

CITY OF NEW YORK
DEPARTMENT OF PARKS

1915



THE CITY OF NEW YORK
DEPARTMENT OF PARKS

ANNUAL REPORT

1915

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ANNUAL REPORT FOR 1915

DEPARTMENT OF PARKS OF THE CITY OF NEW YORK

PARK BOARD

CABOT WARD, *President,*
Commissioner for the Boroughs of Manhattan and Richmond.

RAYMOND V. INGERSOLL,
Commissioner for the Borough of Brooklyn.

THOMAS W. WHITTLE,
Commissioner for the Borough of The Bronx.

JOHN E. WEIER,
Commissioner for the Borough of Queens.

LOUIS W. FEHR,
Secretary.

CARL F. PILAT,
Landscape Architect.

ANNUAL REPORT FOR 1915.

DEPARTMENT OF PARKS,
City of New York.

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MAP

(1915)

CITY OF NEW YORK
DEPARTMENT OF PARKS

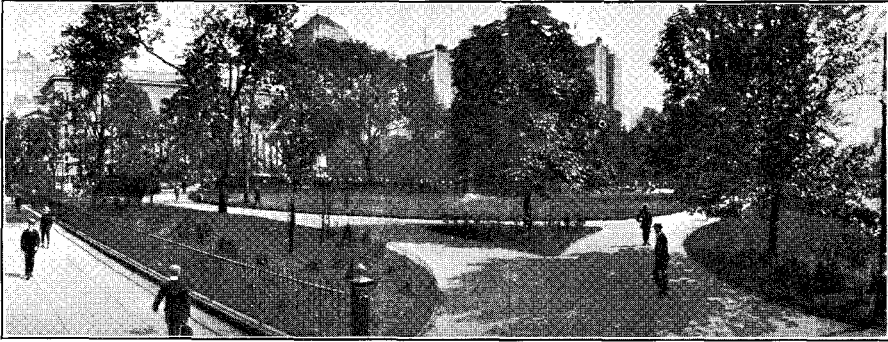
STATISTICS FOR EACH OF THE CITY'S FIVE BOROUGHS

	Manhattan	Richmond	Brooklyn	Bronx	Queens	Total
Population.....	2,590,455	102,614	1,990,614	705,742	417,107	5,806,532
Tax Rate.....	1.87	2.24	1.92	1.94	1.95	.....
Parks, Area.....	1,548.128	63.56	1,037.48	4,200	1,177.60	7,963.765
Areas of Parks to Area of Borough	1 to 9	1 to 576	1 to 50	1 to 6	1 to 64	.....
Number of People Served by One Acre of Park...	1,745	1,614	1,718	168	354	.....
Number of Play- grounds.....	70 55 Play- grounds 7 Gym- nasiums 8 Piers	2	32	10	4	96
Baths Under Con- trol of Park De- partment.....	13	.....	1	.....	.....	14
Baths Under Con- trol of Borough President.....	13	.....	7	1	.....	21
Libraries, Public..	35	4	38	5	33	115
Schools, Public...	166	38	190	58	101	556
Schools, Private...	152	12	106	20	22	312

Form of Administration During Years Since Creation of the Park Department:

	Date
Board of Commissioners of Central Park.....	1856
Department of Public Parks, Five Commissioners.....	1870
Park Board, Three Commissioners.....	1897
Park Board, Four Commissioners.....	1910

SYSTEM OF ADMINISTRATION.



The administration of the Park System of New York City is directed by a Park Board of four Commissioners. The Mayor designates one of the Commissioners as President of the Board, and in accordance with such designation the Presidency is now held by the Commissioner of the Boroughs of Manhattan and Richmond. The other three Commissioners are respectively the Commissioners of Brooklyn, The Bronx and Queens Boroughs. The Park Board passes on all contracts, including construction and supplies, makes all general regulations for the administration of the Park system of the City, and establishes, subject to the ordinances of the Board of Aldermen, rules and regulations for the government and protection of public parks and all property under its jurisdiction. Through the Park Board the general standards of park management are secured and questions of general policy determined.

Under the Charter, each Commissioner, subject to the general regulations and rules established by the Park Board, is responsible for the management of affairs in his own Borough. He has exclusive charge of parks and park property within said limits and of the entire force employed for that purpose. Furthermore, each Commissioner serves as ex-officio member of the Municipal Art Commission when considering any matters affecting his Borough. The President of the Park Board is ex-officio the City representative in the Board of Trustees of such institutions as the Metropolitan Museum of Art, Museum of Natural History, Botanical Gardens, Zoological Park, the Aquarium, etc. He is also a member of the Recreation Committee of the Board of Estimate and Apportionment of the City, and is required to maintain in Central Park the Meteorological and Astronomical Observatory.

The offices of the Park Board and the administrative departmental offices for Manhattan and Richmond Boroughs are located on the tenth

floor of the Municipal Building, corner Centre and Chambers Streets, Borough of Manhattan, adjoining City Hall Park. The administrative offices of the departments represented by the other members of the Board, are located, respectively, in the Litchfield Mansion, Prospect Park, Brooklyn; the Zbrowski Mansion, Claremont Park, the Bronx; the Overlook, Forest Park, Richmond Hill, Long Island.

By provision of the City Charter, the Park Board employs a Landscape Architect, whose assent is requisite for all plans, works or changes respecting the conformation, development or ornamentation of any of the parks, squares or public places of the city. Upon the request of any of the Park Commissioners the landscape architect is required to submit plans for works or changes respecting the parks, parkways, squares or public places of the city. Among his other duties is that of advising the members of the Board on all questions relating to statuary or other memorials proposed for public parks. Besides the secretary of the Park Board, there is also employed an assistant landscape architect, a photographer, and clerical assistance as required.

THE PARK BOARD IN 1915.

During the year under review, a number of important questions concerning the protection of park property arose between the Park Board and the Public Service Commission of the First District. In some cases the Board took action with a view to restricting the amount of damage to the park system that might ensue incidental to the construction of the subways—in other cases where the plans provided for extensive construction operations to be carried on within park lines this Board suggested other methods and areas than those contemplated by the Public Service Commission and their contractors which, when adopted, resulted in reducing incidental park destruction or eliminating entirely its necessity. There were also places where the Board considered there would be undue encroachment on park areas by elevated structures in connection with transportation development. Modifications of such plans were secured and provision made to screen such structures, when completed, from the adjoining park territory. Similar cases will continue to arise in the course of subway planning and also during the actual construction as it proceeds from day to day.

The Park Board also dealt with the Sinking Fund Commission and other city boards in regard to the increase of playground area and park development. The Board also provided for proper restoration by the Board of Water Supply, of park areas disturbed by aqueduct shaft construction.

The annual budgets of the several commissioners were for the first time discussed by the Board as a whole, with a view to seeing what economies could be effected by reduction or centralization of engineering and other forces.

The members of the Park Board joined with other city commissioners in the operations of the Central Purchase Committee, as a result of which considerable savings were made in certain standardized supplies. It was found, however, in some branches of park work, especially in small purchases, that better prices could be secured by the different city units acting separately as in the past.

The Board inaugurated the policy of holding conferences between the respective heads of bureaus in the different administrative branches included in the Park Board. For example, conferences are held by the chief engineers and superintendents of the respective boroughs at which they exchange views as to methods of operation, construction and inspection for the common benefit, and discuss any new process or method that has been successfully tried out in their respective departments. This not only tends to better standardization, but puts at the disposal of all branches of the city's park service any new plan or process which has succeeded in one borough and can be well adapted to the advantage of all divisions of park administration.

METHODS OF PURCHASING TREES AND SHRUBS.

Representations had been made to the Mayor by several "commercial house" brokers dealing in trees and shrubs, that the city could get better results if such firms were given the orders rather than continuing the city's present system of personal inspection of stock at the nurseries.

On the existing plan, adopted several years ago, the Purchasing Agent and Inspectors have visited those nurseries that are within a reasonable radius of the city, and whose owners have responded to the department's specifications with offerings which in price and quality seem to make such inspection worth while. The stock provisionally selected is then sealed and stamped. Later final selection is made by the Purchasing Agent from the various preliminary inspection lists. When the goods are delivered under this system it is only necessary to reject a negligibly small quantity of deliveries as not up to specifications.

Under the system suggested for adoption (that of accepting offerings made from the price lists gotten up by commercial house brokers) the stock is often situated so far from New York as to make a personal inspection impossible. Experience showed that a large portion of the stock when delivered in such cases was not up to specifications. In such circumstances the department in the midst of an all too short planting season was faced with the alternative of accepting unsatisfactory materials or waiting a whole year before carrying out important planting schemes, thus leaving the parks in a denuded condition and public works, with which planting was intimately connected, at a standstill.

The Board, however, investigated once more the whole subject of purchase of trees and shrubs and submitted a report of final conclusions to the Mayor (based on the studies of the landscape architect) which was in favor of the continuance of the present methods of purchasing these supplies.

SPECIAL ACTIVITIES.

During the year the secretary of the Board, in addition to his other duties, has kept in close touch with the administrative officers of the park systems of the other large cities throughout the United States with a view to acquainting the Board with conditions and administrative methods adopted elsewhere.

Special emphasis was laid on systems of municipal operation of restaurants and park concessions that has been adopted in several of the large municipalities, and the results achieved in each instance.

The secretary has also been delegated by the Board in the matter of securing better compliance with park ordinances. This resulted in a study of the park cases brought into the City Courts, where violations of ordinances were concerned. Close observation of Court practice in handling matters involving protection of park property and the public enjoyment has resulted in the adoption of a number of amendments to the park ordinances.

The Board was represented at a conference held in St. Louis for the purpose of forming a nation-wide organization to be known as the National Municipal Recreation Federation. It is planned that this association shall be a medium for stimulating greater interest in municipal recreation in all its branches.

The total amount of contracts entered into by the Park Board during the year 1915 was \$619,702.50. Of this amount \$477,346.64 was for new development, and \$23,696.40 for the repair of existing park area and structures. There was also expended \$18,659.46 for the purchase of supplies through the Central Purchase Committee and through the Park Departments. It is to be noted, however, that in addition to these supply contracts entered into by the Board, the individual members of the Board contracted for a large number of smaller supplies through open market orders for their administrative units.

ANNUAL REPORT FOR 1915

DEPARTMENT OF PARKS
BOROUGHs OF MANHATTAN AND RICHMOND

CABOT WARD,
*Commissioner, Boroughs Manhattan and Richmond,
and President, Park Board.*

CITY OF NEW YORK.
DEPARTMENT OF PARKS,
BOROUGHs OF MANHATTAN AND RICHMOND.
MUNICIPAL BUILDING, 10TH FLOOR.

HON. JOHN PURROY MITCHEL,
Mayor, City of New York,
City Hall, New York City.

SIR:—

I herewith present the Annual Report of the Department of Parks, Boroughs of Manhattan and Richmond, for the year ending December 31st, 1915. I also transmit the report for the Park Board for the same period.

Respectfully yours,

CABOT WARD,
Commissioner of Parks.

June 30th, 1916.

MANHATTAN AND RICHMOND.

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THE PARK SYSTEM.

PARK CONGESTION.

In no city in the world is there such over-crowding as we find in the Borough of Manhattan, New York. It is therefore not surprising that a study of the actual conditions of park operation in the chief municipalities of the country, shows clearly that nowhere is there such generally intensive use of available park space as in the Borough of Manhattan. In this area there is a ratio of one acre of park to every 1,745 of the population.

Building heights and narrow streets here present a congestion problem which far exceeds that of any other locality. The people use the park areas in increasing numbers and the differing elements of population require in each neighborhood a great diversity of park treatment if we are to make park property in each respective section best meet the recreational needs of that portion of the community. This overcrowded condition not only exists on Saturdays and Sundays, but during every day in the week all available park space is continuously thronged day and night. This entirely prevents the employment of the usual methods of restoration and recuperation of park property employed elsewhere and greatly complicates questions of park use, preservation and administration.

During the year under review, the problem thus involved has received special attention, with the result that today the park system has available for intensive and continuous use throughout the summer season a greater amount of territory than ever before. At the same time this use is secured with an enhancement of the parks to their full beauty and without allowing wear and tear to destroy the very vegetation which make the parks such an important asset to our city population.

RESTORATION OF PARK PLANT.

A careful survey was made of the needs of each of the parks in connection with the customs and recreational needs of the surrounding community, and the resulting plans were carried out in a work program that carefully organized the necessary elements in advance and secured proper co-ordination of labor, supplies, and expert supervision. The result has been a complete restoration according to present needs of all but two of those park areas in the section below 110th Street which had been misused and left desolate with greatly impaired usefulness for many years past. In every case, this restoration was made in such shape as to be permanent, despite the continuation of park activities with greater freedom than ever before. The

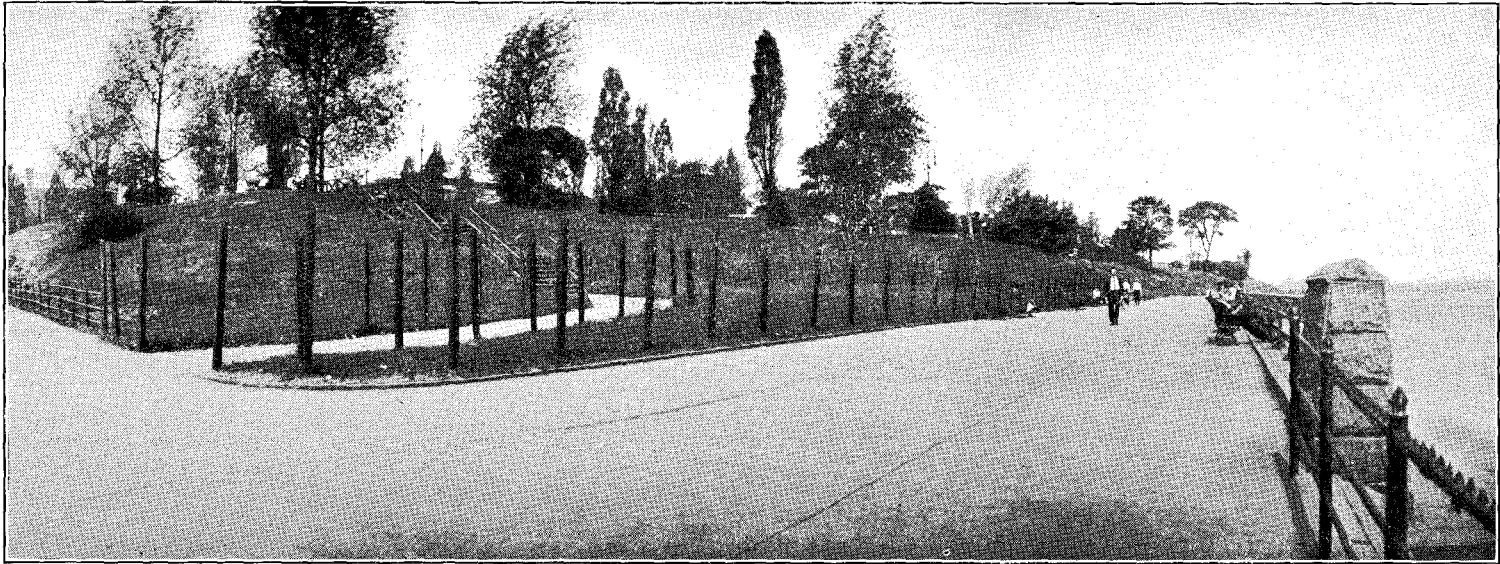
methods employed to accomplish this end, despite a most limited Budget, are fully described in a later section of this report. In the matter of restoring Carl Schurz Park and the northeastern section of Central Park, however, work is still proceeding and cannot be concluded until additional amounts are provided under a special fund for this purpose. Carl Schurz Park is one of great natural beauty. It reached a stage, just prior to this administration, where nothing short of complete restoration of soil, banks, shrubs, etc., was of avail. The central portion of the park has been restored and every effort will be made to secure the required amount so as to return to complete usefulness this very valuable park asset.

One further step remains to be taken for these neighborhood parks as soon as funds for the purpose can be secured. There are a number of parks in congested regions which are seriously deficient in open paved spaces. Here the population using the parks has increased in such density that the original paths are entirely inadequate to take care of the crowds. Furthermore, there is a constant need, on the part of the population served, for more area in which to conduct meetings and reunions, for discussion, music, community singing and local celebrations. This should be provided by extending the paved area, which can be done without in any way detracting from the attractiveness of the park itself.

TREATMENT OF SMALL PARKS.

The policy initiated under this administration, of setting out shrubbery plantations at the intersections of the walks, the entrances and borders of the neighborhood parks, has met with the greatest success and has been pushed to completion during the year 1915. As a result, the parks are made to appear more extensive than before, their beauty and country aspect has been enhanced, and they provide recreation areas better protected from city surroundings.

If additional paved area is secured, it is the intention to take a further step during the year 1916 by setting out in the proposed paved places, numbers of bay trees and similar plants in large wooden pots in the manner employed in the European park systems.



CARL SCHURZ PARK RESTORATION

Showing section of Improvements made this year. Until restored this point had remained for many years a barren waste

Looking at the park system of the city as a whole, it is clear that if it is to be employed to its full usefulness, there must be further development of the existing park areas and ultimately Manhattan areas must be connected by a system of parks or boulevards along the lines indicated in the report of last year. At the same time, there should be better connections between the park systems in this and other boroughs.

COMPREHENSIVE PARK DEVELOPMENT PLAN.

Much progress has been made during the year 1915 on the preparation of a definite plan for future park development and a complete plan will shortly be submitted to the Board of Estimate. It is essential in the judgment of the present administration, that such a plan be laid down both for future guidance and to prevent either private or city use of those lands included in the plan that might preclude the possibility of park development in the future. It is precisely for lack of such foresight that the city has frequently been obliged to secure at prohibitive cost the new park areas absolutely required. In many cases, natural features of great value have been destroyed making it impossible later on to reclaim lands greatly needed for park purposes. For example, let us take the hillside immediately north of 157th Street from the heights down to the shore of the Hudson River. This steeply sloping area was by natural advantages and topography peculiarly adapted for park use, and any reasonable look in the future should have brought the conviction that it must be acquired as a park at a time not far distant. Nevertheless, this area several years ago was filled and graded at huge cost to provide for steeply sloping street and walk development. When completed, these expensive operations will not bring the high tax return that would seem alone to justify this expenditure from a commercial point of view. Meanwhile, this area has been rendered forever unsuitable for use as park land. Had it been left in its natural condition by the city and now acquired as an addition to the Riverside extension the increasing tax values of the surrounding territory would have provided a more practical solution even from a revenue point of view. This must now forever remain a missing link in our park system.

A partial remedy, however, has been suggested by the Chief Engineer of the Board of Estimate. This provides for a viaduct to begin at the northern terminus of the present Riverside Viaduct at 155th Street, and proceed directly north along the existing railroad tracks to the southwestern boundary of the present Fort Washington Park. The boulevard thus created would be continued from this point northeasterly through a natural valley through the park to connect by an easy grade with Lafayette Boulevard. This Department has suggested several modifications to this plan, and it is hoped that they will be approved and the general scheme adopted.

ENLARGEMENT OF ISHAM PARK.

In the northern portion of the city a great advance has been made in park development during the year 1915. An additional gift has been secured

from the Isham family besides those reported in 1914. This last donation more than ever enhances the beauty and completeness of the wonderful asset secured to the city for all time by the Isham gift. With the securing of this additional land, the plans for the development of Isham Park have been revised so as to provide for paths leading up the steep wooded hill side from Broadway to the main plateau of the park on which is situated the buildings and gardens. The development of this park is proceeding rapidly, the system of walks is now under construction and a great deal of the shrubbery and protecting tree plantations have been set out. The Isham homestead has been remodeled so as to provide modern comfort stations, electric lighting and other facilities and prepared for use as a public building. It will serve as a center for the park activities of this neighborhood.

ACQUISITION OF INWOOD HILL.

Particular efforts were made by this department in connection with the work of the Building Heights and District Committee of the Board of Estimate, to restrict "against factories and industry" the area between Isham Park and Inwood Hill so as to preserve it as a possible future park connection. This was deemed of particular importance since the large and sheltered water area included in this territory along the shore adjacent to the Harlem Ship Canal, makes it singularly available for a future boating centre, thus providing for the city a new plant of great importance in the recreational field.

This department has been urging for many months the placing of Inwood Hill on the city map as a future acquisition. This has now been effected. This high wooded promontory at the extreme northern end of Manhattan Island—one of the most valuable natural park tracts in the vicinity of New York—had for several years been in danger of becoming a total loss for future park purposes. Its acquisition will make possible the extension and coordination of the Riverside park system as the most beautiful waterside park in the world. In this connection it is additionally unfortunate that the area above 157th Street, referred to above has been lost for all time to the city.

ACQUISITION OF DYCKMAN HOUSE PARK.

A notable acquisition to New York and its park system has been the donation of the old Dyckman House and the property immediately surrounding it for use as a museum and park. The house stands at the corner of what is now Broadway and 204th Street. To-day, it is the only remaining eighteenth century farmhouse on Manhattan Island and is an excellent specimen of its kind. It was built about 1783, but appears of earlier date having features which suggest construction of 1750-1760. It has the added interest of having been little changed since it was built. The house passed out of the hands of the Dyckman family, its owners and builders, about fifty years ago, and its later tenants feeling that the building would

sooner or later be pulled down made no serious attempt to modernize it, but when at last the time came to demolish it, an appeal was made to the sentiment of the community, and the matter of its preservation was seriously discussed. At length, two of the descendants of the original builder, Mrs. Bashford Dean (formerly Mary Alice Dyckman) and Mrs. Alexander McMillan Welch (formerly Fanny Fredericka Dyckman), purchased the property, and offered, after having restored the house and grounds to their original condition, to present them to the city in memory of their father and mother. This offer was accepted for the city through the present Park Commissioner, and the donors are now engaged in returning to the house all the old furniture and heirlooms of their forefathers after which it will become a part of the park system, to be known as the Dyckman Park House and Museum. It is impossible to overestimate this gift, both from a point of view of its historical value and its future usefulness to the city. Professor Bashford Dean and Mr. Alexander McMillan Welch have consented to act as Curators.

PARK ENCROACHMENTS.

The year 1915 has brought an unusual number of problems connected with the protection of the existing park area. It seems inevitable that citizens planning some public institution or new activities, which they feel are of special interest to the public, should attempt to secure sites for their proposed structures in the parks. This provides the new enterprise with a free site and thus allows for the entire expenditure of the funds collected, for buildings and operation.

It has been felt by the present park administration that the crowded conditions regarding the available Manhattan Park area, already described, require prompt and firm action by this department to prevent any such encroachments and such movements must be defeated before they have acquired too much headway.

Frequently, park encroachments appear in the guise of a temporary building or structure. A good illustration of this occurred during the year in question, by the attempted erection of a large pump house and machinery for the new Catskill aqueduct in Morningside Park.

MORNINGSIDE PUMP HOUSE.

In connection with the construction of the aqueduct, the Board of Water Supply had obtained permits from the Park Department in 1910 to open the ground and erect temporary structures so as to sink a number of shafts in Central, Morningside and other parks. The Water Board agreed to restore all these areas to their former park condition as soon as the aqueduct tunnel should have been completed. However, in 1911, the Board notified the then Park Commissioner that they could not see their way

to restore in such a manner at this shaft site, since they feared it would be necessary to have some permanent structure for pumping purposes over this particular shaft. It was understood by the then park administration that the question of a permanent structure and its necessity would be brought up for discussion by the Aqueduct Board before the construction of the shaft was completed so that, even should it be proved that public necessity demanded some permanent construction above ground, the form of the structure, its height, size and architectural features might be passed on according to the laws of the city by the Park Commissioner, and when his approval was secured be transmitted to the Art Commission for their consideration.

It would appear from facts recently ascertained that the then Park Commissioner merely accepted tentatively the technical assurances of the Water Board that it was impossible to operate the aqueduct without having some sort of permanent structure above ground. Meanwhile there was nothing in the records of the Park Department to call to the attention of the present administration that there was any intention on the part of the Water Board to place a permanent structure on this or any other of the shaft sites, from which sites the Water Board had agreed, when securing their construction permit in 1910, to remove all temporary structures and restore the ground to its original park state immediately on the completion of the aqueduct tunnel. The matter rested thus for several years following 1911.

INJUNCTION OBTAINED.

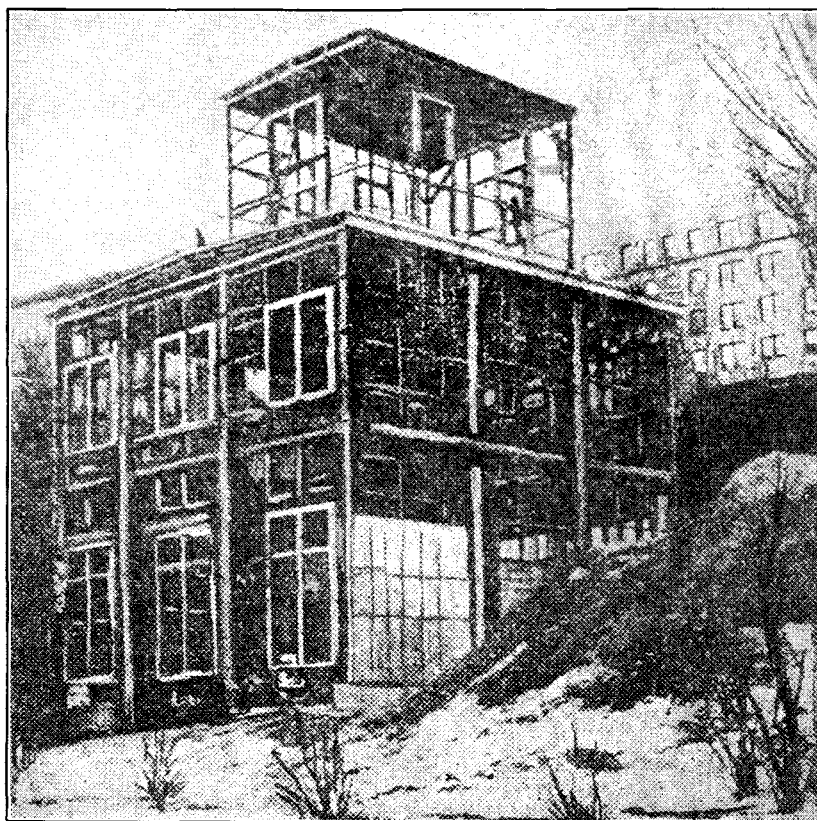
In 1915, however, it was called to the attention of the present Park Department that instead of the usual temporary structures placed on the other shaft sites for drilling purposes, the Water Board was constructing at this shaft site an edifice of steel frame construction, approximately forty feet square and sixty feet in height. It bore all the earmarks of a permanent building. This matter was immediately called to the attention of the Water Board, and they were requested to stop work until the matter was satisfactorily explained to the Park Department. Nevertheless, they continued the construction. A taxpayer's suit was then instituted, requesting an injunction to stop further proceedings. However, the Water Board then claimed the structure to be temporary in the sense that it could be removed should that later become necessary, and the Court confined itself to the mere decision "that before a permanent structure could be erected it would be necessary for the Water Board to secure the approval of the Park Commissioner and of the Art Commission." The Court did not sustain the claim of the Water Board that the act creating that Board was so broad as not to require such submission of plans on their part.

EXPERT OPINIONS.

Meanwhile this department consulted a number of eminent engineers. The American Institute of Consulting Engineers and other distinguished engineering bodies also appointed committees in a spirit of civic duty to

investigate the matter. In the case of the institute, its committee was headed by Mr. E. J. Wilgus. Its report agreed with the contention of this department—stating without qualification that there was no engineering difficulty involved in placing the pumping plant entirely below ground with an electrical installation, such as was proposed, and furthermore, that the additional cost involved was relatively small. Other engineers suggested a form of pumping by compressed air as another feasible solution in case the first suggestion be not adopted. There appeared to be no satisfactory reasons shown by the engineers of the Board of Water Supply to prove their assertion that it was impracticable to put a pumping station under ground.

It is therefore the opinion of this department at this time that the outlook is very favorable for saving the park from the serious injury thus threatened since an underground structure could be easily screened so as to prevent any impairment in the usefulness of the park.



FRAMEWORK OF PROPOSED PUMPING STATION

Picture taken about time injunction was obtained

Meanwhile, our efforts will be directed toward securing the removal of the temporary structure, and it is hoped this can be achieved in view of the necessity of the Board of Water Supply securing a permit from this department to construct a conduit in which to carry the electrical connections into the park to the so-called temporary structure. To prevent the operation of the pumping station in its present temporary form would seem of great importance since the history of the city can show a number of cases where unsightly structures have been erected in the parks in the guise of temporary structures and have then remained for many years to hamper and prevent a proper use of our limited park space.

An excellent illustration in point is the huge, ugly, steel structure stretching out over City Hall Park which is used for switching purposes of the Brooklyn Bridge trains. The "temporary structure" in this case still remains after the lapse of nine years with no prospect for its elimination.

RAILROAD TRACKS IN RIVERSIDE PARK.

A very heavy burden was placed on the department by the questions arising under the proposed contract between the city and the New York Central Railroad to secure the elimination of the tracks along the West side.

Prior to 1915, there had been agitation for years for the elimination of these tracks, not only so as to prevent the future re-occurrence of the accidents which take place where the railroad runs through the streets, but to free Riverside Park from 72d Street north, from the present encumbrances provided by the railroad which runs in an open cut immediately at the foot of this park along its entire length, and forms a gap between the park and the water side.

Several years ago the city decided to fill in the land lying under water to the west of the tracks out to the bulkhead line fixed in 1890 by the Federal War Department.

During the last year, this fill has made notable progress, thus providing park areas on each side of the existing tracks.

Several previous efforts were made by the Board of Estimate and Apportionment to reach a tentative agreement with the railroad company—notably that of 1913, when, after several months of public discussion, the plan failed of adoption.

CUT AND COVER PLAN.

The present proposal as it affects Riverside Park from 72d to 129th Streets provides for a plan by which the existing railroad cut shall be widened by digging to the eastward into the present Riverside Park. In the resulting cut there is to be constructed a cover of structural steel and concrete. The roof to carry soil and materials, so that there shall then be constructed over the railway an improved Riverside Park which would be continuous

from the Drive to the Hudson River shore. A plan advanced by several civic associations for a tunnel under the upper levels of Riverside Park was not considered favorably by the committee because it held that such a plan would involve an additional cost of several millions of dollars.

The tentative agreement in question was reached with the railroad company in 1915 as a result of negotiations carried on in behalf of the Board of Estimate by its Committee on Port and Terminal Facilities.

DISCUSSIONS AND HEARINGS.

The Park Commissioner is not ex-officio a member of this committee despite the fact that there are miles of waterside parks and bulkhead esplanades along the shores of the rivers and harbor, whose areas must be affected by any general scheme for harbor or port development. It must be clear that no large plans involving waterfront changes should be entered into without there being considered the point of view of the Park Department and its advisors on questions of park development and landscape design.

The present park administration therefore has urged that the Board of Estimate arrange to have the Park Commissioner a member of this committee or at least to be present at its hearings. However, thus far this effort has been unsuccessful although the representation of the Park Department has now been secured in the coordinate committees of "City Plan" and "Social Welfare."

This was the situation when it was learned that the Port and Terminal Committee was about to reach an agreement with the railroad company to submit to the approval of the Board of Estimate. This department then made urgent requests to obtain a hearing before the committee and this was later secured. The Corporation Counsel also rendered an opinion that the powers of the Park Commissioner under the charter had been superseded by the legislative act (Chapter 777, Laws 1911) under which the Port and Terminal Committee was operating and that therefore the committee was not bound to consult the Park Department before preparing their plans and entering into a tentative agreement.

MODIFICATIONS SUGGESTED.

At this hearing and at succeeding meetings held several days later, this department, on learning the general lines of the proposed agreement, strongly urged that certain vital changes be made to the proposal as it then stood, so as to eliminate those features considered seriously detrimental to the future of park lands. In some of these the department has been successful and the resulting changes have been incorporated in the proposed agreement. As regards others, the discussion is still continuing and it is hoped by this department that its objections will be met by suitable modifications and changes in the agreement. Among the later class of modifications urged were the following:

1. **Manhattanville Yard.**—That the so-called Manhattanville railway yard shall be roofed over and given park treatment on the resulting surface precisely as the agreement proposes to treat the covered yard from 72d to 82d Streets. None of the arguments presented against the roofing over have seemed to this department worthy of serious consideration. Neither has there been any reason adduced why there cannot at least be provision in the agreement for subsequent roofing to the extent to which it is found practicable. Although the "through tracks" lying to the eastward are to be covered, it will not be possible to conceal the yard from the users of Riverside Drive, north and south of this locality. The Department represented also the resulting detriment, caused by an open freight yard, to the value of the great recreation field which the Park Department proposes to have placed on filled in ground within the existing bulkhead line and immediately north of the proposed yard area. In case it should be decided that both the railroad and the city would be unable to cover over this yard at the present time due to the excessive cost, the Department urged that at least provision be made in the agreement whereby the city would be able at a future date to make this improvement.

2. **Depth of Cover.**—That at a number of points specified along the roof of the proposed subway, from 72d to 129th Streets, an additional structural strength and a greater depth of soil be provided so as to allow for adequate park treatment. Such places and points were designated for the consideration of the Committee on a map showing over 100 typical sections.

3. **Outshore Development.**—That there is allowed by the plans insufficient space outside the westernmost tracks to admit of landscaping the resulting slope down to the river. And, further, that the proposed agreement or a supplementary contract should include some provision for immediately providing additional fill at points not yet filled in west of the railroad tracks, otherwise the waterside feature of the park would probably not be available for many years.

4. **Treatment of Inwood Hill.**—That the "cut and cover plan" should not be applied to all of the Inwood Hill section as it would thereby destroy a large area of the natural park features now existing. That in case the "cut and cover plan" were adopted, it should at least be modified so as to provide for a 10 to 15 foot depth of soil over the railroad structure, since the whole of Inwood Hill in that case must be relandscaped. Similar objection was made in the Inwood Hill section that the great depth of water at certain points immediately outshore prevents a reasonable slope from the water to the top of the tunnel roof, making impossible proper use of this slope through landscape design. That sufficient funds be provided by the railroad company in the Inwood Hill section not only to bring their construction work up to subgrade but further to secure adequate restoration and park treatment, including soil, mould, sod, trees, shrubs, etc.

5. **Design of Tunnel Roof.**—That the form of sloping tunnel roof proposed in the park south of 129th Street should be changed so as to provide for a "stepped up" form of construction, providing both pockets, for

due collection of moisture, and a greater depth of soil at such points, to allow for maintenance of large trees and shrubbery.

6. **Restoration of Riverside Park.**—That adequate funds be provided by the railway company (or, failing that, by the city) to secure proper restoration of park areas in accordance with the estimates of park experts. These moderate estimates call for \$565,800 almost twice the total of the \$300,000 agreed on by the committee as the railroad company's contribution towards the restoration. We have urged that such funds be specifically mentioned for restoration work in quantity and amount either in the agreement itself or as a coordinate part of the agreement. It is firmly believed that such action is necessary in order that, immediately after the railroad's work is completed, the park may be at once given reasonable treatment and the resulting new area over the tunnel may be made equal in all respects to the rest of Riverside Park and forming an unbroken and useful whole. The history of the city makes it more than probable that unless this is insisted on at the present time, the area of Riverside Park disturbed by the operations will remain, for many years after the railroad completes its work, in an unsightly and unserviceable condition.

7. **New Park Layout Prepared.**—In order to make clear the attitude of the Park Department there was prepared a new park layout suggesting as a basis for discussion rather than a final study, the kind of park treatment that might be made necessary if the main features of the tentative agreement are adopted. On this layout there was shown the department's project in connection with any rearrangement of the city plan as regards the Riverside section, that a great playground be established on land filled in up to the bulkhead line and west of the existing Riverside extension.

The recreation field above alluded to includes basins for small boat landings, a recreation pier, an athletic field and other features. Under the proposed agreement all this area would be greatly reduced in value as the users must look directly to the railroad yard east and south, which at this point would thus divide the park in two sections only occasionally connected by bridges and ramps which it may be possible to place over the railroad tracks. The proposed treatment therefore is unsatisfactory since it constitutes a serious detriment to the recreation opportunity afforded by this section of water front.

8. **Fill for Section North of 135th Street.**—Since the plans provide for a high wall opposite the so-called Manhattanville yard section along the border of the existing Riverside Extension Park, there would result under the proposed agreement with the railroad company that this park area would become a deep pocket useless for park purposes from the moment the wall is constructed. Therefore, the committee has been urged by this department, thus far without result, to include as a portion or a supplementary part of the agreement a provision providing funds for the filling in of this pocket so as to permit this area of Riverside to become useful the very moment that railroad operations are completed.

9. **Conservation of Existing Features.**—It was urged that funds be provided as a part of the agreement so that the department can preserve, on the area to be disturbed in railway construction, all trees, shrubs, stone steps, fencings and other features that may be worth saving and re-establishing after the railway operations are finished, also for constructing park buildings and comfort stations that would be destroyed by railroad operations.

10. **Additional Soil Cover.**—Many points show insufficient depth of soil to permit of adequate vegetation for future park development. Long experience in this department in soil conditions like the western slope on Riverside Park, proves that a greater depth of soil is necessary for adequate growth of trees and shrubs. Lack of variation of surface caused by insufficient fill will make the resulting park a flat surface which will immediately reveal its artificial nature. Unless sufficient strength of structure is provided at this time for the necessary depth of fill, it will be impossible to remedy the construction in the future as the railroad company is now proposing to make their structure too weak to support adequate fill.

It was pointed out to the committee that the policy of the Park Department in past work of restoration of parks (for example, in subway construction and aqueduct work) has been to require complete restoration or reconstruction in accordance with Park Department specifications as soon as the contracting company's operations were completed. The committee was urged to adopt a similar policy so as to require the railroad company in the contract to provide sufficient funds or agree to such work under specifications and supervision of the Park Department.

MODIFICATIONS ALREADY OBTAINED.

Besides the matters mentioned above, which are still under discussion, this department suggested the following modifications which have now been incorporated in the agreement, among which are the following:

1. It had been proposed to leave electrical installations along the existing right of way of the railroad. The location and depth of these have been modified so as to greatly improve the result, from the park point of view.

2. New sections have now been included in the agreement providing that the city may roof over the railroad tracks north of Fort Washington Park to Dyckman Street—within that park itself—and from that point south to the Manhattanville yard section, should this be advisable in the future.

3. The railroad company is also to be required to build the high wall opposite the Manhattanville yard section where the grade of the through tracks will be some 40 or 50 feet higher than the present grade.

WHAT THE CITY SHOULD FURTHER PROVIDE.

It should be noted in this connection that the plans and models to demonstrate the tentative agreement, have shown an ornamental masonry

wall facing to the west of the through tracks throughout the Manhattanville section. As a matter of fact the agreement does not as yet provide for such treatment and leaves the subway throughout all this territory open from the water side. Neither does the agreement provide as yet for any landscape or park treatment above the through tracks along this section.

