

# THE CITY RECORD.

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### DEPARTMENT OF PARKS.

#### Report for the Year ending December 31, 1899.

DEPARTMENT OF PARKS—CITY OF NEW YORK,  
THE ARSENAL, CENTRAL PARK,  
January 2, 1900.

Hon. ROBERT A. VAN WYCK, Mayor:

SIR—I have the honor to send herewith the annual reports of the Commissioners of Parks, of the operations of the Department in the borough divisions over which they have individual jurisdiction, for the year 1899.

Very respectfully yours,

WILLIS HOLLY, Secretary, Park Board.

#### SCHEDULE.

- |                            |                         |
|----------------------------|-------------------------|
| 1. Manhattan and Richmond. | 2. Brooklyn and Queens. |
| 3. The Bronx.              | 4. Addenda.             |

DEPARTMENT OF PARKS—CITY OF NEW YORK,  
THE ARSENAL, CENTRAL PARK,  
January 2, 1900.

Hon. ROBERT A. VAN WYCK, Mayor:

SIR—I have the honor to transmit herewith my report of the operations of the Department of Parks, Boroughs of Manhattan and Richmond, for the year 1899.

A notable administration feature of the year's work of the Department in these boroughs was the reception rendered by the citizens of New York to Admiral Dewey on his return from the Philippines. In this great popular demonstration the Department was vitally concerned, as the site of the memorial arch, erected in honor of the naval heroes, was within the jurisdiction of the Department and most of the stand provision, at the reviewing point and other places along the line of march, had to be made on ground belonging to the park system. It was feared that permanent injury was likely to result from the immense amount of work to be done and by the vast crowds attracted upon this occasion. But it was considered that the enthusiasm of the public generally and the possibilities of benefit in the direction of awakening it along lines of patriotic and artistic interest justified the risk.

The Citizens' Committee of Management and the committee representing the artists who, with so much devotion and self-sacrifice, gave themselves to the work, made many demands upon the Department. Everything was granted to them that did not seem calculated to do permanent damage to the parks and it must be said that scarcely anything was asked that could not be granted. The Department and the City are to be congratulated that the apprehensions in the matter proved unfounded and in a few weeks time all traces of the structures erected for the demonstration were removed, except in the case of the memorial arch, whose designers had calculated upon its enduring for a year.

An important feature of permanent improvement to Central Park was the completion of the range of green-houses, erected at a cost of about \$50,000. These were thrown open to the public on November 2, the opening display being of chrysanthemums. The popularity of the Conservatory was immediately demonstrated and visitors to it often number more than 12,000 a day. The collection of flowers and plants was rapidly added to during the remainder of the year by propagation, purchase and by generous contributions of cuttings of choice plants from various gardens, without cost to the Department.

In addition, work of the Landscape Gardener's force may be instanced, as follows:

#### Pruning.

This work was carried to completion throughout the Central and city parks early in the year. It was greatly delayed by the heavy snow storms in February and March, as all hands had to be put to work removing the snow. The snow also caused some direct damage to trees and evergreens. It was, however, shaken off in time to prevent any considerable breakage. The pruning was completed later than usual, owing to the delay mentioned.

#### Propagation.

The propagation of plants for summer display and for the new conservatories was carried on as extensively as the means would permit. Outside propagation of roses and vines, as well as herbaceous plants was also attended to, and a large quantity of these plants are now available.

#### Spring Bedding.

Pansies, daisies, forget-me-nots and other spring flowers were planted out on an unusually large scale, both in the Central and city parks. New beds were made, and the floral display was increased about one-third.

#### Bulbs and Herbaceous Plants.

The bulbs and herbaceous plants, planted in borders and lawns on a considerable scale during the previous season, developed satisfactorily and seemed highly appreciated by the visitors to the parks. The borders were in flower continuously from early spring until late in the fall. As the introduction of herbaceous plants became very popular with all classes of visitors, measures were taken to increase the beauty and variety of the display during the spring and summer of 1900.

#### Summer Bedding.

The summer bedding was also attended to and increased correspondingly although the facilities for floral display of the highest character were still lacking. More flowering plants were used and less foliage.

#### Lawns.

About one-third of the lawn area was enriched by means of various fertilizers distributed early in the season. All defective borders and lawns were put in good condition by means of seeding and sodding.

#### Grading.

Grading and seeding of many lawns and embankments and the restoration of lawns destroyed by excessive shade were also attended to.

#### Planting.

Planting was carried on extensively in Central and the city parks, especially in East river, Riverside and the smaller new parks.

#### Cultivation and Watering.

Cultivation and watering of newly planted trees and shrubs was done extensively during the summer months, and there was consequently very little loss in the new plantations, excepting such destruction by unruly boys as could not be prevented by the park employees.

#### Trenching.

The weeds infesting lawns and embankments in Central Park were removed and destroyed on a large scale, especially in the Ramble.

#### Rustic Buildings.

Many of the rustic shelters, bridges and fences were repaired and rebuilt. The repairs of all such structures in the Ramble were completed.

#### Contracts.

The various contracts for work in connection with planting, sodding and similar work were completed in a satisfactory manner.

#### Designing.

The work in the Office of Design was carried on satisfactorily, a large number of plans of new work being completed and submitted during the year.

Under the supervision of the Chief Engineer and the Engineering Corps, construction and other work was as follows:

#### Improvement of Riverside Park and Drive.

At the time the Riverside Drive was constructed it was found necessary, on account of the general slope of the ground to the west, to deposit heavy stone and other filling in place. Upon this filling the drainage system of the drive was built. Owing to the many washouts in the roadway or drive and the park an examination of this drainage system was ordered.

It revealed the fact that most of the westerly side of the drainage system had settled badly, that the drain-pipes were choked up with silt, that the brickwork of the basins was badly broken and cracked and in many cases the basins were without proper bottoms. The surface water, not having proper outlets, passed through the stone filling and dry rubble stone retaining wall continually, causing the washouts in the park and drive. In order to remedy this very serious defect I directed that the work of establishing an additional drainage system and repairing the defects in the existing system be done under contract. This work was completed in December. Walks were also laid out, crossing the lawns from the property road to the walk west of the drive, under the same contract. A detailed report of the amount of work performed is as follows:

- 500 cubic yards of earth excavation.
- 34.80 cubic yards of rock excavation.
- 19 cubic yards of rubble masonry laid.
- 184.52 cubic yards of mould furnished and laid.
- 17,451.16 square feet of sod furnished in place.
- 224.40 square feet of bluestone flagging furnished and laid.
- 492 square feet of bluestone flagging, old, relaid.
- 7,104.80 square feet of rock asphalt walk pavement laid.
- 507.04 square yards of gravel roadway constructed.
- 413.40 linear feet new bluestone curb furnished and set.
- 50.85 linear feet old bluestone curb reset.
- 100 linear feet bluestone steps furnished and set.
- 60.40 linear feet bluestone cheeks furnished and set.
- 349.50 linear feet 15-inch drain-pipe laid.
- 404.40 linear feet 12-inch drain-pipe laid.
- 206.50 linear feet 10-inch drain-pipe laid.
- 1,162.48 linear feet 8-inch drain-pipe laid.
- 415.45 linear feet 6-inch drain-pipe laid.
- 12 linear feet 12-inch drain-pipe laid at One Hundred and Fourteenth street.
- 53 road-basins built complete.
- 9 receiving-basins built complete.
- 1 city receiving-basin built.

#### Riverside Park and Drive, Planting and Designing.

Contracts for planting trees, shrubs, vines, etc., and shaping and sodding different sections of Riverside Park were executed and the work prosecuted to completion. The sections thus improved are:

- Seventy-second street to Seventy-sixth street.
- Seventy-ninth street to Eighty-sixth street.
- Eighty-sixth street to Ninety-sixth street.
- This practically completes the Riverside Park from Seventy-second street to Ninety-sixth street.

#### Central Park.

The walk bordering on the east side of the North Meadow, from Ninety-second street to One Hundred and Second street, one of the main paths in the upper end of the park, was improved, and also the system of walks north of Conservatory Lake, and a new walk was constructed south of the Casino. These walks were formerly of gravel and clay superstructure and unfit for use in wet weather. They were regraded, rubbled and asphalted on a concrete base and drains were laid and basins built where necessary. The construction was more than a passing public benefit and amounted to 2,135 running feet of walk. The work done was as follows:

- 24,988.49 square feet of rock asphalt walk pavement laid.
- 14,924.29 square feet of sod furnished in place.
- 70.19 cubic yards of mould in place.
- 429 linear feet of 6-inch vitrified drain pipe furnished and laid.
- 6 walk basins built.

The walks around the menagerie buildings in Central Park were repaired. New edging was set, the walks were widened, basins were built to remedy defective drainage and rock asphalt walks were resurfaced, as follows:

- 463 linear feet of 3½-inch edging set.
- 5,800 square feet of asphalt walks laid.
- 2 basins built.

At the Plaza, One Hundred and Tenth street and Fifth avenue, 295 square yards of asphalt strips were laid. This improvement was of great benefit to the many bicyclists who use this thoroughfare.

#### Sewer from Swedish Schoolhouse in Central Park to Manhattan Square.

The Swedish Schoolhouse in the Central Park, near Seventy-ninth street, which for many years has been used as a storehouse or tool-house, is to be improved and repaired for public use. In order to properly drain the structure it was found necessary to lay a drain-pipe sewer from it to the main sewer in Manhattan square, over 1,450 feet. The work is being prosecuted under contract at this time, and its early completion is expected. The portion of the work already done is as follows:

- 375 linear feet of 10-inch drain-pipe sewer laid.
- 2 manholes built.
- 50 cubic feet of concrete in place.

#### East River Park and Extension.

To further improve this park a contract has been executed to reshape the lawns adjacent to the East End avenue sidewalk, as well as the Eighty-sixth street frontage. The old flagging has been taken up and a new walk pavement of asphalt laid in its place. The curb was reset to proper grade and line, the side slopes were sodded and the park inclosed with a pipe fence. The details of this work are:

- 201 cubic yards of earth excavation.
- 337 cubic yards of mould furnished in place.
- 14,791 square feet of walk pavement of rock asphalt laid.
- 733 linear feet of new bluestone curb furnished and set.
- 8,193 square feet of sod furnished and laid.
- 334 linear feet of pipe fence furnished and erected.
- 420 linear feet of old curbstone taken up and reset.
- All of old fence taken down and reset to proper line and grade.
- In addition 1,741 linear feet of new pipe fence was erected at East River Park.







Donations, Central Park Menagerie, 1899.

