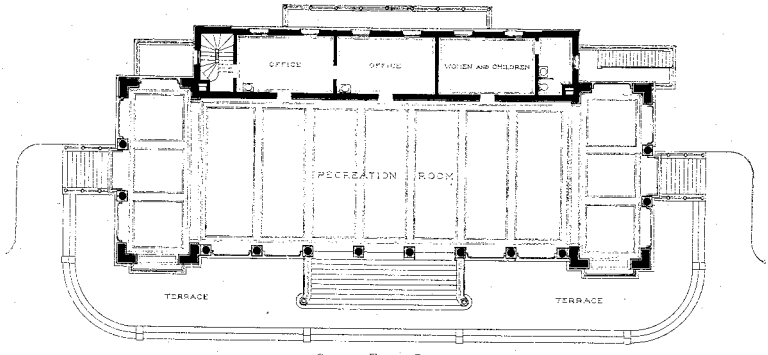
MUSIC.

Another feature of park work which furnishes a very great deal of pleasure to the public and is appreciated alike by the rich and poor, young and old, is the park concerts. These concerts were begun on June 1, 1902, and continued throughout the summer until October. They were distributed throughout the parks of the city, the arrangement being affected somewhat by construction work carried on in several of the parks during the summer. Special effort was made to have the music rendered by the bands of a character that was elevating and instructive, as well as entertaining, and frequent inspections proved the concerts to be very largely attended, and the quality of the music was never excelled in the parks.

In the crowded downtown districts, particularly, the concerts were received with the greatest enthusiasm, and when discontinued by reason of the exhaustion of the appropriation, applications were invariably received for additional concerts.

It is believed that no fund provided by the City contributes so much enjoyment to the people as that appropriated for music in the parks, all things being taken into consideration, and if the amount were twice as large it could be expended without exceeding the desires of the people in this respect.

Concerts were given in Central, Mount Morris, East River, Madison Square, Tompkins Square, Washington Square, Abingdon Square, Hudson, Seward, Corlear's Hook, Mulberry

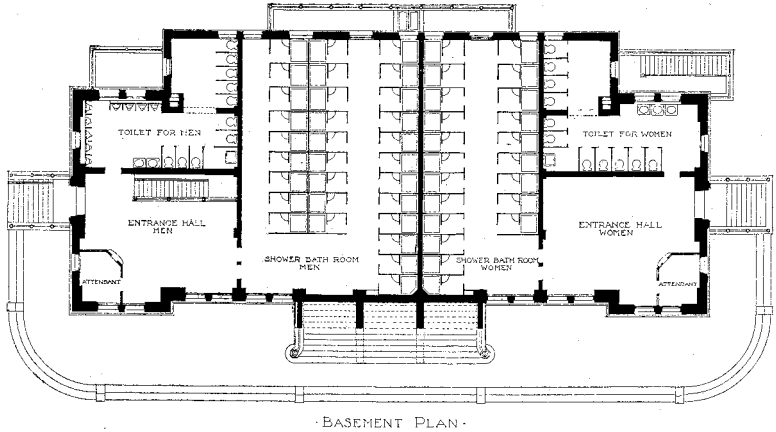


GROUND FLOOR PLAN

SEWARD PARK PAVILION

ARNOLD W. BRUNNER
ARCHITECT

WILLIAM R. WILLCOX
PARK COMMISSIONER
SAMUEL PARSONS JR.
LANDSCAPE ARCHITECT



BASEMENT PLAN

SEWARD PARK PAVILION

ARNOLD W. BRUNNER
ARCHITECT

WILLIAM R. WILLCOX
PARK COMMISSIONER
SAMUEL PARSONS JR.
LANDSCAPE ARCHITECT

Bend, Battery, Morningside, Hamilton Fish and Thomas Jefferson parks. In all, one hundred and eighty concerts were given in the above parks in 1902, at a total cost of twenty-six thousand two hundred dollars.

NATURE STUDIES.

The use of the parks for nature studies by the people has shown a very gratifying increase, Central Park, especially, being largely used for this purpose. This is particularly noticeable regarding ladies, who have taken up the study of birds, insect life and botany. The Department has done everything in its power to assist in this commendable use of the parks, and whenever permits could be issued to facilitate the legitimate pursuit of knowledge it has been done. The number of permits issued for this kind of study has had to be limited, as it was found that unscrupulous persons applied for the permits for the purpose of enabling them to make short cuts over the park lawns. It has also been found necessary to act unfavorably on many applications for permits to pick botanical specimens in the parks. So many applications of this kind are received that the shrubbery would be annihilated if favorable action were taken upon them all. An arrangement has been made in the Borough of Manhattan by which, when specimens are desired for educational purposes, a written application is received, the park gardeners gather the desired specimens and deliver them to the applicants when they are called for at the place designated for the purpose. In this way the legitimate demand for botanical specimens is met and no damage is done to the plantations of the parks.