It is also pointed out that at many points Riverside Park cannot become a water side park in fact as well as in name unless extensive additions are made to the existing fill to the west of the present railroad right of way. Fill is apt to be much more difficult to obtain in future, as subway and aqueduct constructions near completion, and unless as a part of the tentative agreement the railroad agrees to undertake this fill, there will result a condition where large stretches of water front will consist of steeply sloping banks from the water to the subway tunnel roof of the new railroad right of way, which will not allow for park development along this available water side park area.

SATISFACTORY PARK TREATMENT ESSENTIAL.

Although the plan as it affects park lands has certain defects some of which have been indicated, it is hoped that it will be adopted and that the committee will see fit to make the changes suggested by this department. These changes are slight when the magnitude of this one hundred million dollar project and the great benefits accruing to both the city and railroad are considered. Yet every one of the suggested modifications are vitally important to existing and future park lands on the upper west side of Manhattan. Certainly, if this project is consummated with the modifications herewith outlined, the result will be a tremendous improvement from the park point of view over any other plan suggested for solving the Riverside situation, and therefore it is hoped that during 1916 the remaining suggestions of this department may be adopted, thus putting an end to present dangerous and objectionable conditions.

In discussing this whole problem, as will be readily understood, the Park Department has not considered the agreement except as it affected present and future park lands and does not feel that it is within its province to take up any questions where park treatment is not involved. The effort of this Department has been to prevent an undue sacrifice of the park asset in order to obtain greatly needed public improvements elsewhere proposed under the agreement.

As the negotiations are still proceeding further comment on this matter will have to be deferred to the 1916 report.

PARKS PROTECTED BY NEW BUILDING RESTRICTIONS.

This department considers the work of the Commission on Building Districts and Restrictions one of the most important and successful achievements for the city that has been accomplished in many years. It is of vital importance in the matter of park protection.

The Commissioner has attended most of the hearings of this commission and urged that the immediate neighborhood of the parks be included in the districts it is proposed to restrict against factories and industry. This department considers that the commission can do no more important work than to preserve the usefulness of park areas in the manner suggested.

While heartily endorsing the work of the commission, we have urged many changes in their proposed plan so as to protect the parks more fully. It is a pleasure to record that the commission in a majority of cases has included the recommendations in their plan. The department considers that the preservation of the boundaries of the small parks in the city's congested districts is of the greatest importance. Any plan which jeopardizes the small park is a serious matter. These parks have in many cases become the center for the residents of the neighboring congested community. From these parks radiate a great deal of that community's life and work. Associations have their headquarters in buildings bordering these parks, devoted to the social life of the neighborhood. In addition to this a great many public buildings have been constructed fronting on these parks. It is quite clear that the value of each park as a breathing space providing recreation and rest from the noise and struggle of city life, will be tremendously reduced unless it can be preserved in the manner suggested. We should not tolerate the throwing away of a large portion of this great city asset by allowing factories in immediate contact with such park territory. We shall have to submit to this destruction if we fail to put the necessary restrictions on their surrounding areas.

It is already evident in the case of the occasional factory that exists in or near these parks that their value is enormously reduced the minute we permit such types of business or manufacture to interfere with the best park use. The commission therefore was urged to join in securing to the city of the future these districts so important to our city life.

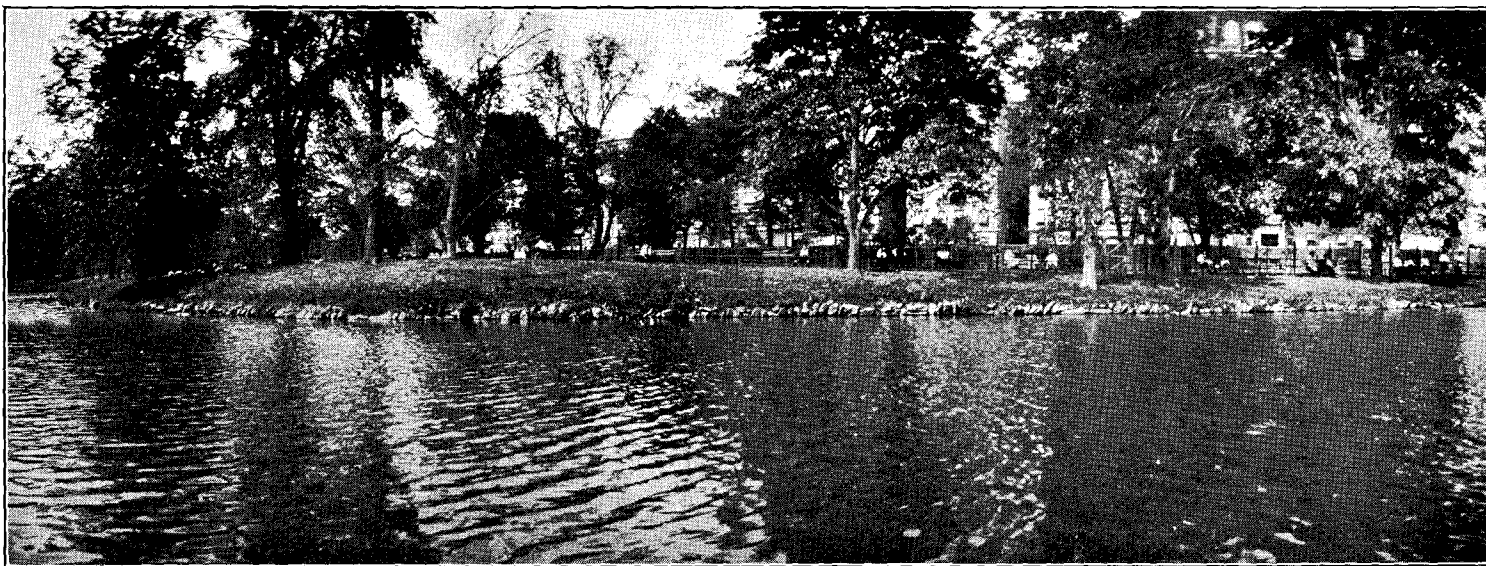
Furthermore, a study of the situation by recent commissions has brought out the opinion that the transportation problem of New York cannot well be solved unless certain areas of Manhattan and elsewhere are preserved as residential centres. These small park units follow in a great number of cases precisely the residential areas suggested.

This department also urged that the height of the proposed building restrictions be made more drastic for buildings bordering on the park areas.

The whole question comes down to this, are we going to use this park investment so as to bring the greatest return to people for whose benefit it was created or are we going to throw away this great opportunity to preserve for the future one of the greatest of city assets?

RESTORATION OF PARK AREAS.

A great step in restoring run down park areas was made when funds were secured for the restoration of the northwest portion of Morningside



HARLEM MERE

Banks and Surrounding Lawns permanently restored this year

Park, a small section to the northeast of Central Park, and the middle section of Carl Schurz Park.

This restoration will be carried out in such a way as to preclude the necessity of further treatment for many years to come.

It is to be regretted in view of the great reduction in the budget effected by the park reorganization plan, that the Board of Estimate further reduced the estimates, thus leaving the department in a position where it has insufficient funds for maintaining the park roads during the year 1916.

The details of the work accomplished by the park force in the respective parks of the city will be found in the second part of this report.

Although the department has succeeded in completely restoring to usefulness all the parks below 110th Street there remain the problems of Corlears Hook Park, Carl Schurz Park and the Ft. Clinton section of Central Park. It is hoped that the small amounts required for the necessary work can be secured in the year 1916 to complete Carl Schurz Park and the Fort Clinton section.

However, the final development for the best use of Corlears Hook Park must await proceedings that are now being taken to close South Street. This problem has been much simplified by an original method for constructing a bulkhead along the river front at this point, worked out by the Chief Engineer. By this method the cost is so much reduced that a new concrete bulkhead can be constructed with the money appropriated to repair portions of the old unsatisfactory wooden structure now existing.

To complete the restoration program, it will then be necessary to secure funds for the three points in the parks already mentioned and in addition to provide for the restoration of the high hill in Mt. Morris Park and those in St. Nicholas and Colonial Parks, after which, with proper management, the whole plant can be run at further reduced cost and greater usefulness.

The next step should be to make better use of the large parks in outlying districts, such as Pelham Bay, Interstate, Palisades, Essex and other park reservations, we can thus relieve the strain on the park system of congested Manhattan and employ it more successfully for those who cannot make use of any but neighborhood park facilities. The proper distribution of population and activities throughout the park system has been a matter of careful study.

SPEEDWAY LEGISLATION.

Special attention was given by the department during the year in an effort to secure from the Legislature such movements in the existing laws regarding the Speedway along the Harlem river as would allow for the treatment of this valuable waterside park area, so that it may be opened up to the general public.

At present this area, acquired at the cost of over \$6,000,000 is being maintained at \$16,000 additional a year for the exclusive use of the few

remaining citizens interested in light harness racing. Quite a substantial number of our citizens indulged in this sport years ago when the Speedway was first laid out, but this number has dwindled year by year, until now on the majority of the days of the year the west bank of the Harlem is deserted and even on the so-called matinee days when "brushes" take place there are only a few vehicles taking part with relatively few spectators. Meanwhile, there are undeveloped separate park units bounding the Speedway on both sides. Therefore, we should release this valuable strip of park territory for the use of all the people and allow of the administration of all the adjacent park territory, including the Speedway, both economically and for general recreation purposes so needed by the citizens of New York who have such limited park area within the Borough of Manhattan. This situation led to the department's recommendations in 1914 and 1915, urging legislation on this matter. The present restrictions on the Speedway have impeded the development of the adjoining units and unduly limited recreation space. It is essential to make the necessary provision so that the Speedway may be treated in all respects as other park areas of this character and open it up for the general good of all. The facts concerning the present use of the Speedway clearly disprove the argument that the City should maintain for the road drivers this valuable area because of the advantages it represents to horse breeding in this vicinity. It is particularly important that every acre of park be used to the greatest advantage of the largest number of our citizens, especially those elements who are not able to get away to the country but must rely on the city's playgrounds to supply that rest and recreation that can only be had by getting away from the narrow streets and confined quarters of the city life. The City has recently acquired Isham Park to the north and is now in the process of acquiring the Inwood Hill tract north of Dyckman Street as a part of the future park plan of the City. Every effort should be made therefore to develop each single portion of park territory in relation to the rest so that one recreation feature should supplement another and result in the most intensive use of the whole.

However, although the bill passed the Senate it did not get out of the Committee of the Assembly at Albany. Therefore, a new effort must be made to secure the approval of the Legislature of 1916 to this much needed change in the existing law.

Motorization of the Department.

A portion of the reorganization plan included the motorization of the department by the substitution of motor trucks for carts and horses. This has been partly accomplished with a saving of approximately \$20,000 and great increase in efficiency. The work will be completed in 1916.

Saving the City Trees.

The problem of preserving and increasing the street trees and the park trees of Manhattan under the difficult conditions we have to meet

with were fully gone into in the 1914 report. As a result of the excellent survey made by this Department under the direction of Professor Laurie D. Cox of the State College of Forestry (an expert on tree conditions), a pamphlet on this subject has been issued by the Park Department, entitled, "A Street Tree System for New York City." This pamphlet states briefly the plan adopted for securing an adequate street tree system and gives "prescriptions" for the kinds of trees, materials, planting and care which this Department requires in each of the separate zones into which the city has been divided. Included are all necessary information for property owners and taxpayers. This pamphlet will be sent to any one applying to the Park Department, Municipal Building, New York City. The solution that has been worked out during the year and which has now been put in operation will be found outlined in the second part of this report. It is clear that the effects of this plan will bring remarkable improvements in the whole tree situation of Manhattan. A further detailed report on this important question with recommendations for a five year program, is contained in Part II of this report.

RECREATION.

The Board of Estimate having laid down the policy that the city is not financially able to purchase any more land for playgrounds, it was felt that the prime necessity of the moment was to make the best possible use of the available existing playground plant and additional city lands that could be converted to this use.

Notwithstanding this the year under review has shown a notable increase in size and scope of the recreation activities administered under the Park Department. The tremendous pressure of those who seek recreation in the form of athletic and play exercises in Central Park and the other parks shows an extraordinary development, and the widespread movement to provide better physical abilities for the coming generation of citizens.

Nor is this all for thousands of additional permits were requested in all lines of game activities in the parks this year, as the result of a widespread campaign of education to stimulate the desire in our adult citizens to obtain regular exercises and physical development through the games and play facilities provided by the park systems.

The "Work, Study, Play Plans" now being tried out by the Board of Education in the school system, further emphasize the tendency for a longer school period with directed recreation definitely provided within the school hour. This is a striking recognition of the rapid inclusion of recreation as a fundamental unit and necessary part of the total education and character formation of the child. This whole development is bound to provide playground propaganda in this country with a more definite plan and to formulate more clearly the results sought to be obtained along the lines suggested by this department in the report for 1914.

DEVELOPMENT IN 1915.

During the year a very great advance has been made in the policy initiated last year of centralization and coordination of the playground systems of the city. The turning over of the city gymnasiums to the Park Department has more than exceeded the results anticipated. The gymnasiums when run in connection with the other playground features have not only produced better results but have been operated at a saving of \$12,000.

This department is still engaged in an effort to secure for playground areas certain sections of land in congested districts where no city playground plant as yet exists. During the year many such city tracts at present unused have been secured and opened as city playgrounds under the administration of this department, including several below and adjacent to the East River bridges.

A final plan for the development of Jasper Oval, so greatly needed by the congested section of Harlem, has been designed which will meet the needs of all sections of that community. This includes a large play field providing for all kinds of athletic and recreational activities bordered on all sides by a strip of park land, including walks, trees and shrubbery plantations. New York has been in the past deficient in this respect—in that playgrounds have not been surrounded by any strip of trees, green or vegetation. Such a border forms a playground setting so successfully obtained in the playground systems of some of our large cities. This results not only in cheerful and helpful surroundings for the children but recreational facilities for the adults. By providing such features, the playground can be a centre for neighborhood activities of all kinds, and the recreational life of the children thus brought closer to that of their parents and families. Contracts and specifications are now being prepared and the work will be rushed to completion. It is hoped that this will prove an example which will result in a number of our other large playgrounds receiving equipment.

CO-OPERATION WITH OUTSIDE AGENCIES.

Very much closer working relations have been secured between this department and the Board of Education. The recreational field has been carefully surveyed so as to prevent the duplication of the past as between school recreation centres, those run by the Park Department and those of the private associations.

A long step in advance has also been made through a series of conferences with the private associations engaged in recreation and playground work. The situation has been carefully studied on the ground and with the city map so as to provide for a proper distribution of all playground effort. Through these conferences there will undoubtedly also be a general movement toward the securing of higher standards in the qualifications of the play leaders. To further this end there has been mapped out a series

of conferences between the various agencies for play activity now operating in the city. Other methods that were taken to secure a better and more intensive use of available existing playground plants are stated in section 2 of this report.

EXTENSION OF PLAYGROUND PLANT.

Despite the policy of the Board of Estimate which prevents the purchase of any more land for playgrounds, the available playground plant of the City was enormously extended.

In this connection campaigns were continued in the year 1915 for securing from private owners unused vacant lots awaiting development, on which this department could operate playgrounds temporarily during the summer in regions not covered by the present playground system.

Eight additional playgrounds were opened during the summer season, five of which were the property of citizens and corporations that had lent their unused land to this department, so as to provide facilities in congested regions where play facilities were hitherto insufficient.

Much progress has been made in the campaign for roof playgrounds and backyard playgrounds and the extension of farm garden work into the backyards, wherever soil conditions permit.

Five years ago there were but ten playgrounds in Manhattan and Richmond. Today there are over seventy under the supervision of this department. In connection with this development, it is only proper to extend the thanks due to associations like the Parks and Playground Association and the various civic societies, who have so greatly assisted the city and the department in recreation extension, through the support given our efforts.

The amendment to the Charter (secured by this department) which turned over all recreation facilities outside of the school buildings to the Park Department has produced satisfactory results. However, there remain some activities like the pools and public baths that are now under the Borough President, which ultimately should be brought under the centralization of recreation in this department. This matter was thoroughly gone into in the 1914 report. Meanwhile, the opening of the Betsy Head Playground in Brooklyn should bring clearly to the attention of our citizens the tremendous benefits with which the city could be endowed by gifts for parks and playground purposes.

New York has been behind hand in this respect. One only has to look at the results of the gifts made in such cities as Baltimore and Boston, to see the enormous service that can be done by well-to-do citizens who are philanthropically inclined. There is now a great opportunity open which the Department hopes will be taken advantage of.

Subway construction, in opening up the new Seventh Avenue below 11th Street, has cut through a mile of city blocks leaving a number of small triangles. These triangles lie in the midst of a very congested district that

greatly needs an increase of play facilities. If they are not acquired the probabilities are that undesirable buildings will be constructed. Meanwhile if some donor could purchase these triangles and give them to the city they would provide greatly needed open spaces and playgrounds.

PUBLIC EDUCATION IN PARK PROTECTION.

The campaigns of 1914 were continued through talks by our executive officers to the school children, teachers and the general public on the care of their park property so that in using the parks their best features may not be destroyed and rendered unserviceable in the future. In addition there were campaigns for developing neighborhood backyard playgrounds, roof playgrounds; campaigns for the increase of house decorations and window boxes.

In connection with these campaigns, the method was tried out this year of only allowing permits to be issued for picnics, May Day Parties, June Walks, after the would-be permit holders were personally called to the office of the Commissioner and instructed how to organize their children and adults into squads for cleaning up lunch and other rubbish. They were told that if they did not assist the city authorities in this respect, the permit would not be granted them in the ensuing year. This method was, in many cases, highly successful.

FORMATION OF INTER-CITY LEAGUE.

There has been a notable increase in the outdoor sports provided in the park system, and the public interest in taking advantage of the new opportunities afforded. Therein will be seen the tremendous increase in the popularity of tennis indicated by the issuance of over 20,000 permits for tennis playing in Manhattan alone. This brings up the efforts made by this department to forward in every way the formation of a National Municipal Recreation Federation. The Park Commissioner represented New York at a conference held in St. Louis to form this nation-wide organization. It is planned that this body shall be the medium for holding inter-city tournaments for competition between the municipal golf, tennis, baseball and football associations, in fact between all those in any branch of sport who use the city's recreational grounds. The object sought for by this federation is to stimulate still greater interest in municipal recreation in all its branches through the promotion of intercity amateur athletic contests and the friendly rivalry and incentive thus promoted among those who could not indulge in athletic practice and competition except through municipal facilities.

NEEDED ACQUISITION AND DEVELOPMENT.

It is a matter of deep regret that this department has not been able to secure authorization for the expenditure of the relatively small amount

necessary to develop as a playground and play centre the large area bounded by 66th and 67th Streets, First and Second Avenues. As stated in the 1914 report this tract is bounded by a number of large schools and lies in a region at present deficient in play facilities. It is hoped before the year is out that funds will be secured to level this fill and make available this city owned land.

This department is in process of acquiring a tract for playground purposes in the midst of a highly congested region—adjoining the Manhattan Bridge, bounded by Catherine Street and East Broadway.

The department has secured several other valuable vacant lot areas to be lent the city by their owners for playground work during the 1916 season. Notable among these is the East 12th Street tract between First and Second Avenues.

The department greatly regrets that the property owners who formerly gave property for use as a playground in the Harlem section occupied by our colored fellow-citizens, were obliged to make other use of the property. It is hoped that some other solution can be found before the 1916 summer season, to meet the very serious needs of this locality.

It is impossible to meet too strongly the need for developing such areas as we already have in this period when the authorities consider the financial condition of the city a bar to any purchases of new land for playground purposes.

SCHOOL FARMS.

In connection with the school garden work, it was found that where available areas in the limited park spaces in congested portions of the city had been given up by a previous administration to individual school principals and teachers, the results obtained were not satisfactory and certainly not sufficient to justify the occupancy of spaces that might otherwise be used to such great advantage.

As the vacation period comes so soon after the garden is planted the farms in this case were attended chiefly by park employees and the interest was not kept up. Furthermore, the school garden has not as sound or broad a base as the farm garden work which is conducted by this department. Therefore, many of these areas were restored to park treatment, leaving only the units efficiently administered under the Children's School Farm Bureau. In the coming year the Chief of the Bureau, Mrs. Parsons, has arranged for closer operation between the Board of Education and this department. A great number of public school teachers are to come under the direction and guidance of the Bureau and to perform their work with their children in our plant.

ACCOMPLISHMENTS AND RECOMMENDATIONS.

In connection with this report a careful and comprehensive survey has been made of the favorable results secured and defects remedied in the Park System during the years 1914 and 1915, and the Commissioner, therefore, presents the following statement of conditions in the department and the policies that should be followed in order to perfect the park system so as to make it fulfill in the best possible manner its important functions in the life of the city. The recommendations cover all phases of park activity.

I. Defective conditions still remaining in the Department which are remediable:

(a) By Action of Local Authorities—Park Restoration and Development.

1. Immediate steps should be taken by the Park Department to prepare a definite plan of park development for the entire city, including all boroughs, such a plan to provide for the proper linking up of existing areas for their better administration and use, including the better coordination and distribution of existing recreation facilities.

Park development has proceeded in a more or less haphazard manner for many years, and the City has suffered accordingly. The result is a patch-work of a number of different and individual units installed by succeeding commissions and administrations without due correlation. The beginnings of such a plan have already been made by this department and the work should proceed until completion, when it can be submitted to examination by the Board of Estimate and Apportionment with a view to adoption.

In connection with the definite park plan being prepared for future development, studies have reached a point where, without further delay, the Commissioner recommends that the City should proceed with the developments suggested in appendix herewith attached.

(See Appendix "A" Page 53 for a partial list of the studies already made for this park plan.)

2. **Needed Acquisitions in Richmond.**—In this same connection, funds should be secured from the Board of Estimate and Apportionment for an extensive study of the situation in the Borough of Richmond, taking into consideration probable growth in the population of the island, proper location of present and future parks both on the water-front and in the inland, and an extensive

system of parkways to connect park properties and for furnishing lines of traffic and rapid transportation to all sections of the island. This should be done now instead of the City's acquiring necessary lands at high expense when Richmond has been closely built up.

Even before such a plan is worked out to final completion and adoption, immediate steps should be taken by the Board of Estimate to place upon the city map the area known as the Clove Lakes.

The city has already arranged, in connection with the Silver Lake reservoirs now being completed, to turn back to the Park Department the surrounding park areas and new areas to be acquired. Plans have already been prepared by this department for the beautifying of this section as soon as acquired. The reservoirs will serve as a lake feature to the park surroundings. This area is connected down a beautiful valley with land held by the city, reaching to the Clove Lakes. This chain of lakes with their rocky and woody shores forms a section of wild and picturesque territory which cannot be rivaled in any portion of Greater New York. This department is therefore urging the Board of Estimate and Apportionment to take immediate action before this valuable asset is built over and forever lost to the community.

There is a further step which should be taken immediately. The city should acquire a section of the beach on the south shore of Staten Island. There is a most desirable tract now owned by a large estate, and this department is now making an effort to secure from the owners a gift of this valuable shore front to the city.

3. Separate Park Police Squad.—Failing legislation to secure a separate park police force, there should be created a park squad in the existing Police Department similar to the present traffic squad. In this way a continuous park service and park posts can be obtained with a force specially trained to this kind of work as distinct from the ordinary street police duty. This would prevent the present unsatisfactory conditions by which the parks are neglected on account of other police emergencies and lack of police training in park work. Reasons for action in this respect are set forth in detail in a report to the Mayor.

4. Municipal Operation of Park Concessions.—This department has made every effort to secure municipal operation of the boating service on the lake and of skating facilities next winter. These are the only form of municipal operation that the Corporation Counsel feels can be legally carried on by the City authorities under the present charter. There is no doubt the results will be to greatly increase the recreation facilities in this branch of park recreation and bring about a more universal use of the opportunities provided by our park lakes. It will also show the advisability of securing legislation to allow for future extensions of municipal operation.

5. Funds should be secured to carry to completion the department's work for the restoration of neglected and weathered park areas. The problem is a serious one in Manhattan, the condition being acute

in such parks as Morningside, Carl Schurz, Mount Morris, the northern end of Central Park and at many other points. It is good business to restore these areas, for if they are left much longer in their present condition without restoration, many of the important landscape features will have been destroyed, requiring complete reconstruction at high cost. Meanwhile, such areas are not useful to the public and are not fulfilling their proper function in providing recreation, nor are they justifying the original high cost with which the City acquired these park areas.

6. **Trees.**—The problem of street trees should not longer be neglected and a small special appropriation for tree-planting should be secured each year, this to be expended so as to provide examples in different sections as to how successful tree work can be conducted, given the difficult atmospheric conditions, escaping gas, sub-soil conditions, soil area, vandalism, and other factors which make for difficulty in tree growing. Manhattan, on account of these and other factors, cannot, at present, rely on its citizens, as can some of the outlying boroughs to plant without the assistance herein proposed.

The comprehensive report prepared for this department on the street tree situation outlines a program on the necessary steps that must be taken. Now that this department has mapped the entire City showing by past history in tree-planting, what kind of trees can be successfully grown in each section and complete specifications for their planting, there is no excuse for the City's failure to face the street tree situation and provide the necessary remedy.

7. A general survey of the City should be made on the **COMFORT STATION SITUATION**. This should include consideration of the location and distribution of the present plant and future developments, studying the City as a whole. Some one authority should be charged with administration of all comfort stations, a majority of which are now under the Park Department with a portion under the Borough President and other departments.

8. Transfer should be secured to Park Department from Department of Water Supply, Gas & Electricity of aqueduct area in Central Park not needed when Catskill water system is put in operation.

9. Full representation should be secured for this department in the City Planning Committee, the Port and Terminal Committee, and the Borough President's Committees, on street and map changes. Questions that affect the layout of parks or streets lying close to present or future parks are constantly arising in those committees and in other cities the Park Commissioners are very properly included.

10. The so-called Riverside fill should be continued and completed out to the bulkhead line aside from questions involved by the proposed settlement of the New York Central Railway. This latter, if adopted, would intensify the need of speedily completing the work.

11. **Walks.**—Owing to lack of appropriations and proper administration of funds in past years, the walks in a great many of the parks are in bad condition. Good business policy would have kept this portion of the park plant properly repaired. But this has not been done and now not only the most urgent and serious cases should be repaired, but corporate stock authorizations obtained for the entire reconstruction of large areas. It is poor policy for the City to continue under the present conditions. Many suits annually are brought against the City for injuries resulting from seriously defective park walk conditions, and in the present state it will have soon become too late to repair many walks and an expensive restoration will be also required in those cases.

12. **Roads.**—Sufficient corporate stock should be secured so as to complete the repaving of the main park drives. Excellent results have been secured on Riverside from 72d to 129th Street, and the West Drive of Central Park. There remain sections like Riverside above 135th Street and the East Drive of Central Park where at present a very heavy maintenance charge is necessary and even then the roads cannot be kept in satisfactory condition.

13. **Reconstruction of Bulkheads.**—Additional money should be secured to reconstruct the old bulkheads along the river front at Thomas Jefferson Park, Carl Schurz Park, Corlears Hook Park, and at 77th Street and the Hudson River. The breaks now existing are serious and the City is losing valuable soil and areas washed into the rivers.

14. The construction of the reinforced concrete bulkhead to supersede the wooden bulkhead along the river head of the Harlem River Speedway should be continued with the necessary funds appropriated until completion. The old bulkhead which was improperly constructed is rapidly disintegrating, section by section.

15. Steps should be taken on the consolidation and centralization of the City's present scattered zoological, menagerie and botanical exhibition plants.

16. Appropriations should be secured for properly completing the irrigation and watering facilities of the parks. The soil in most of the parks of Manhattan is so poor that adequate watering of lawns and plantations cannot be had. The large areas have no watering facilities whatever. Other areas, such as in Central Park, have an adequate water system partially installed, but additional funds are needed so as to complete them and put them in operation. Meanwhile, every year the City, loses, especially during the season of drought, large amounts because it is necessary thereafter to restore at high cost extensive areas of lawn, shrubbery and plantations.

17. The motorization plan for department operations should be further developed and completed.

18. There should be an installation of a cost accounting system which will give the necessary data required for good administration and

future planning, while providing a method that is practicable and workable, taking into consideration the type of employee and the difficulties under which park operation in New York must take place. Also, installation of system of expenditure accounting in department under classification which will make information thus obtained of administrative value.

19. In all departmental planning for reconstruction and new layouts, this Department has been seriously crippled by the absence of any topographical survey of any park areas. Such surveys as exist include areas so small as to be negligible. A good illustration of this is that in the recent preparation of maps for the proposed elimination of the railway tracks and increased area of Riverside Park, it was necessary to make a hasty survey by calling on the Borough President's Bureaus for this purpose. Funds should be secured to provide these surveys for all future time. Previous requests for prosecuting this work have not been favorably acted upon.

(a) By Action of Local Authorities.—Recreation.

1. **A City Survey.**—There should be a recreational municipal survey undertaken by this Department. This would ascertain for instance the type of population in the various sections of the City and co-incidentally study these statistics in connection with the survey to be made of all the recreational facilities, both municipal and commercial. Other departments could be asked to detail employees to add to the park force for this purpose. For instance: The public school population could be ascertained as regards the numbers in the several schools, its elements as regards the white and colored, its neighborhoods served, etc. The same could be done for the parochial schools. In this way, by subtracting from the whole population in divisions for recreational purposes, ascertain recreational needs. The population in each block could be ascertained from the regular existing census. A list of the dance halls, saloons, "pool parlors," moving picture theatres, etc., could be obtained, also a list of municipal play facilities in the neighborhood. Using this data as a basis, the recreation situation could then be thoroughly studied and subsequently planned. The work of such a survey should be co-ordinated with that of the City Plan Committee. It would also then be possible to compile a plan for future development of the playground system and outline what should be done for the future. (For details as to plan and scope, see Appendix "B," page 54.)

2. In the recreation branch of this department's work there should be a further raising of the standards and qualifications of playground and gymnasium teachers, through cooperation with the Civil Service Commission.

The park playground system of the city should get greater benefit than at present from the fact that so many public school teachers are

released from activity during the summer months. In other cities such teaching force is largely material from which play leaders are obtained in the summer months, and naturally such an element is apt to provide the very best type of play director. At the present time, however, through lack of proper coordination, the teachers in the public schools are not encouraged to enter the Civil Service examinations, nor are the examinations arranged or held at such times or manner as to assist this result. The department is undertaking by conferences with the Civil Service Commission and Board of Education to secure better coordination in general and particularly to take up the features thus mentioned.

Besides securing better examination qualifications and pay for the park play leaders, the Commissioner proposes to have a circular sent to the different schools, public school educational departments, and colleges in the vicinity before the time for the next Civil Service examination, so as to encourage their best graduates to enter the examinations.

3. The laying down of a more definite recreation program for the guidance of the City's playground supervisory force, should be worked out, supplemented by conferences for play leaders.

Such a program when once established can be followed in all the playgrounds and applied in accordance with the ages and school advancement of the playground children. The lessons learned through the park playgrounds and their effect, not only on the physical condition but the character of the children should be an integral part of the children's education. Such a program the department proposes to supplement by a series of conferences for all the play leaders, particularly during the winter time when they can be addressed by well-balanced recreational authorities, with resulting discussion on proposed changes and modifications in existing methods.

4. **Concentration of Recreation Facilities.**—Already partially completed should be pushed to a final administrative unit.

The concentration of recreation facilities under two administrative units has been steadily advocated during this administration. This concentration has been carried very far in the last two years, but it has still further possibilities for development under this Department's direction. The gymnasiums formerly administered by the Recreation Commission—the recreation piers, the playgrounds of the Bridge Department, Water Department, etc., are all now under this Department's direction. Further concentration will be included as a part of the program for the next two years. For instance, the Park Department now has a certain number of public baths under its control, and all of the public gymnasiums. However, there remains a number of public bath houses containing swimming pools which are under the jurisdiction of the Borough President's office, although the gymnasiums in these buildings are administered by the Park Department Recreation Bureau, and in almost every case the swimming pool is situated in the immediate vicinity of a park playground athletic field. It is obvious that much better results could be

obtained if a single management was had through turning over the pools to this department. The Commissioner feels sure that the same good results from coordination of activities and elimination of duplications could be obtained, as when the recreation piers were turned over to our Bureau of Recreation. A great amount of duplication and waste will still remain to be eliminated. The public baths situated along the river front could be turned over to this department as a part of the recreation plant of the City. Meanwhile, there should be better cooperation and coordination between the private and City agencies that can help solve the recreation problem. For instance, the armories can be used for recreation to a greater extent. Provision can be made so that the recreation territory immediately adjoining the City may become better known and more used by our population and dovetail into our general plan of recreation and playground activities. For instance, through cooperation with the steamship companies and the Interstate Park Commission, cheaper rates can be secured for transportation of children and young people to Bear Mountain. The communities adjacent to park playgrounds can be advised at certain times of the year, and directed to make use of the facilities most available in that splendid Palisades Park tract. The New Jersey authorities are also willing to cooperate in regard to the Essex Reservation. The Department encourages the play leaders of our recreation force to form groups to use the Bear Mountain facilities, thus relieving for very intensive use, the most crowded of the park playgrounds in congested regions. This movement the Department proposes to develop further. A better adjustment of the park facilities can be had by seeing that the public is provided with maps and statements of park facilities in the outlying districts in the Greater City, such as a Coney Island and Rockaway districts, Forest Park in Queens, and Pelham Bay and Van Cortlandt Parks in the Bronx. These placed in the hands of the Manhattan population can assist greatly in solving the situation pending some central control of recreation in the Greater City such as has already been mentioned under another heading.

5. Better coordination must be obtained between the City-run facilities and those obtained by voluntary agencies that propose to provide opportunities for play and recreation.

At the present time the department has already secured excellent help along these lines from the Parks and Playgrounds Association. However, the Commissioner is planning this spring to have a conference of representatives of all these types of associations so that the respective fields of public and private endeavor may be better mapped out and divided off in this way, preventing in the future much duplication and waste effort.

6. To provide for the better distributing and control of non-directed recreation activities.

The department is arranging with civic, social and athletic associations, etc., so as to provide for a better distribution, and therefore more

successful use of the park area in the matter of large pageants, June walks, May parties, etc. At the present time the few locations set aside through habit and custom for such purposes are used to such an extent as to mar their beauty when these events occur.

By setting aside various areas during certain hours of the day in the different parks for roller skating and similar sports, it has been found possible to carry them on without disturbing the other kinds of park users. This latter difficulty has prevented the full enjoyment of this form of recreation in the past, since the playgrounds themselves have not such surfaces as make roller skating, hockey-roller skating and similar diversions possible.

7. Needed Development.—Appropriations should be secured for making possible more intensive use of the existing playground plant, especially since the City is not in a position to purchase new playground acreage. Simple apparatus should be secured to make the best possible use of the other existing playgrounds. Additional playground sites should also be secured for the Park Department on land already owned by the City and at present controlled, though not required for use, by the Department of Water Supply, Gas and Electricity and the Dock Department, the Bridge Department, etc.

The department has been much hampered through lack of playground apparatus, and the Commissioner will continue to urge the Board of Estimate and Apportionment to provide necessary funds in order to make the number of playgrounds available for better and more intensive use.

The plan finally adopted and now in process of construction for Jasper Oval will make of that territory a fine playfield which when run in connection with the public facilities to be accorded the public by the adjacent City College Stadium will result in the acquisition of new park play space and a recreation center of great value to the City.

It is impossible to urge too strongly the necessity of securing funds for the leveling of the area bounded by 67th, 68th Streets, 1st and 2nd Avenues, recently secured by this department. There are five large schools immediately adjacent to this block of City land. It is situated in a congested neighborhood greatly deficient in recreation facilities. There is no present City playground within half a mile in any direction. It is only necessary to point out these facts in order to realize the value of this tract to the City, if made available. The park playground in this way can be developed along coordinate lines with the prevocational movement and Gary plan.

It is proposed to obtain a greater and more intensive use of the present playground plant, by a readjustment of staff and rearrangement of grounds and apparatus so that those which experience has proved have not sufficient intensive use, can be released, thus giving opportunities for greater acreage at congested points which are insufficiently cared for at present.

As long as the City has not sufficient funds with which to extend play area in congested regions the Commissioner proposes to continue the campaign begun two years ago of securing vacant lots during the summer from their owners to turn into temporary City playgrounds operated by this department. With a proper campaign it should soon become impossible for a vacant lot in a neighborhood which needs facilities to remain idle. At present there is no fund with which the City can properly level or fill privately owned vacant land which consists of rocky or uneven territory, and therefore a great deal of such land is not possible to use even though the owners are willing to lend it to the City for that purpose.

The department proposes to do everything possible to further develop public opinion among owners of buildings in congested neighborhoods of the City so that they become convinced of the necessity of throwing open their roofs for play use, besides eliminating fences from the back yards, thus allowing for community back-yard playground development. Experiments made in this field during the last two years have proved successful. The majority of back yards in tenement districts are not used as much as formerly for clothes-drying purposes, the drying being done generally through poles extending high in the air, and this opens the way more readily for the back-yard playground.

8. Development of Community Centers.—Using the park playground and recreation buildings as a center.

The conditions of the existing buildings suitable for play purposes in the parks and the lack of funds at present available to construct new ones have restricted the department somewhat in making a fair trial of neighborhood civic center activities in the recreation buildings in the parks. However such activities are carried on in the small modern buildings such as exist in Carmenville Playground and John Jay Park. Sufficient funds have now been secured to partially repair the Gracie Mansion in Carl Schurz Park, so that it can become a community center.

This plan, if extended, would have great value in bringing the parents of the children and the young adults to the parks and playgrounds, and result in the formation of a number of associations for neighborhood, recreational and social activities. In the next two years, it is hoped a number of old buildings may be similarly restored for this purpose and sufficient funds obtained for new ones.

The policy of obtaining community cooperation and participation in neighborhood and school activities is a most valuable development for it will serve (as does the folk dancing and other features of our program) to weld the parents' interest more closely in that portion of the children's activities and education which is comprised in the work of a recreation bureau of the Park Department.

9. Control of Commercialized Recreation.—Power should be granted the Park Department to control commercialized recreation.

This power now rests partly with the Commissioner of Licenses and partly with other departments, while it is manifestly clear that the Park Department, charged as it is with the recreation needs of the community is the proper authority to control and supervise commercial amusements.

10. **Evening Recreation.**—This department has considered carefully the question of allowing dancing on the recreation piers. But reports of the police on results that followed such dances in past years, make it doubtful whether this experiment could be tried under present conditions. Certainly it should not be under present conditions, unless a separate police force be obtained. Dancing in the City's gymnasia under this department, is being given a trial, and if successful, should be further developed.

Appropriations should be obtained so that incandescent lights are possible for use in the playgrounds situated in congested districts at night. This would not only give opportunities otherwise denied for recreation of the older boys and girls who are already launched in the business world, but give opportunities for adult recreation and exercise such as cannot otherwise be obtained.