January—	July—
1 pigeon, donated by Dr. A. Wright.	1 lemur, donated by H. P. Hurdick.
1 owl, donated by C. J. Richards.	1 mocking bird, donor unknown.
1 quail, donated by Mrs. H. B. Harding.	2 rabbits, donated by F. M. Johnson.
1 golden eagle, donated by James R. Danbar.	3 muscovy ducks, donated by L. M. Smith.
1 magpie, donated by George Baker.	1 covey bird, donated by Fred Ristoff.
1 opossum, donor unknown.	3 bitterns, donated by Mrs. Downey.
2 opossums, donated by Edward Ball.	1 cockatoo, donated by Mrs. Harrison.
5 ring doves, donated by C. Munford.	1 raccoon, donated by Mr. Henderson.
February—	1 mocking bird, donated by F. W. Hinds.
1 alligator, donated by Irving J. Davis.	2 guinea pigs, donor unknown.
1 rabbit, donated by Hilda Holmes.	1 owl, donated by Mr. Johnson.
1 crow, donor unknown.	1 napparel, donated by J. G. Jaffray.
1 sea gull, donated by L. Fleckensine.	1 crow, donated by Mrs. Williams.
March—	2 alligators, donated by David Ball.
1 alligator, donated by A. R. Proctor.	August—
3 fishes, donated by Simon Ullman.	4 red foxes, donated by John B. Simpson.
2 owls, donated by J. G. Simms.	2 goats, donated by William E. Graves.
2 pigeons, donated by Miss Hulsey.	1 parrot, donated by Thomas L. Sturges.
1 guinea pig, donor unknown.	1 hawk, donated by Thomas Dandure.
April—	1 rabbit, donor unknown.
2 rabbits, donor unknown.	1 raccoon, donated by Joseph T. Stall.
1 macaw, donated by E. Ahlger.	1 red fox, donated by H. Strauss.
1 rabbit, donor unknown.	September—
1 shellfish, donated by E. D. Lenthall.	1 canary bird, donated by K. J. Gray.
1 owl, donated by Miss M. Gerdes.	1 macaw, donated by Mrs. J. Bunker.
1 mocking bird, donated by H. W. Ford.	1 badger, donated by K. W. Stewart.
1 opossum, donated by G. Gell.	1 red fox, donated by A. Altman.
1 parakeet, donated by Mrs. Bruchins.	1 cardinal, donated by Miss L. C. Fulton.
1 hawk, donated by S. A. Sands.	1 rabbit, donated by Mrs. Ruckes.
1 parrot, donated by Alice Nicholas.	1 rabbit, donated by Mrs. Dunn.
1 raccoon, donated by Mr. Markay.	11 alligators, donated by John B. Simpson.
2 mocking birds, donated by S. Altman.	1 monkey, donated by L. A. Clement.
May—	October—
1 green monkey, donated by C. B. Weeks.	2 alligators, donor unknown.
37 small birds, donated by Mrs. H. G. Ferguson.	1 hawk, donated by R. C. Kunk.
1 cockatoo, donated by Dr. Van Vredenburg.	1 rail, donated by George E. Jansen.
1 rabbit, donated by T. Regan.	2 rabbits, donated by C. J. Frostman.
2 guinea pigs, donated by F. Higua.	2 red foxes, donated by C. H. Fisher.
2 coryns, donated by W. S. Maugher.	1 rail, donated by Emma Bajer.
1 parrot, donated by T. W. Spangum.	1 rabbit, donated by R. Demarias.
1 hawk, donor unknown.	2 canaries, donated by Mrs. McNaughton.
37 fustall pigeons, donated by T. A. Haver-	1 marmoset, donated by W. H. Karkick.
meyer.	2 gray doves, donated by Joseph J. Kille.
1 monkey, donated by C. B. Weeks.	2 wild turkeys, donated by Joseph J. Kille.
2 rabbits, donated by J. M. Stewart.	1 monkey, donated by J. C. Walker.
1 robin, donor unknown.	November—
2 rabbits, donated by C. E. Kenny.	1 hawk, donated by H. A. Walker.
June—	1 alligator, donated by W. Shaler.
1 rail, donated by Adolph Roumer.	1 marmoset, donated by Mrs. Gorn.
1 sea gull, donated by Alfred Poll.	2 colts, donated by Mrs. Pluchney.
1 guinea pig, donor unknown.	1 hawk, donated by Hoffman Nicholson.
2 pigeons, donated by R. Ely.	1 owl, donated by Thomas H. Quinn.
1 golden eagle, donated by John Smith.	2 rabbits, donated by J. C. Stone.
1 rabbit, donated by Amy Ashmead.	1 opossum, donor unknown.
1 owl, donated by Mr. Numburg.	December—
42 fan-tail pigeons, donated by T. A. Haver-	1 monkey, donated by J. J. Henth.
meyer.	1 owl, donated by T. H. Thomas.
2 phantoms, donated by H. M. Garner.	1 monkey, donated by C. Smith.
1 elver cat, donated by Twentyfifth Police	1 rabbit, donated by Thomas H. Thomas.
Prison.	1 monkey, donated by Gilbert Johnson.
1 bullfinch, donated by N. R. Harned.	
1 owl, donor unknown.	

THE AQUARIUM.

The Battery Park Aquarium was opened to the public in December, 1899.

Attendance.

1897	1,615,225
1898	1,670,085
1899	1,841,339

The large increase in attendance in the past year resulted from the improved condition of all the details of the establishment and the largely increased exhibition of the most interesting specimens procurable without exceeding the appropriation. The daily attendance in 1899 was over five thousand (5,045).

During the past year five new and improved tanks were built at an expense of about \$800, replacing others that had become useless through faulty construction or wear. Quite extensive repairs in the way of tinning and painting were made to the roof and many of the outside windows have been provided with double sash and glass. The Fish Commissioners of New York State and of Maine, Vermont, Massachusetts and New Jersey have been generous in furnishing specimens of cold water fish.

Specimens.

40 salmon, three species.	1 eel.
153 trout, seven species.	5 snail's choice.
25 carp, three species.	5 anguillula.
35 catfish, four species.	7 fish.
68 goldfish.	7 trigger-fish.
20 suckers, two species.	3 writh.
14 pike perch, two species.	2 trunkfish.
59 black bass, two species.	5 blue-eyed.
5 rock bass.	1 yellow grunt.
4 golden ale.	2 spiny box-fish.
7 tench.	9 crovate.
34 perch, two species.	2 yellow mackerel.
10 calico bass.	1 pilot-fish.
1 pike.	25 bream.
18 pickerel, two species.	21 spotted-fish.
2 white bass.	2 salmon rockfish.
13 white perch.	1 tiger rockfish.
23 yellow perch.	5 princess rockfish.
5 whitefish.	8 common rockfish.
5 muscalonge.	2 blue parrot-fish.
8 mudfish.	2 green parrot-fish.
40 sunfish, two species.	1 red parrot-fish.
9 paradise fish.	2 amber-fish.
2 climbing perch.	27 hinds.
1 alligator gar.	2 coney.
5 bony gar.	5 moray (1 green, 5 spotted).
5 eels.	2 moonfish.
7 hellbenders.	27 striped grunts.
9 mud-puppies.	14 sergeant majors.
40 crayfish.	13 angel-fish.
200 anemones, four species.	12 spots.
38 turtles, fifteen species.	1 pompano.
2 silverside.	1 spotted bass.
47 newts, two species.	15 blackfish.
1 ciliaris magur.	4 muttonfish.
4 amphuma.	3 skates.
20 Bermuda hermit crabs.	11 hergall.
5 bull frogs.	3 menhaden.
Living coral, salt water.	3 sea raven.
1 sea horse, salt water.	1 sea robin.
Bermuda minnows, salt water.	7 sculpins.
6 zoanthus, salt water.	3 porgies.
1 alligator (small).	28 groupers.

2 serpula.	5 almy (small).
36 striped bass.	2 eels.
2 sea bass.	1 larchetta.
5 weakfish.	25 stickleback, 3 species.
2 congo eels.	1 mantis shrimp, large.
7 sturgeon.	32 crabs, 3 species.
1 German hark.	5 lobsters, large.
2 charls.	1 starfish.
12 dogfish.	1 harbor seal.
136 gray snappers.	1 West Indian seal.
29 spot snappers.	400 lobes.
5 red snappers.	Stations.
7 yellow-fish.	Kitties.
2 spade-fish.	Softshell clams.

Summary of Exhibits.

Fish, 158 species.	2024
Mammals.	4
Crustaceans.	37
Reptiles.	39

Statement, Balance of Appropriations, December 31, 1899.

THREE OF APPROPRIATIONS.	Amount in Appropriation.	Balance.	Amount of Unexpended Balance.
Salaries of Commissioners, Secretary and Employees of Board of Fish.	100,000.00	100,000.00	0.00

BOROWINGS OF MANHATTAN AND RICHMOND.

Administration	15,000.00	15,000.00	0.00
Labor, Maintenance and Supplies	40,000.00	40,000.00	0.00
Supplies	10,000.00	10,000.00	0.00
Payrolls	10,000.00	10,000.00	0.00
Maintenance of Museums			
American Museum of Natural History	10,000.00	10,000.00	0.00
Metropolitan Museum of Art	10,000.00	10,000.00	0.00
Zoological Department	10,000.00	10,000.00	0.00
Supplies	10,000.00	10,000.00	0.00
Payrolls	10,000.00	10,000.00	0.00
Misc.	10,000.00	10,000.00	0.00
Surveys, Maps and Plans	10,000.00	10,000.00	0.00
Contingents	10,000.00	10,000.00	0.00
Apparatus	10,000.00	10,000.00	0.00
Supplies	10,000.00	10,000.00	0.00
Payrolls	10,000.00	10,000.00	0.00
Care Grant's Tomb	10,000.00	10,000.00	0.00
Harlem River Parkway	10,000.00	10,000.00	0.00
Amusement Streets, Central Park	10,000.00	10,000.00	0.00
Drainage of Central Park	10,000.00	10,000.00	0.00

Receipts.

Rents, privileges, etc.	580,278.04
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Expenditures, Including Engineering, etc., 1899.

Riverside Park and Drive—Completion of construction, grading and construction of drainage and walks.	\$13,083.41
Riverside Park and Drive—Completion of construction, planting and developing from Seventy-ninth to Eighty-sixth streets.	18,807.25
Riverside Park and Drive—Completion of construction; construction of Viaduct over West Ninety-sixth street.	0,025.00
Riverside Park and Drive—Completion of construction; improvement of Riverside Park, between Eighty-sixth and Ninety-sixth streets.	25,140.78
Riverside Park and Drive—Completion of construction; planting between Seventy-second and Seventy-sixth streets.	7,272.20
Riverside Park and Drive—Completion of construction; constructing walks, etc., east of the westerly wall of drive, between Seventy-ninth and One Hundred and Fourth streets.	5,010.59
Riverside Park and Drive—Completion of construction; tree planting, etc., in River side Park, west of Riverside drive and north of Ninety-sixth street.	335.27
Riverside Park—Construction of widening roadway on the easterly side of Riverside drive, between One Hundred and Twenty-sixth street and Claremont place.	1,903.40
Riverside Park—Construction of; planting trees, shrubs and other work.	18.54
Improvement of Parks, Parkways and Drives—Construction and improvement small park north of One Hundred and Fifty-third street, between Seventh avenue and Macomb's Dam road.	704.11
Improvement of Parks, Parkways and Drives—Central Park, improvement of; paving and repaving with asphalt the walks.	1,090.13
Improvement of Parks, Parkways and Drives—Improvement, etc., Cooper Union Park.	0,305.57
Improvement of Parks, Parkways and Drives—Widening of roadway One Hundred and Fifty-third street, between Seventh avenue and Macomb's Dam road, and improving, etc., sidewalk north of One Hundred and Fifty-third street.	81.00
Improvement of Parks, Parkways and Drives—Central Park, improvement of; paving the Circle, Fifty-ninth street and Eighth avenue.	890.22
Improvement of Parks, Parkways and Drives—Central Park, improvement of; erecting additional greenhouses, etc.	38,340.86
Improvement of Parks, Parkways and Drives—Paving sidewalk adjoining Central Park, on the west side of Fifth avenue, from Eighty-fifth to One Hundred and Tenth streets.	32.77
Improvement of Parks, Parkways and Drives—Improving principal entrance, Central Park, Fifty-sixth street and Fifth avenue.	344.03
Improvement of Parks, Parkways and Drives—Repairing with asphalt the roadway to Plaza, Fifty-ninth street and Fifth avenue.	10.65
Improvement of Parks, Parkways and Drives—Greenhouses in Central Park.	17,000.00
Improvement of Parks, Parkways and Drives—Paving with asphalt pavement, etc., the sidewalks of transverse roads 1, 2 and 3.	173.88
Improvement of Parks, Parkways and Drives—Paving with asphalt the easterly and westerly sidewalks of Manhattan square.	113.33
Improvement of Parks, Parkways and Drives—Central Park, improvement of; completing sidewalks on Eighth avenue, from Fifty-ninth to One Hundred and Tenth street.	212.30
Improvement of Parks, Parkways and Drives—Asphalting in other localities in Central Park.	5,944.51
Improvement of Parks, Parkways and Drives—Improving Swedish School-house in Central Park, etc.	381.28
Improvement of Parks, Parkways and Drives—Laying asphalt walks, leveling playgrounds, etc., East River Park.	57.67
Improvement of Parks, Parkways and Drives—Transverse Road No. 1, improvement of, etc.	49.50







Monthly Average of Employees.

Month.	CITY.	DEPARTMENT.	STREET-REPAIRS.	TRAFFIC.	RECREATION.	LABORERS.
January	4	46	36	37	3	131
February	4	43	37	36	3	134
March	4	43	33	40	4	130
April	4	40	30	39	10	120
May	4	39	30	34	29	177
June	4	39	34	37	19	184
July	4	39	31	30	31	209
August	4	37	30	30	31	202
September	4	37	30	31	29	200
October	4	37	31	31	31	203
November	4	37	31	41	34	216
December	4	37	31	41	35	227

Total employees average, 201.

OPERATIONS IN THE SEVERAL PARKS UNDER THE DEPT. OF MAINTENANCE AND CONSTRUCTION.

The ordinary work of maintenance in the parks, including the repaving of all the roads, drives, avenues, parkways and paths, the cleaning of snow in the winter, the thorough cleaning of the same during the balance of the year, the sprinkling of all roads, avenues and drives during eight months of the year, the removal of all dead and dangerous trees, the pruning and care of trees, the cutting and trimming of all lawns, mowing of meadow lands, the painting and repainting of all fences and iron benches, the painting and repainting of all railings and fences, repainting and painting of buildings, masonry work, brick, stone, iron, etc., repairing and cleaning of sewers, drains, culverts and basins; in all, all the ordinary work necessary for the care and maintenance of over four thousand acres of park lands.

In addition to the above the following work of incidental construction has been performed in the several parks:

Pelham Bay Park (Area, 4,726 acres).

This park has a water-front of seven miles upon Long Island Sound and Pelham Bay, and from its beautiful surroundings will eventually become a most popular resort.

During the year the following additional work has been performed:

On the road leading from the New Rochelle road opposite Hunter Island, a new piece of macadam road was constructed, 200 feet long and 13 feet wide, both sides of road, 200 feet long and 7 feet wide, graded and sodded.