RECREATION AND GAMES.

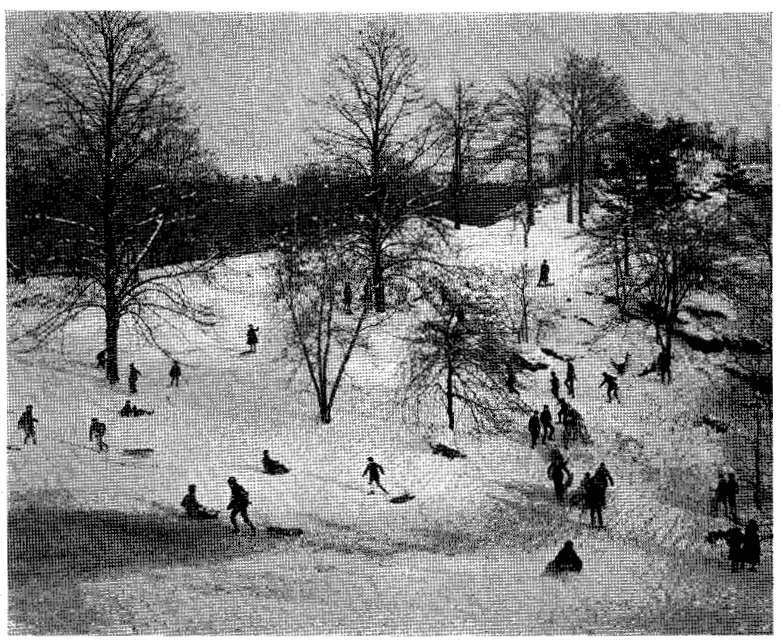
During the past year a great deal of thought has been given to providing the greatest possible facilities for the use of the parks for recreative purposes. Owing to the location and character of the Central Park, it is necessary to carefully regu-

late its use, and the line between the recreative and restful features has to be very carefully adjusted.

The annual spring May and June parties have become one of the recognized features of life in New York. The demands upon the Central Park for these gatherings have always been very heavy, but as the population of the city has increased the number of children participating in these gatherings has increased, and it would be difficult to give an accurate estimate of the number of children who participated in the May and June parties in the spring of 1902, but it is believed that fully one-quarter of a million children were present at such events in the Central, Mount Morris and other city parks. These parties are made up from all parts of the city, and in some instances from even beyond the city limits. In a large measure, however, the participants are the children of the crowded districts, and the pictures presented in the spring at these gatherings upon the greensward of the parks used for that purpose, with the accompanying May poles and fancy costumes, are among the most interesting sights to be seen in the city.

The collection of such vast crowds could not fail to result in some damage to the parks, and in the lawns being littered many times, and the litter being blown upon the drives and walks. It is believed, however, that the benefits derived much more than balance the undesirable features, and nothing was left undone by the Department that would add to the happiness and enjoyment of the children.

The parks also afford a great deal of healthful recreation during the year in providing facilities for skating, lawn tennis, baseball, croquet, football, basketball and other games. The capacity of the Central Park tennis courts was taxed to the limit. It had been the custom to issue special permits giving persons the right to use especially designated plots at hours or on days stated in the permit. The demand for the courts, however, became so great that it was necessary to abandon this system and to make all permits general in character, the rule of " first come, first served " being followed. This system was



THE CENTRAL PARK—WINTER SPORTS.

1. Skating on the Lake. 2. Coasting on the Slopes.

adopted during the summer of 1902, and the number of complaints received regarding the use of the tennis courts was greatly reduced, and the question of providing the best opportunity for enjoyment to the greatest number of people seems to have been solved in this way.

In addition to the games above enumerated, many permits were issued for photographing and sketching, for storing small boats, and other similar privileges.

It is hoped that, by providing proper receptacles for the papers, boxes and other discarded articles in the parks, and by educating the people to appreciate the disfiguring effect of such litter upon the lawns and drives, that in the future the people participating in lawn parties and games in the parks will refrain from casting unsightly matter away, and will take pride in making an effort to keep the parks attractive and clean.

Realizing the great enjoyment derived by the children from coasting and the limited opportunity afforded in New York to enjoy snow games, the places in the parks suitable for coasting were carefully canvassed, and opened for the use of the children. Much more park area than has before been devoted to this purpose was thus utilized. No pleasanter picture can be seen in the parks than that provided by the boys and girls enjoying themselves with coasting and snow games, and the many letters received from parents upon this subject indicate that a move has been made in the right direction. Such use of the lawns has necessarily to be governed by the fall of snow, but every opportunity afforded will be taken advantage of, and the greatest freedom, consistent with the proper use of the parks, will be given the children.