INTER-PLAYGROUND AND INTER-CITY SPORTS

The great athletic meets and the inter-team contests in the major sports should be better correlated as between the public school activities, the various church and civic athletic associations and the inter-park playground association. At the present time the sports of all these clubs are conducted almost exclusively on park playgrounds within the control of this department. The inter-park playground activities include elimination contests conducted on a very large scale; for instance, last summer in baseball alone (in the group of boys under fourteen) there were over a thousand elimination games played in order to reach a final decision as to who would be the champions in that class of the inter-park playground association. A very healthy rivalry between the different playgrounds is thus engendered. The boys themselves in all these matters are given as much personal part in the management and responsibility as possible. However, the Commissioner believes that a further extension along these lines should be thoroughly tried out and might prove most profitable. A plan is now being prepared of which the following is an outline:

That each large playground or group of smaller playgrounds in a given neighborhood choose its own representative to serve in the council of a municipal league. This council would meet under the chairmanship of the Park Commissioner, or his representative, and would pass on all questions of eligibility and actions complained of by the boys themselves in the course of their games. The council could then order suspension of members that have been unduly profane or abusive, or who had not lived up to the ordinary rule of fair play, etc. This general council could be supplemented by subordinate councils for each one of the major games in which inter-park

contests are held—such as baseball, soccer football, basket-ball, golf, tennis, etc. Healthy rivalry might be further extended so as to provide for inter-city contests between the champions of the inter-park leagues and those of other cities. However, in that case the question of funds to send winning teams to the other City contests would be a somewhat difficult problem. It might be solved by requiring a very small fee, say, twenty-five cents for annual membership in the inter-park playground league. Some objections have been raised to even a small fee, and this portion of the plan is not, as yet, finally developed. Meanwhile, there has been formed an inter-park tennis league of the park tennis clubs. Its requisites for membership are merely that the individuals have not other facilities in the shape of other associations, or country clubs. The Commissioner has fostered in every way these associations, and their tournaments have been most successful. So much talent has been brought out in that class of the community which never before had opportunities to indulge in this sport, that steps have been taken in the last few weeks which will allow this association to secure membership in the National Lawn Tennis Association which agrees to manage inter-city contests for our New York inter-park champions.

11. Importance of Park Police Squad.—Further development of recreation features possible if separate Park Police Squad were provided.

With a special park police force as described above, there could then be put into operation such forms of neighborhood recreation in the playgrounds for parents as well as for children. For instance, by means of a removable dancing floor which could be employed one night a week in each playground, and transferred the next night, neighborhood dances in the City playgrounds could be tried out, with only the small initial cost of this removable floor.

With the addition of an appropriation in the park budget of approximately \$175 a week during July and August, moving pictures could be given in a manner similar to that employed in St. Louis and other cities. At the present time we occasionally give moving pictures in the playgrounds, but as there is no appropriation for films this cannot be done except through private subscriptions which allows for only occasional and intermittent work of this character. A truck can be equipped at slight expense containing the apparatus, and all that is necessary is to erect a white cloth screen in the playground and drive the moving picture cart to the point desired. A connection can then be made with the nearest electric light.

The total expense to the City of equipping the wagon would be very slight. Such a small appropriation would enable the department to enter into a contract with a film company to deliver periodically, films of an entertaining and at the same time, educational character. The truck proceeds to give performances one night in each park until that reel has been shown throughout the City. After all the parks have been covered, the film is then changed. There is no doubt that as great crowds and interest would be evinced as is obtained in the most popular of the park concerts. However, the department would not consider carrying any such project into effect unless there were a separate park squad of police or guards.

12. Further Development, Regulation and Control of Winter Sports.—

Playground festivals, games and pageants will be held according to the season of the year. The question of winter sports is possible of much further development than at present. A relatively small appropriation will allow for facilities to provide for flooding playground areas throughout the City without damage to the grounds. We are preparing a plan by which the winter sport of coasting can be conducted more safely and with better results by providing special localities where no permanent injury to the park would result and setting them aside with special supervision for coasting and tobogganning.

13. Community Singing.—

There should be further developments in the already excellent results obtained in the past year of interesting the big department stores, factories, etc., in providing greater recreation facilities for their employees. This department is at present engaged in a campaign for community singing in the parks during the summer in connection with our park concerts. In order to stimulate this a great many of the large department stores have started singing by their employees during luncheon and rest periods with considerable success. Several park neighborhoods have announced their intention to sing in the parks next summer. This Department has called meetings in each neighborhood to encourage the movement.

14. School Farms.—

There should be a further consolidation of the work coincident with the unifying of park administration (mentioned elsewhere) by having a Bureau of Children's School Farms under a Director for the whole City in order that methods, salaries, etc., be uniform and the work be coordinated.

Greater cooperation should be secured between the Board of Education, City Superintendents and Principals, so that the children's school gardens may be used intelligently by the teachers with their own classes. Frequently, at present, the average teacher does not know the best way to use the privileges of the Park Department, or on what to concentrate when she takes her class into the open. A great deal of improvement has already been secured in this regard.

It has been urged frequently that the children's gardens can be used as an aid in language, geography, spelling, arithmetic, etc., by freeing these studies from what is termed lifeless monotony. The Commissioner is very much in doubt as to whether such plans are sound since it would seem better to leave to the educational authorities entire administration in such matters. In fact, it is the opinion that ultimately the Children's School Farm Gardens should be under the management of the Board of Education, with the Park Department merely providing whatever care of grounds not given by the children themselves. The Commissioner does not recommend the establishment of very small units of space for farm garden work. This branch of



THE MALL IN CENTRAL PARK

A Sunday Afternoon Concert of the Community Chorus

City activity appears much more worth while when the area is large enough so that the work can be undertaken by a large number of children working side by side. The gardens should be established wherever possible near school centers and in congested neighborhoods. It is held by many school farm experts that the children in sparsely populated districts need this aid as much as those in congested areas, since mere space does not imply intelligent use of the ground. However, the Commissioner is not yet converted to this view, and feels that wherever the City extends its children's school farms, it should be along the lines indicated. The turning of a very small park in a congested area into a school farm is not recommended, since this space is extremely valuable as a breathing spot for all classes of the congested population.

15. **"Study-Work-Play."**—Cooperation of the Park Department with the trials given the Ettinger and Gary plans.

The department has made special efforts to have this department cooperate with the trials that have been conducted by the Board of Education of the Gary and Ettinger plans. By means of joint studies made by this department and the Superintendent of Schools, several park playground lay-outs have been so changed as to make them available for school recreation in the school plan.

(b) Conditions to Be Remedied by Legislation.—

1. Centralization for the purpose of securing better and more uniform administration of the present detached park units in the several boroughs. This will provide uniform methods of architectural design, park planning, engineering operations, purchase of trees and shrubs, recreation, administration, concessions, policy, etc. This can be accomplished by securing legislation for a single headed park commission with deputies for the several boroughs.

It has often been urged by civic societies that legislation be secured providing for a single-headed park commission and park administration for the City. This would result in a single bureau of recreation under the park commissioner for the whole City. The head of this bureau would undoubtedly secure a much better coordination by administering the whole field of recreational facilities especially at certain seasons and days of the year, when large recreational units can be disposed of in the outlying boroughs to the greatest advantage. There should be a better coordination of the recreation activities of the Park Department through its playground divisions and the Board of Education's similar activities. For instance, there should be an alternation of programs so that the field in each community would be better covered and there would not be the conflict of dates and events in the same neighborhood which too often makes for rivalry and impairs the work of the two respective City departments now charged with recreation. If the suggested method of centralizing park administration is not adopted then other ways are suggested for improving the present lack of coordination.

2. Removal of restrictions at present limiting the use of the Speedway to trotting horses and light vehicles.

The need of legislation for this purpose is two-fold. First, to release this valuable strip of park territory to general park use, instead of limiting it, as at present, to a very small class of the community; and second, to allow such treatment as one park unit of the Speedway and the separate park units that now bound it on both sides. The result of this will be to enormously increase the valuable park area for general park purposes so needed by the people of this City, especially within the territory comprised within the Borough of Manhattan. At present the public is unable to reach the waterfront conveniently from Highbridge and Fort Washington Parks.

The present restrictions on the Speedway have impeded the development of the adjoining units, and, therefore, the method suggested above of treating the Speedway in all respects as other park areas of this character are treated, will allow for an economical administration and advantageous use of this valuable City asset, now encumbered and restricted by the running through its midst of the Speedway under present restrictions imposed on the Park Commissioner. On the other hand, it would be a very serious blow to the City's park needs if a parkway running through the midst of valuable Riverside Park territory be bisected by a city street and under different jurisdiction and control. The amendment will also allow for treating the Speedway road in the same manner as all other park roadways, including the passenger automobiles.

3. **Park Police.**—There should be a separate body under the Park Commissioner, or failing this, a park squad similar to the traffic squad, assigned by Police Commissioner to Park Commissioner.

4. **Municipal Operation of Concessions.**—Additional Charter Powers needed by Park Commissioner.

As stated in a separate report there are many large cities in the United States where municipal operation of concessions has been highly successful and a substantial net profit has accrued. The old system of park concessions in this City has proved inadequate and has failed to meet the needs of the changing conditions of a growing city. The Corporation Counsel in a recent opinion has ruled that the Park Commissioner under the present provisions of the Charter is not empowered to operate municipally, restaurants, refectories, or other type of concessions by City agency. Municipal operation will provide facilities on the basis of service to the majority of park users first, and revenue as a secondary consideration.

5. **Power to Control Commercialized Recreation Should be Vested in Park Department.**—

Power of controlling commercialized amusements should rest in the body charged with the responsibility of recreation needs in the community (the Park Commissioner of St. Louis has recently been given and has successfully exercised such authority). Planning of recreation in this City

by one authority under one administrative body would naturally follow the centralization of park administration as recommended above.

6. **Age Restriction and Pension Law.**—There should be a law enacted for the Park Department similar to that at present in force in the Street Cleaning Department, which will allow for an age restriction on the labor force and a pension plan. At the present time this department has a very large number of its working force more or less incapacitated by old age and physical disabilities. These recommendations will be submitted in full to the City Chamberlain, who, it is understood, is preparing a final report on the reorganization of the now existing pension funds in the City.

7. The restrictions regarding open market order limitations to \$1,000 in a given month should be broadened as far as the Park Department is concerned.

CONTROL OF BILL BOARD DEFACEMENTS—

8. A bill should be introduced making certain the power of the Park Commissioner over encumbrances within 350 feet of any park or parkway. This should be so provided as to give the necessary control over billboard and other erections highly prejudicial to the neighboring park surroundings.

II. Status of Projects Already Initiated in the Present Administration, to Extend the Services of the Department, to Provide New Facilities and to Promote Administrative Efficiency.

(a) Centralization of Additional Recreation Functions Under this Department.—

The Public Recreation Commission by provision of the Carswell Bill No. 2131 of 1915 Legislature was abolished, taking effect October 1, 1915, and the administrative functions of this Commission were turned over to the Commissioner of Parks, Boroughs of Manhattan and Richmond. By this bill, five indoor gymnasias in Manhattan were turned over to the Park Department. The cost of operation by the Recreation Commission was \$20,000 per annum, while the same activities are being conducted and the same facilities provided by the Park Department at a cost of approximately \$7,000 per annum. The high cost of maintaining these gymnasias by the Recreation Commission, was due to the overhead expense, which supervision was already provided in the case of the Park Department.

In 1915 there was turned over by the Department of Docks and Ferries, to the Park Department, the operation of eight recreation piers which this department has supervised and maintained for one year with excellent results and decreased cost of operation despite the insufficient funds provided. For further facts regarding centralization both past and projected, see Concentration of Recreation Facilities, page 41.

(b) **Overhead Reorganization of Department.**—Including redistribution of major functions; merging of several bureaus, motorization, establishment of equipment and stores control, so that intelligent estimates of the department needs of material and supplies may be made.

The saving in detail was approximately as follows:

By overhead reorganization and merging of several bureaus.....	\$70,000
By reduction of floral display planting and treating, and replacing of shrubbery, plantations or perennials.....	30,000
Motorization.....	30,000
By providing for large repair jobs on buildings by contract instead of by departmental labor and using departmental mechanical labor only on job work which could not be foreseen at the time the budget was made up.....	20,000
By economy of supplies and materials.....	80,000
Total.....	\$230,000

This saving of \$230,000 represents an economy in administration of 19 per cent. on the 1916 budget as contrasted with the 1915 allowance. In the summer and fall of 1914, when the budget estimates of this department for the year 1915 were being considered by the Budget Committee, the Commissioner stated that while further economies could be effected in the department, they could only be accomplished by a radical change and complete reorganization. Such radical changes, however, after having had only a few months survey and study in the present administration, the Commissioner did not feel that he was in a position to recommend.

Therefore, the 1915 budget while effecting some reductions by consolidation of duties and salaries, since other expenditures were required for the run-down plant and needed increase of supplies, presented no striking changes. It, however, called for a substantial reduction over the 1914 figures.

The Commissioner stated the department would be ready with a complete reorganization with correspondingly large reduction before the 1916 budget was made up. The Commissioner carried out this plan as outlined and this reorganization was put into effect a year later in the 1916 budget.

(c) Run-down Park Plant Brought Up to Normal by Restoration of Lawns, Shrubs, Trees and Rearrangement of Layout.—

The park plant has been brought up to normal by restoration of lawns, shrubs, trees and rearrangement of layout wherever this could be accomplished within the present appropriations and labor schedule. A survey of the parks of Manhattan and Richmond shortly after this administration took office revealed the fact that in many places the park areas had been reduced to a desolate condition. Such areas no longer served the useful purposes for which the City had made large original expenditures. It was a serious problem without special funds to know where to attempt to redeem those conditions, especially since any restoration must be done during the few weeks of the planting season and the small labor force made this a problem of great seriousness. However, careful planning has resulted in transforming a number of parks to their proper condition and usefulness.

The problem as regards Central Park has been largely solved, except the northerly portion, by restoring it to its condition of ten or twelve years ago. In the northerly section it will need special funds for restoration in order to accomplish anything, since destruction in that region has been so

serious as to require practically reconstruction. The same is true as to areas in Carl Schurz, Mt. Morris, Colonial, Morningside, Corlears Hook and other areas.

The subway work has rendered impossible the present improvement in a number of other park areas where construction work is in progress.

A number of small triangles, such as Canal Street, Beach Street, Grand Street, etc., have been entirely restored to usefulness and the same is true of the larger type of park, such as Seward, Tompkins Square, Stuyvesant, Madison, Hudson, Chelsea, Bryant, etc.

In this process numerous lawns have been restored, new trees, shrubs, and sod provided by our limited departmental labor force and accomplished without the employment of additional labor. In many cases, conditions have been improved by changing the layout after consulting the landscape architect so that actual needs were better served. After a number of experiments, a method was found of restoring deep gullies and washouts so the restoration would remain permanent. The employment of deep-rooted ground cover plants has proved most successful.

The extraordinary conditions that existed in Manhattan when this administration took office showed a great lack of foresight. It is clearly bad business for the City to allow a valuable plant and asset, such as the Park Department, to run down through the lack of proper maintenance. Despite all that the Commissioner has been able to accomplish, it is clear in many points, as mentioned above, it will require large appropriations to properly bring back park conditions in certain places to their normal and proper usefulness.

Apart from any question of proper administration it is clear that during the past ten or fifteen years the Park Department has not received the benefit of sufficient maintenance appropriations. This has been due chiefly to three causes:

1. Lack of realization by the appropriating body as to the value of the park asset to the City;
2. Fear on the part of the appropriating body that the department would not spend the money wisely;
3. Failure of the Park Department in past years to present its needs in a comprehensive manner.

While in the Commissioner's judgment the maintenance appropriation is not adequate to properly carry on the maintenance work, the installing of business methods and the effect of various economies has enabled the department to perform routine work in a manner more satisfactory than in years when there was a much larger appropriation available. There has been in consequence general appreciation throughout the City because of the radical improvements effected.

(d) **Policy of Making Up a General Work Program.**—For planting, restoring and maintenance as a result of personal inspection on ground, and then checking up the carrying out of the program as outlined.

In this manner the department was able to see that effort was directed where it was most needed, and the results warranted the time and work thus expended.

(e) **Functional Centralization of Activities.**—In department shops and yards—shop management.

In the early months of the administration a survey of conditions revealed a lack of centralization in the utilization of plant and storage facilities of the department. This resulted in lost motion and waste time.

The stables were badly located and also unsanitary, so that the department lost a number of horses through illness.

The shop work of the department was conducted at various widely separated points. Storage places were filled with junk and useless and superannuated material; while mowing machines and other equipment were left exposed to the weather, etc.

The stables have now been placed at a point where all rolling stock is concentrated and new and improved methods of sanitary stabling installed. A survey resulted in the clearing out of tool houses, storage yards, etc., and sale of useless material, and rearrangement of apparatus and its care.

The preparation of fertilizing materials for the department has been concentrated at a manure pit adjacent to the 97th Street stables so that in future the department will prepare all necessary fertilizer.

The shops have been concentrated at one point in the 86th Street transverse road, so that all shop activities are under control. A new shop-order system has been installed so that all work will be planned ahead to eliminate lost motion under conditions of modern shop management.

Modern machinery has been installed so that the output of the shops has been materially increased while the force itself has been decreased. A third storage yard formerly in use for a number of small detached units of activity has now been given over entirely to concrete and masonry work.

The old stable building in 86th Street has been entirely remodeled, providing an adequate storehouse for stores formerly in the basement of the Arsenal and at other points so that there is now only one department storehouse and a better storehouse control and management secured.

(f) **Concessions Policy.**—

The park concessions in Manhattan were in a most confused condition at the beginning of this administration, and there was extreme necessity for laying down a consistent policy which would at the same time end by furnishing the best service to the park users, protect the City's interests and coincidentally allow every consideration due the many charity cases cared for under small concessions and which prevent the recipients from becoming charges on the City.

There had been previous to 1914 a number of investigations made, including those by the Department of Finance, the Commissioner of Accounts and the Bureau of Municipal Research. All these investigations and resulting

reports found serious fault with the methods employed by the Park Department under previous administrations. It was shown that there were a number of concessions of an important character that had been let for so long a term of years that in the course of time they became much more valuable and also conditions changed, requiring a different kind of service in order to meet the public need, and the Park Department was unable to compel the kind of service required by the public. Owing to the failure of the City to repair the buildings themselves and provide the necessary funds for that purpose, the concessions had been frequently let with an allowance to the concessionaires to rebate on the sums agreed upon to be paid the City, by offsetting the expenses they were put to in order to repair, change and improve the said buildings. It was urged by the reports that scandals resulted and the City suffered thereby. Objection was also made to the dangers arising from allowing a concessionaire to pay the City on a commission basis, and the difficulties that ensued on the part of the City in ascertaining the net profits of the business, under the circumstances. It was also shown that favoritism had played a part in the leasing of small concessions and some of the large ones; that some of the so-called small concessions were much more valuable than had been supposed and the City was losing a large revenue in treating on a charitable basis, concessionaries who were really very well off, and in no way objects of charity. There were a great many additional recommendations and criticisms that can not be discussed at this time.

While these investigations and resulting reports contained valuable features of criticism, some of the recommendations made were unsound chiefly due to hasty work and insufficient study of the special conditions to be met with in park practice.

The Commissioner felt that it would be a distinct achievement if the whole subject of concessions could be treated on a broad basis covering the various license-giving departments. That if a series of conferences could be had, including representatives of all these departments, certain broad lines of policy could be laid down, after which there would be eliminated the inconsistencies that existed on account of the entirely different methods employed by each department in treating similar cases. Such conferences were initiated, which included representatives of the Department of Licenses, Department of Docks, Department of Bridges, Department of Finance, Borough President of Manhattan, Mr. Paul Wilson, representing the Mayor's Office, representatives of the Commissioners of Accounts, and of various civic organizations. A great many different views were expressed and valuable suggestions obtained, but the conferrees, despite the Commissioner's efforts, were unable to reach any broad policy which they could recommend.

The Commissioner then appointed a committee on park concessions to study the question and report back to him. The chairman of this committee was the Secretary of the Park Board, its members the Landscape Architect of this department, Mr. Paul C. Wilson, the Commissioner of

Accounts' representative, the Department of Finance's representative, and a representative of the City Club. After a study of the question they submitted recommendations which were adopted with modifications as follows:

The concessions of the department are placed in two classes: In one class are all those concessions where the income had been valued at \$1,000 or more, and the City can therefore expect to receive an income of at least \$200 or more annually. In all such cases the privilege is put up for public bidding, and awarded to the highest responsible bidder. Where the value is ascertained to be less than \$1,000 and the income to the City less than \$200, for such cases charitable considerations will still prevail, and they are treated on the theory that in this manner the City cares for a number of cripples and unfortunates who are thus rendered self-supporting and otherwise might become public charges.

To assure that these charitable privileges should not be awarded to unworthy persons, there has been appointed a committee to which all such applications are referred, this committee consisting of a representative from the Charity Organization Society, the United Hebrew Charities, and the Catholic Charities.

This policy has therefore now been followed for over a year with excellent results, and meanwhile the City's revenue by this system has been increased by approximately \$50,000.

(g) Development of Neighborhood Cooperation and Participation in Playground Work.—

The Commissioner has endeavored to bring the Park Department playgrounds as close as possible to the lives of the community in which the different playgrounds are located. Instead of planning a number of City-wide pageants and celebrations, the department has tried to localize all activities—baseball, basketball, football tournaments, etc., at the different playgrounds, emphasizing wherever possible, neighborhood participation so that the parents as well as the children become interested in the playgrounds. The participation of parents has been successfully developed in many of our playgrounds by interesting them in teaching their children the need of folk dances which are then danced by the younger children in the Park Department playgrounds and recreation piers.

(h) Street Trees.—At the beginning of the administration it was clear that tree conditions in Manhattan and Richmond were not satisfactory.

The number of trees in the streets of Manhattan in the residential districts were being reduced every year by several thousands. There was no proper advice by this department to citizens who wished to plant trees, nor effective means taken to maintain trees, once planted.

In many cases the kind of trees planted invited quick death for the tree within a short time on account of conditions of soil, drainage, sidewalk openings, gas and smoke prevalent in that zone of the City.

Furthermore, it has not worked well for the Board of Estimate to include under one small appropriation the care of trees in parks and City

streets. The result of this has been that the dead trees in the parks have been replaced wherever possible and little or nothing accomplished for the street trees.

In the outlying boroughs the problem is far easier, both as to atmospheric conditions and the large stretches of unpaved soil along the sidewalks of avenues and boulevards, etc., because tree planting can be cheaply and effectively carried on.

The tree force at the disposal of this department is inefficient, there being no concentration of authority. Most of the arboriculturists were inefficient and entirely lacking in the technical knowledge required for such a problem, as there was no relation between entomological, pruning, spraying and other tree activities. The Commissioner is trying to secure proper administrative centralization through the abolition of the position of entomologist, the reduction in the force of arboriculturists and the placing of all tree work in charge of a forester, who shall include in his qualifications entomological and arboricultural expertness.

Failing to secure appropriations for a tree survey, the department was able through private funds to have made a thorough-going survey of conditions and a census of street trees last summer. This was accomplished through the cooperation of the New York State College of Forestry which detailed a competent forester for this purpose. He was placed at once in charge of the tree forces of this department. Three months enabled this department to secure an admirable and brief report on the street tree situation. For this purpose, a study was made of the history of all trees planted in the last twenty years, and the report has divided the City into zones, in which zones specifications are now available showing the kind of trees than can be planted with reasonable certainty of survival, including specifications as to the depth of soil, grating and guard, tree opening, watering and future culture.

As a result of this study the Commissioner has definite recommendations which will be made in the 1917 budget for a street tree program embracing a definite planting plan which will tie into one park system our numerous small parks now isolated and unconnected.

With an idea of arriving at an accurate estimate as to the cost of planting and maintaining an adequate number of street trees in Manhattan, a careful investigation has been made of the cost of similar work in a number of American cities where efficient departments of City forestry are maintained.

In considering the street tree situation in Manhattan the department has proposed a definite annual planting program showing the number of trees to be planted each year, increased cost, etc. This program is included under the section of this report stating future plans.

(i) Policy in Regard to Acceptance on Behalf of the City and Maintenance of Memorials and Monuments.—

The Commissioner found a most unsatisfactory condition regarding the memorials and the monuments of the City in the parks and under the care of this department. This matter has, therefore, been given special attention and a definite policy both in regard to the acceptance of monuments and memorials and their care has been adopted. The chief functions of the park areas are to provide rest and recreation for the citizens, but the parks and open spaces of the City perform another important function as indicating the artistic value that the City places on beautiful things and as typifying our City's ideals.

Now, judged from that standpoint, New York has failed to achieve what might properly be expected from the leading centre of the country. Many of our monuments are mediocre and worthless as works of art. Valuable sites have been given to perpetuate the memory of people who had little real claim to such honor. Some portions of the City are literally strewn with monuments and statues that are commonplace and inartistic.

It is true that we have some really beautiful monuments and works of art, well deserving of the dignified sites given them; but it is more than doubtful if there are more than a score of such monuments in all Manhattan.

The department would welcome any method whereby the City could rid itself of a number of statues and monuments which encumber its parks and open spaces. The site could then be used for landscape development or for monuments of the highest and most inspiring form of art.

The trouble is that in the past the City authorities have been far too lenient both in accepting monuments which as works of art they appraised too highly, and in giving up valuable sites out of all keeping with the importance of the subject to be memorialized. Again, in many cases, monuments have been placed without regard to their importance to the City.

Now is the time, when City planning is being seriously undertaken, to consider this very serious phase of our civic life; but nothing can be accomplished unless the different organizations, sectional and civic, that have to do with art (particularly sculpture societies) are willing to help. We must have a movement for a continuous public opinion on this subject. If this can be brought about, we may manage to get some fixed plan established, with a fair chance of its being adhered to in the future.

Each portion of the park property in the City should be carefully examined by a committee of experts, and a report made as to what sites are suitable for statues and other monuments, and what the character of the art should be. There should be a certain grouping of monuments. For instance, City Hall Park would be the logical place to put statues of men who have rendered some special service to the City, and it should be reserved for their memorials.

A beginning has already been made along these lines in Riverside Drive, where a number of memorials have been placed to honor men who have distinguished themselves in the Civil War. The Drive might well be reserved for monuments and statues erected as a tribute to military and naval heroes of national importance.

The whole available area of the City should be mapped out into zones by an able committee, and henceforth statues should only be placed where the surroundings will be enhanced rather than injured by a monument.

At present every month brings many proposals for statues and monuments to be approved by the Park Commissioner. As a rule, before submitting a plan, a committee will have collected the sum of many thousands of dollars to erect a monument, the site will have been chosen without consultation and the sculptor completed his work.

Frequently the individual to be memorialized has contributed nothing to entitle him to being placed in one of the important City centres.

It has been the policy of this administration not to accept monuments on behalf of the City unless the would-be donors provide additional funds necessary for transforming the surrounding park territory to provide an adequate setting. In other words, the City should be put to no expense in accepting any monuments or memorials. In this administration care and discretion have been used in allotting space, but the position of a Park Commissioner in refusing applications would be greatly strengthened by a definite policy laid down as a guide to the City authorities for the future.

The zoning system that the Commissioner suggested would provide this opportunity. After such a plan has been thoroughly mapped out, the Commissioner intends to place it before the Art Commission in order that that body may formally pass upon that idea with the view to adopting it for future guidance. The Municipal Art Society is cooperating in this matter and has a committee at work at the present time preparing a list of sites available and suitable for statues.

There is another respect in which this City has failed in its duty in the past. This is in the care of the monuments we already have. Many of our statues, such as they are, are in a bad state of disrepair through lack of maintenance and inspection. The Washington Monument in Washington Square is a glaring example.

However, with the assistance and advice of the Art Commission, the Commissioner is arranging to detail an Italian workman who will take an interest in and gradually acquire a knowledge as to the methods of maintenance, and who will be constantly at work on one or the other of the monuments to fill up the crevices and in other ways to provide for the work called for by an annual inspection, which the Commissioner believes should be had jointly between the Park Department and the Art Commission.

We must do away with the impression that has existed in the past that once a statute or a monument was erected, it would take care of itself or improve with age. As a matter of fact, an investigation made imme-

diately after the Commissioner took office showed that many of our monuments are suffering rapid disintegration.

(j) Municipalization of Band Music.—

For many years the Park Department was accustomed to appoint band leaders and give them engagements of two or three concerts apiece. The quality of the bands and of the leaders was not passed upon as to their technical and musical qualities and the system was both wasteful in expenditure and bound to result in favoritism.

In 1914 a music committee was appointed consisting of Messrs. Richard Aldrich, F. X. Arens, Frank Damrosch, Reginald DeKoven, Victor Herbert, and R. E. Johnson. This committee passed on the names of all applicants for positions as leaders of park music, and advised also as to the general composition of the programs and the personnel of the musicians forming the respective orchestra and bands. Standard instrumentation was prescribed for bands employed by the Park Department, all members of the bands being compelled to play instruments according to this standard. A band of less than standard instrumentation was not assigned to any concert.

In 1915 the Boroughs of Manhattan and Richmond were divided into four districts and a band of twenty-one men and leader was assigned for the music season to each district. These men were employed by the week, the members of the band receiving \$28.00 per week, and leaders \$56.00 per week. A schedule was made up for each district so that the band played in a different park in the district on each night of the week during the season. By employing musicians by the week the following advantages were obtained:

1. The leader and musicians became accustomed to each other, with the result that a much higher quality of music was secured.
2. A substantial saving was made so that there was 20 per cent. saving on the appropriation, which meant that under this plan the department was enabled to give forty more concerts than if the leaders and members of the band were employed for each concert.

However, the Commissioner believes that a larger appropriation should be granted for these concerts in the parks. If properly conducted, they tend to solidify community spirit and form a basis on which the neighborhood can later get together for many diversified forms of civic endeavor and neighborhood improvement.

(k) Educational Campaign With School Children Looking Toward Obtaining Park Protection from Our Young Citizens.—

The Commissioner and other representatives of the Park Department addressed over sixty schools last spring, talking to the children regarding

park protection ; explaining what facilities and conditions the parks and playgrounds had to offer them and in turn how they could help the department by example and influence. The results were appreciable and there was considerably less destruction to park property last summer than there had been previously. There has also been obtained the assistance of neighborhood associations, local organizations, mothers' associations, etc., to secure better park protection, use of facilities and freedom from vandalism, in view of the absence of special park police to properly fulfill these functions.

III. Opportunities for Greater Economy in the Administration of This Department Which Can Be Taken Advantage of and Steps Necessary to Effect Them.

1. Under the existing organization no further economy can be effected in Manhattan and Richmond. The budget was reduced 19 per cent. in the 1916 budget over the 1915 budget. Any further reduction would undoubtedly cripple the service which this department is rendering to the City.

If a law similar to that of the Street Cleaning Department providing age limit and pension plan for the labor force of this Department be enacted then a further reduction of labor schedule could be secured.

A method for further economy has been suggested by one of the Board of Estimate Bureaus by means of a centralization of the existing administrative borough units with one commissioner.

An estimate made in 1915 placed the resulting saving at \$132,000. However, this estimate would appear to have failed to take into account several factors which would tend to reduce the amount of saving estimated.

If consolidated into one management the comfort stations of the city and recreation facilities could be run on a reduced cost (see recommendations at another point in this report regarding a survey of comfort stations and doing away with the present method by which the Park Department, the Borough President and other heads of Departments have separate units of comfort station jurisdiction).

IV. Conditions or Prospective Developments Requiring Increased Expenditure.

The condition of the park plant resulting from the accumulative depreciation for many years and its immediate development needs have been matters of careful consideration. The needs of the department described below have already been brought to the attention of the appropriating bodies of the city as the department has made repeated requests for the issuance of corporate stock for these items.

RECONSTRUCTION AND RESTORATION.

Paving—

Walks—Central and other City Parks.....	\$250,000.00	
Transverse Roads, C. P.:		
No. 2—79th Street.....	\$60,000.00	
Nos. 1 and 4.....	120,000.00	
		180,000.00
Upper Riverside Drive—125th–158th Streets.....	150,000.00	
East Drives, C. P.....	350,000.00	
		<u>\$930,000.00</u>

Park Restoration (because of neglect in appropriating and in using (advisedly) funds which were appropriated for maintenance):

Morningside Park.....	\$80,000.00	
Central Park.....	15,000.00	
Mt. Morris Park:		
1916.....	\$25,000.00	
1917.....	25,000.00	
1918.....	25,000.00	
		75,000.00
Carl Schurz Park.....	30,000.00	
Corlears Hook Park.....	35,000.00	
Resurfacing Playgrounds.....	16,000.00	
		<u>251,000.00</u>

DEVELOPMENT.

Water Supply System, Central Park—

Continuing installation—

1916.....	\$25,000.00	
1917.....	25,000.00	
		<u>\$50,000.00</u>

Trees in City Streets—

1916.....	\$25,000.00	
1917.....	25,000.00	
		<u>50,000.00</u>

\$100,000.00

Comfort Stations—

Union Square.....	\$35,000.00	
Comfort Station and Boat House (Restaurant House; Skate House Restaurant) C. P. (no existing plant) ..	65,000.00	
Tompkins Square.....	25,000.00	
Comfort Station near 59th Street Lake, C. P.....	20,000.00	
Two New Comfort Stations West Side C. P.....	10,000.00	
Comfort Station and Shelter, St. Gabriel's P.....	20,000.00	
Washington Square (no men's station now exists).....	25,000.00	
Washington Park, S. I.....	15,000.00	
Colonial.....	30,000.00	
Carl Schurz.....	30,000.00	
		<u>275,000.00</u>

Playgrounds—

67th-68th Streets, 1st and 2d Avenues, developing playground and field-house.....	\$35,000.00	
Cherry and Market.....	10,000.00	
Highbridge—playground and field-house.....	50,000.00	
Jasper Oval.....	40,000.00	
Purchase of steel frame apparatus for equipment of existing playgrounds and play-lots.....	10,000.00	
		<hr/> \$150,000.00

Parks—

Water Supply system in city parks (other than Central Park).....	\$75,000.00	
Improvement of St. Nicholas Park, 128th-130th Streets.....	25,000.00	
Walks and lawns around Conservatory Lake, Central Park.....	15,000.00	
Canal Street Parkway, S. I.....	7,000.00	
Colonial Park development.....	58,000.00	
Skate and Boat Houses; Shelter, Harlem Mere.....	20,000.00	
Exterior and Interior Fences, Carl Schurz.....	30,000.00	
Reconstruction 59th Street Plaza, including rest house and comfort station.....	250,000.00	
Development of Highbridge Park.....	17,000.00	
Development of Ft. Washington Park.....	50,000.00	
		<hr/> 547,000.00

Bulkheads—

Completion of Harlem River Bulkhead.....	\$310,000.00	
Riverside Park—77th St. and North River.....	4,000.00	
Thomas Jefferson Park Bulkhead.....	15,815.00	
		<hr/> 329,815.00

V. Work Program for the Next Two Years to Bring the Department to the Highest Level of Efficiency Obtainable, Under Existing Laws and Restrictions.

1. **Comprehensive Park Acquisition and Development Plan.**—Completion of a comprehensive and definite plan of park acquisition and development for the entire City, including all boroughs.

Such a plan to have the cooperation and to be submitted to the discussion of all committees and associations having special interest in some of its features. The plan to take into consideration the proper linking up of existing park areas for their better administration and use, including better coordination and distribution of existing playground facilities. The plan to be finally submitted for examination by the Board of Estimate and Apportionment with a view to its adoption by the City after proper coordination with the work heretofore done in park areas by the Committee on City Planning.

An acquisition program of new park areas required for proper use of existing plant to submit to the Board of Estimate and Apportionment in connection with the above.

A plan taking into consideration and designed to push to completion the essential features of park development now in progress, such as the Riverside Park fill along the Hudson.

2. Park Protection.—A program for providing proper solution of the existing problem of park protection as indicated in Section 1 of this report.

This can be secured either through legislation (creating separate force of park police or guards) or by administration. The latter through the creation of a park squad in the central police force similar to the present traffic squad. Through one of these two methods will be worked out a system providing proper protection to the park users—controlling and preventing the present vicious elements, who ply their trades in the parks, securing proper protection to the landscape features and preventing the existing situation where the City annually spends large amounts in restoring trees, shrubs and lawns only to have a considerable portion of the same destroyed before they can obtain a foothold. Lastly, to provide a force of guards in the parks trained in that special kind of work. A park policeman's chief duties should be to warn and explain, coupled with the sympathetic desire to preserve the parks for the best use by the greatest number of citizens.

3. Completing Restoration of Existing Plant.—Program of restoration of park areas, trees, and buildings so as to make the best use of the existing plant.

This includes the restoration of long neglected park areas acquired by the City at great expense and for lack of upkeep in past years or failing to provide proper returns to the citizens proportionate to such expenditures.

Restoration of normal and proper tree conditions in the City's streets and parks. (See section on Street Trees in another part of this report.)

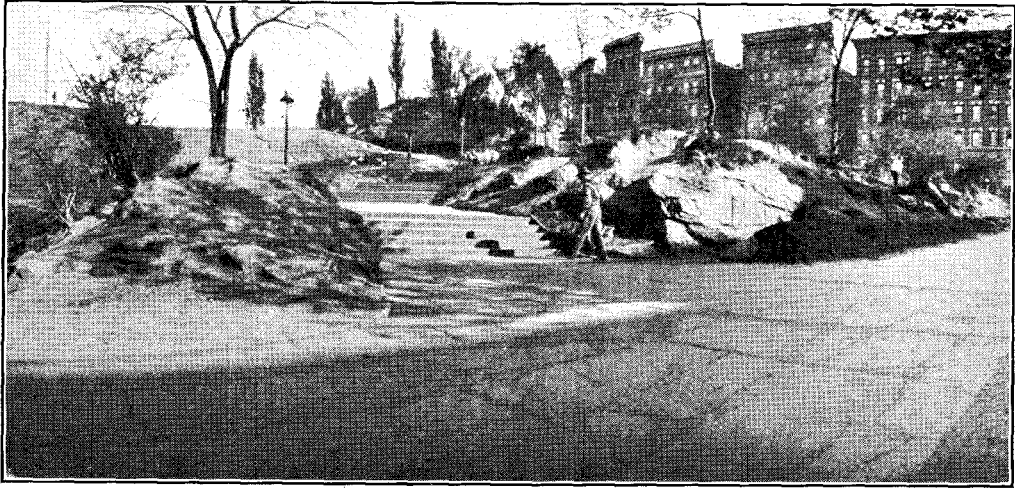
The continuation and completion of the program already undertaken of survey in all park structures eliminating those that are not structurally profitable for repair or not needed for the best use of the park system; the repair of existing and needed buildings so that their future upkeep can be maintained at slight cost in the future instead of the extensive restorations of past years.

4. Repairs to Walks, Drives and Bulkheads.—A program as submitted for a similar treatment of existing walks, drives, and bulkheads, providing such repair or restoration as will admit of their low upkeep in future.

Reconstruction of the bulkheads that are rotting away, including those on the East and Hudson River and along the Harlem River Speedway.