Two cobble-stone gutters were also constructed, each 200 feet long and 2 feet wide. One hundred feet cobble gutter on Hunter Island.

Constructing a dirt road on Hunter Island, 2,000 feet long and 24 feet wide.

A new tennis court on Twin Island, 60 feet long, 30 feet wide.

A new tennis court on Pelham Island, 60 feet long, 30 feet wide.

A new macadam road, 600 feet long, 24 feet wide.

A new piece of road on Pelham Bridge, macadam pavement, 138 feet long, 41 feet wide.

A cobble stone gutter for same 138 feet long, 8 feet wide.

A new piece of road at the end of the Island, City Island road, 100 feet long, 20 feet wide.

Building a stone wall at Pelham Bridge, 184 feet long, 4 feet high, 3 feet wide.

Rebuilding two wings on New Rochelle road, 1,400 feet long, each 11 feet wide.

Replanting and placing flower planters, also building flower around abutments, also painting Pelham Bridge, building walk from Pelham Bridge 100 feet north.

Three horse turn down and removed.

Van Cortlandt Park (Area, 1,131 acres).

Is situated at the extreme northwest section of the city, and contains a deer range, polo ground, a lake of eleven acres, the golf links, baseball fields, tennis courts, football fields, and affords ample opportunity for all outdoor sports.

The following work of additional construction has been performed: Macadam road resurfaced, in length, 18,212 feet, 17 feet wide. Macadam and dirt paths resurfaced, in length, 4,670 feet, 4 feet wide. New sidewalks constructed, in length 1,350 feet, 4 feet wide.

Under a special appropriation made by the Board of Estimate and Apportionment the swamp lands south of the Colonial Mansion were filled in, requiring 17,000 loads of filling.

Water was introduced in the men's toilet on the second ground.

The old mill south of the lake was partially reconstructed for an engineer's office.

In the early part of the year the skate-house, a large and commodious structure, erected especially for the purpose, was entirely destroyed by fire, involving a loss of \$4,000. An old stable, situated just east of the burned building, was utilized for the purpose of constructing a temporary shelter, and will answer during the remainder of the winter.

It is proposed to construct a suitable and improving structure early in the coming season.

By far the most important improvement in this park has been the reconstruction of the golf links from a course of nine holes to a full course of eighteen holes.

The experiment of laying out a full course of this magnitude, under municipal ownership and control has been a subject of interest throughout the country.

During the past season the course has been improved by committees from many of the large clubs, and in every case has been the subject of commendation and approval. I know of no enterprise of a similar character that has afforded so much recreation and pleasure to so large a number of people.

The full course was opened by a public tournament and competition for valuable trophies presented by James Gordon Bennett, Esq., on the 18th of November last.

I append the report of the expert in charge as follows:

"VAN CORTLANDT PARK, January 2, 1900."

"PETER GEER, Esq., Superintendent:

"Since taking hold here the work done by the men under my charge has been the building of an entirely new golf course of eighteen holes. The old nine-hole layout was abandoned entirely except to one instance, that necessitating the making of 17 of the entire course. The old course probably occupied 35 acres which had to be maintained. At the completion of the year 1899 we had fully 120 acres of land in a very fair condition.

"The work embraced the removal of stone fences of various kinds, the blowing up of multitudinous rocks and their removal. Trees had to be cut down and brush of all kinds had to be grubbed up. Considerable grading and filling up had to be done especially on the first six holes, and on the last three.

"Twenty cop bunkers and sand traps were built ranging in length from 80 feet to 150 feet long.

"To-day we stand in the position of having the longest, and I will say, as scientifically laid out course as can be found in America; its playing length being according to surveyor's measurement 6,000 yards, a trifle short of 3½ miles, which means to the player a walk of fully 5 miles before he can complete his round of eighteen holes.

"The nature of the turf was vastly improved last year by continued rolling and cutting, and very considerable growth was manifested on those parts which seem to be impoverished, by the judicious seeding and top dressing which they received.

"Inclosed find map of course which will give you some idea of what has been done.

"Truly yours,  
"(Signed) THOMAS BENDALOW."

On Grand and Moshulu avenues new island pavements are in process of construction, and will be completed during the coming season.

Bronx Park (Area, 664.6 acres).

Is situated in the northern central section of the borough. The extreme northwesterly section, containing 250 acres, has been assigned to the New York Botanical Society for botanical gardens. The Museum Building is substantially completed, and the Horticultural Building will be finished by spring. An appropriation of \$30,000 was made for the maintenance of the garden during the year 1899, which was increased to \$40,000 for the year 1900. The report of Dr. N. L. Britton, the Secretary and Director-in-Chief, is herewith appended.

The southeasterly section, containing 261 acres, has been assigned to the New York Zoological Society for the purposes of a zoological garden. The garden was formally opened to the public on November 8 last. The appropriation of \$125,000, authorized by the Legislature, for

preparing the grounds, has been nearly all expended, and by early spring, the work of the City will have been completed. An appropriation of \$50,000 was made for the maintenance of the garden for the year 1900, and one of \$40,000 for the year 1901.

The report of William T. Hornsby, Director for the year 1899, is herewith appended.

The remaining section of Bronx Park, situated between the two gardens, and containing 150 acres, is under the direct jurisdiction of this Department.

It contains the Larchmont Mansion (now used as a police station), the old mill mill now serving as a workhouse, and the nurseries and the temporary headquarters of the department.

In addition to the ordinary work of maintenance, the following work was finished up:

Repairs to the Southern Boulevard, from Pelham avenue to park limit; opened up and repaired 300 feet of sewer on 131st Street road; filled in drain, 1,500 feet long, parallel to 200th Street; filled in 200 feet of roadway of the 131st Pelham avenue road; remade the back road from Botanical Garden to Larchmont Mansion.

Expanding foot walk and painting bridge crossing Bronx river at Pelham parkway.

Taking out the machinery from the old mill (twenty-five tons of old iron), and altering the building for a department workshop. Work still in progress.

Crotona Park (Area, 154.0 acres).

Is situated just east of Third Avenue and running parallel therewith from a point north of One Hundred and Seventy-fifth Street to One Hundred and Seventy-seventh Street. It contains the old London Lake, a popular resort for skating during the season.

The new Municipal Building is situated in the northwestern section, fronting on Third Avenue and One Hundred and Seventy-seventh Street.

In addition to the ordinary work, a large amount of road repairs and new work was finished up in this park.

The drive east of Crotona Avenue, length 4,600 feet, width 20 feet, was thoroughly repaired.

The drive between bridge and One Hundred and Seventy-fifth Street, length 2,100 feet, width 16 feet, placed in good condition.

The drive east of Windover Avenue, 600 feet long and 16 feet wide, practically rebuilt. This work required 5,000 yards of dirt and 2,000 yards of stone.

Wherever necessary all the drives were placed in good condition, with lawns mown and earth filling.

A new walk was constructed east of Crotona Avenue, 500 feet long, 7 feet wide.

A new walk, from Crotona Avenue to Lake House, 400 feet long, 5 feet wide.

New walk figures were built at ice pool, 225 feet long (west of Crotona Avenue, 250 feet long) at Ball field, 350 feet long, and also at bridge south of Lake House, and at bridge north of One Hundred and Seventy-fifth Street.

A new woman's toilet was built 20 feet by 14 feet by 6 feet, and a new men's toilet, 8 feet by 11 feet by 7 feet.

Cherry Hill Park (Area, 38 acres).

Situated at the easterly end of Windover Avenue at its intersection with Webster Avenue, and contains the Cherry Hill Mansion, now used as the office building of the department, and the department stables.

The additional work consists of resurfacing driveway, 7,000 square feet; resurfacing paths, 18,000 square feet; making 100 feet of cobblestone gutter, 2 feet wide; grading southwesterly end of park, and making 5,000 square feet; building an addition to Department Stables, east end, and maintaining four mummy walls.

Building a coach house at west end of stable.

New Telford road and asphalt walks were also constructed under contract, as per report of Engineer-in-Chief.

St. Mary's Park (Area, 25.7 acres).

Situated at St. Ann's Avenue, from One Hundred and Forty-third Street to One Hundred and Forty-fifth Street. St. Mary's street at the easterly side has been rebuilt its entire length.

The southwest corner was filled in to grade—1,000 loads of filling and sodded.

New walk constructed from stable house leading southwesterly.

New walk constructed from stable house leading northwesterly.

New men's and women's toilet constructed in basement of stable house with running water.

Building eight sets of new stone and wooden steps.

The most important work in St. Mary's Park will be found embodied in the report of the Foreman Gardener.

Massey's Dam Bridge Park (Area, 27 acres).

Situated at Jerome Avenue and One Hundred and Sixty-third Street, at the northerly entrance to Massey's Dam Bridge.

10,000 yards of filling used.

400 feet of drain pipe constructed.

Four old buildings removed.

Union Park (Area, 17.47 acres).

Situated at Mott Avenue, Walton Avenue and One Hundred and Fifty-eighth Street.

Planting 150 feet drain pipe.

Filling 1,000 cubic yards.

Resurfacing paths, 4,000 square feet.

New building, 5,000 square feet.

At St. James' Park, Washington Bridge Park, Fox Park, Tompkins Park, all have been thoroughly put in order. In Fulton Park, new asphalt walks, tennis courts, are being placed under contract, as per report of Engineer-in-Chief.

The appropriations for the maintenance of the parks in the respective boroughs are as follows:

MANHATTAN AND RICHMOND.

Area, 1,282.287 acres. Appropriation, \$400,000; an average of \$312 per acre.

BROOKLYN AND QUEENS.

Area, 1,571.78 acres. Appropriation, \$450,000; an average of \$286 per acre.

THE BRONX.

Area, 4,037.880 acres. Appropriation, \$245,000; an average of \$61 per acre.

In view of the great amount of work yet to be performed in the comparatively undeveloped sections of The Bronx this comparative meagerness startling.

The attendance of visitors in our parks has increased more than tenfold in the past two years. The improvements already made and those in progress have so stimulated real estate transactions that there have been more transfers recorded in two years of property adjoining our parks than there had been in the previous twenty years.

The time has arrived when small appropriations would seem extravagant and fairly adequate appropriations economy.

During the past two years I have so endeavored to administer the trust committed to my hands as to produce the best possible results.

I would, therefore, earnestly recommend a thorough investigation of the needs of this Department for the future, with the firm conviction that the results would be convincing that our great park system is in need of immediate development and improvement and would be of great and lasting benefit not only to our borough but to the entire City of New York.

All of which is respectfully submitted.

ALBERT MERRILL, Commissioner of Parks, Borough of The Bronx.

(Copy).

New York, January 1, 1900.

Hon. AUGUST MORRIS, Commissioner of Parks, Borough of The Bronx:

Sir—Herewith you will find annual report of work done under my supervision for the year ending December 31, 1899.

Work was Completed on the Following Contracts, viz.:

1. Constructing a roadway and apartments in Bronx Park, connecting the Bronx and Pelham parkway with the Southern Boulevard, at Pelham Avenue, in The City of New York.

William H. Mortenson, Contractor. The contract was signed September 13, 1897, and was completed January 29, 1899, at a cost of \$21,211.25.

2. Constructing and improving a portion of the Bronx and Pelham parkway, for its full width of four hundred feet, between Bronx Park and Bear Swamp road, in The City of New York.

John B. McDonald, Contractor. The contract was signed December 9, 1897, and completed June 22, 1899, at a cost of \$46,399.10.

3. Furnishing all the materials and labor for erecting complete wire fences as herein specified in zoological park in Bronx Park, in The City of New York.

Page Woven Wire Fence Company, Contractors. The contract was executed March 18, 1899, and completed June 30, 1899, at a cost of \$10,571.84.