ENTOMOLOGICAL WORK.

Although individual insects are small and often inconspicuous, the great number of species and myriads of individuals in each species make a host that the Department has found very difficult to combat. Their fecundity is so enormous that often whole sections of the parks are devastated by their

ravages in a short time. The destruction of insectivorous birds and mammals gives them an opportunity to increase until they are able to cover large areas of vegetation.

The City of New York, being a great importing centre, new insects are constantly introduced and are soon naturalized in our city parks. The wood leopard moth was presumably introduced here about thirty years ago, and it has since spread over large sections of near-by territory. The larva of this moth has already appropriated for its use over one hundred species of trees and shrubs, and the evergreens seem to be the only ones exempt. This larva is able to amputate tree trunks 8 inches in diameter by cutting a burrow around a trunk, which so weakens it that a strong wind will break it off. Their favorite trees seem to be the elm and maple, and as many as 270 larvæ have been taken from a single maple tree but 10 inches in diameter.

The elm beetle, another imported insect, has in the past been very destructive to the elm tree. They are still abundant on Staten Island, but continued spraying has kept them in subjection in Manhattan.

Fungi has developed upon the vegetation of the parks, owing to the large amount of moisture during the past season. This has been evident from the brown appearance of many trees and shrubs.

Owing to the inadequate assistance given to the entomologist prior to the spring of 1902 for the removal of the cocoons and egg masses of the tussock moth, they were unusually abundant during the month of June. The entomologist's force was then increased from four to eighteen men, and his apparatus was increased by one two horse-power sprayer and five hand machines. In this way the Department was able to successfully combat the myriads of caterpillars emerging from the egg masses that had remained on the trees from the previous year. The gardening forces were also supplied with steel brushes and directed to assist the entomologist to the greatest extent possible in his work. In this way the vege-

tation was put in good condition in a remarkably short time and soon the trees that had been partially defoliated were again in full leaf. Owing to the thorough manner in which this work was done in June, the second brood that appeared in August and September were easily controlled with the force available for the work.

Besides the tussock moth, the entomologist has had to contend with a host of other insects unseen to the ordinary observer, but able to destroy whole areas of park sylva, unless checked.

The San Jose scale insect, while it has not as yet spread over a large area in this city, is liable to do so, for it lives upon a great variety of trees and shrubs, while the scurfy scale is also found in the parks, together with many other species of destructive insects.

So many inquiries are received by the Department regarding the treatment of trees and the destruction of noxious insects that the entomologist has conducted a considerable correspondence throughout the country in this connection. People from neighboring cities have frequently visited the Department for the purpose of studying the methods used and the apparatus employed. The spraying outfits used originated in this Department about seven years ago, and a number of cities have been greatly benefited by the acquisition of similar power-spraying machinery.

A number of communications have been received recommending the use of trap lanterns at night for the destruction of insects, but experience has shown that little, if any, good can be accomplished in this way. The female tussock moth cannot fly and the males do not seem to be attracted by the light in sufficient numbers to warrant the use of the trap lanterns.

THE HARLEM RIVER DRIVEWAY.

The popularity of the Harlem River driveway has steadily increased, and at no time since its inception has it been used to such an extent as the past summer.

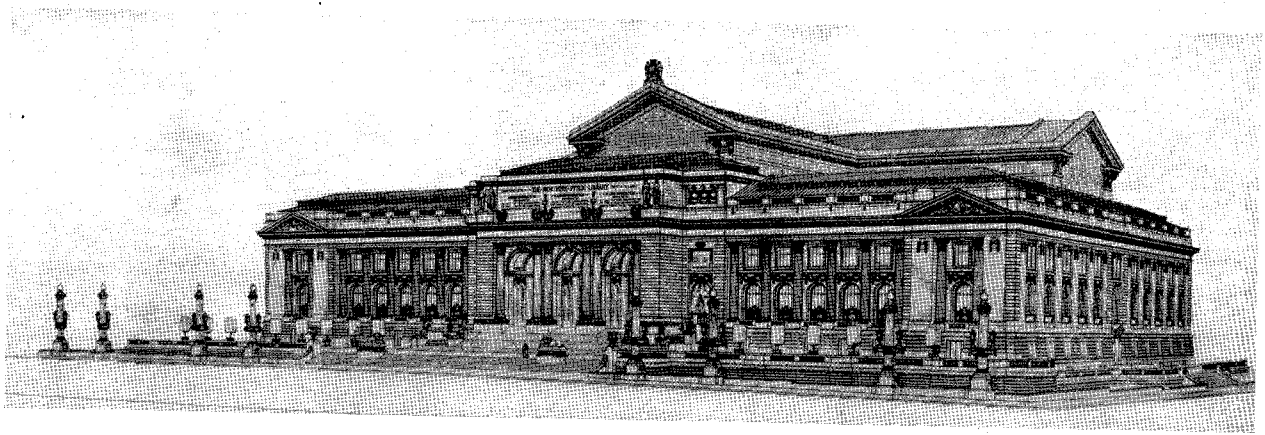
The operation of the Speedway has been watched with great interest, and there is hardly a city of importance in the country that has not either constructed a public driveway on the lines of the Harlem River driveway or had the same under consideration. The Department has received many requests for specifications of the construction of the speedway and many inquiries regarding its management.