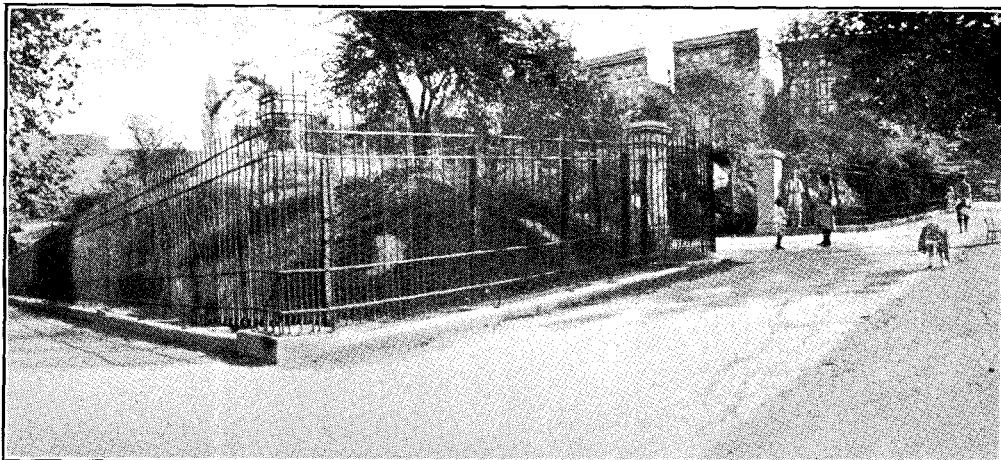
5. Proper Irrigation and Watering Facilities for the Parks.—

(See pages 39 and 40 of this report.)



MORNINGSIDE PARK

Northwest entrance before restoration



MORNINGSIDE PARK

Northwest entrance after restoration

6. Further Consolidation of Administration and Jurisdiction.—

Plans for the consolidation and centralization of the existing park forces, with consequent saving and improved control and planning.

This would include also consolidation and centralization of the City's present scattered zoological and menagerie plants and botanical exhibition plants; the centralization of the administration; engineering recreation and other park functions, the centralization of comfort station administration, etc.

Such centralization shall include the needed representation by the Park Department in committees of the Board of Estimate that are passing on matters that directly or indirectly affect the park areas.

Transfer to the Park Department of areas now controlled by other departments within and outside the park areas which will not be needed for the operation of such departments and can be welded into the park and recreation plant.

Concentration of recreation facilities (already partially completed) and coordination of City-run and voluntary recreation facilities.

Control by this department over commercialized recreation.

7. Completing Departmental Reorganization.—Final completion of remaining features of reorganization and systematization of existing department.

This will include the motorization, cost and expenditure accounting systems, new standards and qualifications of playground force, recreation program, better distribution and control of non-directed recreational activities, more intensive use of existing playground development. Plan of community centres in park playgrounds.

8. Public Educational Campaign to Secure Better Care and Protection of Park Property.—By the citizens and to bring home to the people how this will provide for better and more intensive use of the park asset.

This includes the holding of a City-wide Park campaign—"Know the Parks" and other measures to secure dissemination among the citizens of information as to how to reach the parks and what facilities are provided.

9. A Definite Policy Regarding the City's Attitude Toward the Works of Art Existing or to Be Placed in Parks, and Regarding the Museums or Other Institutions Already Located Therein.—

There should be laid down a definite policy which can be made applicable to all such institutions coming within certain well defined classifications. The present method is haphazard and unsatisfactory, both as to the share the City will bear in annual maintenance, construction of buildings, etc., and the consequent authority of the City's representatives in affairs of the institution. A plan is now being prepared along these lines which will be submitted to the Mayor for consideration by the Board of Estimate.

What the Park Department chiefly needs is an appreciation by the citizens and their representatives of the expenditures required to secure to the City its park asset, and the need of constantly maintaining that plant so that it may be used to the best advantage. Such attention to the Department's situation can only be obtained by carefully worked out plans covering the entire City, and providing for the future needs of the community.

CABOT WARD,

Commissioner of Parks.



APPENDIX "A"

(a) Preserve what can be saved to the City by the banks of the Harlem River and develop them in connection with the existing parcels of park land which adjoins the present Speedway. This latter with restrictions removed could then be developed as one park together with Highbridge, Washington Bridge and Fort George Parks.

(b) Connect by a parkway Washington Bridge and Fort Washington Park.

Prolong by a parkway or boulevard street the existing Speedway from its termination, northwesterly, so as to join the present northerly terminus of Lafayette Boulevard at Broadway and thus make a connecting link with the new park to be created at Inwood Hill and continuing along the line of the Harlem Canal to Isham Park, by connection across the Harlem River Ship Canal joining Inwood Hill with Spuyten Duyvil Boulevard, thus making connections with Van Cortlandt Park.

(c) Acquire additional park lands between Lafayette Boulevard and the Hudson River front. This is now private property, which may at any day be built upon to the permanent detriment of the City. New York can ill afford to acquire some years from now, at an almost prohibitive cost, this property which can now be saved to the City at a reasonable figure.

(d) Furnish Central Park with more adequate connections with Riverside Drive, thus making it possible to use more intensively the existing park and recreation facilities. A study is being made for such a connection just north of 77th Street. Morningside, St. Nicholas and Colonial Parks should be connected with boulevards or additional park space, so as to join Central Park with Speedway at 155th Streets.

(e) Transfer the present activities of Blackwell's Island and Randall's Island (which are not suitable to our modern needs for charity and correction) and turn them into what would be most beautiful island parks—as has been done at the Belle Isle Park of Detroit.

(f) Make a real parkway connection from the northerly terminus of the straight strip of viaduct at 155th Street and Riverside Drive so as to prolong the same over the railroad tracks and provide a physical connection with moderate curves and grades joining Lafayette Boulevard at a point in the southerly portion of Fort Washington Park.

(g) For immediate steps for needed acquisition of Park Lands in the Borough of Richmond, see page 36, Part I, of this report.

APPENDIX "B."

PURPOSES OF RECREATION SURVEY.

- To disclose actual conditions and obtain facts of recreation conditions in New York.
- To determine specifically how far the present recreation agencies (private, public or commercial) meet the needs of the city at large and also each community.
- To show what sections have not certain recreation facilities, and why and when these should be provided.
- To compare conditions in New York with conditions in other cities and with generally accepted standards.
- To show wherein the recreation needs of children, young people and adults are supplied and not supplied during all their leisure hours.
- To illustrate in as many different ways as possible, by map, chart, table or picture, each of the conclusions reached.
- From the sum total of this information to base extension work under supervision of the Department of Parks.

Preliminary Outline Suggested for Recreation Survey.

Maps to be made of the City of New York, work to be conducted under the direction of the Park Department.

1. School population per block: Public School; Parochial School.
2. Distribution of nationalities per assembly district.
3. Location of churches and libraries: Catholic, Protestant, Jewish, Christian Science, etc.
4. Location of saloons and dance halls.
5. Juvenile delinquency cases.
6. Location of theatres, motion picture houses, pool rooms, bowling alleys.

Proposed Maps.

1. Assembly District Map, showing by different colored figures:
 - a. Total population.
 - b. Population per acre.
 - c. Population per occupied acre (where possible).
 - d. Park area.
 - e. Population per acre of park.
2. Graphic Service Map, showing effective radius of
 - a. Large parks.
 - b. Neighborhood parks.
 - c. Small parks and playgrounds.
3. Assembly District Boundaries (for purposes of future comparison).

PROPOSED TABLES.

1. Commercial Amusements, showing number, attendance, seating capacity.
 - a. Legitimate theatres.
 - b. Vaudeville houses.
 - c. Burlesque theatres.
 - d. Motion picture houses.
 - e. Open-air picture houses.
 - f. Saloons.
 - g. Pool and billiard rooms.
 - h. Bowling alleys.
 - i. Dance halls.
2. Clubs and Societies, not otherwise connected, showing:
 - a. Time of meetings.
 - b. Place of meetings.
 - c. Purpose.
 - d. Number of members.
 - e. Name.
 - f. Recreation facilities.
 - g. Leaders, if any, voluntary or paid.
 - h. Attendance.
3. Building and Loan Association, showing:
 - a. Name.
 - b. Place of meeting.
 - c. Number of members.
 - d. Assets.
4. Juvenile delinquency cases, showing:
 - a. Character of offense, both sexes.
 - b. Totals by months of both sexes.
5. Public Baths, showing:
 - a. Number of showers or pools.
 - b. Average attendance daily (men and women).
 - c. Daily and yearly time open.
 - d. Receipts.
6. Recreation by Assembly Districts:
 - a. Number of districts.
 - b. Population.
 - c. School population.
 - d. Per cent. of school population.
 - e. Area, acres.
 - f. Density per acre.
 - g. Area in acres actually occupied.
 - h. Density per actual occupied acre.
 - i. Names and number of parks.
 - j. Area, parks.
 - k. Number playgrounds (all year and school).
 - l. Number baths.
 - m. Number ball fields.
 - n. Number tennis courts.
 - o. Number golf links.
 - p. Number wading pools.
 - q. Number athletic fields.
 - r. Number gymnasiums.
 - s. Number miscellaneous.
 - t. Average home facilities (*good, fair, poor, very poor*).
 - u. General conditions.

7. Playgrounds, showing:

- a. Names.
- b. Areas.
- c. Location.
- d. Average daily attendance.
- e. Character.
 - Used by boys, girls or adults.
 - Hours and days open.

8. Parks, showing:

- a. Name.
- b. Location.
- c. Type.
- d. Acreage.
- e. Effective radius.

9. Churches, showing:

- a. Name.
- b. Location.
- c. Character.
- d. Seating capacity.
- e. Attendance.
- f. Recreation facilities, character of, if any.
- g. Leaders, if any, voluntary or paid.
- h. Weekly attendance.

10. Library Use, showing:

- a. Number of branches or deposit stations.
- b. Location.
- c. Circulation.

11. Schools, showing:

- a. Name.
- b. Location.
- c. Seating capacity.
- d. Attendance.
- e. Number of vacant rooms.
- f. Assembly Hall.
- g. Gymnasium, number of.
- h. Manual training room.
- i. Kitchen.
- j. Hours open.
- k. Approximate size of play space.
- l. Apparatus.
 - 1. Slides.
 - 2. Sand boxes or piles.
 - 3. Baskets for basketball.
 - 4. Seesaws.
 - 5. Horizontal bars.
 - 6. Tether poles, etc.

12. Assembly District areas:

- a. 1900.
- b. At most recent census.
- c. Boundaries, similar or per cent. of difference, if comparable.

13. Population (in 1900 and at most recent census):

- a. Entire city.
- b. Borough of Manhattan.
- c. Borough of The Bronx.
- d. Borough of Brooklyn.
- e. Borough of Queens.
- f. Borough of Richmond.

14. City area, showing:
 1. For whole city.
 2. For Manhattan.
 - Below 59th Street.
 - Below 155th Street.
 3. The Bronx.
 4. Brooklyn.
 5. Queens.
 6. Richmond.
 - a. Population.
 - b. Total area.
 - c. Park area.
 - d. Street and yard area.
 - e. School grounds and buildings.
 - f. Public purposes.
15. Per cent. of area used for:
 - a. Parks.
 - b. Streets and Yards.
 - c. School Grounds and Buildings.
 - d. Public purposes.

RECREATION SURVEY—Intensive Study.

1. Should be made in April or May.
2. Two places of study.
3. Per cent. of school population.
4. Area of.
 - a. District studied.
 - b. Parks.
 - c. Playgrounds.
 - d. Streets.
 - e. Backyards.
 - f. Vacant lots (open).
 - g. Occupied by buildings.
5. Total population.
6. Number of and effective radius of each.
 - a. Schools.
 - b. Parks.
 - c. Playgrounds.
 - d. Libraries.
 - e. Gymnasias.
 - f. Armories.
7. Number of and effective radius of private agencies.
8. Facilities for and occupation of
 - Girls of ages 6-12 through the day (7-3; 3-6; 7-12).
 - Boys of ages 6-12 through the day.
 - Girls of ages 12-16 through the day.
 - Boys of ages 12-16 through the day.
 - Girls of ages 16-21 through the day.
 - Boys of ages 16-21 through the day.
 - Women of ages 21-30 through the day.
 - Men of ages 21-30 through the day.
 - Women of ages 31 through the day.
 - Men of ages 31 through the day.

PART II.

OPERATIONS OF THE DEPARTMENT.

**CHIEFS OF DIVISION OF THE DEPARTMENT OF PARKS,
MANHATTAN AND RICHMOND.**

Chief Engineer.....	EDWARD A. MILLER
Superintendent of Parks.....	JOHN H. BEATTY
Supervisor of Recreation.....	WILLIAM J. LEE
Chief Clerk and Auditor.....	JOSEPH E. SAVAGE
Secretary to the Commissioner.....	ROBERT F. VOLENTINE
Architect.....	JAROS KRAUS
Director, Children's School Farms..	Mrs. FANNIE GRISCOM PARSONS
Purchasing Agent.....	JOHN W. HUTCHINSON

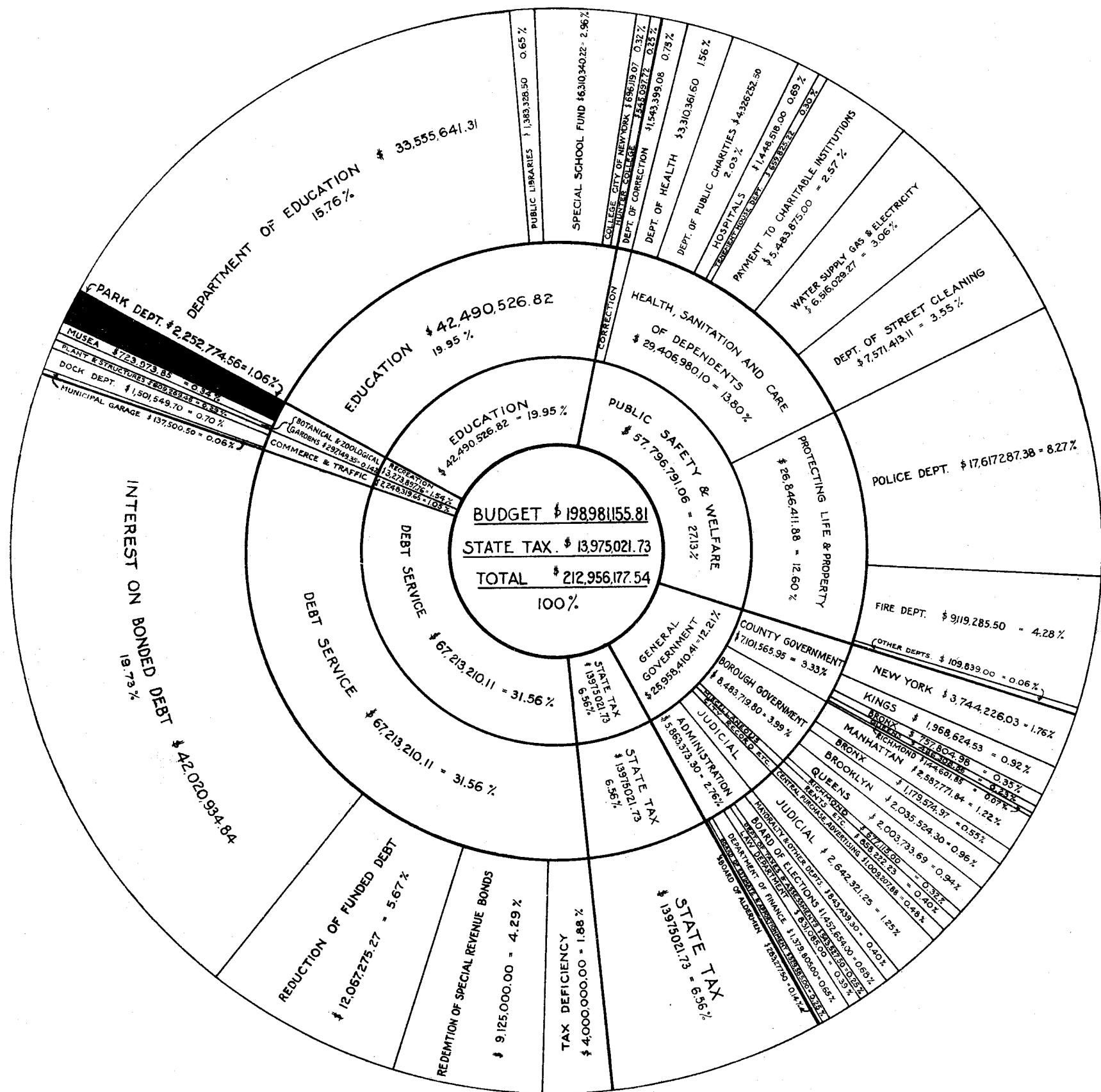


CHART SHOWING FUNCTIONAL PROPORTIONS OF ANNUAL BUDGETARY APPROPRIATIONS, CITY OF NEW YORK. FOR THE YEAR 1916.

PART II.

INTRODUCTION.

GENERAL DESCRIPTION OF DEPARTMENTAL ORGANIZATION AND WORK.

The park system of the Borough of Manhattan at the end of 1915 consisted of 75 parks, in 32 of which are playgrounds, and 6 playground areas in which are no park features, also during the summer months—playgrounds on privately owned land. Included in the park system of Manhattan there are 6 parkways, 40,929 feet in length, with an average width from 60 to 168 feet, comprising 63 acres. Central Park alone contains 843.019 acres, making a total area for Manhattan of 1,548.125 acres and a total area for Manhattan and Richmond of 1,611.685 acres.

In the Borough of Richmond there are 4 parks, with a total area of 63.56 acres.

The Park Department has also under its control the care and maintenance of over 15,000 street trees in the Borough of Manhattan, and approximately 200,000 trees in the Borough of Richmond.*

The assessed valuation of park land in the Borough of Manhattan at the present time is \$517,746,200, and in the Borough of Richmond \$212,600. The Park Department is also charged with the operation and maintenance of more than 150 buildings—comfort stations, tool houses, playground shelters, etc., which represent an investment of \$33,464,900. To operate and maintain the existing system above outlined, the Department of Parks of the Boroughs of Manhattan and Richmond received an appropriation of \$1,087,393.75, which was .00546 per cent. of the total cost of the city's budget during the year 1915.

It is clear to the present administration that in order to properly coordinate the existing park system of Manhattan and to unite many at present individual units, certain land should be acquired at once to save for the city those valuable areas for a future park and recreation space that may be lost at any moment unless they are now acquired, and to protect certain portions of the valuable park asset which the city now possesses. The recommendations which are made in this connection may be found in another section of this report, as are also descriptions of valuable acquisitions of park territory which were secured by gift this year.

* A census of trees in the Borough of Richmond has not been completed.

PLANS AND STUDIES MADE IN 1915.

During the year 69 plans of new improvements and layouts were made after careful study on the part of the Landscape Architect of the city. Several of the plans so prepared were for the restoration of park areas which had been disturbed by the construction of the Catskill Aqueduct. Three of these plans for restoration were in Central Park—at Transverse Road No. 1, south of Transverse Road No. 2 opposite the Swiss Cottage, and south of the 106th Street entrance to Central Park on Central Park West. Other locations disturbed by aqueduct construction for which plans for restoration were made are the Worth Monument triangle, Bryant Park, St. Nicholas Avenue triangle at 149th Street, St. Nicholas Park at 135th Street, Morningside Park at 121st Street, and Highbridge Park at 165th Street. The question arising in connection with the shaft at Morningside Park at 118th Street in relation to a proposed pump house has already been discussed on pages 18 to 21 of this report.

Plans were prepared for the restoration of the area in City Hall Park on the Broadway side which was disturbed by subway construction. The actual work of restoration has been practically completed in this park with the exception of several plantations which will be planted in the spring of 1916.

As a result of careful study and conferences between the Departmental heads and the heirs of the Isham family, a general layout and detailed planting plan have been prepared for the permanent improvement of Isham Park and the work of actual construction is being pushed to completion.

Straus Park which has remained unimproved for almost a year, due to the lack of appropriation for this purpose, will be restored in the early spring as funds have now been obtained and a plan agreed upon for the improvement of this square. This was made necessary by the destruction of the areas and walks consequent to the setting for the new statue authorized by a previous administration.

NEW DRIVEWAY ENTRANCE AT METROPOLITAN MUSEUM.

Due to the erection of the new southern wing of the Metropolitan Museum of Art, there is necessity for a new driveway entrance to Central Park and the rear of the museum buildings. The department has prepared a new layout for this portion of Central Park and expects to complete this improvement in 1916. As an appropriation has been requested in the 1916 budget for restoring the northeast corner of Central Park, it will be necessary to make a new layout at this point and to plan for certain modifications of the existing walks, arrangement of lawns, trees and shrubs to make provision for the different conditions now to be met with from those existing at the creation of Central Park. The present congested population to the northeast of Central Park and the intensive use of this portion of the park has created new problems that must be solved in this way.

ADDITIONAL ACTIVITIES.

In the course of the year a great deal of time and study on the ground was devoted to the restoration of lawns in the parks of Manhattan, the layout of new plantations, rearrangement of old ones and reforestation of wooded areas in the uptown parks. The department, through the Commissioner and the Landscape Architect of the city, has been in close touch with the Committee on City Plan of the Board of Estimate and Apportionment in treating questions affecting the layout of future and existing parks in Manhattan and Richmond. Through the cooperation of the Borough Presidents of Manhattan and Richmond and the Chief Engineer of the Board of Estimate and Apportionment, closer working relations have been established between the various boards and committees in the different units of the city government which have to do with the design and layout of parks and streets, with the result that several long standing matters affecting other departments as well as the Park Department have been finally adjusted.

For the maintenance and operation of the park system in Manhattan and Richmond, the department has a force of employees which in 1915 averaged 922, ranging from approximately 500 in winter to about 1,000 in summer.

The Park operating force varies from 351 to 448.

A FEW OF THE DEPARTMENTAL REGULAR OPERATIONS.

The Department maintains, repairs and cleans 19 miles of park roads and boulevards, with the total area of 555,300 square yards; 100 miles of park walks and sidewalks, and 8 miles of bridle path. It mows and keeps in condition 786 acres of lawns. It operates 52 comfort stations and baths and 128 other buildings in parks.

It maintains 75 miles of park fence.

It cares for all trees on city streets (about 64,000; 19,000 in Manhattan and 45,000 in Richmond) and all trees in parks (about 150,000).

Planted 1,061 trees, 13,254 shrubs, 22,810 vines in the parks, 235,000 feet of sod laid.

The department force takes care of the greenhouses supplying plants. Also the menagerie in Central Park containing 287 mammals, 70 reptiles and 361 birds. This in addition to the great zoological collection in the Bronx—perhaps the greatest in the world, and the zoological collection in Brooklyn.

Ten lakes and ponds in Central Park alone are cleaned, their bottoms and banks cared for, and mosquitoes and their larvae killed.

Sewer-basins and manholes are cleaned many times during the year and snow removed from parks and squares.

1,533 large and 1,436 small benches for park use were made and repaired during the year.

About 3,000 tons of rubbish removed from parks to city dumps.

Material carted during 1915 included: manure, gravel, sand, asphalt binder, oil, lumber, settees, rubbish cans, playground equipment, building material for mechanics, fallen trees and brush; trees, shrubs, vines and flowers for planting; ashes and earth for filling washouts, etc.

After a year and half of study the plan of reorganization for the Park Department was finally adopted and is going into effect at the beginning of the year 1916. By means of this reorganization the department was enabled to effect an immediate saving of \$230,000. This represents approximately a 20 per cent. decrease from the figures of the preceding budget, by far the largest decrease secured in any departmental reorganization.

It is felt that every possible provision has been made to secure the success of the department's operation under the new system with highly increased efficiency despite the great reduction in force. The basis for the reorganization has been a coordination and redistribution of park functions along the lines outlined in part I of this report.

This department touches so many phases of work, that it has been found necessary under the present administration to devote a great deal of time to the study of the unifying of the operations in order to eliminate, through proper cooperation the lost motion in the various bureaus, with inevitable results in a delay or failure of the complicated plans for seasonal activities, improvements and restorations. All the bureaus of the department must be brought into intimate contact with their several operations, and particularly is this true of their relations with the Auditor's Department, the Purchasing Department and the operating Department.

The system devised to accomplish this purpose has not yet been thoroughly successful, and further efforts are being made to secure this close contact, so that the operations of the departments may follow logically and without interruption or delay in the procedure laid down by our plans.

Systems of daily and weekly reports have been adopted which tie the bureaus together in such a way that the executive is in close touch with just what is going on either in the office or in field work.

Only in this way can success be obtained by an executive in his efforts to keep an operating force at all times reduced to a minimum consistent with good management and proper upkeep of the park system.

REPORT OF SUPERINTENDENT AND ARCHITECT ON PARK MAINTENANCE.

MAINTENANCE—PARKS, PARKWAYS AND PLAYGROUNDS.

The problem of maintenance incidental to the up-keep of lawns, plantations, roads, paths, playground surfaces, and the park system generally were met successfully considering the limitations imposed upon the Department by the amount of funds available for this work. With the more intensive use of the parks by the public each year the question of proper maintenance requires more careful study, as in the past few years the increasing use of the parks has been coincident with a decreasing maintenance budget. The necessity for obtaining a greater amount of work from a decreased force has resulted in the improvement of work methods, more careful supervision on the part of the executive officers, a definite work program, and a careful checking-up of results obtained from month to month throughout the year. By the exercise of the most rigid economy in requests for supplies and materials, and the utilization of the labor appropriations for special work only at locations where conditions made some restoration work imperative, the department was able to maintain the park system in good condition and effect certain needed improvements.

RESTORATION OF PARK AREAS.

Particular attention was given to the restoring to their original duty and usefulness of the parks below 59th Street which had deteriorated through failure to provide sufficient maintenance in past years and because of the lack of proper police supervision and inspection. In many cases the physical plant was so run down that it was found necessary to reconstruct large areas that had been trampled and weathered to such an extent that little remained of their original landscape features—top soil, grass, trees and shrubs having disappeared.

The parks particularly referred to which the department was able to restore to their former condition and to provide protection in the future were Columbus, Seward, Stuyvesant and St. Gabriel's.

By the end of 1915 all of the parks below 59th Street were placed in at least serviceable condition with the exception of Corlears Hook Park which must await a final solution depending on the closing of South Street and the completion of a new sea wall. Even in this park an effort was made to turn over the soil in portions of the area comprised in the park and a beginning was made so that in the spring of 1916, satisfactory park conditions will be obtained.

Great progress was made in restoring the worn out lawns and slopes by spading or plowing-up, fertilizing, liming, regrading and seeding. Above 59th Street, large areas in Central and Riverside Parks were thus restored. The work in Morningside Park, Carl Schurz and the northeast section of Central Park, was so intensive that it was impossible to undertake it without special funds for that purpose. The ordinary maintenance appropriations for the parks were entirely insufficient even to make a beginning at these points. There has been secured an appropriation in the 1916 budget which will allow for the restoration of the most weathered areas of the three parks last mentioned, and provision has been made to start this work in the early spring. In Central Park there will then remain only that area south of the Harlem Mere known as Fort Clinton, and a special effort will be made to secure favorable action from the Board of Estimate and Apportionment so that this work can be entirely completed and this park restored to its former usefulness.

While conditions in the majority of the territory comprised by Mount Morris Park have now been brought back to their natural park beauty, the mount or high hill in the southern portion still requires extensive restoration in order to repair its slopes which remain for years weathered and neglected.

In addition to the erection of a fence for Morningside Park: a small amount has been secured to expend for restoration of its worst section, that of the northwestern corner bordering on Amsterdam Avenue. A beginning can also be made to restore the worst sections to the south.

Riverside Park was completely restored from 72d Street to 96th Street by departmental labor and without extra funds and this restoration will be continued in the spring of 1916 in the remaining sections of Riverside.

INTENSIVE USE INCREASES MAINTENANCE PROBLEM.

A careful survey of the very large park systems throughout the United States clearly reveals the fact that there is no other place in the country where such constant and intensive use is given the parks. There are many park systems like that of Chicago, for example, where the intensive use occurs only on Saturdays, Sundays and holidays. Under these conditions the parks are given an opportunity for rest and recuperation for the vegetation. This is not possible in the Manhattan district of New York where day after day during the spring, summer and fall seasons, the parks are densely crowded and used constantly by an increasingly large number of our population. To add to the difficulty the average soil in the Manhattan parks is far from good, not only as to material (in that the majority of areas were created parks through filling in rocky areas), but furthermore the depth of soil at many points is so thin as to make vegetation difficult. The sub-soil conditions seldom provide for sufficient depths and nutrition and an adequate water system to meet this lack has not been secured hitherto at any point in the system.

The management of park area from day to day therefore presents a complex problem. A partial solution devised in 1914 was continued in the

year under review, lawns being opened and closed alternately so that an occasional rest was provided in an attempt to prevent, through wear and tear, the complete elimination of the park features and park beauty.

The reorganization of the departmental administration and the labor forces which has now been effected should provide in the ensuing year for a far better distribution of park work and a better fixing of responsibility for each activity and separate unit. Furthermore, the centralization of shops and other park activities has already resulted in a satisfactory improvement.

Central Park.

In Central Park about sixty acres of lawns upon which the grass was in poor condition were spaded up, fertilized, limed and reseeded. About half of these were finished up in the spring, having been previously sown to rye the winter previous. The balance were sown to rye in the fall to be plowed or spaded under in the coming spring and given the final seeding with lawn grass seed.

All the large lawns and grass plots in this park which were in good condition were given a good covering of manure during the fall and winter. The larger part of this manure was furnished from the department manure pits in Central Park where the manure is gathered from various stables within and without the department and rotted for a year before it is used. The smaller lawns which it was not possible to cover with this manure were given a top dressing in the spring with commercial fertilizer (dried and ground horse manure).

Marked improvement was made in that part of Central Park surrounding the entrance at West 103d Street. At the Loch, a small body of water which serves as a connection between the pool and the large lake at 110th Street known as The Mere, the work begun the previous winter, of cleaning out the mud which had been washed down into the bed of the stream was continued during the first part of the year. This mud had been accumulating for years and the Loch, originally a clear stream had become a marsh filled with reeds and rank growths, with stagnant pools that offered most desirable breeding spots for mosquitoes.

Riverside Park.

In Riverside Park extensive improvements were effected in the section between 72d Street and 96th Street along the bank adjoining the westerly retaining wall of the park. This bank and the slopes on each side of the adjacent walk were almost bare of grass. What shrubbery there was had greatly overgrown and badly in need of pruning. Deep gullies formed by the washing out of the soil along the line of unauthorized footpaths were in evidence every few yards. Fences were badly broken and the entire stretch of territory presented a most dilapidated appearance. A special force of gardeners and laborers was set at work upon the improvement of this terri-

tory. The slopes and lawns bordering the walk were graded up with good mold, the bank regraded and grass sod laid to keep the soil from washing away.

Colonial Park.

In Colonial Park the side hill was seamed with large gullies caused by the washing out of the soil at points where beaten paths had been made by constant trespass which the lack of proper police protection permitted at night and at other times when the park department workmen were not on duty. Only the worst of these could be attended to with the men and materials available during the year. There were resoiled, sodded and planted with thorns and other shrubs designed to serve as barricades to prevent further trespass. A great deal of work is still necessary to put this park back in proper condition, and fences must be erected around the lawns and at the top of all slopes if the park is to be kept in presentable condition.

Other Restoration Work.

At Isham Park the slopes forming the westerly boundary of the park were regraded and sodded, and vines and shrubs were planted. The grass plots bordering the approach roadway to the park were also graded up and put in good condition preparatory to the work of general improvement and reconstruction which is planned for this park during the coming year. At Carl Schurz Park the slopes bordering 86th Street in the southerly half of the park were regraded and sodded and a new entrance stairway was built at the northwest corner of this part of the park for the convenience of visitors who formerly had to go two blocks out of their way to gain entrance to the park.

In Corlears Hook Park the large lawns adjoining the shelter pavilion were spaded up, fertilized, regraded and seeded and temporary fences of poultry wire erected. All the exterior lawns were similarly treated in the fall except for the seeding and fencing.

In Seward Park the exterior lawns were restored and fenced and all of them were reseeded except those plots which had been used during the summer for school gardens by the schools of the vicinity. These latter were spaded up, fertilized in the fall and left ready for seeding in the spring. At Columbus Park the lawns adjoining the shelter pavilion were restored and fenced in the spring and a good stand of grass was obtained.

All the interior lawns in Stuyvesant Park were renewed during 1915 and temporary fences of poultry wire mesh were erected to protect them. Pipe rail fences were erected on the edges of the lawns facing the main walk through the center of the easterly half of the park, there being only enough material on hand for that part of the park. The other half was consequently deferred until the spring of 1916.

In the small parks in the downtown business section of the borough those parks which had been partially restored the previous year were com-

pleted by the addition of new shrub groups or the filling out of those planted out when the parks were restored. City Hall Park, Madison Square and Washington Square, and Bryant Park, in this group, were given special attention. Madison Square and Bryant Park lawns were heavily manured early in the year and were given very careful attention throughout the year with the result that those lawns were in excellent condition at all times regardless of weather conditions. City Hall Park and Washington Square were similarly treated in the fall. Certain small lawn areas in all these parks upon which there was a poor stand of grass were spaded up, fertilized, limed and reseeded.

Audubon Park.

At Audubon Park the section between 166th Street and 167th Street from Broadway to St. Nicholas Avenue consisting of a vacant unimproved lot was laid out as a park. The main features of this piece of land consisted of two large rocky ledges, one at each end of the plot. With these as a base lawn spaces were laid out and walks constructed around the base of the rocks diagonally through the plot so as to permit of easy access for the public across the park to and from the subway station at 168th Street. The walks were constructed of discarded asphalt paving blocks obtained from the contractor who repaved the roadway of upper Broadway some time previous. Oriental plane trees were planted along the walks surrounding the park and park benches placed on the edges of all the walks. The crowded condition of these benches this spring proves the necessity for this improvement, which was put through without the expenditure of any funds other than the regular maintenance appropriation for the year for all the parks.

MAINTENANCE OF RECREATION PLANT.

Besides the special work previously mentioned the maintenance force was required to do the work of fitting up, caring for and maintaining many new playgrounds, play lots, recreation piers and indoor gymnasiums which either were not provided for at all in the annual budget or were not adequately provided for. The new playgrounds added during the year were as follows:

- 44th Street, Eleventh Avenue.
- 67th Street, First Avenue.
- 136th Street, Fifth Avenue.
- 138th Street, Fifth Avenue.
- 149th Street, Eighth Avenue.
- 19th Street, First Avenue.
- 18th Street, Tenth Avenue.
- 67th Street, 10th Avenue.
- Essex Street, Market Place.

On all of these grounds except that at Essex Street and the one at 138th Street swings and other apparatus were erected and maintained throughout the season. The maintenance of this equipment was difficult because of the damage, especially at night, by the boys of the neighborhood. Tents erected on the grounds at East 67th Street, West 67th Street, 136th Street, 149th Street, and West 18th Street, were ripped and torn night after night until in some instances the tents finally became useless because of their tattered condition and consequently had to be removed and the grounds left without shelter for the small children during the heat of the day. At the 149th Street ground the tearing down of the fences surrounding the grounds was of frequent occurrence.

Routine Repairs.

The ordinary care of the playgrounds required a large force of men daily throughout the year. Swings and other apparatus have to be erected each morning and removed each evening, the grounds raked, rolled, depressions and holes filled, and the surface oiled or watered. Two hundred barrels of oil were used on the playgrounds during the season to lay the dust. This quantity was not sufficient for the purpose but it was all that the limited appropriation of the department would permit of purchasing. The first hundred barrels was emulsifying oil which was mixed with water in the proportion of one to five. Two applications of this oil had previously been sufficient for the season. The oil companies abandoned the manufacture of this type of oil preparation however during the summer, and it was therefore necessary to use non-asphaltic road oil for the second application.

The department is considering the adoption of some better material for playground surface. The present material consists of Hudson River gravel such as is used for roads. This material contains a large percentage of clay which holds the water for some time after a rain storm and keeps the grounds in a muddy condition. As there were no funds available for the purchase of other material, holes and depressions in the grounds had to be filled with gravel, although in some cases it was possible to obtain a quantity of steam ash cinders for the purpose, which were later covered with earth. Both ashes and earth were obtained from contractors free of cost to the department.

Tennis Courts.

In co-operation with the Recreation Bureau of the department the maintenance division maintained the tennis courts in Central Park from May 1st to Thanksgiving Day, 29 dirt courts at 93d Street, and 38 grass courts at 66th Street. It also laid out and maintained hockey fields at West 106th Street and East 99th Street and erected soccer football fields on various playgrounds during the season. It also erected bandstands with the usual decorations for the numerous festivals which the Recreation Bureau

held both on the outdoor grounds and the indoor gymnasiums during the year and made the other preparations incident thereto in the matter of placing chairs and benches for spectators, roping off the grounds, etc. Provision was also made for the care of the children's parties held in the parks during May and June, requiring the providing of water barrels for the children at points where there was not a permanent water supply, the cleaning up of the grounds and the protection of the adjacent plantations during the day.

Maintenance of New Activities.

Eight recreation piers along the river front were also added to the department's jurisdiction during the year. These were formerly conducted by the Dock Department. When the Park Department assumed charge of them the plumbing equipment in the toilets was found to be greatly in need of repair, and the entire force of department plumbers was kept busy for more than two weeks putting this equipment in condition for use. Besides that, it required the services of two plumbers the greater part of their time during the summer months to keep these toilets in working order. Although no provision had been made in the department budget for the necessary labor for the cleaning of these piers, it was necessary to withdraw a force of twenty laborers from the parks to clean them, depleting the park force to that extent.

Five indoor gymnasiums formerly conducted by the Borough President were also added to the Park Department jurisdiction at the close of the summer. These also added work for the maintenance force especially the mechanics, in the repair of the apparatus and other equipment which was constantly being damaged.

Winter Sports.

Measures were also taken to provide for coasting and skating during the winter season. Certain hills and slopes were set aside for the former and these were kept in condition for coasting as long as possible by packing snow on the bare spots. Men were detailed from the Bureau of Recreation to regulate the coasting and in their absence laborers were assigned to that duty. For the skating, the temporary skate houses erected annually on the large lake at 72d Street and the Mere at 110th Street were kept up until March 17th when they were removed and stored for the summer to be put up again in November. There were only six days of skating during the year and those the first six days of the year. On those days there was skating on all the park lakes, 72d Street, 59th Street, 110th Street, the Pool at West 101st Street, and the Conservatory Lake at East 74th Street. At no other time during the winter was the ice strong enough to permit of the lakes being opened to the public.

SPECIAL AND PERMANENT FLORAL EXHIBITS.

The department maintained the usual floral displays for the public during the year. The Conservatories in Central Park were kept open to the public daily from 10 A. M. to 4 P. M. throughout the year, an excellent collection of palms, tropical plants, and flowers being on display at all times. Special exhibitions were given at Easter and Thanksgiving, the Easter display consisting of azaleas, tulips, hyacinths, lilies and other seasonable flowers, while the Thanksgiving Day show comprised mainly chrysanthemums of which many thousands were shown. At the invitation of the directors of the National Florists' Association the department took part in the Annual Spring Flower Show held by that organization at Grand Central Palace in April last. A space about twenty-five feet square was allotted to the department in a prominent location on the main floor. The collection placed upon exhibition contained many choice specimens of large palms, ferns, and rare varieties of plants, together with a splendid collection of azaleas and other flowering plants. The collection was arranged by Foreman Gardener Carl C. Olsson in charge of the department conservatories, and the department was awarded a gold medal for the best miscellaneous exhibition. Over 150,000 bedding plants were set out in the flower beds maintained throughout the parks during the summer, besides some 60,000 pansies and daisies, all of which were propagated and grown by the department gardeners. Besides those there were over 100,000 spring flowering bulbs, tulips, hyacinths, daffodils, etc., on display in these beds during the season. About the same quantity were set out again in the fall for next spring's display.