8. Purchasing, delivering and repairing lawn mowers for parks in the Borough of The Bronx. Twelve horse lawn mowers and 18 hand lawn mowers were delivered at a cost of \$725. All the above mowers and in addition 12 horse and 18 hand lawn mowers will be kept in repair for one year for the sum of \$200. Boddwell Lawn Mower Company, Contractor. The contract was signed June 23, 1899.
9. Purchasing and delivering one twelve-ton steam road roller. Harrington Foundry and Machine Works, Contractor. This contract was signed May 4, 1899, and completed June 16, 1899, at a cost of \$1,085.
10. Purchasing and delivering three road sprinkling wagons and three road sprinkling carts. Snodgrass Brothers Manufacturing Company, Contractors. This contract was executed April 17, 1899, and completed May 25, 1899, at a cost of \$750.
11. Purchasing and delivering three hundred (300) park settees. Putnam, Grinnell & Hunter, Limited, Contractors. This contract was executed April 17, 1899, and completed May 1, 1899, at a cost of \$1,317.
12. Constructing a roadway and appurtenances in Pelham Bay Park, extending the Bronx and Pelham parkway from Baychester avenue to the Eastern Boulevard, in The City of New York. William H. Mesterman, Contractor. This contract was executed December 30, 1898, and completed July 10, 1899, at a cost of \$6,054.48.
13. Purchasing and delivering broken stone of trap-rock and trap-rock screenings where required in Van Cortlandt and Bronx parks. J. Frank Quinn, Contractor. This contract was executed June 23, 1899, and completed September 27, 1899. The contractor delivered ten cubic yards of broken stone of trap-rock, 1,431.2 cubic yards of screenings of trap-rock, at a cost of \$1,925.80.
14. For repairs to road work on Pelham Bridge, in Pelham Bay Park. Augustus Smith, Contractor. This contract was executed July 27, 1899, and completed August 10, 1899, at a cost of \$575.
15. Constructing and improving grounds for use of New York Zoological Society in Bronx Park, in The City of New York. Ray Dunn, Contractor. This contract was executed December 30, 1898, and completed October 19, 1899, at a cost of \$30,070.45.
16. To remove all the labor and machinery and erecting all the material necessary to erect and complete, as specified, in the Botanical Gardens in Bronx Park, in The City of New York, the stone masonry, etc., for principal entrance of Museum Building, etc. John H. Parker Company, Contractors; Robert W. Gibson, Architect. This contract was executed January 28, 1899, and completed October 5, 1899, at a cost of \$12,985.
17. Purchasing and delivering broken stone of trap-rock and trap-rock screenings, where required, on Hudson park, in the Bronx Park, Borough of The Bronx. Augustus Smith, Contractor. This contract was executed June 23, 1899, and was completed November 1, 1899. The contractor delivered 1,872.54 cubic yards broken stone of trap-rock, 444.4 cubic yards screenings of trap-rock, at a cost of \$4,481.05.
18. Purchasing all labor and all materials for constructing four toilet buildings in the New York Zoological Park in Bronx Park. T. W. Thompson & Co. (Incorporated), Contractors. This contract was executed October 10, 1899, and was completed November 14, 1899, at a cost of \$1,400.
19. The construction and improvement of a portion of Claremont Park, in the Borough of The Bronx, in The City of New York. John B. Goring, Contractor. This contract was executed May 20, 1899, and completed November 10, 1899, at a cost of \$14,093.41.
20. Purchasing and delivering trap-rock screenings, where required, on Grand avenue, in Van Cortlandt Park, Borough of The Bronx. Jacob F. Van Egan, Contractor. This contract was executed November 16, 1899, and was completed December 12, 1899. The contractor delivered 420 3/4 cubic yards trap-rock screenings, at a cost of \$8,460.
21. Constructing tracks and bridge railways and appurtenances adjacent to the existing roadway in the Bronx and Pelham parkway, between Bear Swamp road and Eastern Boulevard, in Pelham Bay Park, in The City of New York. John B. McDonald, Contractor. The contract was executed February 14, 1898, and completed December 14, 1899, in accordance with other plans and contracts, at a cost of \$28,115.51.
22. Resurfacing, grading and paving walks and driveways in the Botanical Gardens in Bronx Park, in The City of New York. John B. Goring, Contractor. This contract was executed June 30, 1899, and completed December 14, 1899, at a cost of \$12,092.40.

*Work is now completed on the following contracts, viz.:*

1. Furnishing all the labor and machinery and erecting all the material necessary to erect and complete, as specified, in the Botanical Gardens in Bronx Park, in The City of New York, the new Museum Building and Power House and Stable and Closet Group, etc. John H. Parker Co., Contractors; Robert W. Gibson, Architect. This contract was executed December 24, 1897, and was modified September 21, 1899, in consequence of additional work on the parkway, increasing the total amount of the contract by \$874. This work is now completed and portions of the buildings are now occupied and in a few weeks will be entirely finished.
2. Regulating, grading and constructing a roadway and appurtenances and otherwise improving the Spuyten Duyvil parkway, from New York Central and Hudson River Railroad to Broadway, in the Twenty-fourth Ward of The City of New York. Julius Weiss, Contractor. This contract was executed December 8, 1898, and completed March 27, 1899. The work has been in progress since that time and about two-thirds of the work is completed.
3. Purchasing all the labor and erecting all the material necessary to erect and complete in Bronx Park, in The City of New York, the range of horticultural buildings and appurtenances, etc. John B. Sheehan, Contractor; Lord & Burnham Co., Architects. This contract was executed December 9, 1898; was modified February 6, 1899, in regard to payments, and again modified July 10, 1899, in consequence of additional work on Building No. 1 and in other minor details, increasing the total amount of the contract by \$2,000. This work is progressing and about one-third is completed.
4. Improving all the materials and labor for erecting complete the approach to the Public Buildings, also grading and improving the grounds surrounding in Crotona Park, at Third and Tremont avenues, in The City of New York. Thomas Kelly, Contractor. This contract was executed August 28, 1899, and the contractor is now commencing work on September 18, 1899. This work is progressing and about three-fifths is completed.
5. Regulating and grading a portion of the Bronx and Pelham parkway, in The City of New York. John B. McDonald, Contractor. This contract was executed August 23, 1899, and the contractor notified to commence work on October 16, 1899. The work is now in progress and considerable has been done.
6. Regulating, grading and constructing retaining-walls and pools for use of New York Zoological Society in Bronx Park, in The City of New York. John C. Rodgers, Jr., Contractor. This contract was executed September 25, 1899, and the contractor notified to commence work October 12, 1899. The work is in progress, with two-thirds of it completed.
7. Furnishing all labor and all materials for constructing four entrances to the New York Zoological Park in Bronx Park, in The City of New York. John B. Sheehan, Contractor. This contract was executed October 5, 1899, and contractor notified to commence work October 23, 1899. The work is now in progress, with two-thirds of it completed.
8. Improving small park on the west side of Fulton avenue, between One Hundred and Sixty-sixth and One Hundred and Seventieth streets, in the Borough of The Bronx of The City of New York. William J. Moore, Contractor. This contract was executed October 5, 1899, and the contractor notified to commence work on October 30, 1899. The work was suspended on account of the weather January 1, 1900; about two-thirds of the work is completed.
9. Furnishing all labor and all materials for constructing complete a Public Comfort Building in the New York Zoological Park in Bronx Park, in The City of New York. T. W. Thompson & Co. (Incorporated), Contractors. This contract was executed November 15, 1899, and the contractor notified to commence work December 4, 1899. The work is now nearly completed on account of the weather.
10. Purchasing and delivering two hundred (200) park settees for use in New York Zoological Park. V. L. Dunn, Contractor. This contract was executed October 10, 1899, and is now in progress.
11. On November 17, 1899, an agreement was entered into between the New York, New Haven and Hartford Railroad Company and The City of New York through this Department, whereby a bridge shall be built carrying the Bronx and Pelham parkway over and above the grade of the Harlem river branch of the said railroad.

The bridge and abutments shall be built according to certain plans and specifications prepared in this office and attached to the agreement, at an estimated cost between \$60,000 and \$70,000, and said company agrees to make payments of one-half of said cost upon

the Engineer's certificates to be made under the contract to be entered into between this Department and a contractor for the construction of the said bridge, as the said certificates are made and payments thereon become due.

30. Work done by park laborers as follows, viz.:

In Van Cortlandt Park the filling in of the Colonial Garden site has been in progress, and 15,000 cubic yards of filling have been put in place; the fund for this purpose is about exhausted. All the roads in Van Cortlandt Park have been resurfaced with trap-rock screenings; also a portion of the roadway in Bronx and Pelham parkway.

The roadway of Old Boston road in Bronx Park was resurfaced with broken stone of trap-rock and trap-rock screenings; the roadway was 20 feet wide and 4,400 feet in length.

The sidewalk of this road for a distance of 3,500 feet has been rebuilt and improved.

Grand avenue, between Mosholu and Jerome avenues, in Van Cortlandt Park, has been regraded and telford pavement has been laid and macadam of domestic stone placed on top with trap-rock screenings; this work is not entirely finished.

The topographical survey of Pelham Bay Park has been in progress.

All the lines and corners have been designated on the ground by the placing of fifty granite monuments; levels and bench-marks established, and a portion of the park, with all details of topography, has been plotted on sheets, and it is expected to continue this work so as to make it fully complete, and may be used in the future for any permanent improvements contemplated.

A survey of the east line of Bronx Park has been made and settled in conjunction with the Engineers of the Department of Public Improvements.

Numerous surveys, estimates, specifications, plans, etc., have been made for improving and maintaining the parks and parkways.

Respectfully,  
(Signed) DANIEL ULRICH, Engineer-in-Chief.

(Copy.)

JULY 1, 1899.

Hon. AUGUST MORRIS, Commissioner of Parks, Borough of The Bronx:

DEAR SIR—I herewith respectfully submit to you my semi-annual report regarding the administration and development of the newly established garden and propagating department in Bronx Park.

1. Late last fall (middle of November, 1898), in the newly erected propagating house, the propagation of many kinds of bedding plants, needed for planting in the flower beds in Bronx, St. Mary's, Van Cortlandt and Claremont parks was started, and up to the time of January 1, 1899, a number of about 8,000 young plants had been rooted and potted for this purpose.

Besides this propagation, young seedlings, as 3,000 pansies, 2,000 daisies, 3,000 carnations and pinks, 500 myosotis, 500 phlox and 500 other kinds of plants, were kept on stock in frames.

From January 1 to April 1 the propagation of all such plants was continued and the older plants of the first propagation shifted and cultivated to be in suitable condition and size for the coming setting out in spring.

The extreme cold and snowy weather during the months of January and February caused much trouble and anxiety to keep such large number of plants in the small house and the cold frames, but thanks to our good care, no losses were to be remarked, and in consequence, the early spring decorations of the flower beds with hardy plants could be done in due time and was completed after first week of April. The second planting of the flower beds took place at the end of May, when another class of plants was selected for the flower show during the summer season.

About 10,000 plants in all had been used for the two flower decorations in the parks.

2. By your order in February last a planting map for planting St. Mary's Park in a landscape style was elaborated by me and adopted by your honorable body. During the time of preparations to carry out this extended planting work, a thorough pruning of all trees in Claremont Park was successfully carried out.

At the end of March the planting work in St. Mary's Park, with a force of twelve men and four gardeners, was commenced and was finished in about four weeks, at the end of April.

Although the weather at the time of planting was favorable, the following extreme drought for nearly three months kept the growth of trees and shrubs very much backward.

In spite of this, as the planting work was done with great care and much thought, only a very small percentage of shrubs and trees had been lost.

The entire planting in St. Mary's Park in accordance to the adopted plan required about—

250 evergreens of various kinds.  
50 extra large elm trees (lime trees).  
250 large shade trees, various kinds.  
500 small trees for inside planting.  
4,300 shrubs and climbing plants.  
About one-third of the total number of trees and shrubs had been obtained by purchases of different nurseries in the vicinity of New York, chiefly from the Bloodgood Nursery in Flushing, N. Y. The remaining two-thirds of the planting material came from our own nursery in Bronx Park.

3. After the planting work in St. Mary's Park was finished, it became necessary to transplant the remaining stock from the first nursery to the prepared ground of the new site. This planting work in the new nursery, about 3,500 trees and shrubs, etc., was carried out between May 1 and May 15; besides about 4,000 cuttings of many kinds of trees and shrubs were made and set out.

Our seed-beds contain now about 2,000 young seedlings of pines, firs, spruces, junipers, cypresses, etc., and other rare shrubs and trees; together with the stock in nursery, the entire stock in the nursery is about 8,000 plants, which will serve for future planting purposes and propagation.

4. The new flower garden in front of the propagating house and hot-houses was laid out and finished by June 15, and was planted at once to obtain good result and show for its first season. In the well-prepared ground, divided and geometrically arranged, about 50,000 bedding plants of many kinds have been set out and the entire planting being finished until July 10th, from which date till now the flower beds are under continued cultivation.

The rocky grounds in the rear of the propagating house have been laid out as a reserve and collective garden for hardy perennial plants, fine evergreens, shrubs, rare and conspicuous trees, vines, etc., and contain now about 2,000 plants.

Finally, I have to state that with the next propagation, which is commencing in August and September, the propagating department and nursery will have on stock:

(a) In the New Nursery.

Evergreens and seedlings.....	1,000
Ornamental trees (650 of them, extra large size).....	1,500
Shrubs, cuttings and seedlings.....	5,500
Total.....	8,000

(b) In the Flower Garden and Reserve.

Hardy perennial plants, of the best varieties and species.....	10,000
Bulbous and tuberous plants, as iris, lilliums, finkias, hemerocallis, anemylis.....	5,000
Roses, various kinds.....	500
Climbing and creeping plants.....	500
Total.....	16,000

(c) In Frames, Flower Garden for Stock.

Hardy perennials and bedding plants.....	30,000
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(d) In Frames, Greenhouses, etc.