The class of horses speeded upon the Harlem River driveway has steadily improved, until the champions of former years are now but in the second or third grade of speedway horses. It has become a common sight for a considerable number of grand circuit horses to be speeded upon the driveway, and a number of matinee speed exhibitions were given throughout the year. Beyond all doubt, more high-class speeding can be seen in a given time upon the Harlem River driveway during the spring and fall months than at any other place in this country, and the attendance is what might be expected under such circumstances.

The continued use of the roadbed of the Harlem River driveway since it was opened to the public has made it necessary to resurface the same, and a fund will be asked for this purpose in 1903. This roadbed is laid upon made ground, making it more difficult to maintain than it would be under other conditions.

At present there are but two temporary comfort stations upon the driveway—one near High Bridge and one near Washington Bridge, for the accommodation of the people who throng the place. It is believed that three permanent stations should be built—one to the south of High Bridge, one at Washington Bridge and another near Dyckman street. At these three points most of the visitors enter from the avenues on the west, and it is believed that they will best serve the purpose desired. It is estimated that the stations will cost about $12,000 each, if constructed upon the lines of similar structures in the parks and according to plans now accepted as the standard for such buildings.

THE HARLEM RIVER DRIVEWAY, AT THE TURN ABOVE THE BRIDGES.



THE NEW YORK PUBLIC LIBRARY BUILDING, BRYANT PARK.

The present water supply upon the Harlem River driveway is altogether inadequate, either for sprinkling or to accommodate the public with drinking fountains. It is of a temporary nature, being brought through surface pipes over the top of the hill west of the driveway. A new water system is urgently needed.

Appropriations for the above improvements will be asked, to be provided through the issue of corporate stock of the City during the year 1903.

THE NEW YORK PUBLIC LIBRARY BUILDING.

The progress made on the New York Public Library Building during the year has not been at all satisfactory. A quantity of rock was unexpectedly found upon a portion of the site, requiring the letting of a separate contract, and this in turn caused complications and contentions between the several contractors which resulted in much delay.

The removal of the old reservoir from the Library site is practically completed. The work on the Fortieth street vault, including the removal of bed rock in trenches for the boiler-room, is well under way and should be completed at an early date. The rubble exterior walls of the vault have been completed, and as soon as the rock is removed in the interior space the construction of the arches can be completed. The other portions of the work had progressed so that the corner-stone was laid on November 10 last. Appropriate ceremonies, including addresses by the Mayor and President John Bigelow, of the Board of Trustees of the New York Public Library, were held and several thousand citizens were present, including many gentlemen prominent in library, literary and philanthropic work.

The contracts already let in connection with the erection of this magnificent library building amount to $3,180,720. The structure will have a frontage on Fifth avenue of 390 feet and will be 270 feet deep, with four stories and a cellar. The