PROPAGATION OF GROUND COVER PLANTS.

Provision was made this fall to raise honeysuckle, ivy and other ground cover vines within the department instead of purchasing them in the open market. A small greenhouse at Isham Park which served no other purpose was overhauled and put in order for this work and the cuttings started. It is expected to be able to supply the department's entire needs in this respect and result in great economies.

MAINTENANCE--BUILDINGS AND STRUCTURES.

As the result of a thorough inspection of each of the 150 main buildings in the parks of Manhattan and Richmond a definite work program was adopted which, to the extent which the appropriations for the purpose allowed, was prosecuted under the supervision of the Architect of the department. The work of building repairs which involved major alterations was performed on contract under the supervision of this department, while the minor repairs were prosecuted by the department mechanical force.

The ordinary upkeep and repair of the park buildings, fences and structures required the services of a large force of mechanics the entire year.

Besides 92 mechanics a force of from twenty to twenty-five skilled laborers selected from the regular working force was employed on the erection of pipe and wire fences, swing frames, etc. These men were also used to operate the gasoline motor mowers and road rollers and to run the small low pressure heating plants throughout the department. For the larger heating plants three steam engineers and six stokers were employed.

Varied Mechanical Work.

Even with the constant employment of the above force it was difficult to keep up with the work of repair. Besides repairing the damage done through vandalism, the extent of which is almost unbelievable, the wear and tear upon park buildings, fences, playground apparatus and equipment, drinking hydrants, etc., the making of new benches for the parks, erecting of stands for celebrations and concerts, the putting up and removal of the temporary skate houses, etc., all require a larger force of mechanics than can be at present employed. The upkeep of the numerous buildings in the Central Park Menagerie and the conservatories require a force of from six to ten mechanics daily all the year round.

Plumbing Repairs.

The repair of the toilet fixtures in the seventy odd comfort stations which the department maintains requires an increased force of plumbers. The present force is inadequate to keep them in repair and the result is that the public is sometimes deprived of the use of these facilities for a number of consecutive days while awaiting repairs. During the summer months more than half the time of the plumbers is taken up with the repair of the water supply system of the various parks. In most cases the pipes were installed a great many years ago and they have become so corroded that they do not allow of sufficient pressure to properly flush the fixtures, besides frequent breaks occur.

Extensive Maintenance of Iron Fences.

The ornamental iron fences on Park Avenue from 56th Street to 96th Street, on Broadway from 60th Street to 122d Street, and on Seventh Avenue from 110th Street north, all of which are close to the roadway kept the four housesmiths employed by the department busy almost every day in the year repairing the breakage caused by automobiles and wagons colliding with them. The number of such accidents and the damage inflicted during 1915 are astonishing.

FURTHER CENTRALIZATION OF SHOPWORK AND STORAGE YARDS.

The work of the reorganization of the shops and stables was completed and the various activities affected in the change were able to locate in their new quarters without interference or delay in departmental work.

Repair Shops at 86th Street.

The 86th Street Repair Shop Building was re-arranged and the numerous and unnecessary offices, formerly extending along the entire street front of the carpenter shop, were eliminated, and two offices, one for shop foremen, and the other for carpenter foremen were provided on the east end of the building, thereby considerably adding to the working area.

Stable and Storage Yard at 97th Street.

The 97th Street Storage Yard Sheds were converted into stables, and provision made for harness makers, blacksmiths, forage room, office, etc. This work was done under contract. The horses, etc., were moved to the new quarters from the 86th Street stable building. It is now possible to save a great deal of time by having the rolling stock and horses at the same point. Prior to this the horses were stabled at 86th Street in a low lying unsanitary building, and rolling stock at 97th Street. The necessary trips back and forth, between these two places with each team, each day, represented lost time and motion for teams and men.

Garage in Old Stable Building at 86th Street.

The old stable at 86th Street was overhauled, the stalls, partitions, etc., were removed, and the east end converted into a garage and a shop for the repairs to all motor vehicles. The front wall of the north section of the old stables were taken down, and a long wagon shed provided for the storage of rolling stock not in actual use. The west end and sections of the south end, and also the attic on the west end, were overhauled, and space provided for a central stock room, combining the former stock rooms that were separately located at the Arsenal, Shops and Stables, making it possible to properly control all stock in the department with the least possible effort.

79th Street Storage Yard.

The 79th Street Yards were also overhauled, and space and arrangements made for concentrating there all operations such as painting and repairing of benches and refuse cans; also for the manufacture of concrete drinking fountains and general masonry work. This yard will be generally used for the purpose of storing and handling building materials in connection with the building work done by Park Department mechanics.

Mt. Morris Park Comfort Stations.

The Mt. Morris Park comfort stations were thoroughly overhauled and renovated.

The work included the installation of modern plumbing fixtures in both buildings, new composition floors in each of the toilet rooms and the entire overhauling of the interior and exterior of both buildings.

MAINTENANCE--DRIVES AND WALKS.

Heavy Automobile Traffic Makes Necessary Permanent Pavement on Drives.

While experiencing little trouble in caring for the heavy pavement drives, the department, however, met with difficulty in maintaining the old style gravel drives particularly during the winter months. The funds available for the purchase of gravel for resurfacing the drives were insufficient for the requirements and consequently the old gravel did not hold together during the wet winter weather. Some stretches of the East Drive and the Riverside Drive Extension from 135th Street to 158th Street became so deeply rutted toward the end of the year that they were almost impassable, and funds were entirely lacking to remedy the situation at that time. This type of roadway construction is unsuited to the heavy automobile traffic to which the park drives are subjected. The paving of the upper stretches of Riverside Drive from 113th to 129th Street with the new asphalt pavement on concrete foundation put that drive in good condition for its entire length from 72d to 129th Streets.

Serious Need for Walks Repairs.

In the last few years the department has faced an increasingly serious condition in the effort to maintain the cement and asphalt mastic walks in city parks. No corporate stock funds have been appropriated since 1911 to cover the cost of laying new walks or re-surfacing old ones. In the maintenance budget since 1911, yearly appropriations have been made which the department has found entirely inadequate and which have been used to repair those sections of the walk where the condition of the pavement was so serious as to provide a danger to life and limb. Because of the heavy deterioration due to this failure to provide sufficient funds, it is now necessary to make complete restoration of the larger part of the walks in all the city parks, the total cost being approximately \$300,000.

A majority of the walk pavement in city parks of Manhattan and Richmond has been laid for fifteen years, and because of our intensive park use, the wearing surface has become so thin that in repairing seemingly small breaks, it becomes necessary to rip up much larger sections of the walk than the break itself. In patching it is inadvisable to lay a wearing surface

of less than an inch, and therefore the surrounding pavement must be ripped up so that the increased depth of wearing surface may be spread over a suitable area. If this is not done the patch in the sidewalk because of the thickness of the new wearing surface would be dangerous and constitute a tripper.

MAINTENANCE--MONUMENTS.

Cleaning of Monuments.

This administration discovered by survey an unsatisfactory condition as to the city monuments and statues. Many of them were in a discolored and neglected condition in the various parks, particularly the condition of the bronze work.

In the fall, the Architect of the Department was instructed to investigate and study the problem with the view to determining the best process to be used in the treating and cleaning of the bronzes. After numerous experiments with various mixtures and preparations a compound was made up which after being carefully proportioned, mixed and boiled, was applied successfully.

REPORT OF CHIEF ENGINEER ON CONSTRUCTION WORK.

Contract Work.

During the year of 1915, three major construction projects were prosecuted: the construction of a Reinforced Concrete Bulkhead on the Harlem River Speedway, the Laying of a Permanent Asphaltic Concrete Pavement on Riverside Drive from 113th to 129th Streets, and the Improvement of Isham Park. A Repair Contract was entered into for the repair of walk pavements in the parks of Manhattan and Richmond. Several minor contracts were let for such work as the repair of the Tunnel in the 79th Street, Transverse Road, and the blasting of the dangerous rock formation at Fort Horn in the extreme northerly section of Morningside Park. A number of surveys, preliminary, topographical and location, were made, together with numerous specifications, contract plans and drawings prepared.

CONSTRUCTING A REINFORCED CONCRETE BULKHEAD (HARLEM RIVER DRIVEWAY.)

The Harlem River Driveway begins at 155th Street and ends at Dyckman Street. The easterly boundary is the channel line of the Harlem River as laid out by the United States Government.

In order to construct the Driveway, it was necessary to build a bulkhead along the river front and a retaining wall down the ramp from 155th Street to practically 165th Street. From 165th Street north to Dyckman Street, for a distance of about 2,080 running feet, a stone wall in the shape of a retaining wall was built wherever rock was found, while 6,100 running feet of crib bulkhead was built with face timbers, all on a crib foundation.

Two funds were authorized, one in 1911 and the other in 1913, to cover the cost of erecting a permanent structure (reinforced concrete bulkhead). The first contract was completed in 1913 and the second in 1915. The total length of new reinforced concrete bulkhead built under these authorizations and contracts is 1,671 running feet. There still remain 4,411 running feet of wooden crib bulkhead which will have to be replaced in the near future with a permanent structure. The estimated cost for completing the work, based on current prices and past experience is \$445,000, which sum will include the cost of erecting an artificial stone railing.

In the original construction the mud was dredged out and the cribs were sunk by means of weighting the same with stone until they had settled

into place. On the top of this the crib bulkhead was built faced with timbers. The face timbers were fastened to the crib logs by means of dovetails or tennons. In due course of time these dovetails or tennons rotted and the face work simply dropped into the river, carrying with it considerable of the crib fill. The crib logs were found to be fairly good between mean high and low water. Above this they had rotted to a degree which would make them useless. The problem to be solved by the Department was the devising of a scheme or construction which would not be heavier per square foot than the original construction on the crib foundation. A reinforced cellular concrete construction was adopted. A monolith of concrete three feet deep was laid over the entire crib foundation on the top of which the cellular construction was built. Inasmuch as the total weight of the new construction including monolith was even less than the original crib above foundation, it was considered sound engineering to estimate that the crib foundations had reached their ultimate settlement and that the load which was to be imposed on the same would be carried by the foundation. Levels have frequently been taken which show that practically no settlement has taken place.

A further authorization of \$100,000 has been made available with which to continue the work of constructing the reinforced concrete bulkhead and it is estimated that this amount will cover the cost of constructing one thousand feet.

PAVING RIVERSIDE DRIVE WITH ASPHALTIC CONCRETE, 113TH TO 129TH STREET.

The work in connection with permanently paving Riverside Drive was continued in 1915. Under the contracts previously executed a permanent pavement was laid to 113th Street.

In 1915 three contracts were executed covering the paving of Riverside Drive from 113th Street north to the Viaduct at 129th Street and around the Reservation of the Tomb of General Grant.

In connection with the work the westerly side of the Drive, which in the original construction was left considerably lower than the easterly side, was raised. The dilapidated curb along the Drive was taken up, redressed and reset from 120th Street north and a new cement curb was set between 113th and 120th Streets. After the work of setting the curb had been completed, the existing roadway was excavated to a subgrade established at 9 inches below the approved and newly established grade of wearing surface and the excavated material was hauled and used as surfacing material in Riverside Park Extension at 96th and 79th Streets. A Portland cement concrete foundation 6 inches in depth was then laid and a wearing surface consisting of 3 inches of asphaltic concrete was placed thereon as a finish. The wearing surface consisted of asphaltic cement and broken stone (a mineral aggregate) passing through various screens from 2 to 200 mesh in varied percentages.

The work was fully completed from 113th to 128th Street.

The pavement is under a five year maintenance guarantee and the indications point to the fact that the wearing surface will outlive the maintenance period.

The City has not alone gained a substantial pavement but heavy expense in maintenance has been saved.

IMPROVEMENT OF ISHAM PARK.

A contract was executed covering the Improvement of Isham Park and work was begun in November.

It consisted of building walks, steps, laying drainage, water supply, and lawn construction.

REPAIRS TO WALK PAVEMENTS IN CENTRAL AND CITY PARKS.

Funds were not available to cover the expense of general repairs to asphalt and cement walks of the city parks. A small balance or allowance in the budget which could be applied to this purpose was used.

Contracts were executed under which holes, depressions, bunches, cracks and other defective conditions which were actual menaces to the safety of pedestrians were repaired.

About 20,000 square feet of cement walk pavement was thus laid in Riverside Drive Extension, Madison Square, Corlears Hook Park, and Columbus Park, and 10,500 square feet of asphalt walk pavement was laid in Riverside, Mount Morris, Central, Thomas Jefferson, and Hamilton Fish Parks.

Request has been made for a large sum of money in the corporate stock budgets for 1916 and 1917 with which to lay new walk pavements, where required, repair such pavements which can be repaired and construct asphalt or cement pavement in Central and City Parks which are now but dirt walks and were never improved.

TUNNEL IN 79TH STREET TRANSVERSE ROAD, CENTRAL PARK.

Through the action of the elements and the blasting operations in a nearby Catskill Aqueduct shaft, fragments of rock began falling from the faces and soffit of the rock tunnel in the 79th Street Transverse Road in Central Park. An order was issued under the terms of which all rock which could be removed with a bar was wrenched away and all crevices and open seams were filled with Portland cement grout. A large number of iron

bars were driven into holes drilled into the rock to receive them in order to prevent slips. The work has been fully performed and the rock tunnel is in a safe condition.

ROCK AT FORT HORN, MORNINGSIDE PARK.

It became necessary to close to pedestrians the sidewalk along the north end of Morningside Park because of the scaling off of large pieces of rock from the overhanging cliff at Fort Horn (123d Street between Morningside Avenue East and Amsterdam Avenue).

To relieve this situation an agreement was entered into with a firm skilled in such work, whereby a vertical face was cut on the cliff by means of a large number of channel cuts drilled close together and fired with small charges of powder. After this the upper strata of rock was secured to the underlying ledge by means of long iron bars set into holes drilled into the rock for the purpose. All loose particles of rock were removed from the east and west face and such rock as was deemed necessary for artistic purposes was bolted to the solid rock underlying.

SURVEYS, SPECIFICATIONS, CONTRACT PLANS AND DRAWINGS.

The Engineering force was employed during the year on the laying out and supervision of the various contracts described and in addition thereto on the preparation of surveys, specifications, estimates of cost for new and contemplated work, and the measurement of all supplies purchased on contract or open market order for the Boroughs of Manhattan and Richmond, as well as the tabulation of all bids received for the various boroughs on contract and supply.

A list showing the work referred to is appended.

Surveys.

Surveys were made of small sections of High Bridge Park, Harlem River Driveway, the lower end of Fort Washington Park, and Hudson Park.

A survey was made of Isham Park with rock soundings and accurate location of boundary lines.

A topographical survey of the southern end of Fort Washington Park.

A topographical survey of Straus Park.

Surveys with preliminary estimates of cost of the various sections of wooden bulkhead along the Harlem River Driveway.

Surveys for the construction of a concrete Waste Water Service Sewer near the south end of the Museum of Art in Central Park.

Topographical survey of Jasper Oval (St. Nicholas Park between 136th and 138th Streets, St. Nicholas Terrace and Convent Avenue).

Preliminary surveys, sections, etc., in the matter of Repaving Riverside Drive between 114th and 128th Streets.

A topographical survey with plans and estimates of cost of a new Entrance Drive to Central Park at 79th Street and Fifth Avenue.

A topographical survey of the water front of Corlears Hook Park.

A topographical survey on the sites of the Joan of Arc and the Carrere Monuments and the Phillips Memorial Fountain.

Location surveys of small parks below 59th Street.

Specifications.

Specifications were prepared as follows:

For Constructing a Waste Water Sewer in Central Park adjacent to Fifth Avenue, in the vicinity of 81st Street.

For Repaving where directed, the Cement Walks on Riverside Drive Extension and the small parks south of 59th Street.

For Paving the Roadway with asphaltic concrete and otherwise Improving the Service Road of Riverside Drive, between 91st and 114th Streets.

For Improving Isham Park.

For Dredging in the North River between 103d and 109th Streets.

For Repaving with rock asphalt mastic the Walks of Central and other parks.

For Furnishing and Laying Concrete Walk and Edging and resetting curbstones in Straus Park.

Contract Plans and Other Drawings, Etc.

Map of Battery Park showing metes and bounds.

Record map of Carmansville Playground.

Record map of John Jay Park.

Record map of Cooper Park.

Construction map of Service Road, Museum of Art.

Topographical map of Grounds around Fire Alarm and Telegraph Bureau in Central Park.

Record map of Abingdon Square.

Contract drawings for Concrete Waste Water Sewer west and south of the Wings "J" and "K" of the Museum of Art in Central Park.

Record map of John Jay Park.

Drawings of Riverside Drive showing elevations along the Service Road from 91st to 114th Streets.

Record map of City Hall Park.

Map defining jurisdiction of Park Department at Silver Lake Park.

Contract drawings for Improving Isham Park.

Contract drawings for Dredging in the North River between 103d and 109th Streets.

Contract drawings for Improving Straus Park.

Contract drawings for Paving and otherwise Improving the Service Road of Riverside Drive between 91st and 114th Streets.

Miscellaneous.

Measurements were made of various supplies purchased by the department and delivered on scows, trucks, etc.

Tests of cement and other structural material were made.

Tabulations were made of all bids received by the Park Department for the various boroughs.

This department also supervised and was responsible for certain work such as laying new water supply system in Battery Park, involving some 2,300 feet of water pipe with the necessary fixtures.

Construction Work by Departmental Labor.

Twenty-five additional concrete fountains of the improved type adopted the previous year were set out in the various parks in place of old style iron hydrants which were beyond repair.

About 12,000 feet of three-rail pipe fence and 4,000 feet of two-rail pipe fence were erected during the year by the department fence gang composed of laborers. These fences replaced in most instances dilapidated wire fences which it was found impossible to maintain in even fair condition because of constant breakage by park visitors.

A portable saw mill was purchased and set up on the reclaimed land on the Riverside waterfront at 77th Street. The logs were stacked near by and the logs were cut into lengths and split into kindling which it is designed to furnish to other departments of the city government which now purchase their wood in the open market. This method will provide a good financial return for the work of disposing of this wood.

In addition to repairing 1,533 large and 1,436 small park benches, 74 new large benches and 354 new small benches were constructed by department mechanics.

PARK AND STREET TREES.

Further study of the Manhattan street tree situation made clear the necessity of securing approval and adoption of the remedies proposed by this department. The number of trees in the streets of Manhattan, even including the residential section up to 1914, was being reduced every year by several thousands. The department was without the necessary technical information and advice to supply citizens who wished to plant trees, nor had the department effective means or a properly organized technical force to maintain them, once planted. In many cases the kind of trees planted invited quick death for the tree within a short time on account of conditions of soil, drainage, sidewalk openings, gas and atmospheric conditions prevalent in that particular zone of the city.

FORMER INEFFICIENT ORGANIZATION AND METHODS.

The small tree force at the disposal of this department was not efficient as there was no concentration of authority. Some of the arboriculturists appointed many years ago lacked the technical knowledge required for such a problem and there was not sufficient coordination between entomological, pruning and spraying and other tree activities. Nevertheless pending the reorganization now effected a great improvement in conditions was accomplished, the 15,000 trees in Manhattan and the 200,000 in Richmond were given all possible attention as to pruning, trimming of dead wood, cleaning of insect pests and spraying, in the proper season. All dead and dangerous trees were removed, new wire and iron guards were placed on trees where necessary, and old guards and wires were removed when it was found that they were damaging the trees. Effective spraying work was performed with the high power sprayers which have been in use in the department for the past two years, with the result that there was less trouble from caterpillar and other insect pests than previously.

Park Trees.

Special attention was given to removing dead and dangerous or unsightly trees during 1915. In the upper wooded portion of Central Park and in High Bridge Park, which has a large area of natural woodland as yet unimproved. A total of 562 trees, chiefly trees of large size, were removed from all the parks. 343 were removed from Central Park alone and 120 from High Bridge Park. The detailed list of trees removed and planted is as follows:

	Removed	Planted
Central Park.....	343	652
Riverside Park.....	..	24
Morningside Park.....	27	3
St. Nicholas Park.....	..	62
High Bridge Park.....	120	36
Colonial Park.....	1	1
Roger Morris Park.....	2	2
Riverside Extension.....	6	6
Fort Washington Park.....	1	..
Isham Park.....	1	..
Mt. Morris Park.....	8	..
Jefferson Park.....	2	..
Carl Schurz Park.....	5	..
Broadway Parks, 137th St. to 168th St....	..	25
Seventh Ave. Parks north of 110th St....	..	4
Queensboro Playground.....	3	..
Park Avenue Parks north of 59th St....	7	13
Park Avenue Parks 50th St. to 56th St....	..	48
Bryant Park.....	6	*29
Madison Square Park.....	5	33
Union Square Park.....	6	..
Washington Square Park.....	7	1
Hudson Park.....	1	..
St. Gabriel's Park.....	..	14
Tompkins Square Park.....	..	2
Abingdon Square Park.....	..	†48
City Hall Park.....	2	‡39
Battery Park.....	2	14

* Includes 15 Japanese Cherry Trees transplanted from Central Park.

† Includes 15 Japanese Cherry Trees transplanted from Central Park.

‡ Includes 36 Japanese Cherry Trees transplanted from Central Park.

Street Trees.

The care of the trees on the city streets was in charge of a force of from fifteen to twenty men. The spraying of these trees during the summer to destroy the caterpillars which were more than ordinarily numerous throughout the city kept two spraying wagons constantly busy. Notwithstanding the increased activity of this pest, as evidenced by the extraordinary number of requests to spray trees in the backyards of private property, the work of the department tree forces, supplemented by the aid of the new high-powered spraying machine purchased the previous year, kept the parks noticeably free from them. The street trees of course, being affected from those on the adjacent private property were a source of constant trouble. The small horse-drawn two-horse power engine machine which the department is forced to use naturally is unable to cover the ground properly. A more modern type of machine mounted on an automobile is absolutely necessary for this work.

Following is a summary of the department's work on the street trees during the year, outside of the ordinary pruning, spraying, etc., which is a matter of routine work:

Boroughs of Manhattan and Richmond.

Trees Planted.....	451
By Park Department.....	208
By Property Owner.....	243
Total.....	451
Trees Removed.....	290
By Park Department.....	239
By Property Owner.....	51
Total.....	290

Additional Tree Maintenance.

A great deal of trimming of trees was done at the request of departments of the city such as the Fire Department and the Department of Water Supply, Gas and Electricity, where the trees interfered with the aerial wires of those departments or prevented a proper diffusion of light from the city lamps. There was also much trimming necessary to clear the tops of the stages along Riverside Drive and the other routes throughout the Borough of Manhattan in order to prevent damage and injury to the passengers. All this trimming was done by the department tree force to insure that it was properly done, it having been found in the past that where the work was done by other than park department employees it was improperly done and resulted in disfiguring the trees and subjected them to future damage through improper cutting.

**THOROUGH AND INTENSIVE INVESTIGATION
INTO TREE CONDITIONS.**

Professor Cox Makes Report Containing Valuable Recommendations.

Failing to secure appropriations for a tree survey, the department was able, through private funds, to have made during the summer of 1915 a thorough-going survey of conditions and a census of street trees. This was accomplished through the cooperation of the New York State College of Forestry, who assigned a forestry expert for this purpose to work under the direction of the Commissioner. For a period of three months this forester was placed in charge of the entire tree force of the department and at the close of his period of service rendered an admirable and brief report on the street tree situation in Manhattan and Richmond, with constructive recommendations. In this report a street tree system was advocated which would serve to connect and coordinate the present isolated small parks

into a park system. The city was also divided into four zones and for each zone a planting specification was prepared showing the kind of tree that can be planted with reasonable certainty of survival and specifications as to the depth of soil, grating, guard, tree opening, watering and future culture for each one of the four neighborhoods.

CONSTRUCTIVE PROGRAM DEVELOPED.

As a result of this report and the valuable information received in it, the Commissioner has included in next year's budget estimate, a program for street tree planting embracing a definite planting plan, which will tie into one park system our numerous small parks now isolated and unconnected. The program which follows covers a five year period and allows for the planting of a thousand trees a year, 500 of which will be new and 500 will be replacements of trees which have died:

Year	Maintenance of	For new planting	Additional cost over budget appropriations now existing
1917.....	15,000 trees	1,000 trees	\$19,250
1918.....	15,550 trees	1,000 trees	19,750
1919.....	16,000 trees	1,000 trees	20,250
1920.....	16,500 trees	1,000 trees	20,750
1921.....	17,000 trees	1,000 trees	21,250

SUMMARY OF REPORT.

There follows a brief excerpt from the report submitted to the Commissioner by Professor Laurie D. Cox, the forestry expert who was detailed by the New York State Forestry College for the purpose of this study.

1. THE STREET TREE PROBLEM IN MANHATTAN.

Any hasty consideration of the question of growing street trees in New York City, or in that most typical portion of it, the Borough of Manhattan, will develop one of two opinions. Either it will be deemed a simple problem such as is being solved in nearly every town or city of the land or it will be declared a matter utterly absurd—a problem impossible of solution.

Like the results of most hasty considerations, neither of these opinions is correct. Successful tree growth on Manhattan streets is something considerably more than a question of ordinary planting and care. Again it is neither impossible nor impracticable to secure on many streets a satisfactory growth of shade trees. It is true, however, that to secure any considerable number of permanent shade trees on the streets of Manhattan is a problem which is without question one of the most difficult ones yet approached by city foresters or park authorities in this country.

In addition to the ordinary difficulties which beset tree growth under city conditions, such as pavements which shut out water and air from the roots; trunk injury due to heavy traffic; weakened vigor to resist insects and disease, due to gas-poisoned soil and smoke and dust-burdened air; we have in Manhattan many additional hazards to overcome. Thus above ground, the very general presence of high buildings upon comparatively narrow streets causes a very serious lack of sunshine, light and air and produces a prevalence of tearing, swirling winds. Below the surface we have even more abnormal conditions in the extensive use of the area beneath the street for subways, sewers, conduits and vaults. These things are true not only of the business streets but of the residential streets as well. The grass parking strips between sidewalk and curb which are present on the majority of the residence streets in other cities are an extreme rarity in Manhattan.

The entire problem of selecting the tree, its planting, pruning and care must thus be radically different from those of ordinary street tree practice, and likewise the cost must be considerably larger than that for planting and maintenance in the average city or town. In certain boroughs of New York City it has been estimated that a tree may be successfully planted and cared for until established for eight dollars, whereas a sidewalk grating alone on a Manhattan street will cost several times this sum. In the City of Newark a tree can be planted and established for approximately five dollars, while in Manhattan it will cost nearly this amount to cut and remove the pavement above the pit in which the tree is to be planted.

If any plan or program for street tree planting in Manhattan is to be made it is very evident that a careful study must be given to determine the following facts:

(1) **On what streets shall trees be planted?** (The high cost as above explained makes it impracticable to attempt to plant the entire borough, and likewise the present and future use and condition of many streets makes successful planting upon them impracticable if not impossible.)

(2) **What kind, type and size of trees can be used with assurance of success under the peculiar, adverse conditions which prevail?**

(3) **What will it cost to do the work on the different classes of streets?** (Since the conditions of the streets differ so widely, no uniform system of planting can be used which will be most efficient and economical in all cases. Different types of planting must be determined upon for the different conditions which are to be met.)

2. A STREET TREE SYSTEM.

In any serious consideration of street tree planting in Manhattan it is evident that not all streets are equally available or advisable for this purpose. Narrow sidewalks, excessive congestion, commercial traffic, high buildings, underground construction, all of these together or in various

combinations eliminate many streets from the list of those practicable or possible for satisfactory tree growth.

On account of this fact it may appear perhaps that any tree growth, even if it is secured, must be scattered and haphazard, and that no continuity can be had. Again, owing to the high cost of planting under the existing conditions, and with the rapid deterioration of the existing trees, the task of securing permanent street tree planting in Manhattan may indeed seem hopeless in its immensity.

It would certainly appear that if any worth-while results are to be obtained we must have a plan or program towards which we work, that is, an organized system or selection of streets upon which to concentrate our efforts.

To select these streets and then coordinate them into an organic scheme of city decoration has suggested to the writer the idea of a street tree system, and what is more natural than to unite this system in some way with the city park areas which, with the street trees, supply the horticultural decoration of the city.

In the other boroughs of the city, save Manhattan, the opportunity exists for working out a park system with the usual park connections and doubtless all of these boroughs will some day possess, in greater or less degree, such systems. In Manhattan, however, due to the intensive use of all available real estate, a park system by means of these ordinary forms of park connections would appear to be practically impossible. If a system of connecting ways is to be secured in Manhattan at any reasonable outlay, we must make use in some form of the existing streets.

With this thought in mind in approaching the street tree problem, the writer was impressed with the feasibility of securing a system of park connections in Manhattan by means of a comprehensive and organized system of tree planting on carefully selected streets. By selecting streets which will permit of successful tree growth and by securing in our planting design a reasonable degree of interest and individuality, a park system unique among American cities may be secured. Such a scheme of street planting would not only coordinate the existing scattered park areas of the borough into a comprehensive system, but would also impart that peculiar or individual character and beauty which is necessary if Manhattan, the heart of New York City, is to take its place, as its importance in all other lines justify, among the beautiful cities of the world.

A careful study has been made of every street in Manhattan leading to or from the various park areas. It has been found possible in the case of practically all of the more important parks to select streets suitable for inter-park connections upon which successful tree growth of one form or another may be secured. These streets are suggested for our proposed "Street Tree System." On streets in the street tree system planting only in units of one or more blocks will be permitted. (See Appendix A for streets in "Street Tree System.")

By concentrating our efforts upon these streets it will be possible, with a reasonable annual expenditure, to secure a condition of tree planting in Manhattan which will give to the city the appearance and charm of a tree-shaded city.

In selecting the streets to be used, careful consideration was given not only to the existing conditions of the streets in question, but also to the future development of them. This latter was largely determined by the proposed scheme of districting being worked out by the Commission on Building Districts and Restrictions. The streets of our proposed street tree system are confined almost entirely to those streets which lie in the districts limited to residential or restricted business (retail stores, offices, etc.) and residential purposes.

There are of course other streets not included in our system of inter-park connections, but upon which trees may be grown successfully. These are streets which will lie in the restricted residential districts. Our program is also designed to encourage tree planting by private owners on those streets outside of the proposed system.

3. STANDARD SPACING AND ARRANGEMENT.

So much has been said and written about the evils of planting street trees too closely that it may seem almost unnecessary to mention it again. There is nothing more difficult to secure in street planting than correct spacing and arrangement and this is especially true if the wishes or opinions of the abutting property owners are considered. The chief reason for this is that young trees are so small at the time of planting that when spaced as is commonly done from 20 to 30 feet apart they give no idea of the ultimate crowding which will occur when the trees reach maturity.

In addition to the injury to the appearance of the street as well as to the trees themselves when planted so thickly that normal development is prohibited when the trees mature, such planting becomes a serious menace to health, as it cuts off very largely from the lower stories of the buildings a proper supply of sunlight and air. In Manhattan where the buildings present a continuous facade on practically all streets this question of air and sunlight is of special importance, and crowded planting is especially unwise.

The beauty of any formal type of street tree planting depends very largely upon regularity in the size, kind and arrangement of the trees, all of which are impossible unless a systematic scheme of planting is followed. The planting of trees by individual property owners, so often done in other cities and much advocated in New York, always produces a condition where the trees are of varying size, age and kind, spaced at irregular and unsatisfactory intervals. The street trees form the most important and often the only esthetic element in street design, and it is difficult to see any reason for releasing them from the oversight of the city which controls and standardizes the rest of the street design. In some cities the tree planting is

carried out as a part of the street improvement and this is fortunately the growing tendency. In fact it is no more reasonable to allow the property owner to show his individual preference regarding the kind or arrangement of street trees in front of his property than it is to allow him a similar privilege in the construction of his sidewalk or pavement.

The smallest unit area of a street that should be planted at one time in Manhattan is a block on the east and west streets, and two or more blocks on the avenues running north and south. The trees for this unit should be of uniform size and kind, and regularly spaced according to the size of the block as regards arrangement. It is of course much better to plant an entire street at once, but units of the size mentioned will permit of a reasonable degree of uniformity in the street planting in the borough.

The accompanying typical planting plans which have been made to show a satisfactory spacing arrangement for Manhattan streets. These plans show a minimum spacing distance of $37\frac{1}{2}$ feet, which will be found neither too small for the largest trees, such as the Planes, nor too great for the smaller formally pruned trees, such as the Poplar and Gingko. This plan will give ten trees to the block on the avenues running north and south where the blocks average about 200 feet, and from 30 to 40 trees to the block on the east and west streets according as the blocks vary from 600 to 800 feet. The same standard of spacing should be used on any streets which do not divide themselves regularly into blocks. While it would be possible in some cases to plant the trees at smaller intervals, a very satisfactory appearance will be secured at $37\frac{1}{2}$ feet intervals. In no cases will there be serious crowding, and the number of trees will be reduced to a minimum, a very desirable feature in consideration of the high cost of planting and maintenance in this city.

It is highly desirable to keep the corner trees from 40 to 50 feet back from the sidewalk curb at the street intersections so as to permit an auto-bus to load and discharge passengers at the street corners. The use of these conveyances is already an important feature of street transportation in Manhattan and the indications point to a still further extension of this service in the future.

4. PROCEDURE TO OBTAIN PERMIT.

For Block Planting on Streets in System.

(See Appendix D, page 148, for list of streets and avenues.)

1. Interest your neighborhood or civic association in cooperating with you in making possible the planting of trees on your block in a uniform manner.
2. When this has been done, write the Department of Parks, Boroughs of Manhattan and Richmond, specifying the block on which your house is located.

3. This department will furnish your civic or neighborhood association with the necessary information regarding the choice of tree species as well as the planting specification required for your neighborhood. An estimate of the cost per tree and a list of such florists and nurserymen will also be furnished whose work in the past has been found satisfactory to the Park Inspecting Authorities.

4. For the application for a permit for block planting there must be attached the written consent of all property owners in front of whose premises the trees are to be located.

5. The permit will then be issued to the florist or nursery to whom you have awarded the contract, after he has made the required deposit (See Appendix B for specimen permit.) A deposit of either five or ten dollars per tree, according to the planting specification is required in order that this department may enforce the provisions of the permit.

For Individual Tree Planting on Streets Not in System.

1. Advise this department of the location for the proposed tree planting.

2. This department will furnish you with necessary information regarding the choice of tree species, and the planting specification required for this location. An estimate of the cost per tree and a list of competent florists and nurserymen will also be furnished.

3. The permit will then be issued after the required deposit has been made. A deposit of either five or ten dollars per tree (according to the type of planting specification) is required in order that this department may enforce the provisions of the permit. (See Appendix C, page 146, for Specimen Permit.)

5. WHAT TREES TO PLANT.

The number of trees suitable for street use in any city is small, and those which can be used in Manhattan with any reasonable expectation of success is still smaller. Under the most favorable conditions which exist in New York, such as on parkways or on streets and avenues having broad parkings, there is a fair range of choice; but in the main, the most satisfactory results will be obtained by restricting our list of trees to six or seven species.

After having considered carefully the city's past experience with tree growth in its streets and parks, the peculiar factors which enter into local conditions, and the experience of other cities, the following list has been prepared. This list comprises only those trees which can be grown with a reasonable assurance of success on the streets and avenues of Manhattan.

This list is arranged in order of quality considered in relation to the ability to succeed under the local adverse conditions:

(1) **The Oriental or London Plane**); also known as **Button Ball** or **Sycamore** (*Platanus Orientalis*).

This tree is well known and already much used in this city. It is one of the hardiest and most adaptable of trees for use on city streets and possesses much beauty, especially in old age. It has very few enemies, is little subject to disease and is a rapid grower and long-lived. It normally makes a large tree, so is not adapted for use in narrow streets unless kept back by severe pruning. It is well adapted for such pruning, and is uninjured by it. This tree is to be used wherever a large tree is desired as on wide streets and avenues, or can be used as noted as a formally pruned, medium-sized tree for narrow streets.

(2) **The Maidenhair Tree** (*Gingko biloba*).

This tree is extremely hardy and succeeds in very poor soil, and is very free from insects and disease as well as being a tree of considerable beauty. Its chief fault is its slow rate of growth, but for street use where a small-sized tree is required this defect is not serious. It is readily kept either round-headed or pyramidal in form by pruning. This tree would be especially valuable for use in Manhattan on narrow streets or where a formally pruned tree is required. It is doubtful if any tree on our list will succeed so well under adverse conditions as the Gingko.

(3) **The European Linden** (*Tilia vulgaris*).

This is the tree so much used as a street tree in European cities. It is a beautiful tree in both form and foliage and its bloom is delightful in fragrance. The tree is thoroughly hardy, succeeds under the adverse conditions of a city street and is a rapid grower, yet takes kindly to severe pruning.

The Linden has received a bad name in New York because many of the varieties which have been used lose their foliage in the warm weather of July and August due to the attacks of the red spider. If the true *Tilia vulgaris* is used this trouble will usually not be experienced. Great care should be exercised in securing the true species as nurserymen often offer under the name *vulgaris* another species (*Tilia platyphyllos*) the large-leaved European Linden which is badly affected by the red spider and is a generally inferior tree in many ways. There are two other lindens, probably equally as good for street use as *Tilia vulgaris*. These are *Tilia cordata*, the small-leaved European Linden and *Tilia tomentosa*, the Silver Linden. These have not been used so long as street trees in America and so less is known about them.

(4) **The Norway Maple** (*Acer platanoides*).

This is the best Maple which can be grown successfully on city streets. There are several horticultural varieties of this tree on the market which

may prove superior to the type when better known. The varieties differ from the type principally in form. Two of the best are *var globosum* which is very round and formal and *var columnare* which is tall and columnar. The type tree forms a round-headed, attractive appearing tree so well known that a detailed description is not necessary. While subject to a number of insect pests the tree can be kept in good health with reasonable care. The Norway Maple stands street conditions very well, but it is less hardy than the Plane and Gingko, and should only be used where soil and moisture conditions are fairly good. It is not as well adapted for use beneath gratings as the Linden, Plane or Gingko. The Norway Maple is to be recommended for use on residence streets where fair-sized tree pits or parking areas are available.

(3) **The Pin Oak** (*Quercus palustris*).

While less hardy than the Plane and Gingko, the Pin Oak will make a splendid growth in a very restricted area if soil conditions are reasonably good. Being a slow grower it is very easy to keep it of small size by pruning and in this way the top may be kept in balance with the root growth where the space available for the roots is limited. An example of this is seen in the present successful planting on North Broadway where the trees are growing in a few feet of soil above the subway roof. This tree has few enemies, and can easily be kept in fine foliage. It is adapted for use as a normal sized tree in deep soil as well as for pruning to a limited size where the soil is shallow. The Pin Oak is no more hardy than the Red Oak, but on account of its slower growth is more adaptable to adverse street conditions.

(7) **The Tree of Heaven** (*Ailanthus glandulosa*).