Bedding plants of tender nature—cannas, calahums, colins, geraniums—succulent plants.....	30,000
Ferns, best sorts for green and hot houses.....	500
Selected house-plants, collection.....	500
Selected greenhouse plants, collection.....	1,000
Total.....	32,000

Considering this favorable result, obtained in such a short space of time, I therefore hope that this statement will have your full satisfaction.

Very respectfully,  
(Signed) ROBERT DEMCKER.

*Semi-annual report of the Garden, Department of Parks, Borough of The Bronx, in The City of New York, from July 1, 1899, to January 1, 1900, enumerating all the garden work carried out, improvements made and maintained in Bronx and other parks, the condition of nursery and flower garden, flower decorations; also the increase of the stock of plants in the Propagating Department.*

1st. Nursery—The condition and the development of all the newly planted trees and shrubs in the new nursery became promising after a continuous cultivating and cleaning of the ground during the months of July and August, thereby preventing losses.



2d. The new flower garden having been laid out quite late in spring, had to be planted only with such plants for immediate effect. But a careful cultivation and thorough watering during the hot season produced an abundance of fine flowers. The splendor of flowers has been admired by thousands of visitors and acknowledged even by the Press. During August and September a large number of showy perennial plants, besides other kinds of a more imposing character, had been propagated, were substituted in the flower garden for the next great show this spring. A number of about 25,000 plants of this kind is now on hand for later supply or for planting in the other parks.

3d. The Rock Garden—While all this work was going on in nursery and flower garden, the grounds in the rear of the propagating house were laid out in a rock garden in order to make provisions for cultivating a fine large collection of hardy perennial and alpine plants, mixed with rare and fine evergreen shrubs and vines for the rocky borders of the walks. About 10,000 plants have been propagated and placed there in the mixed borders. Further arrangements have also been made to place frames for 48 sashes for the cultivation of tender plants. Besides, a rustic arbor was constructed to give shelter for the cultivation of palms during the hot summer season. The arbor, which is west of the greenhouse and served for the cultivation of tropical ferns, has proved a very convenient place for the mentioned purpose. The surroundings of this structure are intended for a territory of all hardy kinds. The walls in the flower garden and rock garden, etc., were filled in with gravel; a large quantity of soil for potting purposes has been prepared, etc., and sufficient white sand, for propagating purpose obtained, been stored.

4. The Importance of the Propagating House for the Public Park—The small propagating house has proved its practical service during the severe winter from 1898 to 1899. Its condition was kept in an excellent state; we had no losses or repairs, and we propagated in this house about 40,000 plants during last year, most of which have been used for the floral decorations in the parks. The hot-beds, in front of the propagating house are now well stocked with plants for the early spring planting in the parks. The long frame in the rear of the house contains a fine collection of rare pines, spruces and other evergreens and about 1,000 young roses, which will be planted out next spring in the nursery in order to make room for new seedlings. Flower bulbs had been planted late in fall in the flower beds of St. Mary's, Van Cortlandt and Bronx parks.

5. The Prospect of a New Propagating House—In order to meet the wishes of the public in general for greater and finer flower shows in the public parks, it has been proposed to erect a larger propagating house, for which a plan has already been elaborated and adopted by the Park Department. According to this fact the building plot had been prepared during August and September. All sods and useful soil have been taken from this ground and stored up and the stones used for the rock garden. Unfortunately, owing to lack of funds, the building of the house was postponed. It was now a necessity to construct a number of frames for about 150 sashes to store and keep 50,000 plants during the winter. Into these frames were filled in 400 loads of manure and leaves, with the necessary fine soil, to store the large number of plants which had already been cultivated and potted during the past summer. They will serve for the future decoration of the new house and for an enlarged floral decoration in the parks. All these plants are at present in an excellent condition, kept carefully under glass, protected by board covers and salt lay. The maintenance of such extended lines of hot-beds requires a continual and careful attention daily in several gardeners.

6. The Care of Tree and Shrub Plantation in St. Mary's Park—All shrubs and trees in this park have been properly pruned, cultivated and watered and the flower beds kept in best condition during the summer season. A few of the line trees on the avenue had been killed by the extreme heat of the asphalt pavement. They have been replaced by others this fall and the ground around all the line trees had been dug and fertilized with old manure.

7. The new planting in St. Mary's Park took place late in fall after the ground on the south side had been completely filled and graded. For this plantation 750 trees, shrubs and evergreens were used. In October and November all flower beds in the flower garden, in the rock garden and the shrubs in nursery were thoroughly manured and covered with salt hay for protection during severe dry and cold weather. The entirely neglected place near the stone steps and mansion in Bronx Park has been newly shaped, graded and soded on the lines of walks, and planted densely with shrubs to prevent damaging the place by bicyclists. All planting and improving of this park will be completed as soon as the weather will permit the filling and planting work.

8. The Pruning and Thinning out Work in the Parks—After the finish of the planting work in St. Mary's Park all the necessary pruning work was done until the end of December. After this the pruning work began in Claremont Park; then came a thorough pruning and thinning out of dead trees, shrubs and branches in Cedar Park, also in Bronx Park; the pruning work is now continued in Washington Bridge Park, Claremont and Van Cortlandt Parks. All the useful firewood from these cleanings has been reserved, split and piled up for heating the propagating house. Some logs have been kept for protecting the slope near the propagating house and the river walk, and all useless brush has been burned and ashes saved for the soil.

9. Digging Out Trees in the Woods of Bronx Park—In order to economize the expenses for the planting of line and avenue trees, a small force of competent gardeners were ordered under my supervision and advice to dig out such trees which will be needed for planting in the next season. Such line trees are planted in St. Mary's Park as 40 extra large American elm trees, 60 fine large American white ash trees, 100 sugar and silver maples, 50 trees of various kinds, and about 100 trees are on hand to be used in Cedar Park. The work of digging out trees will be continued whenever the weather is favorable.

10. The Condition and Extension of the Plant Collection in the Propagating Department—Soon after the small propagating house had been built and the necessary hot-beds for cultivating and propagating of plants established, with my collection of fine plants which I donated to the Park the first start was made, and to the end of June, 1899, the total amount of plants in the propagating department and nursery were about 50,000 on hand. Since that time the number of species has been greatly increased: 1st, by seeds received from my own stock, about 1,000 packages, a fine collection from the Botanical Garden in Giessen, Germany, and a small collection from the Botanical Garden in Bronx Park; 2d, by donations from several private persons, about 200 species; 3d, by exchange from Prospect Park, 150 species; 4th, by collecting cuttings in other gardens, about 450 species, and finally by my donation of bulbs, tubers, etc., with 600 species and varieties. The collection shows a total increase of more than 2,000 species, many of which are now in good propagation. During the next summer season a complete systematic catalogue of all species here in cultivation will be elaborated, and seeds, etc., for exchange, collected.

Finally, I take the liberty to make some suggestions in relation to the maintaining of trees, shrubs, and the landscape effects of the parks in general. It is a matter of fact and experience that all trees in parks can be kept in good condition for many years if they are carefully and judiciously pruned and thinned out from time to time. Bare roots around old trees should be covered with a slight top dressing of rich soil and any damage to the bark be prevented.

A great damage is done to trees by placing benches under or near them, as thereby the soil under the trees become tough and prevents the free circulation of air, resulting in decay of the fibrous roots. All lowering branches of trees near walks, drives and open places should be removed to allow the necessary vistas and prevent the decay of the lawns. Fruit trees should not be permitted in public parks, as they accumulate too many noxious insects, which spread over to the most valuable park trees, and children attracted by the fruits will throw stones, etc., to trees and lawns.

Having given herewith a full account of the work carried out in the last six months, I feel obliged to mention and acknowledge the great diligence, ability and excellent discipline of all the gardeners and laborers under my control, who faithfully did their duties. And so I submit my report to your kind consideration.

(Signed) ROBERT DEMCKER.

To Hon. A. MORRIS, Commissioner of Parks, Borough of The Bronx.

(Copy.)

REPORT OF THE SECRETARY AND DIRECTOR-IN-CHIEF.

(Transmitted and accepted January 8, 1900.)

To the Board of Managers of the New York Botanical Garden:

GENTLEMEN—I have the honor to submit herewith my report as Secretary and Director-in-Chief for the year ending January 8, 1900:

#### Plants and Planting.

1. Herbaceous Grounds—The work of maintaining and increasing the herbaceous collection has been continued through the year with very gratifying results. As shown by the list in the accompanying report of Mr. Nash, General Assistant, there have been 2,151 species and varieties, contained in one hundred and five families, under cultivation during the season; this is a slight gain of species over the record for 1899. Most of the accessions have been raised from seed in the nurseries, but a considerable number have been secured by exchange or purchase of roots. The general plan of the ground has not been changed, space for the additional plants brought in during the year having been provided by simply enlarging the existing plots. An additional pool for aquatic plants was excavated during the autumn. This collection has been used by many students during the year, and has now become complete enough to afford a good general view of all the natural plant families containing herbaceous species, hardy in our climate. The large number of different kinds of plants brought together on an area of about eight acres has naturally afforded a constant change in color effects from week to week as the plants successively come into bloom, and thus, together with the large amount of greenward between the plots and the forest surroundings of the glade, have made this plantation exceedingly attractive.

2. Fruitletium—During the planting season of both spring and fall, species of shrubs additional to those set out in the autumn of 1898 were installed on the plain northeast of the Museum Building. The collection of shrubs thus grouped in natural families now contains three hundred

and thirty-eight species, which is a gain of one hundred and forty-three species over the record of 1898. The collection now contains enough kinds of shrubs to fairly represent all natural families in which shrubs are included, hardy in this climate, and it has come to be of value to students who have used it in considerable numbers. The alderum or willow collection has been installed on a part of the marshy ground northeast of the Fruitletium.

3. Arborescent—Tree-planting in accordance with the scheme contemplated by the general plan has been carried on during both spring and fall. The number of species of trees now in place, including those native to the grounds, or long ago established, aggregates one hundred and sixty.

4. Viticetum—The collection of vines which had been brought together in the nurseries was transferred during the spring and fall to the rustic arbor built last winter; the number of species now included in this collection is forty-five.

5. Nurseries—No additional space has been taken into the nurseries during the year, the amount of land already under cultivation having proved sufficient. Among the most important collections of seeds sown in the nurseries during the spring are those received from the Royal Botanical Garden at Berlin, Germany, and from the Botanical Garden of Cambridge University, England; through the interest of Mr. Rives, we were able to purchase a large and interesting collection of Japanese shrubs from nurseries at Yokohama, Japan; these are still in the nurseries, but may be transplanted to the Fruitletium next year; a considerable number of them do not appear to have been grown in this vicinity hitherto, and their behavior in our climate is being noted with much interest.

6. Boundary Borders—The border screens have been considerably modified by addition and substitution, most attention having been paid to the strip along the railroad from the Southern Boulevard Bridge to the Bog Garden, and to the strip near the stable and the Bleeker street entrance on the south side of the park.

7. Temporary Greenhouse—The use of the Columbia University greenhouse in Morningside Heights has been continued and it is now crowded with plants in its utmost capacity, there being probably enough specimens in this collection to occupy one-fifth or one-fourth the space which will be provided by the great range of horticultural houses now under construction.

Further details concerning the planting are contained in the report of Mr. Houshaw, Head Gardener, hereto appended.

#### Buildings.

Work on the contract of the Department of Parks with the John H. Parker Company, for the construction of the Museum Building, the power house, stable and closet group, has been prosecuted throughout the year under the constant supervision of Commissioner Morris of the Borough of The Bronx, his Chief Engineer, Mr. Daniel Ulrich, and his Inspector, Mr. William Brooks, and under the direction of Mr. R. W. Gibson, Architect, and his assistants.

Museum—The Museum Building is now essentially completed, in accordance with the terms of the contract, it only remaining to effect the final cleaning-up and adjustment of some details relative to the furniture and the heating and ventilating apparatus to make the acceptance of the work desirable. We have used several rooms of the Museum in a temporary way, the new specimens and books having been placed in one of the dark rooms upon the third floor on August 15, and portions of the Garden Herbarium were shelved in the herbarium room, at the east end of the third floor, early in September. The transportation of the Herbarium of Columbia University to the new herbarium room was begun on September 15, and has been carried on at intervals since that time by means of our own teams and laborers, as opportunity afforded. It is now nearly completely installed, there remaining only a few boxes of specimens at the University. The Library room was first occupied on December 6, and the moving of the botanical library of Columbia University into it was begun December 20, and is now practically completed. The setting of the furniture in the laboratories was accomplished early in December, and the work of placing their instrumental equipment is now in progress. We have also occupied two of the basement rooms for storage. The cases in the Public Museum Halls are ready to receive specimens, and this work of installation may be begun within a few days. The lecture hall in the basement is quite ready for use whenever needed. A supplementary contract for the construction of the front central portico, amounting to \$12,875, was awarded by the Commissioners of Parks to the John H. Parker Company in July; work was begun under this contract immediately thereafter. This portico was completed in October and accepted by the archt. It adds greatly to the appearance of the building. Plans prepared by Mr. Gibson for some further ornamentation of the end pavilions of the Museum have been accepted by the Board of Managers, and Mr. Gibson has obtained some estimates of the expense which would be incurred in carrying them out, but he has concluded that it will be advantageous to defer this work for the present. The Board of Managers have also authorized a sculptors' competition for designs for the fountain planned for construction in front of the Museum Building, and arrangements for such competition have been made by a committee of the managers and the architect.