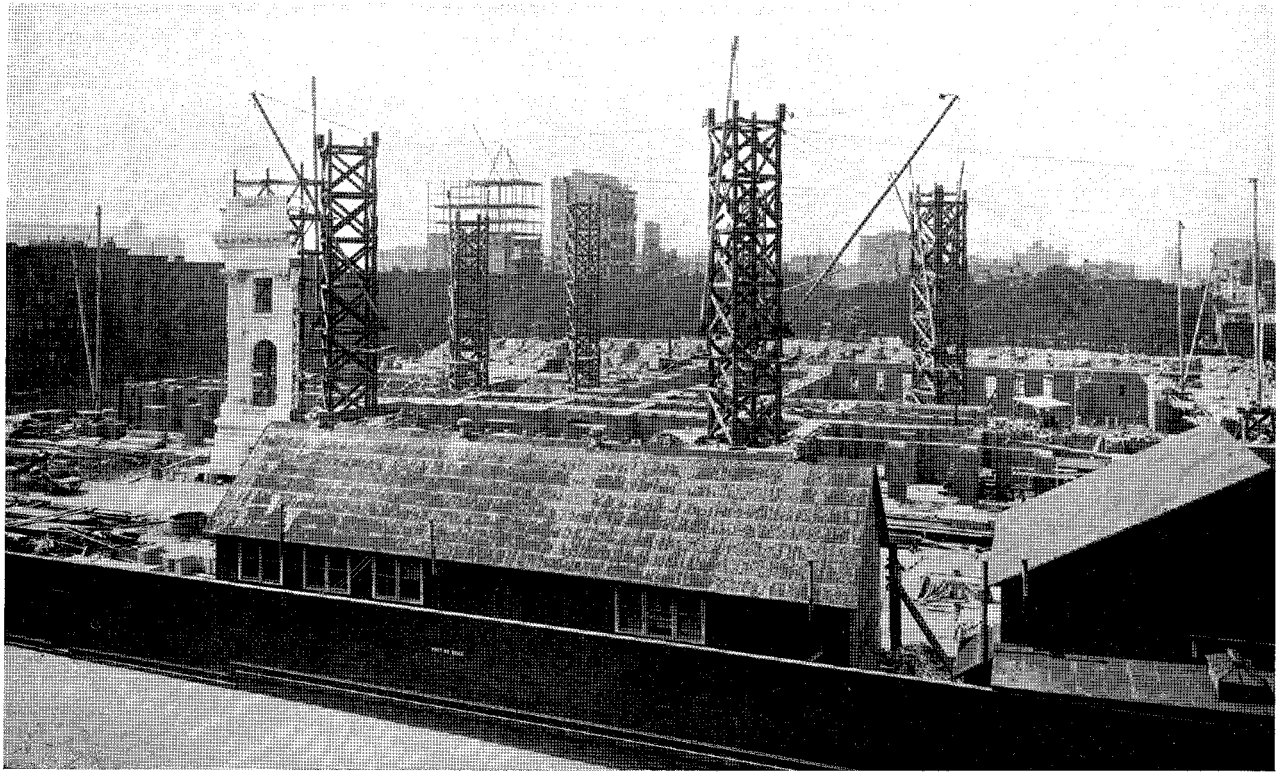
architects describe the design as Modern Renaissance, a development of the sixteenth century renaissance work, adapted to present requirements. It will be constructed of white marble of a quality suitable for the purpose and will be fireproof throughout. All of the details of construction have been considered with the view of making the building as permanent in character as is possible. The sanitary, ventilating, heating and other features have been worked out after consultation with leading engineers especially qualified to advise in a structure of this magnitude.

The foundations are constructed entirely of stone from the old reservoir. Work on the main portion of the structure was begun in November, 1901, the first marble was set July, 1902, and the architects report that the building will probably be completed within the time specified, four years from the date of beginning work on the building proper.

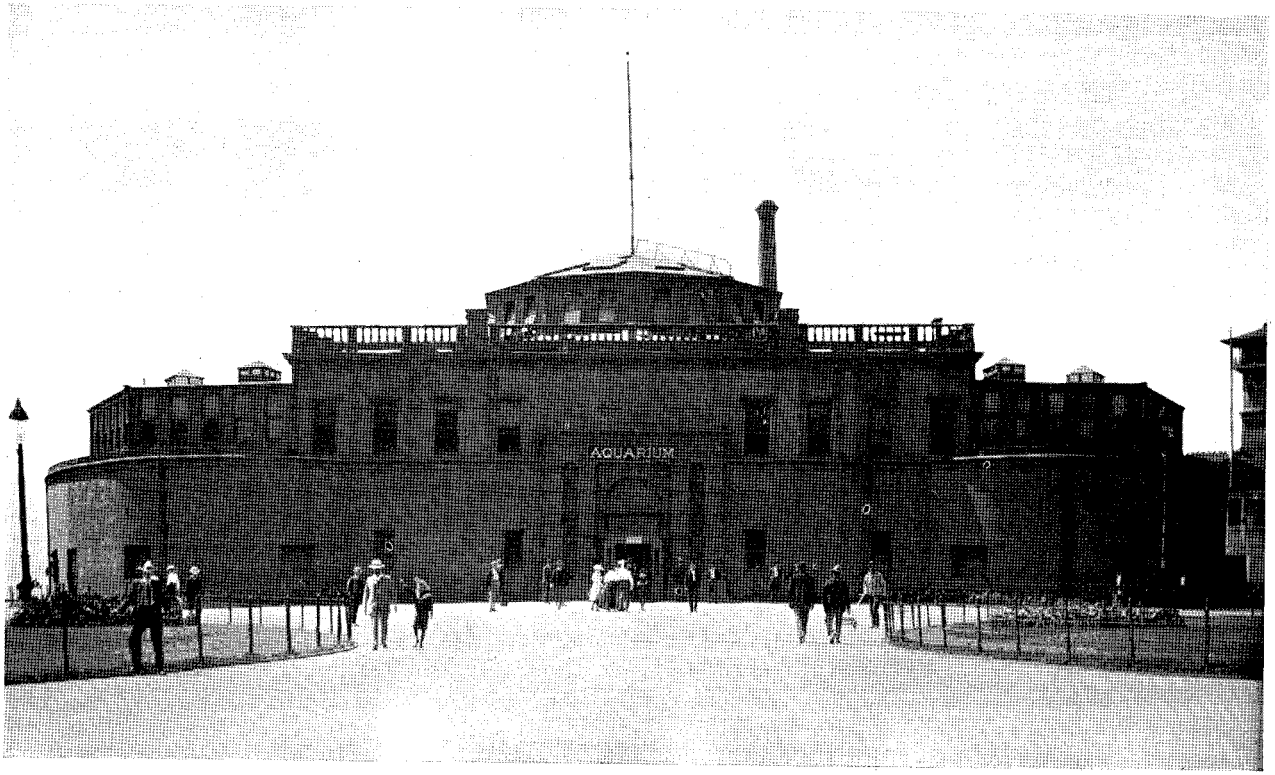
The New York Public Library Building is being constructed pursuant to the provisions of chapter 556 of the Laws of 1897, which authorizes the Department of Parks to remove the reservoir and to erect and construct, in Bryant Park, a suitable and appropriate fireproof building in accordance with plans to be made and prepared by the Trustees of the New York Public Library, Astor, Lenox and Tilden foundations, and to be approved by the Board of Estimate and Apportionment; such building to be used as a public library and reading-room.