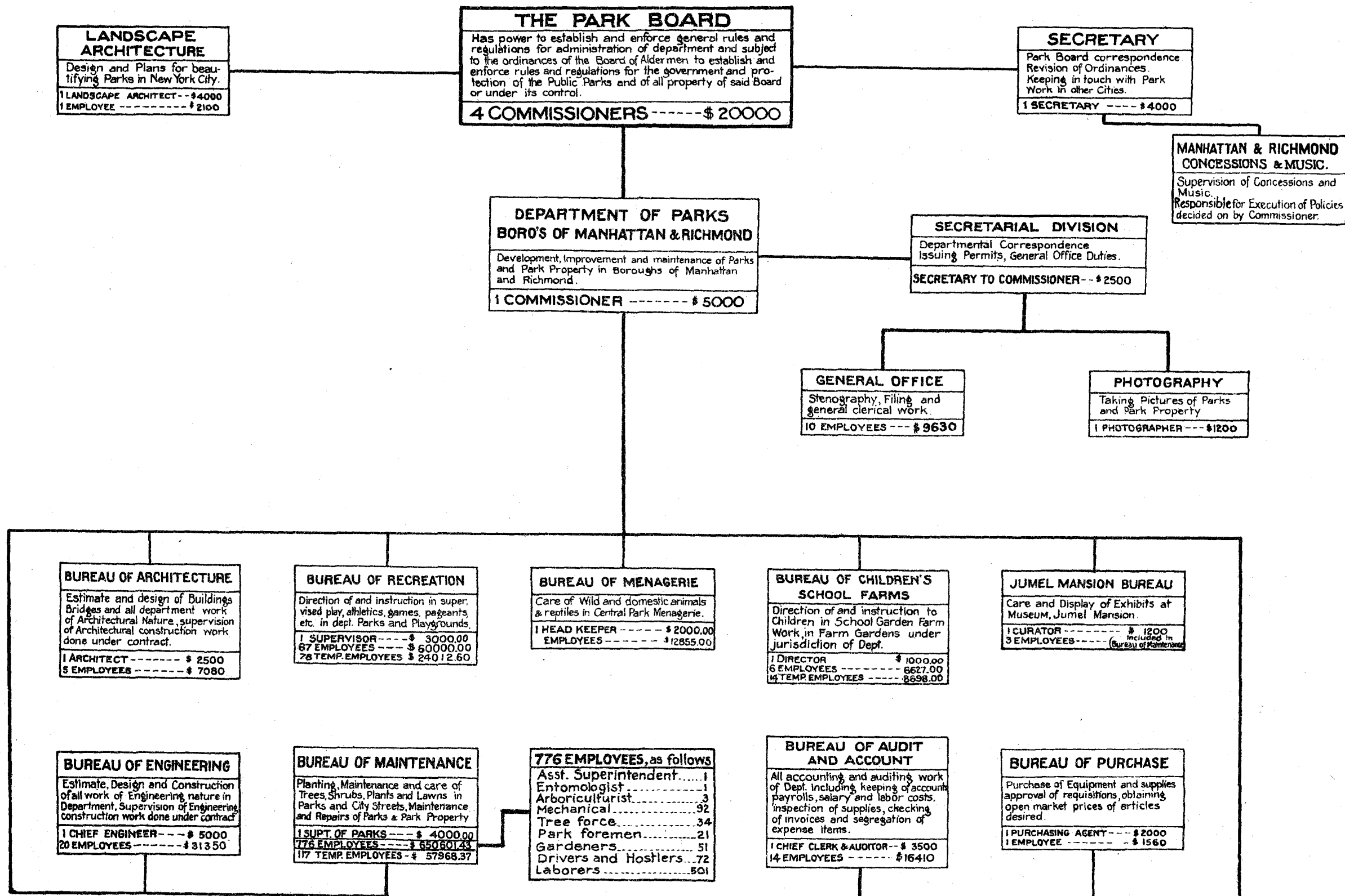
The Ailanthus is even more hardy than the Plane, the Gingko or the Poplar, and requires a minimum of soil and water to succeed. This tree will grow luxuriantly where no other tree could exist, and this is its chief value in any list of street trees. In appearance it is fair, the foliage being rather coarse and tropical in effect, but always of a luxuriant green. The tree tends to grow straggly, and has a rather unsightly appearance in the winter. The Ailanthus grows with a pithy center so that old trees often become dangerously weak while still appearing to be in full vigor. The habit of the tree can be much improved by formal pruning, and when used as a street tree should not be allowed to attain too large a size. The Ailanthus is recommended for use especially south of 59th Street where growing conditions are worst. The tree is dioecious, and the female form should only be used, as the flowers of the male tree have a disagreeable odor. It would probably be necessary for the city to propagate the trees in its own nursery to make certain of the sex of the trees used.

The following additional list is suggested as comprising trees which might, under the most expert attention be grown successfully on Manhattan streets, but only on streets where conditions are most favorable. Such conditions would be found on wide streets with generous gravel or grass parkings, good depth of soil and where the buildings are moderately low and the traffic light.

- (1) **The Red Oak** (*Quercus rubra*).
- (2) **The Red Maple** (*Acer rubrum*).
- (3) **The American or White Ash** (*Fraxinus americana*).
- (4) **The Scotch Elm** (*Ulmus montana*).
- (5) **The American Elm** (*Ulmus americana*).
- (6) **The Horse Chestnut** (*Aesculus hippocastanum*).

ORGANIZATION CHART

DEPT. OF PARKS, BOROUGH'S OF MANHATTAN & RICHMOND.



REPORT OF SUPERVISOR OF RECREATION.

ACTIVITIES INCREASED IN SIZE AND SCOPE.

The administration of recreation in this Department has long ago passed the stage in which it was originally conceived, namely—the “kindergarten” class, but has developed into a wide field of activity occupying the interest of children from their infancy to adult age. The bureau yearly continues to broaden in plan and scope. This is due to the widespread campaign and propaganda that is being promulgated throughout the country by sociologists, educators, medical authorities, playground commissions, park and playground departments and associations, civic bodies, etc., in making better known the advantages in the way of health and education through play and recreation.

The adoption of the so-called Gary or Wirt system which is being tried out by the Board of Education, of the work, study and play plan, in which outdoor playgrounds play a prominent part, and again the Ettinger system, which is a work, study and play plan, that is being tried out with this department at Tompkins Square and Hudson Park Playgrounds, makes use of the school buildings adjoining public libraries and park playgrounds; all of the agencies cooperating and aiding in carrying out the school curriculum.

In addition to cooperative work with parochial, public and private schools, settlements, civic bodies, this department carries on a distinct organization of activities for children, adults, young men and women all the year round.

Economies by Centralization.

The economies effected by this department in conjunction with the Board of Estimate and Apportionment, in transferring the supervision of the eight recreation piers in connection with our playgrounds, and the abolition of the recreation Commission, eliminating needless expense and transferring the supervision of the five gymnasia to this department has accomplished excellent results. The piers, however, remain the property of the Department of Docks and Ferries, and the Gymnasia are the property of the Borough President's department.

Recognized Need for Play Space.

The opening of eight additional playgrounds, five of which were the property of interested citizens and corporations that were lent to this department, and the amount of money appropriated by the Board of Estimate and Apportionment for the centralization and extension of service

along these lines, together with the approval of the press, has further recognized the important part that playgrounds and recreation fields, gymnasia, piers, etc., play in our city life.

The history of recreation in this country makes it clear that there are few cities that can rival New York in the number of ideas for the promotion and development of recreation that have originated here. The attendance of over nine millions also confirms the fact that these facilities are intensely used in accordance with their adaptability as the seasons come and go. Care has been exercised to avoid duplication of service and expense. The amended charter provides that two departments shall conduct recreation, namely: the Board of Education and the Park Board, and yet there is a considerable amount of recreation still being conducted by the Borough President's department in Manhattan and Brooklyn through the agencies of the public baths and swimming pools.

Activities on Recreation Piers and in Gymnasia.

The acquisition of the recreation piers and gymnasia has also broadened the field for adult recreation in the way of physical training and recreation centre work together with the adult recreation conducted in our fields and playgrounds. The activities on these recreation piers were conducted during the months of June, July, August and September. The music furnished by the graphonolas purchased by the department, were of great assistance in teaching children folk dancing, rhythmic exercises, marching and in giving festivals. The band concerts in the evening were an added attraction to both adults and children during the summer season. Plans are being perfected for more extensive use of the recreation piers. The department now has seven well equipped gymnasia with shower baths. The baths are extremely useful not only as recreation centres, but as health-giving institutions. There were over five hundred club permits issued for these seven centres that are open daily until 10.00 P. M. Gymnastics, athletics, dancing and social club work are among the chief activities. Permits are issued to clubs of twenty or more, for permits of one hour and a half (at a given time for certain days of the week). Two days a week are set aside for girls' activities at these centres

Adult Recreation.

Adult recreation was encouraged by the neighborhood activities organized for the purpose of socializing and entertainment directed along civic and patriotic lines, as was demonstrated by our Labor Day Festivities, which brought forth universal commendation. Our twenty neighborhood festivals were attended by thousands at each centre, as well as the Athletic Championship Games on Memorial Day, the Safe and Sane Fourth of July Celebration, Columbus Day exercises, and the Shakespeare Pageant and Dance, etc., held December 28th at the Amsterdam Opera House.

Neighborhood Activities.

In former years a pageant was given annually at Central Park where all the recreation centres gave expression to the pageant form at one point. A departure was made in 1915. It was decided to have twenty different local neighborhood festivals in which each of the sixty centres took part. Through this method a greater number of people and children were able to attend the festivals. It was conducted to promote Neighborhood idea on Labor Day, in September; but while it has its advantages from a local neighborhood standpoint, it does not give the children and parents the social intercourse that comes from one great assemblage of the people from every section of the city.

The Facilities for Recreation in Central Park.

Skating, coasting and sleighing in Central Park during the winter season of 1915 were more used than ever before. These activities have been supervised and directed in cooperation with the Superintendent's Department and the Police Department. Order is maintained and first aid to the injured applied. The small lake at 59th Street and Fifth Avenue was set aside, specially, as last year for children with their guardians.

Figure skating is concentrated on the Conservatory Lake (72d Street and Fifth Avenue) for which permits are issued.

The tremendous increase in the popularity of tennis was indicated this season by the issuance of over (20,000) season permits to play tennis on the Sheep Meadow (66th Street and West Drive) and on the South tennis field (96th Street and West Drive). The South Tennis Field has been re-modelled with clay surface courts and stationary nets that are erected by this department; the tennis players no longer having to provide the net. This department has abolished the storage system for tennis outfits, entirely. The players are now required to furnish their own balls and racquets. A period of two hours is allotted to each person holding a permit, in order to render the greatest amount of good for the greatest number.

The East Meadow at 99th Street and Fifth Avenue and the Circle (106th Street and Eighth Avenue) have been designated as the hockey fields of Central Park. Many permits were issued to the various high schools to conduct their tournaments throughout the season. Permits are issued for croquet on the Sheep Meadow (66th Street and West Drive) and the playgrounds, which are greatly made use of by the older people.

In Central Park a special area is set aside for boys 16 years of age and under on the East Meadow (99th Street and Fifth Avenue), and the Sheep Meadow (66th Street and West Drive). Permits are not required for practice by boys within the age limit. Many private and public schools throughout the city take advantage of these segregated baseball fields.

Almost (2,000) May Party and June Walk permits were issued to the private and public schools, settlements, church and civic organizations, to conduct their Spring Festivities. The Annual Fete of the Public Schools

Athletic League (Girls' Branch) was held on the Sheep Meadow together with the demonstration by the Boy Scouts.

Boys of the various public, private and high schools are permitted to practice soccer and rugby football on the Sheep Meadow (66th Street and West Drive) and the East Meadow (99th Street and Fifth Avenue) during the football season.

Each activity is directed and supervised in accordance with the demands of the various seasons of the year. All of these activities in Central Park are accessible to the public without charge except the children's carrousel on the Sheep Meadow and rowing and boating on the lakes, for which a small fee is charged.

TYPES OF SUPERVISED PLAY.

The following classification indicates the types of Play centre maintained and supervised by this Bureau during the year 1915, and conducted in accordance with the distinction herein made:

Indoor Gymnasias.

Hamilton Fish.....Houston and Pitt Streets.
West 59th Street.....Near 10th Avenue.
Carmin Street.....Near Hudson Street.
Cherry and Oliver Streets.....
East 54th Street.....Between First and Second Avenues.
Rutgers Place.....
West 28th Street.....Near Ninth Avenue.

Athletic Fields.

Astor Field, Chelsea, Cherry and Market Streets, Columbus, Corlears Hook, De Witt Clinton, Hamilton Fish, Jasper Oval, John Jay, Queensboro, St. Gabriel's, Seward, Thomas Jefferson, Tompkins Square, West 59th Street, Yorkville.

Baseball Fields.

Astor Field..... 1 diamond.
Bennett Field..... 2 diamonds.
Ball Ground, Central Park..... 10 diamonds.
Chelsea..... 2 diamonds.
Cherry and Market..... 4 diamonds.
Riverside Oval..... 2 diamonds.
Corlears Hook..... 1 diamond.
Columbus..... 1 diamond.
Hamilton Fish..... 1 diamond.

Baseball Fields—Continued.

Jasper Oval.....	3 diamonds.
Queensboro.....	1 diamond.
Reservoir Oval.....	1 diamond.
Thomas Jefferson.....	2 diamonds.
West 44th Street.....	1 diamond.
West 59th Street.....	1 diamond.

Soccer Football Fields.

Astor Field, Central (Ball Ground and East Meadow), Chelsea, Cherry and Market, Columbus, Corlears Hook, De Witt Clinton, Hamilton Fish, Jasper Oval, John Jay, Queensboro, St. Gabriel's, Seward, Thomas Jefferson, Tompkins Square, West 59th Street, Yorkville.

Combination Boys and Girls' Playgrounds.

Astor, Carl Schurz, Carmansville, Central, Colonial, Corlears Hook, Clark, East 17th Street, East 19th Street, West 18th Street, East 67th Street, West 67th Street, Fort Washington, Highbridge, Hudson, Jackson Square, Riverside (96th Street), Ryan, St. Nicholas, Grace, Mt. Morris, Watergate, St. Peter's, Westerleigh, S. I., Williamsburgh Bridge Esplanade, East 136th Street, Recreation Piers.

Girls' Playgrounds.

Astor, Battery, Carl Schurz, Carmansville, Central, Chelsea, Colonial, Corlears Hook, De Witt Clinton, East 17th Street, East 19th Street, West 18th Street, East 67th Street, West 67th Street, Five Points, Hamilton Fish, Highbridge, Hudson, Jackson Square, John Jay, Queensboro, Riverside (96th Street), Ryan, St. Gabriel's, St. Nicholas, Seward, Thos. Jefferson, Tompkins Square, Grace, Mt. Morris, Watergate, East 136th Street, Yorkville, Williamsburgh Bridge Esplanade, Westerleigh, S. I., St. Peter's (New Brighton, S. I.)

Boys' Playgrounds.

Astor, Battery, Bennett Field, Carmansville, Central, Chelsea, Cherry and Market, Columbus, De Witt Clinton, East 17th Street, West 18th Street, Hamilton Fish, Hudson, Jasper Oval, John Jay, Queensboro, Reservoir, Riverside Oval, St. Gabriel's, Seward, Thos. Jefferson, Tompkins Square, West 59th Street, East 67th Street, Yorkville, Mt. Morris, 138th Street and Fifth Avenue, Westerleigh, S. I., St. Peter's (New Brighton, S. I.)

Small Children's Playgrounds.

Abingdon Square, Astor, Battery, Carl Schurz, Carmansville, Central, Chelsea, Colonial, Corlears Hook, De Witt Clinton, East 17th Street, East

19th Street, West 18th Street, East 67th Street, Five Points, Hamilton Fish, Highbridge, Hudson, Jackson Square, John Jay, Queensboro, Riverside (96th Street), Ryan, St. Gabriel's, St. Nicholas, Seward, Thos. Jefferson, Tompkins Square, Watergate, Grace, Mt. Morris, East 136th Street, Yorkville, Westerleigh, S. I., St. Peter's (New Brighton, S. I.), Williamsburgh Bridge Esplanade.

PERMITS ISSUED AND GAMES PLAYED DURING 1915.

Tennis.....	20,507
Baseball.....	2,000
Athletics.....	500
Croquet.....	200
Hockey.....	200
May Parties, June Walks, etc.....	1,800
Football.....	1,500
Basketball.....	1,500
Figure Skating.....	500
Club Gymnastics.....	500

INTER-PLAYGROUND COMPETITIVE SPORTS.

Baseball.

Baseball far outrivals any one other game in the city in popularity. Thousands of youngsters take part in the club, association, school and playground tournament games, and their field of endeavor extends from the street to the play lot, playground and public park fields. Countless games are played by the clubs of young men especially on Saturdays, Sundays and holidays. Throughout the week the public, parochial and private school boys have preference. The demand for the development of baseball diamonds continually grows throughout the city.

The Inter-Park Playground Baseball Tournament for the Championship of New York City conducted under the auspices of the department during 1915, was the largest and most successful yet attempted, and was the fifth tournament conducted under the direction of the Bureau of Recreation. Over 1,000 teams, twelve boys to a team took part in the elimination series, organized from 25 centres in Manhattan, where there are baseball facilities to play the game. The annual incentive in the form of gold medals for the victors was presented by Messrs. A. G. Spalding & Bros. which were won in the three classes by the following:

Jasper Oval.....	85 lb. class
Reservoir Oval.....	105 lb. class
Chelsea.....	120 lb. class

Our baseball facilities were enlarged by the gift of Mr. Vincent Astor who lent to the city for operation by this department an entire city block at 149th Street and 8th Avenue, for a baseball field and playground for the boys and girls of Harlem. It was on this field that the city's playground championship was held. The elimination Inter-Park Playground Games down to the Final Championship lasted throughout the entire vacation period.

The prizes were awarded by the Park Commissioner on Columbus Day, October 12th, at Thomas Jefferson Park Playground, at the ceremonies celebrating the "Discovery of America" by Christopher Columbus. The tie games between Seward and Hamilton Fish Park Playground on the lower east side (in the 105 and 120 lb. classes) will not soon be forgotten, as were the tie games between Tompkins Square and Queensboro in the 85 lb. class, Tompkins Square and St. Gabriel's in the 105 lb. class, and Thomas Jefferson and John Jay in the 85 lb. class. As a final climax of the baseball season, President Hempstead of the National Baseball League, invited all the boy participants in the park tournaments to see the "Giants" play the Chicago's. Ten thousand boys attended.

Soccer Football.

No game in America is faster gaining the popularity and standard of baseball than soccer football. The same type of spectators are attracted to the soccer fields as to the baseball games. There are fifty fields on which from October to April soccer football can be played in the Greater City. The science of the game is also attracting the attention of physical directors to almost as great an extent as baseball. The only drawback in soccer football is that it is a little too strenuous for the younger boys.

Therefore, the department does not encourage competition between boys younger than fifteen years of age, but for young men it has proven expressly beneficial, as it promotes a very vigorous development. One of the finest sights to imagine is a field of soccer players on a winter's day, with snow on the ground, competing for supremacy. The spirit of organization, loyalty and firmness is developed as the science of the game is acquired.

Three hundred teams were organized in the playgrounds during 1914-15 to compete in the tournament, which was the most successful yet conducted by the Bureau of Recreation. The Referees and Officials were selected from among the interested neighbors, directors of the playgrounds, and clubs interested in soccer football. Any game that hopes to live in popularity must be developed in the playgrounds, which are the nurseries of all sport. The final games were held at Jasper Oval before 5,000 spectators, and resulted in a victory for the team of Cherry and Market Street Playground. The members of the three teams with the highest percentage received medals donated by A. G. Spalding & Bros.

Basketball.

The basketball tournament conducted by the Bureau of Recreation, Boroughs of Manhattan and Richmond, in the park playgrounds and indoor gymnasias last season was the largest ever held. The two original divisions have been increased to three, Southern, Central and Northern. The Junior Teams consisted of boys weighing 100 lbs. and under, Senior Teams, 100 to 125 lbs. The ages of the players were between eight and seventeen years.

The indoor tournament consisted of twelve afternoon and twelve evening clubs. The officials of the games were appointed by the director in charge of the gymnasium whenever he could not officiate himself. The "Young Ramblers" won the afternoon tournament. All of these clubs had regular periods at the gymnasium. The southern section comprised, Seward, Cherry and Market, Hamilton Fish, Corlears Hook and Columbus Park Playgrounds. The Central Section: Tompkins Square, West 59th Street, De Witt Clinton, St. Gabriel's and Chelsea Park Playgrounds. The Northern Section: John Jay, Thomas Jefferson, Yorkville, Carmansville and Queensboro Park Playgrounds.

In the final contests Seward Park Playground won the Junior Championship by defeating Tompkins Square and John Jay, Hamilton Fish won the senior title by vanquishing Yorkville and Tompkins Square.

The tournament started in February and ended the first part of April. The number of teams competing in the elimination series numbered over 400. Basketball is the most popular outdoor winter game played in the playgrounds of New York. The exhilarating effects and the magnificent development acquired through the proficient playing of basketball, not to speak of the loyalty and spirit of organization that it establishes among its players, are very valuable. The demands for basketball courts are ever on the increase.

PLAYGROUNDS UNDER JURISDICTION OF THE

PLAYGROUNDS	Acreage	Total 1915 Attendance	Cost of Supervision and Maintenance	Per Capita Cost	FACILITIES PROVIDED						
					Shelter	Comfort Station	Running Water	Showers	Lockers	Electric Lights on Field	Electric Lights in House
Abingdon Square	.07	25,020	\$142.87	006	...	...	...	...	...	Yes	...
*Astor Field	1.15	144,831	2,314.38	015+	Yes	Yes	Yes	1	...	Yes	...
Battery	.85	34,912	693.25	019+	Yes	Yes	Yes	...	...	Yes	Yes
*Bennett Field	2.29	19,700	196.71	010	...	...	...	...	...	...	...
Carl Schurz	.25	107,876	2,532.91	023	Yes	Yes	Yes	...	...	Yes	...
Carmansville	.25	132,093	3,608.58	029+	Yes	Yes	Yes	4	...	Yes	Yes
Central Park, Cherry Hill	5.50	1,300	...	...	...	...	...	...	...	...	...
Central Park, South Meadow	9.86	379,642	...	...	Yes	No	Yes	...	...	...	...
Central Park, North Meadow	30.00	34,850	...	...	...	...	...	...	...	...	...
Central Park, East Meadow	5.14	222,024	5,563.81	003+	...	...	...	...	...	...	...
Central Park, East Green	5.40	16,000	...	...	...	...	...	...	...	...	...
Central Pk., Playground, 99th St.	1.00	32,028	...	...	...	...	...	...	...	...	...
Central Park, Sheep Meadow	21.11	718,153	...	...	Yes	No	Yes	...	...	...	...
Central Park, Playground Lawn	10.65	32,570	...	...	...	...	...	...	...	...	...
Chelsea	2.02	366,602	3,732.86	010+	Yes	Yes	Yes	...	...	Yes	Yes
Cherry and Market	.38	180,071	2,298.17	012+	Yes	...	...	...	...	...	...
*Clark	.92	41,723	615.44	015+	...	...	...	...	...	...	...
Colonial	1.11	123,520	1,442.68	012+	Yes	...	...	...	...	Yes	...
Columbus	.54	131,319	1,148.60	008	Yes	Yes	Yes	...	...	Yes	...
Colears Hook	.50	246,638	2,995.65	012	Yes	Yes	Yes	...	...	Yes	Yes
DeWitt Clinton	1.77	231,291	4,017.97	017	Yes	Yes	Yes	42	100	Yes	...
East 17th Street	.12	73,275	1,499.78	024+	Yes	Yes	Yes	...	...	Yes	...
Five Points	.17	81,277	1,993.82	024	Yes	Yes	Yes	...	...	Yes	Yes
*Grace	.10	3,605	77.54	021	...	...	...	...	...	...	...
Hamilton Fish	1.84	491,689	5,445.14	009+	Yes	Yes	Yes	...	...	Yes	...
High Bridge	.25	43,317	1,110.90	014	...	...	...	...	...	...	...
Hudson	.13	268,413	2,599.68	009+	Yes	Yes	Yes	...	...	Yes	...
Jackson Square	.13	9,075	298.43	032	...	...	Yes	...	...	Yes	...
Jasper Oval	2.06	430,091	1,964.69	004+	Yes	Yes	Yes	...	...	...	...
John Jay	1.34	353,120	5,167.60	014+	Yes	Yes	Yes	10	...	Yes	Yes
Mount Morris	1.10	24,060	200.89	008+	...	...	...	...	...	...	...
Queensboro	1.11	182,618	2,785.42	015+	Yes	Yes	Yes	6	62	Yes	Yes
Reservoir Oval	.85	31,955	Included in Highbridge	014	Yes	...	Yes	...	...	...	...
Riverside Oval	5.00	18,322	765.68	014	...	...	...	...	...	...	...
Riverside (96th Street)	1.00	36,730	...	...	Yes	Yes	Yes	...	...	Yes	Yes
Ryan	.18	41,903	2,127.30	050+	...	...	Yes	...	...	...	...
St. Gabriel's	1.14	224,155	4,093.65	018+	Yes	...	Yes	...	...	Yes	...
St. Nicholas	.28	7,220	85.60	010+	...	...	...	...	...	Yes	...
*St. Peter's (Staten Island)	1.00	6,685	240.08	035+	...	...	...	...	...	...	...
Seward	1.00	542,243	5,138.75	009+	Yes	Yes	Yes	50	78	Yes	...
Thomas Jefferson	4.18	327,342	4,264.09	013+	Yes	Yes	Yes	22	50	Yes	...
Tompkins Square	1.25	586,037	6,155.88	010+	Yes	Yes	Yes	...	...	Yes	...
Watergate (134th Street)	1.67	27,437	731.54	027	...	...	...	...	...	...	...
Westerleigh (Staten Island)	.90	7,126	319.53	044+	...	...	...	...	...	...	...
W. 59th Street	.45	129,519	3,121.80	020	Yes	Yes	Yes	...	...	...	Yes
Yorkville	.75	276,099	5,539.11	020+	Yes	Yes	Yes	8	...	...	Yes
*18th Street and 10th Avenue	.50	43,275	1,308.71	030+	Yes	...	...	...	...	...	...
19th Street, near 1st Avenue	.25	4,825	98.50	020+	Yes	...	...	...	...	...	...
*44th Street and 12th Avenue	.75	19,816	580.37	029+	...	...	...	...	...	...	...
67th Street and 1st Avenue	1.00	74,668	1,236.18	016	Yes	...	...	...	...	...	...
*67th Street and West End Avenue	.15	18,206	520.52	029	...	...	...	...	...	...	...
*136th Street, near 5th Avenue	.50	14,062	824.08	020+	...	...	...	...	...	...	...
*138th Street and 5th Avenue	.45	25,770	...	...	...	...	...	...	...	...	...
*147th Street, near 7th Avenue	1.00	...	...	...	...	...	...	...	...	...	...
Fort Washington 175th Street	2.00	36,314	262.09	007+	...	...	...	...	...	...	...
Esplanade, Williamsburgh Bridge	.10	6,380	79.12	012+	...	...	...	...	...	...	...
INDOOR GYMNASIA.											
Hamilton Fish	...	66,562	Included in Playground	...	Yes	Yes	Yes	3	50	...	Yes
W. 59th Street	...	27,858	Included in Playground	...	Yes	Yes	Yes	6	118	...	Yes
Carmine Street	...	14,007	462.03	...	Yes	Yes	Yes	...	156	...	Yes
Cherry and Oliver Streets	...	13,372	507.65	...	Yes	Yes	Yes	...	68	...	Yes
E. 54th Street	...	19,901	550.33	...	Yes	Yes	Yes	...	107	...	Yes
Rutger Place	...	18,490	398.01	...	Yes	Yes	Yes	...	...	...	Yes
W. 28th Street	...	15,828	305.80	...	Yes	Yes	Yes	...	169	...	Yes
RECREATION PIERS.											
Albany Street	250 x 45 ft.	22,188	749.08	034	...	...	...	...	...	...	...
Barrow Street	100 x 50 ft.	72,301	2,012.96	028+	...	...	...	...	...	...	...
Market Street	140 x 54 ft.	200,948	2,001.98	010	...	...	...	...	...	...	...
East 3d Street	150 x 52 ft.	284,972	2,343.68	009	...	...	...	...	...	...	...
East 24th Street	150 x 52 ft.	359,456	2,231.69	006+	...	...	...	...	...	...	...
East 112th Street	101 x 52 ft.	153,156	1,961.05	012+	...	...	...	...	...	...	...
West 50th Street	150 x 52 ft.	185,653	2,260.06	012+	...	...	...	...	...	...	...
West 129th Street	150 x 52 ft.	147,962	2,213.06	015	...	...	...	...	...	...	...
Skating, Central Park	...	200,300	...	...	...	...	...	...	...	...	...
Coasting, Central Park	...	2,300	...	...	...	...	...	...	...	...	...
Undistributed Expense	...	...	22,303.04	...	...	...	...	...	...	...	...
Totals	...	9,485,610	\$132,329.42	013+	...	...	...	...	...	...	...

* Play Lots.

DEPARTMENT OF PARKS, MANHATTAN AND RICHMOND.

FACILITIES PROVIDED

[illegible]

REPORT OF DIRECTOR OF CHILDREN'S SCHOOL FARMS.

During the year 1915 there were five school farm gardens under the jurisdiction of the Park Department, as shown in the following table:

Established	Name	Location	Size
1902	DeWitt Clinton Park....	52d to 54th Sts., 11th and 12th Aves.....	$\frac{3}{4}$ acre
1911	Thomas Jefferson Park..	111th St. to 114th St., East River.....	2 acres
1913	Corlears Hook Park....	Jackson, South, Corlears and Cherry Sts.....	$\frac{3}{4}$ acre
1914	Isham Park.....	211th St. and Broadway...	1 acre
1914	Seward Park.....	Canal St. and East Broad- way.....	6,500 sq. ft.

The total cost of conducting this activity for the year 1915 was \$16,820; provision being made for one Director, one Assistant Director, two Head School Farm Attendants, and twenty temporary attendants. The temporary attendants are employed from May to October to take care of the additional work during the seasons in which the children harvest the crops, the first planting being made in May and the crop harvested in July, the second planting made in July and the crop harvested in October.

Methods of Operation.

The method of operating the school farms briefly stated is as follows:

A blackboard bulletin in the School Farm notifies the children of the time for registration, different days being reserved for boys and girls. All plots available are given out to children in order of their registration, the only qualification being that children should be over six years of age. Tags bearing their plot numbers are given to the children at time of registration. Immediately following registration, School Farm Attendants take groups of children to lesson plots, where a model planting lesson is given. The children then plant the plots assigned to them. Each individual plot is 4 x 8 feet. A systematic method of spading which has been in practice for several years has made it possible for the children to do more and more thorough work in preparing the ground. Spading is done by children in spring, midsummer and fall, assisted by Park Department laborers.

Progress in 1915.

Substantial progress has been made during the past year in obtaining the co-operation of the Board of Education, the district superintendents

and the principals of the public schools of Manhattan in making available to children in the public schools the farm garden plots for nature study work. In the school farm garden in Thomas Jefferson Park 1,200 school children were assigned plots, and as a part of the regular curriculum of public school No. 102, were sent two or three times a week for nature study work into the school farm garden. The public school teachers in this case worked in close co-operation with the school farm attendants. 3,544 different children had regular plots in 1915 in this garden, and 26,943 at various times during the year used the garden as a nature study laboratory.

Anemic and Backward Children.

A valuable laboratory has been provided for anemic and backward children who have obtained great benefit from their outdoor work.

In Thomas Jefferson Park through the cooperation of the Department of Parks, Board of Education, and generous friends, two classes of anemic children were provided for. They hold their school sessions on the open air platform and in the attractive little cottage. At Corlears Hook Park, a fresh air class has been conducted under most trying conditions on the two little piazzas of the little cottage. There is a prospect of having a suitable platform for their use soon.

Each child provides its own lunch of potatoes, apples, eggs and cocoa. The apples are placed in the oven on a piece of paper, on which is written each child's name. Before putting the eggs in the water to boil, each child writes his own name on his or her egg. As a result of the outdoor treatment the class of 1913-14 at Corlears Hook Park grew so well and strong, they were able to return to their own grades in school, and different children sent out to take their places. Thus making it very much worth while to do this work.

Other schools which cannot be accommodated on the platform send their anemic children to the Thomas Jefferson Park garden for a little work, their lunch, a rest period, and then back to school. Several schools also send their children over to the garden to shovel snow, knowing the benefit derived from this exercise. With comparatively small expense all the children needing this treatment near Thomas Jefferson Park could be accommodated. There are four hundred children not provided for, and plenty of space. Pupils admitted to the class generally remain for one school year. During and at the end of that time, they undergo physical and medical examinations. Those who show sufficient improvement are returned to the regular grades. The pupils of the Open Air Class are under medical supervision at all times. Where possible, defects are corrected or treated. Individual records are kept of height, weight, physical, and mental condition, treatment and improvement. Daily, at eleven o'clock the children are served with some nourishing food. The regular grade is correlated with nature study, special corrective physical training adapted to the needs and defects of the individual, and farm work.

Open Air Work and Study Builds Up Children.

The child obtains good physical exercise. Muscles are used, which ordinarily are seldom brought into play.

They are made familiar with garden implements, receive a primary idea of agriculture, and are brought closer to nature.

They become accustomed to cold, fresh air, and sunshine, and cultivate a love for open air outdoor work.

They develop a sense of individual ownership (through individual garden plots) and respect for the property of others, a sense of responsibility and care in looking after their plots and garden implements, and a sense of reverence and love for Nature, Nature's Laws, and Nature's God.

Various Phases of School Farm Work.

The cooperation of the public school principals made possible the participation of a larger number of children in the various phases of school farm garden work. One public school sent a class for spading and raking into the school farm every hour from 9.30 A. M. to 2.30 P. M. during the school season. Even the kindergarten classes enjoyed the work of spading and raking and did it efficiently with implements suited to their size and strength.

Decorative flower beds are included in the school farm, consisting of flowering bulbs, followed by flowers and bedding plants set out with careful arrangement of attractive colors. A variety of economic plants are grown in the school farms, near the fence, with descriptive signs turned outward, to interest the adults of the neighborhood. To a much larger extent than ever before the children planted bulbs in all gardens, remembering the lessons of the year previous as to space, depth, and method of planting. This fact proves that the children who have training in the gardens year after year, **grow less excitable and nervous**, and realize that unless they follow proper methods there will be no successful results.

Talks and experiments on **elementary problems of nature study** have been prosecuted successfully. For example—the children are taught to use the leaves of the various plants as storage houses for food and as respiratory organs, also the color of the leaves and how the color is benefited by light. This is demonstrated by enclosing leaves in small pieces of paper for a stated time to show how absence of light affects the color. A comparison is made of the veins of the leaves of different plants. **The effect of water on plants** is also thoroughly explained—how it is absorbed and how it is disposed of. How mineral food for plants is dissolved and carried into the plant by water. A comparison is made of the effect of rain on plants as compared to artificial watering. Information in this connection is gained by observation in the daily farm garden work. **Practical work in watering the garden**, saving moisture by mulching, ditching and raising plots to carry off the water, weeding to save water, etc. Some **knowledge of elementary forestry** is also obtained. The children are shown that water falling on a barren

hillside will wash away the land, whereas a hillside planted with trees (in the experiment as conducted in the farm garden the hillside was thickly planted with buckwheat) protects the soil and saves great quantities of useful land.

Lectures are given on the more important varieties of vegetable plants and industrial crops. Practice work is obtained by studying the various varieties with the microscope. The effect of warmth from sunlight on plants is demonstrated by covering the plants to exclude sunlight, covering the plants to exclude part of the light and comparing the results.

Some knowledge is also obtained of the common varieties of insects, those which are friends and those which are enemies of plants. Children are taught the simple remedies necessary to prevent the breeding of mosquitoes. They are shown the use of the friendly insects, for instance, the ladybug. They are trained to study and analyze the habits of the insects they find in their gardens. In short, the children in the training they receive in the farm gardens, prepared the ground for planting, plant seeds, grew vegetables, harvested, cooked and ate the food they grew.

Harvest Home.

In DeWitt Clinton Park, the Harvest Home was held indoors. Long tables were set in the hall, accommodating one hundred children, at a time, alternating boys and girls. Children were delegated in groups to cook, serve and set tables.

At Isham and Corlears Hook Parks, the cooking was done out of doors with improvised brick ovens, served on improvised tables. The children brought their own pots, kettles, pans, plates, knives and forks, and marked them with their own name or plot number.

At Corlears Hook Park, a very effective totum pole had been erected on which twenty-three varieties of vegetables were used in an effective design. The celebration took place there on a Saturday, and as this totum pole would have to be taken down in a few days, it was decided to trust the neighborhood and leave it up over Sunday, together with other decorations. Thousands of people viewed it and not a thing was molested. This has been the case in every neighborhood where the gardens have been in operation over a year. There have been no depredations in any garden during 1915. Thus justifying the faith of the founder in the better side of human nature.

One of the most important lessons gained from this experience of Harvest Home, was the learning how to do things simply and effectively and the thorough cleaning up after the feast was completed. Within two hours of the completion of the meal there was no evidence left of the celebration.

A Public School Principal near Thomas Jefferson Park, stated in 1915 that his pupils (boys) attended school without fear, and his classes visited the garden in the fall for nature study without molestation from gangs. Whereas in former years the boys crossed the streets north of the school in terror, because of the stone fights, and the classes were not only hooted at, but missiles were thrown at them. He claimed that the influence of the garden had eliminated all of these adverse conditions.

CONCESSIONS.

The policy of applying business methods in awarding park concessions which was introduced in 1914 was continued during the past year. This policy divided the park concessions into two classes, as follows: 1—Those concessions earning an income of less than \$1,000 a year to the concessionaire and therefore returning to the city an income of less than \$200, are awarded to individuals deserving charity treatment, after an investigation has been made of each case by the associated charities of the city. 2—Those concessions earning an income of \$1,000 a year or more and therefore returning to the city an income of \$200 a year or more, included the more important concessions, such as restaurants, candy privileges, etc., and are treated strictly as business propositions, advertised in each case for public bidding and awarded thereafter to the highest responsible bidder.

MUNICIPAL OPERATION OF RESTAURANT CONCESSIONS NOT PERMISSIBLE UNDER CHARTER.

After a most careful survey and study of the restaurant concession question in most of the large cities in this country, the Commissioner decided that it would be good policy to operate municipally the more important restaurant concessions. The survey showed that there was an increasing trend toward municipal operation of restaurants, boating and skate concessions throughout the country, and in the case of this type of concession the older system of renting such privileges to the highest bidder was gradually being abandoned. **In order to find out his exact powers under the Charter the Commissioner asked the Corporation Counsel of the city for an opinion on the following matters.** Would it be possible for the Park Commissioner to operate municipally for the city: 1—The boating concession on the large lake and Harlem Mere in Central Park, and also the skating facilities in the winter. 2—The Central Park restaurants which include the Casino, McGown's Pass Tavern and the Arsenal Restaurant, and other restaurants in the park system. 3—The Carrousel with the privilege of charging users a small fare. 4—A number of small soda stands in the various parks and on recreation piers.