Power House—Awaiting the completion of the Museum Building, little work was done on the power house early in the year, it having been essentially completed, with the exception of a camp-pipe and water-pipe connections, last December; several tests of the boilers were made during the autumn, the official Police Department test having been made on November 3. Steam was first turned on the Museum on December 15, and tests of the heating and ventilating apparatus have since been proceeding continuously; they are not yet fully completed.

Subway from Power House to Museum—In consultation with Commissioner Morris, Mr. Ulrich and Mr. Gibson, it was deemed desirable early in the year to increase the height of the subway from 2 feet, as originally planned, to 4½ feet along about one-third of the length, and a modification of the Parker Contract to arrange for this was effected at an additional cost of \$874. The subway was completed, its steam pipes laid, and the trenches closed early in the autumn.

Stable—As recorded in my last annual report, this building was completed and was occupied by us in November, 1898; it has been in constant use ever since; a force-pump connecting with the well near by was placed in it early in December, affording an abundant supply of water.

Public Comfort Station—This structure is now complete for operation, needing only water and sewer connections, which it is planned to supply early in the year.

Toilet House—No changes have been made in this building.

The Range of Horticultural Houses—As recorded in my last annual report, ground was broken for these buildings on January 3 under the contract awarded by the Commissioners of Parks to Mr. John B. Sheehan. Mr. Sheehan began excavations for the foundations early in the spring and has since prosecuted work continuously. In consultation with Commissioner Morris, Mr. Ulrich, Mr. Lincoln Pierson, of the Lord & Burnham Company, architects of these buildings, and with experts summoned by the Commissioner and by the architect, it was deemed desirable to modify the contract so as to permit a strengthening of the girders of the large central palm house beyond that originally planned, and also to add some columns in the two end houses at the range to give their roofs more certain support. It was also decided to be advantageous to substitute rubble-masonry in the walls of the subway connecting the power house with these buildings, and also in the walls of the trenches extending under the buildings, for the brick walls originally specified. After much consultation it was decided to allow Mr. Sheehan the sum of \$2,000 extra on account of this modification, fixing the amount to his contract at \$112,000 instead of \$110,000, the considerable additional cost of ironwork being partially offset by the reduction effected in the change from brick to stone in the subway and trench walls. The modification in the ironwork caused a delay of three months in the framing of the central palm dome, and this has only recently been completed; the other seven houses covered by the Sheehan contract are completed, including their glazing, with the exception of their interior fittings; work on these is being prosecuted.

The Propagating Houses—Detailed plans for the small green-houses for propagating and experimental purposes, together with specifications, have been completed by the Lord & Burnham Company, and the buildings may be erected as soon as funds for the purpose become available.

Drainage and Sewerage—Early in the year it was deemed necessary to effect the connection of the Museum Building with the Williamsbridge and Bronx Park sewer, and, beginning in March, a 12-inch vitrified pipe was laid from a point 25 feet in front of the west wing of the Museum down the steam subway trench for 140 feet, thus taking advantage of excavations already made, thence turning at right angles to the north and continuing to meet the position planned for the sewer from the horticultural houses, a manhole being established at this intersection; thence to the Williamsbridge and Bronx Park sewer at the curve of the latter just before it passes under the railroad, as provided in the general plan. The divergence from the general plan by taking advantage of the subway excavations along this line enabled us to escape all rock excavations. From the starting point of the 12-inch sewer in front of the west wing of the Museum a 10-inch line was laid parallel with the front wall of the Museum nearly to the east wing, and all the outlet pipes from the Museum were connected with this 10-inch line under the Parker contract.

To obtain the necessary grades and allow for future connections, it was necessary to lay these sewers very deep, and the work was not finished until July. In order to take care of the roof water of the Museum and the drainage from the Museum areas, a 10-inch vitrified pipe was laid in the bottom of the subway excavations from the west wing of the Museum to the main 18-inch land drain in the valley facing the railroad station, and also an 8-inch vitrified pipe from the eastern corner of the Museum to the ditch along the driveway leading to the lakes; this 8-inch line will ultimately be connected with the land drains of the driveway system which are planned to outflow into the lakes. In order to take care of the roof water of the range of horticultural houses, a 15-inch vitrified pipe was laid from the manhole built under the Sheehan contract just north of house No. 5 for 220 feet to the northwest, temporarily outflowing on the surface; this may also be connected with the land-drain system in the future. The roof water of the power house was made to flow into an 8-inch vitrified pipe connecting with a dry well 15 feet in diameter about 100 feet southwest of that building, and the blow-off water from the boilers as well as that which accumulates in the catch-pit of the power house is discharged into this same dry well through a 3-inch vitrified pipe. The drainage from the runways at the



power house is discharged through a porous tile system into the waterless gravel at a point three feet south of the northern retaining-wall of the building. During the autumn the porous tile drainage system, begun last year north of the Museum street entrance on the eastern side of the park, was continued for several hundred feet, temporarily extending on the surface. A system of 6-inch porous drain-pipe was laid from a place of access, south of the entrance to the east line of the park, to the drainage system of the building.

**Water Supply.**—The herbaceous grounds were supplied with water in the spring by laying about one hundred and twenty-inch galvanized-iron pipe from the branch provided last year in the pipe which supplies the Lorillard mansion. As these grounds only need water about four months in the year, this pipe was laid only about a foot beneath the surface, and valves were supplied for shutting it off and drawing it at will; hose taps were provided every 50 feet along its entire length. This water supply proved very useful during the extremely dry summer. In August, during the building of the plant facing the railroad station, all water pipes running there were laid in a trench to avoid the tearing up of the road in the future; this policy having been adopted so far as it has been possible through the preservation of the work of construction. In September, excavations were begun for the laying of about 4,000 feet of two water-pipes to connect the power house and the range of horticultural houses with the station begun last year by connecting the Museum building with the through aqueduct which passes through the park. This work was prosecuted continuously and was finally completed nearly five miles in December; careful attention was paid to the grading and the systems were placed on the two high points, one along the driveway and one at the Museum building, and the other nearly in front of the western greenhouse; these pipes were raised under high pressure before being covered. The position of all sewers, drainpipes and water-pipes laid have been carefully plotted on a map, as determined by actual surveys as the work progressed, so that there shall be no uncertainty about this important matter in the future.

#### Grading.

Grading operations have been for the most part confined to work in the immediate vicinity of the buildings, the surface material being utilized for filling in the preparation of the sub-grade for roads and paths. All buildings have been made secure against winter storms by establishing slopes away from them sufficient to shed water.

The slope about the power house has been graded and planned, and a temporary surface road for coal delivery has been built from the rear of that building to the Southern Boulevard. The upper main road-surface wall at the north side of the Boulevard, opposite the power house, has been washed by sloping earth against it so as to form a slope; this is not yet quite completed, but a few days' work in the spring will finish it and thus remove a very unsightly and dangerous corner.

The corner around the Museum Building is nearly completed, requiring only some shapely, repaving and building in finish. The grading between the Museum Building and the railroad station is well advanced and may be completed early in the spring. In time for planting; the grass planned in the interior in front of the power house has been brought to approximately finished grade. Part of the filling ordered to be brought from the New York City approaches to the front of the Museum Building has been made, as well as a part of the completion.

All the work of grading and grading has been under the supervision of Col. H. A. Schell, Chief, General Forestry, since his appointment in May.

Considerable work remains to be done around the Museum Building before the final surface is secured, but as much as it is back-slaying, considerable progress can be made during the present winter.

The heaviest piece of grading is not planned around the eastern end of the range of horticultural houses in order to establish the desired surface. Work on this may proceed as opportunity offers.

#### Paths and Drives.

Under a contract of the Department of Parks with Mr. J. B. Fyler, awarded in June, by means of an appropriation voted in the House of Estimates and Appropriations in May, work in road and path building was commenced early in July. This contract included the building of the plant facing the railroad station, the building of the path between the plant and the west wing of the Museum, the building of the path extending south from the east wing of the Museum to the driveway, and the filling necessary for the building of the driveway from the plant to the driveway, in which is shown the Appendix. The contract also included the construction of the necessary drain pipes and catch-basins provided by the General Plan. The work was continuously prosecuted and was completed early in December; it was very carefully inspected by Chief Urban and his assistants, and is pronounced by experts to be one of the best plans of horticultural construction built in the City. The appropriation was \$4,000.

Two paths connecting those in the Museum wings and with the Berlin contract with the Museum basement entrance being built by us in the same general style, and we have made the sub-grade and laid some of the foundation for part of the path planned to connect the station plant with the Southern Boulevard.

By means of an appropriation voted in the House of Estimates and Appropriations in November, Mr. Fyler was awarded another contract by the Department of Parks in November. This contract provided for the building of driveways from the station plant in the Southern Boulevard, and around the Museum Building, as far as the latter together with the necessary accompanying drainage system, all as contemplated by our General Plan, at a cost of about \$20,000.

It is expected that work under this contract will be commenced early in the spring. A further appropriation balance to the credit of this appropriation remains, which may be utilized in additional road building.

#### Care of the Grounds.

Although the grounds have been visited by many thousands of people, no degradations worthy of serious attention have been committed. The plantations have been watched by the gardeners on weekdays and holidays. In addition to the police patrol. The herbarium house has been guarded by a keeper nearly throughout the season, while the other galleries in the upper and lower halls which still continue to be entered by private persons, in spite of posted notices and verbal remonstrances, and this is the only nuisance that we have had to contend with. We do not know how to curb or control this curious habit of people who are otherwise good and orderly; the placing of temples on them to place refuse in the box is a serious consideration, and the experience elsewhere where this has been tried is not encouraging. It would be to be enforced without delay, the work with gardeners.

It is to be noted that the parking of many more persons than those who have heretofore used the grave for this purpose will be a menace to the natural underground, and from the proximity of the tree-rows to the surface, a danger to the trees themselves, it appears to me desirable to forbid parking in this forest. This will be no great deprivation to visitors, because there lies just to the south, and on both sides of the river, over one hundred acres of forest land of the park, which might well be regarded as a pleasure grounds.

The grass of the tract was cut by our gardeners and laborers and stacked for fodder for our horses.

Lawn-mowers have been used industriously around most of the plantations.

#### The Surrounding of the Range of Horticultural Houses.

Plans for the detailed development of the grounds in the vicinity of the range of horticultural houses have been approved by the Board of Managers and by the Commissioner of Parks of the Borough of The Bronx, during the year, after a prolonged study. They contemplate the building of a traffic road from the Southern Boulevard, near the Power-house, west and south of these buildings, near the line of St. John's College property, to meet the Southern Boulevard again opposite the northern end of the herbaceous grounds, and also a path driveway, parallel with the traffic road and between it and the buildings, these two roads to take the place of the Southern Boulevard along its straight stretch. Between the horticultural houses and the Museum Building; also a carefully prepared system of path approaches to these houses and the necessary accompanying grading.

The Board of Managers has requested the Commissioner of Parks to apply to the Board of Estimate and the Municipal Assembly for an appropriation of \$200,000 for the making of these improvements and for the completion of the range of horticultural houses. The Commissioner has asked an opinion from the Corporation Council relative to the powers of the Board of Estimate in this connection, but this opinion has not yet been rendered.

There is no doubt that this is the most important new construction work in the development of the garden, and the completion of at least one of these roads and of part of the path system is almost imperatively necessary during the year.

#### Library.

Books for the Library, which had been accumulating in the temporary office since 1896, were moved into the Museum Building in August.

At the last annual meeting the Board of Managers authorized a subscription of \$5,000 for the purchase of books, with special reference to works on in the Botanical Library of Columbia University. The same was subscribed as follows:

Mr. William F. Dodge	\$1,000 00
Mr. D. G. Mills	1,000 00
Mr. Andrew Carnegie	1,000 00
Mr. J. Pierpont Morgan	1,000 00

Mr. William C. Schermerhorn	\$500 00
Hon. Charles F. Daly	100 00
Mr. Samuel Sloan	100 00
Hon. Addison Brown	100 00
Mr. C. F. Cox	100 00
Dr. N. L. Britton	100 00
	\$5,000 00

Volumes, aggregating 400, have been bought by means of this fund through an expenditure of \$4,916.65. Under the appropriation for Library, 54 volumes have been bought, and 657 volumes have been received through gifts and exchanges, the total number of volumes added to the Library during the year being 1,207, together with over 1,250 pamphlets and parts.

Considerable binding has been done. The gift by the New York Academy of Medicine of 205 volumes of books from the library of the late Dr. David Hosack is especially noteworthy. This collection includes many very rare works of the last century, now seldom to be obtained.