Under the provisions of the said act, the bids received by the Park Board for work on the Public Library Building are submitted to the Board of Estimate and Apportionment, who select such bids which, in their judgment, best secure the efficient performance of the work.

For the purpose of providing means for carrying into effect the provisions of this act, it is the duty of the Comptroller, upon being authorized by the Board of Estimate and Apportionment, to provide funds for the purpose.



THE NEW YORK PUBLIC LIBRARY BUILDING, BRYANT PARK.



THE AQUARIUM, BATTERY PARK.

THE AQUARIUM.

Chapter 441 of the Laws of 1902, which became a law on the 10th of April, 1902, authorized the Board of Estimate and Apportionment to contract with the New York Zoological Society for the management of the Aquarium in Battery Park. The contract between the City and the Society for the transfer was executed on the 13th day of October, 1902. The formal transfer took place on the 31st day of October.

The New York Aquarium (Castle Garden) was erected in 1807 by the United States Government as a fort. It was used for various purposes, including the reception of immigrants, until 1901, when it was opened to the public as an Aquarium. The exhibition from the beginning was popular, and the attendance has always been exceedingly large, but the institution has never been the success from an educational standpoint that was intended when it was created. It is true that it has been visited more or less by students and teachers, and even by scientific people, but as an educational feature it has never ranked with the great museums of this city. It is believed that this was largely due to mismanagement.

The management of the Aquarium in 1898 was placed in the hands of a person of no experience fitting him for this work, and in January, 1902, it was found that the position of Superintendent of the Aquarium, as then constituted, was a sinecure, and the place was accordingly abolished. The title of the superintendent had been changed to "Superintendent of Small Parks," notwithstanding the incumbent had nothing whatever to with any of the small parks. A careful investigation of the whole subject led to the belief that the Aquarium would best serve the purposes for which it was intended by placing it under the control and management of a Board of Trustees or Managers of the character of the gentlemen controlling the New York Zoological Park, the New York Botanical Gardens, the American Museum of Natural History and the Metropolitan Museum of Art.

Through the contract entered into with the New York

Zoological Society, without sacrificing any of the features of the Aquarium from a spectacular standpoint, the educational features will be developed greatly, and the institution will be placed in close relation with the museums above mentioned, will have the benefit of the advice of the scientific gentlemen connected with those institutions, and it is believed that it will become a worthy adjunct to the great educational institutions of the city.

Since the Aquarium has been turned over to the control of the New York Zoological Society, Professor Charles H. Townsend has been appointed Director, and he has suggested a number of features, such as the installation of hatcheries and other improvements in the building, which will add greatly to the attractiveness of the institution.

Mr. Townsend, upon his appointment, made a thorough inspection of the building and found the water-pipes to be in a very faulty condition. These pipes were placed in the building when the collection was first installed, and some of them had completely rusted out and been abandoned.

The exhibit of live fishes in the Aquarium is said to be the most important maintained in any aquarium in the world, and it was found to be in great danger because of the condition of the water-pipes.

The lighting of the building is also very unsatisfactory, it being almost impossible to see the specimens exhibited in the large centre pools.

It is intended also to introduce salt and fresh water plants in the tanks, thereby making the surroundings of the fish more natural than at present with the glaring white tiles used.

Notwithstanding the average daily attendance is 5,000 people, the building has never been properly ventilated, and it is imperative that something be done in this direction. The suggestion has also been made that the building might be opened at night by the installation of electric lighting. An appropriation will be asked in 1903 for these several improvements, which it would seem are urgently needed.