The Corporation Counsel in rendering his opinion on these questions stated that he believed that according to the Charter the Park Commissioner was not empowered to operate the above mentioned activities municipally. **However in a later opinion the Corporation Counsel modified his earlier statement so as to permit the operation of the boating and skating concessions.** The department contemplates giving all persons free use

of boats for the first half hour and then to impose a fee of \$0.25 per half hour for boats which are kept out for an additional period. The Corporation Counsel agreed that such a procedure would not be a violation of the Charter and the imposition of a fine and the fixing of the amount thereof came within the powers of the Park Board.

In order to take advantage of this opinion of the Corporation Counsel with regard to the municipal operation of the boating and skating concessions, request was made to the Mayor, and upon receipt of his answer to the Board of Aldermen, for the issue of revenue bonds which would allow for the purchase of an adequate plant and sufficient attendants to take charge of this additional work. It is to be hoped that this request will be acted on so that the boating facilities may be operated municipally at the opening of the spring season.

RESTAURANT CONCESSIONS IN CENTRAL PARK.

When the department found that it was legally unable to operate the restaurant privileges and other types of concessions municipally and since it seems impossible to obtain the necessary legislation for such action from the current legislature, the Commissioner was obliged to make other arrangements for the carrying on of this form of service for the park users. Several important leases had expired, and the concessionaires were continued on a month to month basis pending the receipt of the necessary opinion from the Corporation Counsel.

The department had received numerous applications for the privilege of operating the three restaurants in Central Park. Several offers being received for the operation of the three restaurants together, and other offers for the individual restaurants. As the city had been subject in the past to unfortunate experiences from allowing concessionaires to make structural repairs to the building and allowing an offset in their rental for this reason, the Commissioner decided to call a conference of all those who were interested in securing new leases of these restaurants and to submit to them a proposition whereby the city would provide certain amounts for the structural repairs of the building and those interested would take this fact into account in submitting bids for the operation of the restaurant. This conference was held on Monday, December 27th, and fourteen individuals interested in these restaurants were present in addition to the Commissioner, the Secretary of the Park, Board and the Department Architect. The whole matter was thoroughly discussed and the Commissioner asked for the opinions of the various people interested particularly on the following subjects: 1—**What kind of repairs are necessary to the best operation of the three restaurants.** 2—**What term of leases should be given.** 3—**Methods of operation to secure greatest popular use to the restaurants** with particular reference to methods adopted in parks of various cities—London, Paris,

Berlin, Boston, San Francisco, St. Louis, etc. (Under this head it was also discussed whether dancing would be advisable in one or more of the Central Park restaurants). 4—**Whether all three of the restaurants or any two should be let to one lessee.** It was unanimously agreed that in the specifications submitted to those who would bid there be included the amount of money to be expended in each restaurant building on structural repairs. The park space adjacent to each of the buildings would be considered appurtenant to each restaurant and in which tables might be set. The terms of the lease and a provision for the detail concerning structural repairs should be decided on after conference between the architect of the proposed lessee, the Commissioner and the Architect of the Park Department. The majority of those present at the conference agreed that McGown's Pass Tavern was so structurally arranged and situated that it would be practicable to operate a "multiple class" restaurant there, similar to the restaurant at Bear Mountain, and to those in the parks of various European and American cities. It was thought that it would be impracticable to operate a "multiple class" restaurant at the Casino. The suggestion was advanced that the space now used for parking automobiles at the Casino be set apart as an outdoor dining room extending to the pergola overlooking the Mall, a similar arrangement to that now existing at the Claremont. Several of the applicants interested primarily in only one of the Central Park restaurants expressed their willingness to operate all of them provided the city deemed it advisable for purposes of uniform control to have all under one lessee. While most of the applicants favor the ten year lease they agreed if necessary to make proposals on the five year term, which would give the next city administration an opportunity to change the method of operation if at that time such action was deemed advisable. **As the result of this conference Commissioner Ward made application to the Board of Aldermen for revenue bonds to make the necessary repairs to these buildings.** The application asked for the following amounts:

Necessary repairs to McGown's Pass Tavern	\$14,000.00
Necessary repairs to The Casino.....	10,000.00
Necessary repairs to The Arsenal Restaurant	2,550.00
	—————\$26,550.00

This application was pending in the Board of Aldermen at the close of 1915.

(On March 7th, 1916, the Board of Aldermen granted \$23,550.00.)

THE CARROUSEL IN CENTRAL PARK.

The privilege of operating the Carrousel in Central Park expired October 1st, 1915. This was one of the privileges which according to the terms agreed upon in previous administrations had been operated on a percentage basis. This lease was continued temporarily until the end of 1915 on this basis. By the terms of the lease the buildings and apparatus have now

become the property of the city. There are several applicants for the privilege of operating the carrousel on the basis of erecting a new building and installing a new machine. On December 15th the Commissioner called a conference of those interested in this concession. The majority of those present were of the opinion that a minimum lease of ten years was essential for the city to obtain the most advantageous offer. Informal estimates were received from those interested that it would cost at least \$12,000 to erect and equip a proper building. Other estimates of \$16,000 and \$20,000 were also made. The department, however, was not disposed to give a lease extending for more than a term of five years. In view of the fact that the department and the prospective bidders could not agree on the term of the lease, this conference was adjourned without any agreement being reached, with the understanding that those interested would meet early in 1916 after considering the questions which had been brought up at this conference. After this it is proposed to put this concession up to public bidding.

MINOR CONCESSIONS.

The Commissioner abolished many of the small privileges in the parks. The Department considers many of these to be detrimental to the best Park use, and they are eliminated wherever possible. The privilege of selling candy at the Menagerie was separated from the Arsenal restaurant privilege, and the candy privilege at public bidding resulted in a lease for \$162 per month.

An effort was made to consolidate the small refreshment stand privileges on the various recreation piers and in the smaller parks, and place them under the control of the Nathan Straus Laboratories, which operated milk booths adjoining these stands in all of the locations. The Straus Laboratories, however, declined to undertake this work, and the Department was obliged to continue these privileges as separate units. Stricter enforcement of the health regulations, due to better cooperation on the part of the police, have improved the quality of refreshments and service maintained by these small stands. The matter of ridding the parks of newsvenders, operating without permits, was actively continued during the season of 1915. The Bureau of Penalties of the Corporation Counsel's office cooperated in prosecuting several of these cases, and obtained convictions in the magistrates' courts. The task of continuing this was made difficult by the general city ordinance exempting from license persons selling papers on city streets, and since many of the most congested streets abut on portions of parks, the selling of newspapers by unlicensed vendors constitutes a most serious obstruction to the public on sidewalks bounding the parks on a street side. It has been most difficult to enforce the law since many of the magistrates are unwilling to consider the exterior sidewalk fronting on a street as park territory. For example it is the custom during the summer season for fruit wagons to drive along City Hall Park and deposit boxes of

fruit on the already congested sidewalk, interfering with the crowd proceeding to the Brooklyn Bridge, the subway stations and the elevated stations, while trying to sell their wares. This condition is especially in evidence when the park employees go off duty, which is in the height of the evening rush hour of persons going home from work.

Some years ago when traffic conditions were not a serious problem there was no such serious objection as now exists to the operations of the large number of vendors in park area.

However, at the present time it is quite clear to this administration that the parks must be freed from all concessions of this character which do not specifically render the parks thereby more useful to the public using them. This is both true as to those who go into the parks for recreation and rest, as well as those who cross the parks in transit.

MUSIC.

MUNICIPAL BAND SYSTEM GIVES BETTER MUSIC AT DECREASED COST.

The park music season of 1915 saw the creation of a new municipal band system for concerts in the small parks and on the recreation piers. A distinct advance in the quality of music and the method of appointment and supervision had been made the previous season by appointing the leaders for a larger number of concerts, and by giving these leaders longer engagements in particular neighborhoods, so that the old practice of apportioning a very small number of concerts to a large number of individual leaders was done away with.

The good results obtained by giving longer engagements to fewer leaders, and concentrating public attention upon these leaders by placing them in a single neighborhood where they came in sympathy with the needs of the locality, had such a good effect that the Commissioner decided to divide the Borough of Manhattan into three municipal band districts, and create a permanent organization for each district, to play during the entire music season.

After conference with the Musical Mutual Protective Union, the Department obtained from the Union a substantial concession in the matter of rates. The Union agreed that bands composed of its members should give seven performances a week at the price of \$28 per man per week, and \$42 per leader per week. This brought the rate per concert, which formerly was \$115 down to \$92, and made possible a substantial addition to the schedule of concerts. It also enables the leaders to employ the men for the whole concert period, and this steadiness of employment resulted in their being able to secure a better type of man for park concerts. The consideration of permanent organization also brought about more harmony, and in this way also a superior kind of music.

The three leaders appointed for the Manhattan concerts were

Gustave d'Aquin for the West Side District,
Louis Schmidt for the Up-Town District,
William Schwartz for the East Side District.

These men were selected from the leaders appointed the previous year on the recommendation of the Music Committee. Each one of them was well known in the section where he was appointed to lead the concerts, having played concerts in that section the previous year, and having given satisfaction.

New Methods Make Possible More Concerts.

The creation of these municipal band districts and the organization of municipal bands under the new schedule, made possible by the reduction of rate granted by the Musical Union, did a great deal to help out in the serious situation, due to the reduction in music appropriation. The appropriation for music in the year 1914 was \$49,500. There had also been a special appropriation to provide for concerts on recreation piers, which amounted to \$5,072. In 1915 the park appropriation for music was \$25,210, and with this amount it was necessary for the department to furnish music, formerly provided for by both the Park and the Dock Department appropriations. In order to meet this situation, in so far as it was not provided for by the increased number of concerts, made possible by the weekly rate of the Mutual Union, a transfer of \$1,000 from Park Funds was made to purchase ten specially constructed graphophones to furnish music for the recreation piers. These graphophones were mounted on wheels, and could be transferred from point to point. They cost \$999 including thirty records each. During the winter these have been used for the gymnasias, and their use has proven highly satisfactory.

CENTRAL PARK CONCERTS.

The reduction of the appropriation in 1915 also made necessary the elimination of a great many of the concerts formerly given in Central Park. Seventy-six concerts, orchestral and band, were given in Central Park during the season of 1914. Seventeen concerts, orchestral and band, in 1915. Three of the concerts in 1915 in Central Park were given by the orchestra headed by Franz Kaltenborn, with funds supplied through the generosity of Elkan Naumburg; Mr. Milton Schnaier contributed \$50 for solos for the concerts of the First Regiment Field Artillery in Central Park. The decrease in the appropriation and reduction of concerts in Central Park also brought about a reduction in the number of musicians employed in the bands and orchestras. In 1914 fifty-two men were employed in each, while this number was reduced in 1915 to forty men. The orchestral concerts given in Central Park were given by Adolph Rothmeyer, Director of the popular Sunday Night concerts at the Metropolitan Opera House; the band concerts in Central Park were given by the First Regiment Field Artillery Band, headed by W. S. Mygrant. The band concerts were extremely popular and successful.

SPECIAL CONCERTS.

An effort was made to procure additional funds to supply added concerts, but without success, although this effort was supported by the representatives of the Musical Union and various organizations of music lovers. When it was seen that additional funds could not be obtained, the Kips Bay

Neighborhood Association donated a series of eight concerts in St. Gabriel's Park. Another concert at John Jay Park was given by thirty-five members of the Orchestra of the East Side House Settlement.

The department decided to give official recognition for the first time to the celebration of Emancipation Day on September 22d in the Harlem section largely inhabited by our colored fellow citizens. A band composed of colored musicians and headed by a colored leader was engaged to furnish music. This band conformed to the standard small park instrumentation. A chorus of colored singers was also engaged for the celebration, which took place on a public playground in the heart of the largest colored neighborhood in the city.

Music was furnished for athletic games, given in the Labor Day's celebrations at four important playgrounds; at the Washington Birthday celebration, Jumel Mansion, Roger Morris Park, and on various other occasions.

The department is of the opinion that furnishing music at small expense on the special fete of particular importance to the individual neighborhood is sound policy as it stimulates the civic spirit of the neighborhood, which in turn reacts on the condition of the parks where these affairs took place. the success of these local celebrations is assured by the addition of music by a standard small park band of twenty-one men and leader at a cost of \$115 per concert.

FINANCIAL STATEMENT

1915

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THE CITY OF NEW YORK.

Department of Parks, Manhattan and Richmond.

Statement of the Condition as at the Close of Business, December 31, 1915, of All Appropriation Accounts for the Current Year, and of Appropriation Accounts for Prior Years Having Unexpended Balances.

Code No. 1915	Title of Account	Appropriations as Adjusted	Total Expenditures and Liabilities	Unencumbered Balances
	Accounts Other Than Personal Service			
1101	Park Board, Contingencies.....	\$200.00	\$198.65	\$1.35
	Forage and Veterinary Supplies—			
1129	Care of Parks and Boulevards.....	13,578.00	13,577.89	.11
1130	Care of Menagerie.....	14,000.00	13,916.33	83.67
1131	Fuel Supplies.....	14,671.25	14,668.78	2.47
1132	Office Supplies—			
	(a) Administration.....	2,570.00	2,519.03	50.97
	(b) Care of Children's School Farms..	40.00	26.15	13.85
1133	Medical and Surgical Supplies.....	75.00	73.62	1.38
1134	Motor Vehicle Supplies.....	1,550.00	1,340.72	209.28
1135	Laundry, Cleaning and Disinfecting Supplies.....	475.00	400.01	74.99
1136	Educational and Recreational Supplies..	1,225.00	1,217.99	7.01
1137	Botanical and Agricultural Supplies—			
	(a) Care of Parks and Boulevards....	17,350.00	17,331.44	18.56
	(b) Care of Children's School Farms..	150.00	143.55	1.45
1138	General Plant Supplies—			
	(a) Administration.....	175.00	174.65	.35
	(b) Care of Parks and Boulevards....	2,700.00	2,593.19	106.71
	(c) Care of Children's School Farms..	60.00	56.95	3.05
1139	Office Equipment.....	765.00	764.41	.59
1141	Motorless Vehicles and Equipment—			
	(a) Administration.....	50.00	36.50	13.50
	(b) Care of Parks and Boulevards....	130.00	90.67	39.63
1142	Motor Vehicles and Equipment.....	1,100.00	941.22	158.78
1143	Educational and Recreational Equipment	1,675.00	1,656.33	18.67
1144	General Plant Equipment—			
	(a) General.....	8,210.00	8,202.59	7.41
	(b) Operations of Playgrounds.....	1,100.00	1,097.40	2.60
	(c) Care of Children's School Farms..	145.00	144.29	.71
1145	Highway Materials.....	4,810.00	3,786.22	1,023.78
1146	Building Materials.....	10,800.00	10,676.84	123.16
1147	Motor Vehicle Materials.....	225.00	144.77	80.23
1148	General Plant Materials.....	12,530.00	12,457.53	72.47
1149	General Repairs.....	20,000.00	19,892.00	108.00
1151	Shoeing and Boarding Horses, including Veterinary Service.....	1,692.36	1,561.00	131.36
1152	Carfare—			
	(a) Administration.....	1,940.00	1,849.26	90.74
	(b) Operation of Playgrounds.....	500.00	460.15	39.85
	(c) Children's School Farms.....	60.00	58.50	1.50
1153	Communication.....	3,350.00	3,305.17	44.83
	General Plant Service—			
1154	General.....	1,217.87	989.00	228.87
1155	Operation of Playgrounds.....	32.64	1.50	31.14
1156	Music.....	24,010.00	23,449.00	561.00
1157	Motor Vehicle Repairs.....	150.00	121.40	28.60
1158	Contingencies—			
	(a) General.....	506.50	487.61	18.89
	(b) Children's School Farms.....	40.00	35.69	4.31

Code No. 1915	Title of Account Accounts Other Than Personal Service	Appropriations as Adjusted	Total Expenditures and Liabilities	Unencumbered Balances
1172	Jumel Mansion—Supplies.....	287.00	286.25	.75
1173	Jumel Mansion—Contract or Open Order Service.....	200.00	188.50	11.50
1180	Grant's Tomb—Contract or Open Order Service.....	5,000.00	.....	5,000.00
1186	New York Public Library Building—Contract or Open Order Service.....	24,000.00	22,431.97	1,568.03
1195	New York Aquarium—Salaries and Expenses.....	47,000.00	46,991.66	8.34
		\$240,345.62	\$230,350.18	\$9,994.44

Accounts Other Than Personal Service.

	Salaries Regular Employees—			
	Administration—			
1110	General.....	\$53,220.00	\$52,345.36	\$874.64
	Engineering—			
1111TC	Tax Levy and Corporate Stock Force.....	10,837.50	10,835.04	2.46
	Architectural—			
1113	Care of Parks and Boulevards.....	19,200.00	18,190.00	1,010.00
1116	Care of Bath Houses and Comfort Stations.....	39,900.00	1,256.69	1,256.69
1117	Care of Menagerie.....	14,855.00	359.84	359.84
1118	Care of Children's School Farms.....	4,900.00	53.34	53.34
	Wages Regular Employees—			
1121	Care of Parks and Boulevards.....	213,107.65	198,902.07	14,205.58
1122	Care of Trees in City Streets.....	2,348.25	1,433.90	914.35
1123	Care of Bath Houses and Comfort Stations.....	2,372.50	2,372.06	.44
	Wages Temporary Employees—			
1124	Care of Parks and Boulevards.....	368,705.00	364,344.72	4,360.28
1125	Care of Trees in City Streets.....	10,255.00	10,039.12	215.88
1126	Operation of Playgrounds and Piers.....	73,707.00	72,435.05	2,171.95
1127	Care of Bath Houses and Comfort Stations and Piers.....	48,155.60	44,733.57	3,422.03
1128	Care of Children's School Farms.....	11,425.00	9,764.43	1,610.57
1150	Public Recreation Commission.....	3,500.00	3,489.46	10.54
1171	Public Recreation Commission.....	1,825.00	1,820.00	5.00
1431	.....	2,676.25	2,221.63	454.62
1432	.....	45.50	43.75	1.75
		\$881,035.25	\$851,005.29	\$30,029.96

THE CITY OF
DEPARTMENT OF PARKS—BOROUGHES
STATEMENT OF EXPENSES FOR TWELVE

DIRECT PARK EXPENSES				
	General Expenses	Super- vision and General Expenses	Care of Roads, Paths and Drive- ways	Care of Trees, Shrubs, Flowers and Lawns
General Administration	\$77,250.49			
Automobile Service.....	7,326.60			
Park Board.....	31,506.25			
Parks and Playgrounds (Manhattan)—				
Battery Park.....		\$1,051.84	\$4,954.46	\$2,143.77
Bryant Park.....		645.21	2,692.56	2,626.84
Central Park.....		17,339.74	65,002.54	62,288.64
Chelsea Park.....		884.06	929.13	542.14
City Hall Park.....		805.36	4,787.87	2,723.28
Colonial Park.....		1,119.67	1,667.47	1,694.55
Columbus Park.....		770.81	1,004.01	62.02
Corlear's Hook Park.....		443.42	1,578.39	1,135.78
DeWitt Clinton Park.....		858.34	1,570.83	929.68
Hamilton Fish Park.....		569.44	1,656.94	319.92
Five Points Playgrounds.....				
Fort Washington Park.....		272.55	859.10	212.45
Harlem Lane Park.....				
Hightbridge Park.....		319.22	688.84	2,238.44
Hudson Park.....		760.30	1,157.35	720.47
Isham Park.....		488.84	724.61	953.86
John Jay Park.....		314.41		108.98
Thomas Jefferson Park.....		1,937.55	1,846.29	417.63
Madison Square.....		517.36	2,874.88	3,030.09
Manhattan Square.....		305.33	1,190.89	233.83
Morningside Park.....		2,025.23	6,262.22	1,881.99
Mount Morris Park.....		1,334.06	3,910.83	1,163.31
Roger Morris Park.....		249.68	481.39	410.35
Queensboro Playground.....				
Riverside Park.....		7,199.84	23,692.11	15,325.51
St. Gabriel's Park.....		955.30	1,168.43	595.54
St. Nicholas Park.....		1,644.95	2,635.22	1,617.15
Carl Schurz Park.....		2,670.65	3,035.58	970.52
William H. Seward Park.....		2,021.94	1,481.41	549.25
Stuyvesant Park.....		820.10	1,528.84	2,253.44
Tompkins Square.....		1,116.93	2,691.90	1,714.18
Union Square.....		624.91	980.26	1,049.40
Washington Square.....		663.74	2,605.77	4,248.94
West 59th Street Playgrounds.....				
Yorkville Playground.....				
Small Park Square and Triangles.....		2,604.20	7,202.04	2,651.79
East of Riverside Drive, near 190th Street.....				
17th and 18th Streets, Avenue C and East River		79.71	625.29	69.33
Undistributed.....		11,351.01	673.40	5,096.81
Carmensville Playground.....				4.06
Bennett Field.....				
Cherry and Market Streets.....				
Clark Playground.....				
Jackson Square.....				
Jasper Oval.....				
Parkways (Manhattan)—				
Broadway.....		74.13	333.04	2,918.95
Cathedral Parkway.....				44.13
Delancey Street.....		76.19	666.42	474.33
Eighty-sixth Street.....				59.58
Harlem River Driveway.....		1,202.22	4,337.34	541.51
Ninety-sixth Street.....				
Park Avenue.....		234.52	46.40	4,053.21
Riverside Drive.....				
Seventh Avenue.....		86.34	98.40	938.80
Seventy-second Street.....				46.70
West End Avenue.....				479.72
Washington Bridge.....		243.53	655.65	472.43
Parks (Richmond)—				
Silver Lake.....		582.30	270.94	114.37
Washington Park.....		224.76	1,054.05	337.50
Broadway, Bennett Street, Heberton Avenue and				
Veeland Street, Port Richmond.....		214.78	697.81	278.33

NEW YORK.

OF MANHATTAN AND RICHMOND.

MONTHS ENDED DECEMBER 31st, 1915.

DIRECT PARK EXPENSES							
Care of Beaches, Lakes and Shore Lines	Swedish Garden, Play- ground, Athletic Field, Ch. Sch. Farm and Piers	Care of General Park Improve- ment and Prop's	Care of Bath House and Comfort Stations	Care of Buildings and Other Structures (not Other- wise Classified)	Music and Celebra- tions	Total for Month	Increase or (D) decrease
.....	.....	.....	.....	.....	.....	\$77,250.49	.....
.....	.....	.....	.....	.....	.....	7,326.60	.....
.....	.....	.....	.....	.....	.....	31,506.25	.....
.....	\$693.25	\$1,855.08	\$1,074.50	.....	\$739.35	12,512.25	.....
.....	.....	288.82	3,251.39	.....	.....	9,504.82	.....
\$4,325.24	6,829.70	9,608.41	15,093.87	\$11,489.95	4,697.26	190,675.35	.....
.....	3,732.86	421.23	3,602.51	.....	895.82	11,007.75	.....
.....	.....	588.33	.....	.....	84.25	8,989.09	.....
.....	1,442.68	235.29	.....	.....	672.84	6,832.50	.....
.....	1,148.60	237.58	3,332.94	.....	737.62	7,293.58	.....
.....	4,858.72	327.60	2,433.87	303.82	184.00	11,265.60	.....
.....	7,237.95	274.06	6,150.75	290.32	88.51	17,400.44	.....
.....	5,445.14	637.93	4,684.07	.....	770.58	14,084.02	.....
.....	1,993.82	4.54	.....	360.47	.....	2,358.83	.....
22.38	262.09	68.34	653.63	304.86	758.76	3,414.16	.....
.....	1,110.90	798.45	.....	.....	.....	5,155.85	.....
.....	2,599.68	53.41	2,218.11	.....	826.20	8,335.52	.....
.....	1,618.17	154.88	.....	982.87	50.00	4,973.23	.....
.....	5,167.60	34.74	.....	3,988.78	2.82	9,617.33	.....
.....	8,080.10	370.29	7,047.47	1,370.61	.....	21,069.94	.....
.....	.....	1,107.14	1,597.05	.....	387.24	9,513.76	.....
.....	.....	45.28	.....	.....	.....	1,775.32	.....
.....	.....	345.45	1,931.50	.....	739.03	13,185.42	.....
.....	200.89	1,265.83	4,520.75	.....	756.21	13,151.88	.....
.....	.....	154.29	.....	.....	.....	1,295.71	.....
.....	2,785.42	29.53	.....	1,114.14	.....	3,929.09	.....
.....	765.68	5,658.13	10,079.84	.....	224.41	62,945.52	.....
.....	4,093.65	302.71	.....	.....	30.00	7,145.63	.....
.....	85.60	270.32	.....	.....	199.17	6,452.41	.....
.....	2,532.91	401.39	2,544.51	38.70	756.13	12,950.39	.....
.....	5,423.26	346.83	12,633.67	.....	792.23	23,248.59	.....
.....	.....	1,467.79	1,555.93	.....	.....	7,626.10	.....
.....	6,155.88	422.71	3,516.76	.....	744.72	16,363.08	.....
.....	11.55	68.19	3,699.76	.....	.....	6,434.07	.....
.....	.....	298.83	1,988.23	.....	901.02	10,706.53	.....
.....	3,121.80	127.33	.....	2,366.67	.....	5,615.80	.....
.....	5,539.11	32.60	.....	3,340.10	2.50	8,914.31	.....
.....	.....	770.11	3,425.47	5,104.84	1,301.36	23,059.81	.....
.....	1,499.78	12.98	844.81	.....	.....	3,131.90	.....
.....	28,314.57	12,719.16	810.90	.....	61.20	59,027.05	.....
.....	3,608.58	29.64	.....	2,337.67	30.00	6,009.95	.....
.....	196.71	.....	.....	.....	.....	196.71	.....
.....	2,298.17	.....	.....	.....	.....	2,298.17	.....
.....	615.44	.....	.....	.....	49.61	665.05	.....
.....	298.43	14.13	.....	.....	.....	312.56	.....
.....	1,964.69	45.41	.....	.....	.....	2,010.10	.....
.....	.....	560.61	.....	.....	.....	3,886.73	.....
.....	.....	10.38	.....	.....	.....	54.51	.....
.....	.....	256.21	.....	.....	.....	1,473.15	.....
.....	.....	159.30	.....	.....	.....	218.88	.....
.....	.....	1,706.89	503.70	393.92	.....	8,685.58	.....
.....	.....	3,549.35	.....	.....	.....	7,883.48	.....
.....	.....	610.99	.....	.....	.....	1,734.53	.....
.....	.....	.....	.....	.....	.....	46.70	.....
.....	.....	.....	.....	.....	.....	479.72	.....
.....	.....	22.47	.....	.....	.....	1,394.08	.....
.....	.....	.....	.....	.....	.....	967.61	.....
.....	.....	11.78	.....	.....	414.00	2,042.09	.....
.....	.....	200.06	.....	.....	432.00	1,822.98	.....

THE CITY OF
DEPARTMENT OF PARKS—BOROUGH
STATEMENT OF EXPENSES FOR TWELVE

DIRECT PARK EXPENSES			
	General Expenses	Super- vision and General Expenses	Care of Roads, Paths and Drive- ways Care of Trees, Shrubs, Flowers and Lawns
Maine and Willard Avenue, Westerleigh.....		\$79.14	\$50.00
Curtis Field.....			\$86.25
St. Peter's.....			
Small Buildings, except Central Park.....			
Operation of Motor Cycle.....	\$14.62		
Delivering Road Rollers to Park, Bronx.....	2.89		
City Streets—			
Care of Trees (Manhattan).....			9,177.42
Care of Trees (Richmond).....			3,885.22
Labor—Manhattan College.....	3.00		
Removal and Construction of Stand, City College	24.47		
Removal of Buildings, 79th Street, N. R., to			
Central Park.....	5.99		
Removal of Buildings, 76th to 86th Street, River			
Planting Trees, P. S. No. 41.....	2.03		
Miscellaneous Expenses—			
General Park Equipment.....	14,990.16		
Jumel Mansion.....	5,464.83		
Menagerie.....	40,759.00		
Greenhouses and Nursery.....	36,847.92		
Stables.....	65,146.79		
Shops (Overhead).....	36,434.56		
Watagate Playground.....			
Ryan Playground.....			
Williamsburg Bridge.....			
Abingdon Square.....			
Grace.....			
10th Avenue and 19th Street.....			
East 18th Street.....			
44th Street and 11th Avenue.....			
West 67th Street.....			
East 67th Street.....			
Astor Field.....			
136th—138th Street, 5th Avenue.....			
Albany Street Pier.....			
Barrow Street Pier.....			
Market Street Pier.....			
East 3d Street Pier.....			
East 24th Street Pier.....			
East 112th Street Pier.....			
West 50th Street Pier.....			
West 129th Street Pier.....			
Manhattan Bridge.....			
Manure Pit.....	8,474.76		
79th Street Storage Yard.....	4,137.29		
97th Street.....	4,742.54		
86th Street Building used as Storeroom.....	5,181.14		
Police Department.....	22.11		
Observatory.....	107.93		
Trees, City College.....	133.11		
Westfield School Garden.....	11.62		
Saw Mill.....	2,900.23		
Boiler, 79th Street, Riverside.....	447.65		
Erection of Music Stands, 82d Street and 2d			
Avenue.....	14.97		
Erection of Music Stands, P. S. No. 63.....	168.04		
Repair Buildings, opposite Playgrounds.....	57.48		
Hydrant Keys for Fire Department.....	17.66		
Frames for Exhibition by Department.....	4.60		
Hauling Music Stands to P. S. No. 45.....	1.03		
Delivering Plants to Nat. Flower Gld.....	20.00		
Manufactured Goods, Finished.....	2,685.16		
Manufactured Goods, Unfinished.....	68.83		
Flower Exhibition, Grand Central Palace.....	85.66		
Construction Work, Riverside—River Front....	200.50		

NEW YORK.

OF MANHATTAN AND RICHMOND.

MONTHS ENDED DECEMBER 31st, 1915.

DIRECT PARK EXPENSES							
Care of Beaches, Lakes and Shore Lines	Swedish Garden, Play-ground, Athletic Field, Ch. Sch. Farm and Piers	Care of General Park Improvement and Prop's	Care of Bath House and Comfort Stations	Care of Buildings and Other Structures (not Otherwise Classified)	Music and Celebrations	Total for Month	Increase or (D) decrease
	\$319.53				\$422.50	\$957.42	
	4.87				1,408.00	1,412.87	
	240.08					240.08	
						14.62	
						2.89	
						9,177.42	
						3,885.22	
						3.00	
						24.47	
						5.99	
						6.75	
						2.03	
						14,990.16	
						5,464.83	
						40,759.00	
						36,847.92	
						65,146.79	
						36,434.56	
	731.54					731.54	
	2,127.30	35.05				2,162.35	
	79.12					79.12	
	142.87				736.00	878.87	
	77.54					77.54	
	1,308.71	21.58				1,330.29	
	67.23					67.23	
	580.37					580.37	
	520.52					520.52	
	1,236.18					1,236.18	
	2,314.38	384.94				2,699.32	
	824.08				190.92	1,015.00	
	749.08					749.08	
	2,012.96				736.00	2,748.96	
	2,001.98	89.16			555.59	2,646.73	
	2,343.68	10.60			822.10	3,176.38	
	2,231.69	65.43			752.37	3,049.49	
	1,961.05	15.48			738.63	2,715.16	
	2,260.06	9.78			759.87	3,029.71	
	2,213.06	13.91			737.37	2,964.34	
	5.00					5.00	
						8,474.76	
						4,137.29	
						4,742.54	
						5,181.14	
						22.11	
						107.93	
						133.11	
						11.62	
						2,900.23	
						447.65	
						14.97	
						168.04	
						57.48	
						17.66	
						4.60	
						1.03	
						20.00	
						2,685.16	
						68.83	
						85.66	
						200.50	

THE CITY OF
DEPARTMENT OF PARKS—BOROUGH
STATEMENT OF EXPENSES FOR TWELVE

DIRECT PARK EXPENSES				
	General Expenses	Super- vision and General Expenses	Care of Roads, Paths and Drive- ways	Care of Trees, Shrubs, Flowers and Lawns
Moving Furniture from Children's Court.....	\$10.15			
Testing Paint for Aquarium Building	1.75			
Repairs to Aquarium Building	865.00			
Labor Ch. Sch. Farm P. S. Chelsea Park.....	13.87			
Settee Made by Dept., Sample.....	65.05			
Playground Festival, Amst. Opera House.....	127.48			
Repairs, N. Y. Public Library.....	70.45			
Alteration of Truck for Gasoline Tractor.....	34.26			
Taking Inventory of Parks.....	43.53			
Playgrounds, Indoor—				
Carminie Street.....				
Chery and Oliver Streets.....				
East 54th Street.....				
East 19th Street.....				
West 28th Street.....				
Rutgers Place.....				
Total.....	\$346,500.20	\$67,783.61	\$162,370.90	\$145,892.38
Less Manufactures by Department.....				
Grand Total.....				

NEW YORK.

OF MANHATTAN AND RICHMOND.

MONTHS ENDED DECEMBER 31st, 1915.

DIRECT PARK EXPENSES							
Care of Beaches, Lakes and Shore Lines	Swedish Garden, Play- ground, Athletic Field, Ch. Sch. Farm and Piers	Care of General Park Improve- ment and Prop's	Care of Bath House and Comfort Stations	Care of Buildings and Other Structures (not Other- wise Classified)	Music and Celebra- tions	Total for Month	Increase or (D) decrease
.....	.....	.....	.....	.....	.....	10.15	.....
.....	.....	.....	.....	.....	.....	1.75	.....
.....	.....	.....	.....	.....	.....	865.00	.....
.....	.....	.....	.....	.....	.....	13.87	.....
.....	.....	.....	.....	.....	.....	65.05	.....
.....	.....	.....	.....	.....	.....	127.48	.....
.....	.....	.....	.....	.....	.....	70.45	.....
.....	.....	.....	.....	.....	.....	34.26	.....
.....	.....	.....	.....	.....	.....	43.53	.....
.....	462.03	.....	.....	95.47	.....	557.50	.....
.....	507.65	.....	.....	102.22	.....	609.87	.....
.....	550.33	.....	.....	105.99	.....	656.32	.....
.....	98.50	.....	.....	19.84	.....	118.34	.....
.....	305.80	.....	.....	192.73	.....	498.53	.....
.....	398.01	.....	.....	96.68	.....	494.69	.....
\$4,347.62	\$150,408.58	\$49,628.73	\$99,195.99	\$34,400.65	\$26,188.19	\$1,086,716.85	D\$11,176.22
.....	.....	.....	.....	.....	.....	2,685.16	.....
.....	.....	.....	.....	.....	.....	\$1,084,031.69	.....

City of New York.

DEPARTMENT OF PARKS, BOROUGHES OF MANHATTAN AND RICHMOND.

Statement of the Condition of Corporate Stock, Assessment Bond, Special Revenue Bond and Special Accounts as at
December 31, 1915.

Title of Fund or Account	Authorization as Adjusted	Total Expendi- tures and Liabilities	Unen- cumbered Balances
Construction of Foundation for Southeast Wing and Court Building and Architect's Fees for Entire Work.....	\$200,000.00	\$88,191.23	\$111,808.77
Cathedral Parkway—Improvement and Completion of.....	7,055.31	7,055.31	.....
Department of Parks, Manhattan and Richmond—Chelsea Park—Sub-Title No. 1, Sur- veys, Plans, etc.....	5,500.00	145.80	5,354.20
Erection and Equipment of a Comfort Station in Cooper Square.....	25,000.00	24,906.70	93.30
Repaving West Drive and Portions of Middle and East Drive in Central Park.....	100,000.00	100,000.00	.....
Repaving Riverside Drive.....	200,000.00	195,474.66	4,525.34
Improvement to Plaza.....	85,000.00	45,462.17	39,537.83
Northern St. Nicholas Park.....	100,000.00	.....	100,000.00
St. Nicholas, 136th to 128th Streets.....	25,000.00	1,027.22	23,972.78
Isham Park.....	30,000.00	22,799.19	7,200.81
Pipe Sewer from 101st Street Central Park West to Lenox Avenue and Cathedral Park- way.....	23,000.00	36.56	22,963.44
Dredging Opposite Riverside Drive.....	5,200.00	823.81	4,376.19
Erection of Music Pavilion and Comfort Station in Central Park.....	2,500.00	108.40	2,391.60
Erection of Carl Schurz Memorial at 116th Street and Morningside Park.....	25,000.00	22,793.00	2,207.00
Improvement and Construction of Parks, Parkways, Playgrounds, Boulevards and Drive- ways, Boroughs of Manhattan and Richmond.....	3,875.92	3,873.90	5.02
Construction of Colonial Park.....	97,138.51	96,333.84	804.67
Construction of New Concrete and Asphalt Gutters on the Driveways and Bridle Roads of Central Park and Riverside Drive.....	43,130.87	41,471.88	1,658.99

Construction of the Northerly Portion of John Jay Park, lying North of East 77th Street, and the Further Improvement of the Southerly Section of said Park, lying below East 77th Street.....	75,662.06	74,549.09	1,112.97
Extension of High Pressure Water Supply and Irrigation System in Central Park.....	207,694.47	207,544.87	149.60
Improvement of Central Park—Alteration of Comfort Station near Ball Ground.....	14,930.37	14,930.37	.....
Paving of Drives with Bituminous Pavement.....	100,000.00	99,695.14	304.86
Bridle Path.....	18,000.00	96.38	17,903.62
Improvement of Plots on Broadway, from 110th to 122d Streets.....	45,796.99	44,677.84	1,119.15
Improvement of Street on Westerly Side of John Jay Park, between 76th and 78th Streets..	8,500.00	8,365.71	134.29
Improvement of Morningside Park.....	23,800.00	3,386.09	20,413.91
Improvement of Playgrounds throughout the City.....	217,459.94	217,380.10	79.84
Erection and Equipment of Playhouses and Toilet Facilities in Playgrounds throughout the City.....	42,964.07	42,964.07	.....
Metropolitan Museum of Art.			
Completion and Equipment of Extension "H".....	224,000.00	209,080.05	14,919.95
Construction of an Extension, Including Construction and Equipment of a Carpenter Shop.....	1,011,488.45	1,009,750.74	1,737.71
Constructing and Completing Extensions.....	2.25	.....	2.25
Additions "J" and "K".....	750,000.00	731,288.95	18,711.05
Boiler Plant.....	315,000.00	287,469.53	27,530.47
Construction and Repaving of Drives, etc., under Contract, Manhattan and Richmond....	155,961.40	155,883.11	78.29
DeWitt Clinton Park Alterations and Improvements to Pergola Building.....	18,000.00	842.96	17,157.04
Reconstruction of Bulkheads, Easterly Wall of the Speedway, between 155th Street and Dyckman Street.....	226,063.47	214,752.72	13,310.75
Public Park in 7th Ward, Corlears Hook Park Bulkhead.....	42,500.00	1,364.66	41,135.34
Construction of Public Driveway.....	1,847.22	1,847.22	.....
Seventh Avenue Parkway—General Improvement from Central Park to Harlem River....	75,000.00	73,683.71	1,316.29
Improvement of Isham Park.....	142,000.00	133,908.57	8,090.43
New York Public Library Fund.....	9,536,032.64	9,528,640.67	7,391.97
New York Public Library Fund—Electric Generating Plant.....	80,273.09	80,070.20	202.89
	\$14,310,377.03	\$13,792,673.42	\$517,703.61

City of New York.