Special attention has been paid to obtaining agricultural and horticultural works, and many volumes have been secured through exchanges.

Mr. Nash, General Assistant, acted as Librarian during the first part of the year, and Professor MacDougal, First Assistant, has taken charge of the books since his appointment in July. The Scientific Directors have authorized the appointment of a regular Librarian for 1900.

#### Museum and Herbarium.

The accumulation, preparation and mounting of specimens has proceeded continuously throughout the year. Over 70,000 specimens have been secured, mainly by gifts. Specimens mounted in the herbarium aggregate the enormous number of 115,600, an increase certainly unprecedented in any American herbarium. A detailed account of the progress of this part of our work will be found in the reports of the Curator of the Museum and of the Honorary Curator of the Economic Collection, herewith submitted.

#### Laboratories.

A large portion of the furniture necessary for the laboratory rooms is provided under the contract for construction and equipment of the Museum Building. Special cases may be added as required. Under an appropriation made by the Board of Managers, the obtaining of the instrumental equipment was begun in October, and sufficient has been secured to enable us to use some of the rooms for research purposes during the past two weeks. As stated in the report of the Director of the Laboratories, herewith submitted, twenty advanced students have already been given the advantages of the laboratories, library and collections of the garden.

#### Lectures.

In cooperation with the American Museum of Natural History two lectures were delivered in the herbarium of this institution as follows:

April 15, Professor L. M. Underwood, "The Royal Botanical Gardens at Kew, England."

April 16, Professor H. H. Rusby, "The Possibilities of Quinine."

#### Publications.

Botanica No. 4 was issued April 15, 1900. Four technical papers by members of the staff, published in the bulletin of the Torrey Botanical Club, have been reprinted for exchange purposes, under the title "Contributions from the New York Botanical Garden." The printing of Volume I of the Memoirs, containing Dr. P. A. Rydberg's "Annotated Catalogue of the Flora of Montana and the Yellowstone National Park," based on the collections made by Dr. Rydberg in 1897, by means of funds provided by Mr. William E. Dodge, and authorized in 1899, is nearly completed, and this too volume will be issued within a few weeks. The Board of Managers and the Scientific Directors have also authorized the publication of a monthly journal, beginning January, 1900, and the first number of this journal is in press.

#### Temporary Office.

The house on Sutton street, Bedford Park, rented as a temporary office in November, 1898, has been since used continuously, and it seems desirable to retain it until spring.

#### Botanical Exploration of Puerto Rico.

As mentioned in my last annual report, Mr. and Mrs. A. A. Heller were sent to Puerto Rico by means of funds provided by Mr. Charles Vanderbilt, to collect specimens illustrating the flora of that island. They returned in June with nearly 8,000 specimens and copious notes relating to them. A set of the herbarium specimens have been mounted for the purpose of determining the species, and some study has been given to them. The museum material secured is being arranged for exhibition; many duplicates were obtained which will be valuable for exchange purposes.

Supplementing this collection I have been able to examine the collections made about the same time in Puerto Rico by Dr. C. P. Millspaugh of the Field Columbian Museum of Chicago, who has also provided us with such of his specimens as were in duplicate, and I have recently secured, through Professor Urban, of the Berlin Botanical Garden, a considerable collection made some years ago on the island by Dietrich Sisser. These collections, together with a set collected there in 1892 by H. H. Rusby, and contained in the Columbian Herbarium, together with a few specimens obtained by Walter Greuter in the interior and one particularly complete literature relating to the history of the West Indies, will enable me, as opportunity offers, to prepare a moderately complete account of the flora. My Heller purposes returning to Puerto Rico this winter to explore parts of the island unvisited by him on his former trip.

Mr. Henshaw spent about a month in Puerto Rico last winter by the aid of the same fund, and secured a valuable collection of useful, ferns and other tropical plants; but he found the island far less desirable for horticultural exploration than either Trinidad or Jamaica, owing to its being so largely under cultivation.

#### Botanical Excursions.

Under authorization by the Scientific Directors, instruments and apparatus have been ordered preparatory to measuring the temperatures of the herbaceous grounds, the fruitfulness and the hemlock grove, and the rainfall.

#### Reports Appended.

I submit also reports by the Curator of the Museum and Herbarium, the Honorary Curator of the Economic Collection, the Director of the Laboratories, the Acting Librarian, the Curator of the Plantations, the Head Gardener, and a schedule of expenditures under appropriations made by the Board of Managers.

Respectfully,  
(Signed) N. L. BRITTON, Director-in-Chief.

#### REPORT OF THE DIRECTOR OF THE NEW YORK ZOOLOGICAL PARK.

##### To the Board of Managers.

The spell has been broken.

After fifty years of unnecessary waiting, New York at last possesses an institution for the exhibition of live animals, founded on a scale commensurate with the dignity of a city of the first rank. During the entire history of this city down to 1895, not one serious effort, not one move worthy of mention, was made in behalf of the establishment of a zoological garden or park worthy of this great and wealthy city.

Sixty years ago, when Central Park was laid out, the landscape architects made the mistake of providing five paltry acres in the southeastern corner of that great pleasure ground for a menagerie. That would have answered very well for Poughkeepsie or Auburn, but never for one moment was it adequate or suitable for the metropolis of the western hemisphere. The menagerie thus thoughtlessly established has, beyond doubt, been the chief factor—though quite innocently so far as its sponsors and supporters were concerned—in postponing the creation in New York of a proper zoological garden or park, while scores of smaller cities broke ground and built up institutions of great beauty and usefulness. While New York has slept on her rights, Philadelphia, Cincinnati, Antwerp, Rotterdam, Hannover, Hamburg, Frankfurt, Cologne, Manchester, Copenhagen, Calcutta, and even Saigon—hidden in the jungles of Cochinchina—have all made for themselves zoological gardens worthy of the name.

We speak lightly of "the effete monarchies of Europe," but America has deliberately permitted even the very smallest of them to lead her in zoological garden development.

And this, too, despite the fact that the vertebrate fauna of North America is so rich and varied. In zoological garden work America has too long occupied a rear rank. The richest and most populous city, the literary and scientific centre of North America, is expected to step forth and set the pace for other cities.

At last the spell has been broken, and to-day, though painfully incomplete, the Zoological Park of Greater New York is an accomplished fact. The foundation has been laid and a goodly



portion of the superstructure has been reared, completed and occupied. The people as a whole have done a portion of the goodly work, but private generosity and private enterprise have done more.

Our task is only one-third of the way toward completion. The private citizens represented in the Zoological Society stand pledged to provide \$90,000 more within eighteen months. The people should now provide \$300,000 for the continuation of the improvements which are needed to render the Zoological Park more completely available for the use to which it has been devoted. In view of the fifty years of delay that have elapsed in the founding of this institution, both the sums named above should be furnished promptly and cheerfully, in order that we may, to some extent, make up for lost time. It is beneath the dignity of Greater New York to allow this enterprise, involving but a comparatively small expenditure, to languish and halt through lack of additional funds.

Assuming that all those who have contributed toward the work of the Society will be interested in the business methods and work of their representatives, this is the story in brief of the past year's efforts in the creation of New York's Zoological Park.

January 1, 1899, revealed less progress in improvements generally than had been hoped for. Instead of being walled and roofed, the Reptile House had not risen above its foundations. The Bird House was roofed with boards, but it was a mere empty shell, standing over an ice-bound reservoir of water, for which escape was impossible. The Birds' Valley sewer, for which the Director had labored so persistently in order that it might relieve the Bird House, and make possible the erection of the Flying Cage, was begun so late in 1898 that the severe winter weather delayed its completion until spring.

The winter of 1898-9 began on November 23, 1898, and held the Zoological Park with a grip which never relaxed until March 1, 1899. The snow storm of Thanksgiving week stopped all work by the Park Department on the aquatic mammals' pond, and for nearly five months left the excavation an expanse of black mud. The contract for the construction of roads, walks, sewers and water-lines was approved so late in the year that no work under it was possible until the spring of 1899. This left the park for the entire winter without the service road which it was hoped could be built in 1898. The delay in the building of the service road resulted in such distress to all parties who were obliged to haul building materials into the park that the numerous disasters to teams compelled the Society to expend nearly \$2,000 in building temporary roads of plank and stone.

During the winter, in all mild weather the park roads were extremely muddy. The Society maintained its bureau of administration in the park, and improved each day of working weather. Contractors were urged forward, and co-operated with in many ways. At the earliest opening of spring, work began all along the line, and by May 1 the park presented a scene of general activity. Walks were excavated and filled with stone, trenches were dug for sewers and water-pipes, and the park became a chaos of upheaved earth, yawning pits, piles of stone, sand and iron, tool-houses, trucks, carts, horses and men. For a long period, the number of teams engaged in hauling heavy materials into the park, and working on the grounds, was seldom less than forty, and some weeks numbered over sixty. At onetime, work proceeded simultaneously at twenty-six different points. The working hours of the officers in charge extended from early morning until nearly sunset, and holidays and vacations were luxuries in which they could not indulge.

#### Opening of the Park.

Twice was the formal opening of the Zoological Park postponed in order to give contractors time to finish their work. Finally, however, on November 8, with simple but appropriate ceremonies, consisting of an address of welcome by Professor Henry F. Osborn, Vice-President of the Society and responses by Comptroller Bird S. Coler and Hon. August Melius, Park Commissioner, the New York Zoological Park was declared by Hon. Levi P. Morton, President of the Zoological Society, to be open to the public. At that time, twenty-two installations for animals were ready, and they contained a total of 843 living specimens.

#### Contract Work.

As far as possible, the work of the Society given out by contract to the lowest bidder. The following is a list of the principal firms and individuals who executed contract work for the Society on its buildings, dens, aviaries and other installations for animals. For a list of the contracts made by the Park Department in the improvement of the grounds, see page 3998.

J. W. Coffey & Co.—Excavating.  
W. S. Tyler Wire Works Company (Cleveland, Ohio)—Bear dens, wolf dens, fox dens, flying cage.  
Page Woven Wire Fence Company (Adrian, Mich.)—Iron fences for Beaver pond, prairie dog village, otter pool, crocodile pen.  
A. Allgower—Iron fence for ducks' aviary, safe cages in bird house, burrowing rodents.  
William Wilson—Eik house, Buffalo house, seven shelter-houses for deer, ducks, etc.  
Atlantic Terra Cotta Company—Terra-cotta for reptile house and bird house.  
M. P. Westergren—Roof of reptile house, bird house, metal cases, reptile house, etc., etc., etc.  
Dowd & Maden—Brick work of reptile house, bird house, bear ponds, etc.  
B. A. & D. N. Williams—Cut limestone for reptile house and bird house.  
The Armstrong-Robison Company—Hot water heating in reptile house and bird house.  
Thomas W. Weathered's Sons—Small mammals' house.  
Bauvia & New York Woodworking Company—Trim and wall cases of reptile house.  
Essey Wire Works Company—Outside cages of bird house and central cage.  
J. B. & J. M. Cornell—Steel beams and girders, reptile house and bird house.  
Foster & Hayes Fireproof Construction Company—Floor, reptile house and bird house.  
E. P. Roberts—Granite work on buildings, and bear, wolf and fox dens.  
Barr, Thaw & Fraser—Limestone for bird house.  
P. Mancinelli—Rubble masonry.  
William Dudley—Metal railings.  
Thomas McKay—Wrought-iron work at bear dens.

#### Miscellaneous Work.

Notwithstanding the fact that as much work as possible was given out on contracts, there remained innumerable items of construction and general labor which it seemed advisable should be performed by the Society's own workmen. At the outset it was decided that for the concrete work to be done in connection with the numerous dens, cages and wrought-iron fences, the most satisfactory results could be obtained with the least expenditure by purchasing all materials and having the work performed by day labor, under competent superintendence. This plan has been followed throughout the year, and all concrete work in the Park, save the floors of the reptile house and bird house, is the work of our own force of concrete workers, which was kept busily employed from the opening of spring until very nearly the end of the year.

Our own force of masons constructed the five series of sleeping dens for the bears, and for the sea lions in the crocodile pool, the foundation walls of the Buffalo house, and seven shelter-houses for deer, antelopes, etc. The Society's Carpenters erected the temporary storehouse, tool-house, stable, cook-house, storage sheds, yards for animals, floors and cages in the small mammals' house, and performed a great number of additional tasks. All the painting of wrought-iron work, wirework, shelter-houses and cages, and the plumbing of the reptile house and bird house, was done by our own force. With the completion of the past year's work, the payroll of the construction force was reduced from a maximum of eighty-three men earning \$3,600.94 per month, as in the month of August, to twelve men earning \$ per month, as at present.

#### Purchase of Materials.

Those who purchased materials and general supplies for the Society did so as carefully as if they had been purchasing for themselves. All important purchases were made of the lowest bidder, and by making prompt payment the Society was always able to purchase at the lowest prices, and secure the largest discounts. All purchases were made by formal requisitions, duly inspected and approved. Through this system strict economy was secured, and all misunderstandings and disputes were avoided.