RIVERSIDE PARK. CHARACTERISTIC VIEWS.

CARE AND PRESERVATION OF STREET TREES.

During the closing hours of the last Legislature, an act (chapter 453 of the Laws of 1902) was passed, placing all of the trees and vegetation upon the streets, parkways and public places of the city, under the care of this Department. It is hardly necessary to invite attention to the magnitude of this work in a city of the size of the Greater New York. An attempt to undertake, even to a slight degree, the duties provided by the law, would involve supervision in the boroughs of Manhattan and Richmond alone of all of the streets from Tottenville, S. I., to the Government Canal, Spuyten Duyvil, and would require the services of a large force of men. When the act became a law applications began to pour in upon the Department for the removal of old trees, the planting of new ones and the treatment of trees that were suffering from insect pests and fungous growths, and the Corporation Counsel informed the Department that it was incumbent upon it to at once remove any tree which had become dangerous from any cause. Notwithstanding no appropriation had been made for this work, the Department has given a great deal of time to it. It has issued many permits for planting new trees under proper restrictions, has removed many decayed and dead trees, and has even trimmed and cared for some of the city trees situated on streets not controlled by the Park Department. Nearly 4,000 trees set out by the City and owned by it are now situated on the avenues at the north end of the Island of Manhattan. These have been sadly neglected in past years, and I regret that the Department has been unable to devote even more of its appropriation to their care. It has been found almost impossible to impress upon the average policeman that it is his duty to prevent damage by horses and building material to the city trees, but it is believed that a great deal has been accomplished, all things considered, in this direction.

After the passage of chapter 453 of the Laws of 1902, the Park Board adopted the following ordinances, copies being

sent to all of the police magistrates and police precincts of the city:

General Rules and Regulations made by the Park Board, pursuant to the provisions of chapter 453 of the Laws of 1902, for the planting and cultivation of trees and vegetation in the streets of The City of New York.

1. No shade or ornamental tree or shrub shall be planted in any of the streets, avenues or public thoroughfares of The City of New York until such tree or shrub shall have been first inspected and approved by a duly appointed employee or expert of the Department of Parks and a permit granted therefor.

2. No hole or excavation shall be prepared for planting any tree or shrub unless sufficient mold of satisfactory quality shall be used and a duly appointed employee or expert of the Department of Parks shall report that the conditions, such as the absence of poisonous gas and deleterious substances, have been made satisfactory and a permit granted therefor.

3. No stem, branch or leaf of any such tree or shrub shall be cut, broken or otherwise disturbed without having been first examined by a duly appointed expert or employee of the Department of Parks and a permit granted therefor.

4. No root of any such tree or shrub shall be disturbed or interfered with in any way by any individual or any officer or employee of a public or private corporation until the same shall have been examined and a permit issued therefor.

5. The surface of the ground within three feet of any tree or shrub growing on any street, avenue or other public thoroughfare shall not be cultivated, fertilized, paved or given any treatment whatever except under permit granted after an inspection by a duly appointed employee or expert of the Department of Parks.

6. It shall not be lawful to attach any guy rope, cable or other contrivance to any tree or shrub or to use the same in connection with any banner, transparency or any business purpose whatever except under a permit from this Department.

7. It shall not be lawful to cut, deface, mutilate or any way misuse any tree or shrub, nor shall any horse or other animal be permitted to stand in a manner or position where it may or shall cut, deface or mutilate any tree or shrub.

8. The foregoing rules and regulations are also adopted and declared as ordinances. Any person violating the same shall be guilty of a misdemeanor, and shall on conviction thereof before a City Magistrate, be punished by a fine not exceeding $50, or in default of payment of such fine, by imprisonment not exceeding 30 days.

Adopted by Park Board, April 28, 1902.

It is believed that the enactment of these ordinances and the publicity given them tended in a great measure to prevent mutilation of the trees which had existed to a considerable extent prior thereto. Several arrests were made and citizens realized that complaints made by them at a police precinct would receive prompt attention.

A number of complaints were received by the Department to the effect that sub-contractors on the Rapid Transit Subway work were piling iron beams and other material against the trees along their work, and were supporting derricks and other machinery by means of guy ropes fastened to the trees, this latter practice being particularly damaging to the trees. After serving due notice upon the offenders, in some instances it was found necessary to take legal steps to compel the removal of the damaging material and ropes referred to.