DEPARTMENT OF PARKS, BOROUGHES OF MANHATTAN AND RICHMOND.

Statement of the Condition of Corporate Stock, Assessment Bond, Special Revenue Bond and Special Accounts as at
December 31, 1915—Continued.

Title of Fund or Account	Authorization as Adjusted	Total Expendi- tures and Liabilities	Unen- cumbered Balances
Corporate Stock Funds.			
Unexpended Balance, January 1, 1915.....		\$1,508,490.13	
Authorized, 1915.....		5,200.00	
Expended, Rescinded and Transferred, 1915.....			\$778,660.62
Unexpended Balance, December 31, 1915.....			735,029.51
		\$1,513,690.13	\$1,513,690.13
Revenue Bond Funds.			
Unexpended Balance, January 1, 1915.....		\$2,570.27	
Authorized, 1915.....		15,700.00	
Expended, 1915.....			\$6,639.11
Reverted to General Fund.....			277.22
Unexpended Balance, Dec. 31, 1915.....			11,353.94
		\$18,270.27	\$18,270.27
Special Revenue Bond Funds.			
Repairs to Monuments and Public Buildings.....	\$6,500.00	\$6,283.00	\$217.00
Forage and Feed for Horses and Animals.....	7,200.00	7,087.92	112.08
Repairs to Aquarium Building.....	2,000.00	2,000.00	
	\$15,700.00	\$15,370.92	\$329.08

General Ledger.....	\$1,071,800.69
Pay Roll and Supplementary Register in January, 1916.....	12,025.34
Direct Charges Registered in January, 1916.....	205.60
Voucher Adjustment.....	.06
	<hr/>
	\$1,084,031.69

APPROPRIATION, 1914.

Unexpended Balance, January 1, 1915.....	\$90,739.30	
Expended, 1915.....		\$63,497.07
Reverted to General Fund.....		26,767.95
Unexpended Balance, December 31, 1915.....		474.28
	<hr/>	
	\$90,739.30	\$90,739.30

FINANCIAL STATEMENT.

Revenues, 1915.

Fees for Privileges for Sale of Refreshments, etc., in Parks.....	\$44,020.82	
Projection Permits on Buildings.....	125.00	
Sale of Animals, Wool, etc.....	990.15	
Interest of Bank Deposits.....	4.80	
Vault Permits.....	1,973.10	
Restoring and Repairing Fund.....	815.00	
Sale of Condemned Property.....	625.85	
Damage to Department Property.....	12.59	
Refund from Dept. W. S., G. & E.....	7.87	
Use of Road Roller.....	10.55	
Saltus Fund.....	1,000.00	
Forfeit of Deposit.....	200.00	
	<hr/>	
Remitted to Chamberlain.....		\$49,785.73

Deposits.

On Account of License Tags:		
On Hand, January 1, 1915.....	\$308.00	
Receipts, 1915.....	25.00	
	<hr/>	
	\$333.00	
Payments.....	31.00	
	<hr/>	
On Hand, December 31, 1915.....		\$302.00
On Account Employees' Badges:		
On Hand, January 1, 1915.....	\$292.00	
Receipts, 1915.....	238.40	
	<hr/>	
	\$530.40	
Payments.....	129.70	
	<hr/>	
On Hand, December 31, 1915.....		400.70
	<hr/>	
Cash on Hand, December 31, 1915.....		\$702.70

APPENDIX C.
The City of New York
DEPARTMENT OF PARKS
Municipal Building
10th Floor

.....191

Permission is Hereby Granted To

To Plant..... as follows:

In accordance with the following specifications, to which the applicant agrees in accepting this permit:

1. *Excavation and top soil:*

The tree pit in each case to be excavated at least 4 ft. x 6 ft. 6 in. in area and 3 ft. deep; as shown on attached print; refilled with good soil, bringing in from the outside as much new top soil as may be necessary, and hauling away all sub-soil so replaced. Where hard pan is encountered at the bottom of the pit, this to be loosened to an additional depth of at least one foot; where rock is encountered, this to be removed to an additional depth of one foot.

2. *Tree:*

The tree used to be from 1½ to 3 inches in caliper, straight of stem and symmetrical in form, of vigorous growth and provided with compact and fibrous roots. Trees used in any single block shall be pruned at the time of planting to secure similar height, shape and size, and no lateral branches shall be left which shall be lower than 7 ft. from the surface of the sidewalk.

3. *Stake:*

Chestnut or oak stake 2½ ft. square and 10 ft. long to be provided. The stake to be driven firmly into the ground and fastened to the tree with canvas strips of rubber hose, care being taken that the stake in no place comes in contact with the bark of the tree. Before use, the stake to be dipped in hot tar or creosote to a depth of 4 ft., and the remaining portion of the stake to be covered with a creosote stain of dark green color.

4. Trees to be set in the new ground to the same depth that they were in the ground before transplanting.

5. The trees to be cultivated and watered at least once a week in dry weather by the owner of the premises in front of which they are set and otherwise to be properly cared for including fertilizing by the owner of the said premises, at his own expense, and to the satisfaction of the Department of Parks.

6. The work of planting to be done under the direction and to the satisfaction of the Department of Parks or its proper representatives, and subject to the rules, regulations and ordinances of the Department of Parks.
7. Tree guards and gratings to be placed around the trees as per attached print.
8. Mould must not be placed in tree hole and tree must not be planted until mould, tree, size of hole and quantity of mould have been inspected and approved by the Department representative.
Department must be notified of date of preparation of tree hole and proposed planting.
9. All the work, above referred to, shall be performed without cost to the department and the holder of this permit agrees to hold the City of New York and the Department of Parks free from all liability by accident to persons or property however caused, through the exercise of this permit. A cash deposit of \$ per tree must be made before a permit is granted, to assure adherence to above specifications. Deposit will be returned to owner as soon as the tree is planted to the satisfaction of the Park Department.

*Commissioner of Parks,
Manhattan and Richmond.*

APPENDIX D.
STREETS AND AVENUES IN STREET TREE SYSTEM.

Location	Specification
Amsterdam Avenue, 57th Street to 190th Street.....	2
Audubon Avenue, 165th Street to 190th Street.....	3
Bradhurst Avenue, 141st Street to 145th Street.....	3
Broadway, 135th Street to 168th Street.....	3
Broadway, 168th Street to 220th Street.....	2
Eighth Avenue, 52d Street to 110th Street.....	3
East End Avenue, 72d Street to 89th Street.....	3
Edgecombe Avenue, 135th Street to 155th Street.....	3
Fifth Avenue, Waverly Place to 14th Street.....	3
Fifth Avenue, 14th Street to 59th Street.....	4
Fifth Avenue, 59th Street to 106th Street.....	2 or 1
Fifth Avenue, 106th Street to 120th Street.....	3
Fifth Avenue, 124th Street to 135th Street.....	2
Irving Place, 16th Street to 20th Street.....	3
Lexington Avenue, 21st Street to 36th Street.....	3
Lenox Avenue, 110th Street to 145th Street.....	3
Manhattan Avenue, 110th Street to 127th Street.....	3
Park Avenue, 45th Street to 96th Street.....	3
Pleasant Avenue, 114th Street to 116th Street.....	3
St. Nicholas Avenue, 127th Street to 145th Street.....	3
St. Nicholas Avenue, 145th Street to 161st Street.....	2
St. Nicholas Avenue, 161st Street to 190th Street.....	2
Second Avenue, 7th Street to 23d Street.....	4
Seventh Avenue, 110th Street to 116th Street.....	2
Seventh Avenue, 116th Street to 152d Street.....	3
West End Avenue, 72d Street to 107th Street.....	1
Wadsworth Avenue, 173d Street to 180th Street.....	3
Wadsworth Avenue, 181st Street to 190th Street.....	2

NUMBER OF STREET OR AVENUE.

	Specification
7th Street, Avenue B to 4th Avenue.....	3
16th Street, Rutherford Place to 5th Avenue.....	3
23d Street, 2d Avenue to 11th Avenue.....	4
34th Street, 5th Avenue to Lexington Avenue.....	4
36th Street, 1st Avenue to Lexington Avenue.....	3
57th Street, Park Avenue to 10th Avenue.....	4
65th Street, Park Avenue to 5th Avenue.....	3
72d Street, 1st Avenue to 5th Avenue.....	3
72d Street, Central Park West to Riverside Drive.....	2
79th Street, East End Avenue to 5th Avenue.....	3
79th Street, Columbus Avenue to Riverside Drive.....	3
86th Street, East End Avenue to 5th Avenue.....	3
86th Street, Central Park West to Riverside Drive.....	2
96th Street, Park Avenue to 5th Avenue.....	3
96th Street, Central Park West to Riverside Drive.....	2
106th Street, Amsterdam Avenue to Riverside Drive.....	3
106th Street, Madison Avenue to 5th Avenue.....	3
110th Street, 5th Avenue to Riverside Drive.....	2
116th Street, Pleasant Avenue to Riverside Drive.....	3
120th Street, Morningside Drive to Riverside Drive.....	2
122d Street, Mt. Morris Park West to 8th Avenue.....	3
135th Street, 5th Avenue to St. Nicholas Avenue.....	3
135th Street, Convent Avenue to Riverside Drive.....	2 or 1
145th Street, Lenox Avenue to Bradhurst Avenue.....	3
145th Street, Bradhurst to Riverside Drive.....	2
153d Street, 7th Avenue to Bradhurst Avenue.....	3
155th Street, St. Nicholas Avenue to Broadway.....	2
163d Street, Edgecombe Road to Riverside Drive.....	3
181st Street, Speedway to Riverside Drive.....	4
190th Street, Amsterdam Avenue to Wadsworth Avenue.....	3 or 2
218th Street, Broadway to Seaman Avenue.....	3

**EIGHTEENTH
ANNUAL REPORT**

OF THE

DEPARTMENT OF PARKS

FOR THE BOROUGH OF BROOKLYN

COMPRISING

FIFTY-FIFTH ANNUAL REPORT

OF THE

OLD CITY (Now Borough) OF BROOKLYN

FOR THE YEAR 1915

RAYMOND V. INGERSOLL, Commissioner
WESTERVELT PRENTICE, Secretary
JOHN J. DOWNING, Supervisor of Recreation
SAMUEL S. BRADLEY, Superintendent
CHARLES S. DORON } Engineers
EDWARD J. MULLANE }

Office of the
Department of Parks,
Borough of Brooklyn.

Litchfield Mansion, Prospect Park, Brooklyn.

December 31, 1915.

HON. JOHN PURROY MITCHEL,

Mayor of the City of New York.

Dear Sir:

In compliance with the provisions of the Charter, I send you herewith the report of the work undertaken and accomplished in this Department for the year just closed.

I have the honor to remain,

Very truly yours,

RAYMOND V. INGERSOLL,

Commissioner.

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PART I.
GENERAL REVIEW.
THE PARK SYSTEM.

Considering area and population, Brooklyn's park system is far from adequate, the special need being for additional small parks and play spaces. The Borough is fortunate, however, in several respects. Its large park is centrally located and is not surpassed by any park in the country either in beauty of landscape or in the variety of active uses for which it is suitable. The area of prospect Park is 526 acres. If the Parade Grounds and the Botanic Garden are added the total area of contiguous park property is 624.90 acres. Another feature of which Brooklyn may well be proud is its system of fine park boulevards, especially the Eastern Parkway, Ocean Parkway and Shore Road. The total length of parkways is 28.46 miles.

Some advantage has been taken of our extensive shore front. Five parks and one parkway, with an aggregate area of 373 acres, are located on New York Harbor and adjacent waters. These properties have a distinctive interest and value, and they hold great promise for the future. The picturesque Shore Road has reached a new stage of development by completion this year of the long sea wall and making available for various recreation purposes the space stretching along the water front for more than two miles between this wall and the banks of the roadway. The Coney Island parks are already used most intensively in the summer. Canarsie and Dyker Beach parks are waiting for much needed development. The filling in of the salt marsh at Dyker Beach would provide an athletic field on the Narrows with an acreage of 70 acres, or nearly twice as large as the Parade Grounds, and still leave an equal area of uplands for ornamental planting.

In all, the Brooklyn Park system comprises forty-six (46) parks and playgrounds with a total area of 1,142.25 acres. The aggregate assessed valuation of about seventy-five million dollars (\$75,000,000).

Betsy Head Playground.

During this year one of the best equipped playgrounds and recreation fields in the United States was completed. It occupies four entire blocks in Brownsville, in the neighborhood of Hopkinson Avenue and Dumont Street, a section with a large Jewish population. Besides children's playgrounds and farm gardens there is a large athletic field and outdoor gymnasium, shower baths for use throughout the year, and an outdoor swimming pool for summer use. A model of this playground was included in our carefully arranged exhibit at the San Francisco Exposition, and attracted much attention there. It contributed greatly toward securing first prize for the New York City Parks exhibit.

The buildings and equipment of this splendid recreation centre were paid for out of a generous and far-sighted bequest of \$187,746.84, made by the late Betsy Head of Suffolk County. The land, valued at more than \$250,000, was paid for by the property owners of Brownsville, who showed remarkable public spirit in consenting to an assessment for the purpose. The construction was done under the direction of the Public Recreation Commission, which, upon its termination at the end of September, turned the property over to the Department of Parks for operation. A number of improvements are still to be made this spring and they will be paid for out of the interest on the legacy. Too much praise could scarcely be given to the late Betsy Head, to the property owners of Brownsville, or to the members of the Public Recreation Commission for their contributions to the ends achieved. The Department counts itself fortunate in having charge of the operation of this model playground.

Mrs. Isaac L. Rice, of Manhattan, has proposed to erect a beautiful fountain and gateway at the entrance to the athletic field as a memorial to the late Isaac L. Rice. Work on this very acceptable memorial is now going forward.

Personnel of Force.

While the framing of park ordinances in the City of New York devolves upon a Park Board, made up of the Park Commissioners of the several boroughs, each Commissioner has completely independent administrative jurisdiction within his own borough. Landscape features are subject to approval by the City's Landscape Architect.

The operating force of the Department has varied in numbers during the year from six hundred forty-eight (648) to seven hundred eleven (711). Among the supervising staff are a Superintendent, Chief Engineer, Secretary, Chief Clerk, Supervisor of Recreation, General Foreman, Foreman of Mechanics, Arboriculturists, Head Gardeners and Foremen. The force may be divided as follows: Clerical, twenty-one (21); engineering (14); mechanical, fifty-six (56); tree forces, seventy (70); foremen, twenty-six (26); gardeners, forty-two (42); laborers, two hundred and ninety (290); hostlers and drivers, twenty-six (26); playground leaders, thirty (30); comfort station attendants, forty (40); miscellaneous, eighty-eight (88). The administrative and executive officers are particularly gratified at the whole-hearted support received during the year from men in every branch of the service. Without this hearty co-operation the work could never have been done under a budget so severely reduced.

Construction Work by Contract.

The most important construction work completed during 1915 under the engineering bureau of the department was the completion of the sea wall along the Shore Road, between Bay Ridge Avenue and Fort Hamilton. A contract for placing 250,000 cubic yards of earth fill back of this sea wall

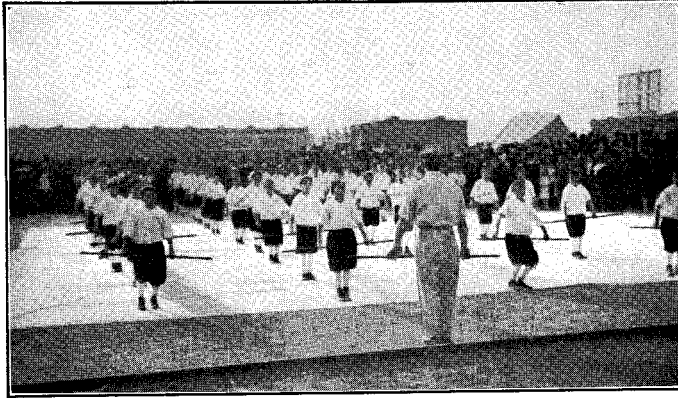
has been more than half finished. Seven timber groynes or jetties have been built at Coney Island to protect the park beach from erosion. In Prospect Park 8,300 feet of irrigation service pipes were laid, with 31 hydrants, and 5,200 feet of sanitary sewers. All the old unsanitary cesspools were eliminated. The entire 15th Street Plaza of Prospect Park was reconstructed. A sheet asphalt traffic road was laid around the edge of the Park Circle at the head of the Ocean Boulevard. The contract for completion of walks in the Brooklyn Botanic Garden was completed in July. Three contracts for completion of the laboratory building and Greenhouses in the Botanic Garden have been awarded and work will be begun as soon as weather permits.

Construction Work by Park Forces.

From an administrative viewpoint the most gratifying feature of the year's work is in the fact that although during the busy season we were obliged to work with 150 fewer men than in 1914, and although the net expenses for the year show a decrease of \$78,879.07, as compared with 1914, the park employes under the Superintendent have done an unprecedented amount of construction work in addition to their ordinary maintenance activities. These improvements have been made also in spite of our having increased activities to attend to and new properties to operate. Some of these definite improvements and their cost in labor and materials are shown in the following table:

Laying out additional plots of soil at McCarren Park.....	\$1,113.75
Building new piers for fence at McCarren Park.....	330.26
Construction of tennis courts and making new walks and steps at Highland Park.....	3,062.59
Building wall and making changes at Stable.....	4,634.70
Grading and paving yard and new road, Prospect Park.....	3,703.73
Laying out new walk, Underhill Gore.....	422.43
Laying out new walk, Sunset Park.....	269.50
Laying out tennis courts, Red Hook Playground.....	270.62
Grading slopes, Shore Road.....	2,221.90
Grading slopes, Duck Pond.....	319.00
Making manure compost, Prospect Park.....	2,530.10
	<hr/>
	\$18,878.58

In addition to the above, the greenhouses were completely renovated and extended, a new wading basin was built, and several new skating rinks, and many tennis courts. Much of the work was done on the construction of a new bridle path in the duck pond section of Prospect Park. The lawns of several of the small parks, such as Saratoga and Irving, were reconstructed. A new children's farm garden was built in Brownsville containing more than 300 individual plots, while the McCarren Park Farm Garden was put in a new location and increased from 200 to 400 plots. The shops turned out many miles of pipe rail fence, renovated most of the rolling stock, built portable band stands, park benches, and a considerable quantity of playground apparatus. These improvements and others are set out in much more detail in the second part of this report.



Exercises at Opening of Betsy Head Playground.



Exercises at Opening of Betsy Head Playground.

General Maintenance Problems.

The Department maintains, repairs and cleans thirty-six miles of park roads and boulevards, with the total area of 1,301,804 square yards; fifty-five miles of park walks, and eight miles of bridle path. It mows and keeps in condition 545 acres of lawn. It operates 46 comfort stations (of which five are new this year), and about an equal number of other buildings. It maintains 26 miles of park fence. It cares for special features such as Greenhouses and Menagerie, and has shops equipped to do a great variety of mechanical work. Outside the parks, about 80,000 street trees are under the care of the department, in addition to the many thousand trees, shrubs, and plantations within park area.

Maintenance of lawns, plantations and buildings in good condition makes increasing demands upon the service as population grows and use becomes more intensive. This is especially true at a period when the yearly maintenance budget is being steadily and rather severely reduced. The care of parkways and roads is an ever present problem because of the light and temporary character of the pavement, which consists of a gravel foundation with an asphaltic coating. After two or three years of service this surface deteriorates rapidly and is in constant need of repairs. This spring it will be necessary to put a new surface on most of the East Drive in Prospect Park. It is intended to take advantage of this occasion to remove the high crown which has been built up through a period of years. If New York City could make a successful claim to a part of the state highway funds, permanent pavement of the park roads would save greatly on maintenance costs.

Active Recreation.

Much emphasis has been placed upon the further development of opportunities for active recreation. The layout of apparatus at several playgrounds, such as McCarren Park, Williamsburg Bridge, and New Lots, has been rearranged on better lines. The schedule of work for play leaders has been changed so as to get along with as few as sixteen in winter, thus allowing an expansion to forty in mid-summer. This has made possible the opening of more summer play spaces on vacant lots. New farm gardens and wading basins are described elsewhere. Thus far it has been possible to secure a great increase in recreational activities without conflict with the landscape and horticultural features of park management. The process cannot, however, go much further without the acquisition of new playgrounds. A gratifying change has been observed in the attitude of all classes of employees toward recreation activities. Little is left of an old point of view which has been expressed in this way: "If all the people would only keep out, what fine looking parks we could have!"

Boating.

The lake in Prospect Park is one of the best assets of the borough. It contains about seventy acres and is so laid out that in rowing from the boat

house through the channels around the large lake and back a distance of almost three miles is covered. From the lake can be seen, especially in Spring and Fall, some of the finest landscape effects to be found anywhere in the park.

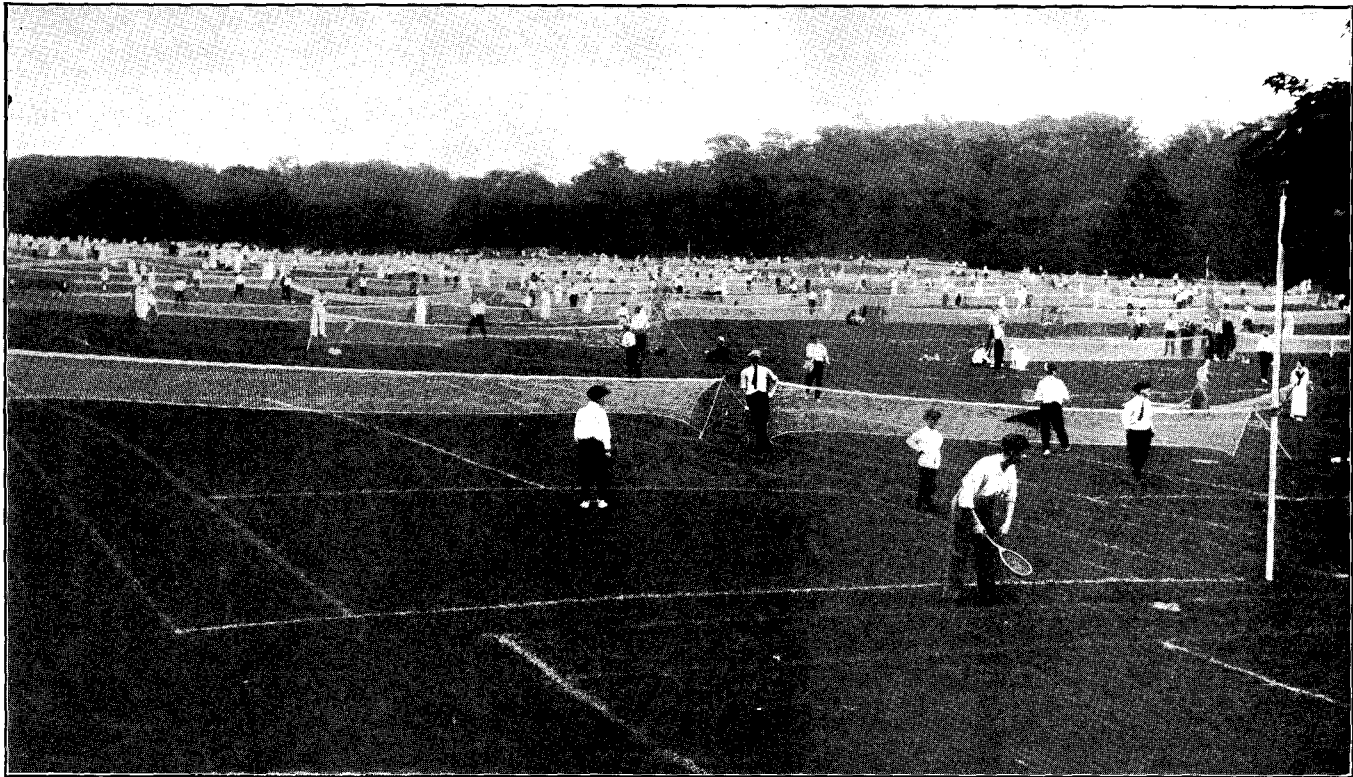
A new arrangement has been made whereby the charge for row boats has been reduced from fifty cents to twenty-five cents per hour. This has had the effect of more than doubling the number of persons getting the benefit of this excellent recreation. The amount of boating on week-day afternoons and evenings has been multiplied several fold. In order to accommodate the larger demands at the reduced price the concessionaire was obliged to provide a larger number of boats. He also built and turned over to the City an interesting rustic boat house on the peninsula. This building serves picnic parties and enables many persons to get their boats on the west side of the park. It also serves to reduce the congestion of boats in the narrow channels leading to the large boat house.

Winter Sports.

The winter climate in New York is too uncertain to permit of the most intensive use of park properties during the cold season. Much, however, has been done to bring out the possibilities in this direction. Places for coasting have been laid out in Highland, Fort Greene, Prospect, Sunset, and other parks. It was once the custom not to allow sleds to be brought into Prospect Park. Our policy has been to welcome them by tens of thousands. This has not been followed by serious accidents or by any appreciable injury to lawns or plantations.

The principal sliding place in Prospect Park is about a fifth of a mile long and thirty feet wide. Snow is banked up along the edges as a provision for safety. This makes an ideal sliding place for children and it has been used considerably by adults in the evening. As many as six thousand sleds an hour have gone down this one slide. A number of new neighborhood skating places have been constructed. The largest one, at Highland Park, will accommodate several thousand. Some of the smaller ones are on the children's playgrounds. At Dyker Beach Park a successful experiment was tried by shutting the salt water out of the marsh in the fall and allowing rain water and melted snow to accumulate. This has made possible a much better body of ice than could be secured with the salt water. In our neighborhood skating places the water is shallow and the average number of days of skating during the season is about four times as great as on the large lake at Prospect Park.

The building of the rustic boat house in Prospect Park has afforded a convenient additional point for accommodating skaters. A new skate and check room house has been built by the department in sections, and the former congestion and inconvenience, as well as expense of skate house construction, greatly reduced. In good skating weather as many as 40,000 persons come to the lake in one day. Occasional festivals have been held



Tennis Field, Prospect Park.

at which hundreds of Chinese lanterns were lighted around the shores of the lake. The places for ice skating now provided are located as follows:

Prospect Park
Dyker Beach Park
Gravel Pit
McKinley Park
Red Hook Playground
Sunset Park

Highland Park
Bushwick Playground
Betsy Head Playground
Amersfort Park
City Park
McCarren Park

New Carousel.

The old carousel structure in Prospect Park, erected some thirty-five years ago, had become obsolete, unsightly and unsafe. It could not properly be maintained longer. Being located next to the picnic grounds where hundreds of children's picnics gather every year, it has served a decidedly useful purpose. As the City was not prepared to erect a new building, competitive propositions were solicited from the leading Merry-go-round concerns throughout the country. The best offer was accepted and an octagonal building, 86 feet in diameter, was erected according to plans carefully worked out by department engineers. This building cost in the neighborhood of \$12,000, and on completion it became the property of the City. In addition, the concessionaires pay one thousand dollars per year for the privilege of operation. The building harmonizes much better with the landscape than did the old structure and affords excellent shelter from storms. The best modern equipment and two excellent organs have been installed. The basement of the building has been so designed as to furnish suitable space for additional tennis lockers.

Street Tree Planting.

In the fall of 1914 a new policy was announced for planting trees on the streets of Brooklyn. The department receives orders from property owners, and sets out the trees for eight (\$8) dollars each. This charge covers all expenses, such as making hole in sidewalk, excavation, top soil, purchase of tree, planting and tree guard. If the tree dies within three years it is replaced without cost. Most of the old trees in Brooklyn streets were planted years ago, before the coming of the asphalt pavements. Few are of varieties suitable for survival under present conditions and many had been planted with insufficient sidewalk openings and poor soil conditions. These old trees are disappearing rapidly and it is hoped that the present efforts may extend so that Brooklyn will not become a treeless city. During 1915 trees paid for by property owners were planted to the number of 1,146. Some business concerns and institutions ordered trees to surround their properties and a number of Civic Associations took an active interest in securing trees for their own sections. This was notably true of the Prospect Park Citizens' Association. This method of co-operative planting is best, as a greater degree of uniformity is secured. A valuable impetus was given to the movement by a gift from Mr. Frederic B. Pratt which will pay for systematic planting of Oriental Plane trees along Bedford Avenue, from the approach to the

Williamsburg Bridge to the Eastern Parkway. Many of the tree holes on Bedford Avenue have already been prepared and the planting will be done in the spring of 1916.

Eastern Parkway Trees.

Through securing the adoption by the Public Service Commission of a new plan for the subway on Eastern Parkway, we have been able to save a large number of elm trees which would otherwise have been sacrificed. By arranging for a double-deck subway the width of the cut has been narrowed sufficiently to avoid the destruction of the two inner rows of trees except where stations are located. Through this means instead of removing the entire inner two rows, involving 648 trees, only 158 will be lost. In other words, 490 of these fine old elms have been preserved through the vigorous action taken by this department. Much attention has been given to persuading the contractors to see the necessity for properly protecting and caring for the trees during the subway construction, and considerable special cultivating work has already been done. Arrangements for irrigation are also under way, and a top dressing of manure is being applied. The gravel pathways are being narrowed to eight feet in width, the gravel removed being replaced with good topsoil. Constant supervision has been given to preserve the trees from injury by careless workmen. The Public Service Commission and its engineers have been co-operating with the Park Department in every way for the saving of these trees.

It may be mentioned here that arrangements have been practically completed for replacement by contractors of 140 street trees destroyed several years ago in the building of the Fourth Avenue Subway.

New Zoo Building.

A little more than a year ago the Brooklyn *Daily Eagle* raised a subscription of \$3,000 for purchase of some ninety animals from the famous Bostock Collection. They had been put on the market as a result of the European War and were brought here from London. Hitherto the menagerie in Prospect Park had contained good collections of Bears, Elk, and some other varieties, but had no Lions or other representatives of the Cat family. The new animals have doubled the variety and value of the collection. It is gratifying to state that the enlarged collection is costing the City no more for maintenance than was formerly the case.

During the year more than \$16,000 was raised by public subscription for the purpose of erecting the first section of a new and more adequate animal house. The construction of such buildings is somewhat experimental but the best advice obtainable was secured. An attractive two-story brick structure is now being put up. There has been considerable delay both because of the method of financing and because of difficulties in securing delivery of materials. It is expected, however, that the upper floor will be open some time in April. The public will then have its first good oppor-

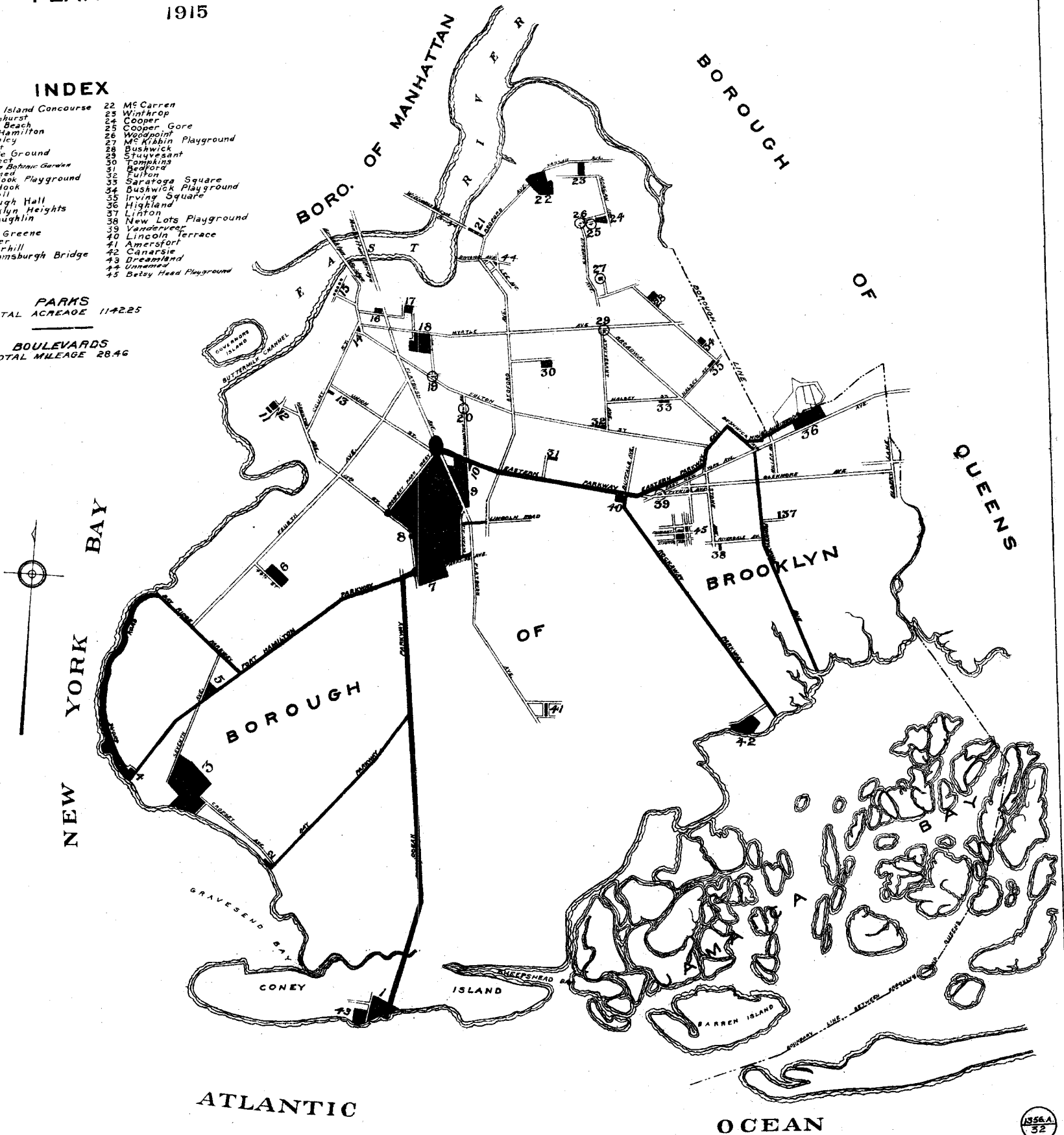
CITY OF NEW YORK.
DEPT OF PARKS BORO. OF BKLYN
PLAN OF PARK SYSTEM
1915

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PARKS
TOTAL ACREAGE 1142.25

BOULEVARDS
TOTAL MILEAGE 28.46



tunity to see our collection of monkeys, birds, and small animals now housed in such a way that it is impossible to see them to advantage. It is hoped that means may be found to complete this building which will be equipped on the lower floor with inner and outer cages for the lions and other cat animals.

All Zoological specimens have been either gifts or natural products. A large number of gifts are received each year. The new Brooklyn Zoological Association, of which Mr. George V. Brower is Honorary President, is co-operating actively and is entitled to strong popular support. One feature about the Zoological Collection is that it proves to be an unfailing point of interest both summer and winter.

Compost Pit.

A valuable Compost Pit has been developed in Prospect Park. Muck from Prospect Park Lake is mixed with stable manure and leaves, with a little lime. The leaves were formerly burned. This was started in the summer of 1915. Eighteen hundred cubic yards of exceptionally fine fertilizer was made. All this was spread on the lawns and flower beds in the late fall. About fifteen hundred cubic yards have since been made, and the output this coming year should be double that of 1915. The process saves us several thousand dollars per year formerly spent for purchase of inferior fertilizer.

Greenhouse Reorganization.

Our greenhouses have been thoroughly overhauled and the propagating and business end of the greenhouses greatly extended. We are now raising thousands of flowers, shrubs and vines such as were previously purchased each year. This merely keeps some of the gardeners more busy during the winter and is an undoubted improvement in efficiency.

Motorizing Department.

By the use of Ford cars and automobile trucks, we have succeeded in reducing the amounts spent for hire of trucks and carts to an extent of more than \$30,000 per year, as compared with 1913. We plan slight further extensions of this principle of motorizing the department.

Improved Supervision, etc.

By combining our small parks into groups, with a foreman in charge of each group, we have gotten along with fewer foremen and have gotten away entirely from the theory that some one laborer or gardener in each small park is a "Park Keeper" with the emphasis on policing and supervision rather than on work performed. Many small but useful changes have been made in the handling of the labor forces, such as the doing away of useless positions as "Watchman," and providing that men who clean comfort stations shall do so only as an incidental part of their duties, most of their time being



Highland Park—Artificial Skating Pond.



Coasting—Prospect Park.

given to laboring work in the park where the station is located. Another similar change is by insisting that men who drive teams and carts shall also take part in the loading and unloading. A much better control of the teams and carts has been worked out for the purpose of reducing the waiting time.

Protection of Park Property.

Better results have been secured in protecting park property. This has partly been a matter of educating our own employes. It has also largely been a matter of educating the public. The schools have been used to a considerable extent for this purpose. We have also gotten out a much more complete and attractive supply of signs which have helped in this matter and which also are a great convenience to the public. 600 standardized signs were purchased on contract this year and 1,419 miscellaneous signs were made in our shops.

Shop Reorganization.

The shops have been thoroughly reorganized and our mechanics are now producing much more than previously; so much so that it is difficult to supply them with the materials needed. The park buildings and fences have been more generally painted. Much more playground apparatus has been made and repaired. The substitution of iron swings for wooden swings is resulting in considerable saving. Pipe rail fences made in the shops and substituted for makeshift wire fences reduce maintenance cost of fences and give better protection to the lawns.

Labor Conditions.

Relations with the working forces in the department have been greatly improved. Readjustment of pay schedules have resulted in increases for many of the outdoor men, while the cost of clerical work and engineering services has been reduced. The department has done away with the old practice of putting from one hundred to two hundred raw men on in the spring for temporary work and having a large lay off in the summer and fall. The temporary men so employed were of comparatively little value and all the men in the department were made uncertain of their position when the lay off approached and naturally concerned themselves with efforts to influence their own tenure. The present method is to have a continuous force working on full time during the summer and on shortened time in the winter. The men feel that they have a steady job and give us a gratifying support. In 1915 we did our heavy spring work, including greatly enlarged activities, with one hundred and fifty fewer men than the previous year. The men appear to realize that they are dealt with on their merits without regard to outside influences. The increased rate of pay for men previously underpaid has made it possible to do away with Sunday time except where the need for it is genuine. Working time of the playground attendants has been readjusted so as to make the hours more reasonable. Those who formerly worked 365

days at \$2.50 per day now work 300 days per year at \$3 per day. This enables us to give each playground worker an occasional day off without pay and enables us to concentrate and expand our work in the summer and to reduce it to a minimum in the winter time.

Financial Results.

As a result of administrative changes already partly outlined the department has gotten through the year very comfortably on a budget \$95,000 less than last year, and \$160,000 less than the 1913 budget. The maintenance of Prospect Park alone showed a net saving over last year of \$39,773.56. Some of the most interesting classified items of reduction for this year have been: \$11,500 in purchase of botanical supplies, including sod, top-soil and fertilizer. \$15,000 on supervision of small parks. \$12,000 on care of comfort stations and \$27,500 in hire of outside teams and carts. The carrying out of a greatly increased work program with considerably reduced expenditures is due primarily to the unusual business and executive ability of the Superintendent.