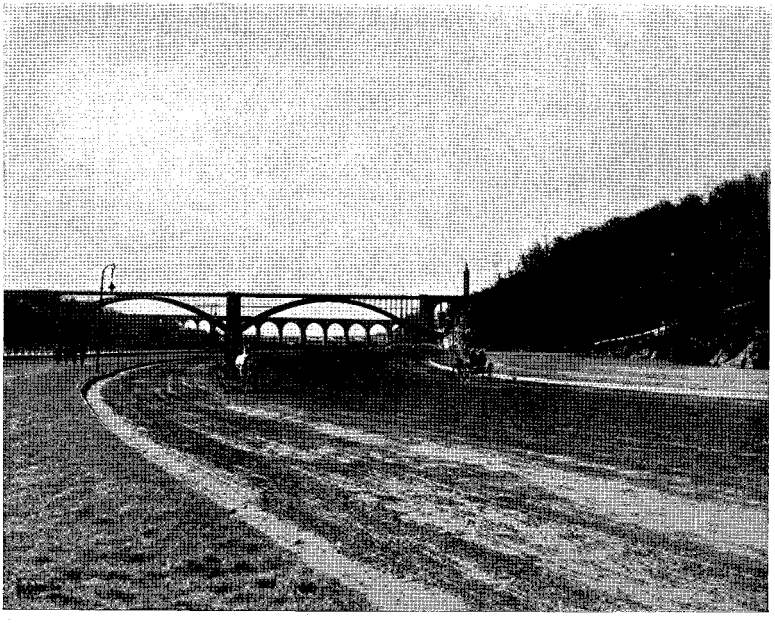
It is now believed that no trees, either within the parks or on the public thoroughfares, are misused in the manner indicated.

The trees planted by the sub-contractor along Broadway (the Boulevard) to replace those removed during the Rapid Transit Subway work there, were found to be not according to the specifications of the contracts, and a very large percentage of them have since died. This Department, under the authority conferred upon it by chapter 453 of the Laws of 1902, invited the attention of the Rapid Transit Commission to the provisions of the act, and requested that steps be taken that would insure the proper replanting of the Boulevard. As a result of this action, arrangements have been made for the removal of the dead trees and their replacement with those

of a proper size and quality, and subsequent planting will be done on proper lines.

RICHMOND COUNTY PARKS.

The wisdom of acquiring considerable tracts of land for future development as public parks has been demonstrated in the lands thus acquired in the Borough of The Bronx. When the question of purchasing what now comprises Van Courtlandt, Pelham Bay, Bronx, Crotona and other parks in the Borough of The Bronx was first brought up the cry of extravagance was at once raised and a considerable opposition developed. A perusal, however, of the report of the Commission appointed to investigate the question, made under date of 1883, shows that the gentlemen comprising that committee not only had great foresight in regard to the future development of the city, but that even more than their predictions has been realized. With the same general idea of acquiring considerable areas of land for future development as public parks, attention has been drawn during the year 1902 to the Borough of Richmond. Within the boundaries of Richmond County there are many tracts of land that could be acquired at a reasonable value and which are especially fitted for development as public parks. These tracts include some of the higher lands of the island, some very fine forest lands, and, in addition, stretches of land along the seashore. The City of New York has been extremely backward in the development of public seaside parks. The question has received much more attention in the City of Boston, where splendid tracts along the seashore have been acquired for future development, and in the past year a considerable area has been laid out as a public park on Coney Island, in the Borough of Brooklyn. It is believed that cities like New York should make the most of the opportunity offered to lay out extensive seaside parks, and no territory within the city limits offers a better opportunity in this respect than certain portions of the Borough of Richmond.



THE HARLEM RIVER DRIVEWAY.
Speeding in Winter. Upper section showing bridges.

Preliminary steps were taken during the year 1902 by the residents of Staten Island to bring about the acquisition of lands there for park purposes, and a committee was appointed by the Staten Island Chamber of Commerce to assist in bringing the matter formally before the proper authorities for consideration. While the Park Department has no part in proceedings of this kind, the Commissioners are much interested in the project and are firmly of the belief that steps should be taken to extend the park areas in the Borough of Richmond to a considerable degree.

The following small parks in the Borough of Richmond have been under the control of the Park Department since 1898:

Washington Square, Stapleton..... 1.46 acres.
Port Richmond Park, Port Richmond..... 1.28 "

These small squares had been developed in a rough way and used as public parks. They were very crude in construction, however, and had received no protection at the hands of the police. The lawns were destroyed and the whole areas left in an unsightly and dilapidated condition.

These squares have been remodeled, proper systems of drainage, walks, lawns and ligting being installed, and the improved appearance presented seems to be much appreciated by the residents of Staten Island, who have made an effort to protect the City's property and to preserve the beauties of the parks.

The present Administration it is believed has given much more consideration to the Richmond parks than has been shown in former years. Competent gardeners and laborers have been assigned to keep them in a proper condition, and they have been inspected and supervised the same as parks in the Borough of Manhattan. It is believed that the results obtained have warranted the extra labor and expense involved, and the Department has been in receipt of many communications from residents of Staten Island expressing their appreciation of the improved conditions.