The entire history of a purchase and payment thereon, is as follows:

1. Requisitions from staff officer to Director.
2. Inspection and approval of requisition, and designation of proper fund to bear the expense.
3. Issue by Chief Clerk of official "order for supplies."
4. Delivery of goods at storehouse, with list, checked by Storekeeper.
5. Delivery of list by Storekeeper, signed by him.
6. Inspection and approval of goods by the requisitioner.
7. Delivery of goods to person for whom ordered.
8. Delivery of bill to Chief Clerk, duly checked and approved as to "goods" and "prices," by requisitioner.
9. Examination, amendment or approval of bill by Director.
10. Examination, amendment or approval of bill by Chairman of Executive Committee.
11. Issue of order on Treasurer by Chairman of Executive Committee.
12. Payment of bill by Treasurer.
13. Filing of receipted bill in its proper file, in Chief Clerk's office.

The Executive Committee has enabled the Director to establish a business system which, while affording the utmost celerity in making necessary purchases, and also providing a reasonable number of safeguards, yet is in no way cumbersome nor overburdened with "red tape." Ordinarily bills are paid by the Treasurer within ten days from their receipt in satisfactory form.

#### Administration.

The complex and diversified character of the Society's work in the Zoological Park, both in construction and in the care of collections of living animals, rendered the formation of its working force a task of unusual difficulty and perplexity. The first portion of this task consisted in assembling a force of nearly one hundred men for duty as mechanics of various kinds, and laborers. All these men, being engaged upon construction work, were necessarily considered temporary employees, and as work was finished in their various lines, they were dispensed with. For the maintenance of the park, however, it was necessary to select most carefully a certain number of experienced and competent men to be placed in charge of the various departments into which the work would necessarily be divided, and to provide each of them with a force of competent assistants. The fact that every person placed on the maintenance force was expected to become a permanent employee, rendered it necessary to exercise unusual care in their selection.

At the outset of its work in the Zoological Park, the Society adopted the policy of employing none but competent and reliable men, who were not addicted to the drinking habit. That portion of the Society's agreement with the City which required that all persons employed in the Zoological Park should be selected solely by reason of their special fitness and ability was, in every case, most strictly observed. So thoroughly has this principle been carried out, that not a single person now employed on the park force owes his position to the personal influence or friendship of any member of the Executive Committee, or Board of Managers, or any other person prominently connected with the Zoological Society. The force contains not one "favorite," but every person occupying a place in it owes his position solely to his own merits and his ability to satisfactorily perform the service for which he was engaged.

To cover the service required the Zoological Park force has been divided into various departments, and the following diagram shows the subdivisions, with the name of the officer in charge of each:

#### ADMINISTRATION OF THE ZOOLOGICAL PARK.

##### DEPARTMENTS.

Accounts, Receipts and Disbursements, H. R. Mitchell, Chief Clerk—Three gatekeepers, three watchmen, four check-boys and one storekeeper.  
Mammals, J. Alden Loring, Assistant Curator—Two keepers, one helper and one cook.  
Birds, C. W. Beebe, Assistant Curator—One keeper and one helper.  
Reptiles, R. L. Ditmars, Assistant Curator—One keeper, one assistant keeper and one janitor.  
Forestry, Gardening and Park Service, H. W. Merckel, Chief Forester—Two assistant foresters, one hot-house man, one helper, two teamsters, one cleaner and seven laborers.  
Construction and Repair, W. H. Puffer, Chief Constructor—One foreman, two painters, one plumber, two carpenters and five laborers.  
Engineering, George M. Beerbower—One assistant, two chainmen and one laborer.  
Director—One stenographer and one messenger.  
The following is a brief resume of the most important features of the work of each department:

##### Accounts, Receipts and Disbursements.

Early in 1899 it became apparent that the labor and responsibility involved in keeping the books of account of the Society's construction operations, and of the maintenance of the park, together with the management of the game, the daily receipt of moneys from privileges and a proper accounting for the same, involved serious responsibilities. After long and careful deliberation, Mr. H. Raymond Mitchell was selected to fill the position of Chief Clerk and Accounting Officer, and he assumed the duties of the position on May 11, 1899.

Having had several years' experience in railroad work as chief clerk, cashier and agent, Mr. Mitchell is particularly well fitted to perform the very exacting duties of his position. He has assumed full responsibility for the handling of all cash coming into his hands, and has furnished a satisfactory bond. His first work consisted in opening two sets of books of account, one for the Park Improvement Fund, and one for the Maintenance Fund, which show in detail every receipt and disbursement. He renders a monthly financial statement to the Executive Committee, and at the end of each year an annual statement. He prepares all payrolls, receives from the Treasurer the funds for their payment, and pays our employees in currency instead of checks, which is much more satisfactory to them.

The force of men employed on the gates in selling and receiving tickets, checking bicycles, selling guide books, etc., are entirely under Mr. Mitchell's direction, and the receipts from all privileges are paid to him and duly accounted for. For the safe keeping of the numerous files of vouchers for payments made from the Park Improvement and Maintenance Funds, and of the cash receipts, a fireproof safe has been provided.

Notwithstanding the complicated nature of the work involved in keeping the various funds of the park in separate accounts, and maintaining sharply the line of division between the expenditures of the Society and those made by the City on account of maintenance, the aims of every item of expenditure, even down to the smallest, is sharply defined and charged in its proper place in the account to which it belongs. The Chief Clerk's books of account, vouchers, requisitions and orders for supplies are all in admirable condition. An account is kept with each feature of the Society's installations for animals, so that at any time the cost of each can be accurately ascertained.

##### Collection and Care of Animals.

##### L. MAMMALS.

The Society's promise to devote early attention to the formation of collections of our most interesting American mammals has thus far been faithfully carried out. As soon as all preparations to accept animals before we were ready for them the Society adhered to the original policy to form no collections until actually in possession of the grounds, and within measurable distance of the opening day. Last May, however, the opening of the park in 1899 seemed conceivable certain, and accordingly the business of gathering collections began.

After a prolonged search for a satisfactory head keeper for quadrupeds the choice of a man for that position fell upon Mr. J. Alden Loring, who received the title of Assistant Curator in charge of mammals. Mr. Loring came to the Zoological Park well recommended by Dr. C. Hart Merriam, Chief of the Biological Survey, at Washington, in whose service he had spent eight years as a field naturalist working on mammals. During this period Mr. Loring's observations upon the home-life and food habits of our North American mammals resulted to him a fund of information of great value in connection with the care of mammalian captivity. In addition to this experience, Mr. Loring came to the Zoological Park fresh from several months' practical training in the gardens of the Zoological Society of London, where, by the courtesy of Dr. D. L. Sclater, he was permitted to work with the keepers in the various departments of the gardens while he studied their methods in the care of the 2,500 animals forming that splendid series of collections. In addition to this, Mr. Loring visited several of the finest zoological gardens of the Continent.

Live animals began to arrive at the Zoological Park on May 11, and Curator Loring reported for duty on the following day. Inasmuch as at that time none of the permanent installations for animals were ready for occupancy, it became necessary to provide temporary quarters for both mammals, birds and reptiles. At the north end of the storehouse building a yard for animals was made by inclosing a dry, open space on the hilltop by a right hand fence, and providing suitable interior sheds. Temporary cages and inclosures of wire netting were provided, and almost as rapidly as completed they were filled with birds and quadrupeds. The arrival of a large shipment from Florida necessitated the extension of the yard, and the hurried preparation of two small cemented pools for the brown pelicans and other water birds, and for the alligators. A small temporary cook-house was erected, a man was engaged to serve both as cook and butcher, and the work of caring for a large mixed collection of living creatures was seriously entered upon. Within a short time the two animal yards were filled to overflowing with large water birds, alligators, snakes in glass-fronted boxes, lynxes, foxes, raccoons, bears, monkeys, squirrels, young antelopes, etc.

During the entire summer, all the birds, as well as the mammals, were in Mr. Loring's charge, and in spite of numerous perplexing difficulties they were very successfully cared for.

The first large mammal to arrive at the park was a yearling caribou, which came from Champlain County, Canada. Pending the completion of the caribou shelter house, this animal was temporarily installed in the moose range. This specimen was quickly followed by three elk, male, female and young, presented to the Zoological Park by the Brooklyn Park Department, through Commissioner George M. Brower and Landscape Architect De Wolf. These five animals were immediately placed in the elk range, where they were soon joined by seven more elk presented by Mr. George J. Gould, making a very fine herd, consisting of two large males, two young males and females of various ages.

Following closely upon the completion of the Buffalo house and the curials, was the arrival from Texas and Oklahoma of seven buffaloes, selected and purchased for the Society by Mr. C. J. Jones and by him delivered at the Zoological Park. These animals represent two strains of blood, and form a very satisfactory nucleus for what is intended shall be a herd of about twenty individuals.

After much correspondence, and the placing of several orders, six young prong-horned antelopes were procured and safely transported to the park. They were all quite small and generally delicate. Being fully aware of the difficulty of acclimating these animals on the Atlantic seaboard, they received from the first the most unrelenting care. In spite of all efforts, however, illnesses in the little herd were frequent, and one by one four out of six animals have died, usually without any premonitory symptoms. The difficulty of rearing antelopes in captivity, even in the portions of the West where the animals run wild, is so well known that, while these deaths have occasioned much regret, they have caused no surprise. At present the two remaining specimens



are in excellent condition, and it is hoped they will survive and become physically adjusted to this climate. The Society intends to persist in its efforts to establish in the park a representative list of young mammals, antelope, and if possible induce the species to breed.

The accumulation of small mammals from the tropics rendered it immediately necessary to provide for them a shelter building which could be heated in winter. To this end the construction of a glass house was determined upon, and during the months of September and October a building 25 by 75 feet was erected near the burrowing rodent's quarters. The construction of the cage took occupied two months longer, and this building was finally opened to the public on January 24 with all of its cages filled. It contains cages for small mammals of various sizes, and the abundance of light and ventilation tends to the belief that the building will be found admirably adapted for the display of small mammals, both summer and winter. In this building are housed the three kangaroos, all the monkeys, all the lynxes, the great anteater, the young tiger and various smaller animals.

On January 1, the mammal collections of the Zoological Park were as follows:

Primates	6 species	10 specimens
Carnivora	21 "	43 "
Tragulidae	9 "	28 "
Ruminantia	6 "	65 "
Ungulata	1 "	1 "
Marsupialia	1 "	4 "
<b>Total</b>	<b>44 "</b>	<b>151 "</b>

The Society has received, by purchase, three vultures from northern Newfoundland; by gift, from Mr. William Lockwood, four vultures, deer and two red deer, and from the Duke of Bedford, two smaller deer and one roe deer. It is now intended to fill up the ranges as rapidly as possible with the large ungulates for which they were designed, until each range contains as large a herd as it will properly accommodate.

The four bear pens, completed in October, were fitted immediately thereafter. The special installation for the polar bear has not yet been constructed, and these five animals are now kept in one of the outdoor pens, which is very inadequate for their needs. The small building tank, which is supposed for other bears is entirely too small for polar bears, and it is impossible for a smaller enclosure, with a garden swimming pool, be constructed without delay. The polar bears are now and always animals and should have a swimming pool suitable to their very interesting aquatic habits.

#### 2. BIRDS.

After much deliberation, the choice of an ornithologist to take charge of the bird collections of the Zoological Park fell upon Mr. C. William Beebe, who entered the service of the Society on October 16, 1899. For several years Mr. Beebe has been a close student of the classification, anatomy and food habits of birds, and by reason of his combined knowledge of systematic ornithology, and of bird life in the field, he is especially qualified for the duties of the position to which he has been appointed.

Through arrangements perfected by the Director during a vacation trip to Florida in February, when Mr. C. W. Beebe collected for the Society in the hammocks on the headwaters of the St. John's river a considerable number of young specimens of herons, egrets, ibis, etc. He also purchased for the Society the entire collection of birds, quadrupeds and reptiles owned by the estate of the late Dr. Leon Valdez, of St. Augustine, and in July arrived at the Zoological Park with about two hundred young specimens. He also brought an important collection of sub-tropical plants for display in the conservatory attached to the reptile house. Through his means and through personal aid the Society acquired a collection of water birds and birds of prey sufficient to completely fill all the cages in and around the aquatic birds' house and to make a very respectable display in the ducks' aviary.

The large central cage in the bird house has proven a success beyond all expectations. A few days before the opening of the park it was occupied by a mixed collection of flamingoes, pelicans, white swans, whooping cranes, ducks of various species, smaller than pliny, etc., and about twenty other birds. The floor of the cage is tiled eighteen inches above the floor of the building, and in its center is a large pool of running water, provided with a central fountain.

The success of this exhibit in a great measure depends upon the harmony of its members, and a bird which proves to be a quarrelsome nature is not permitted in the group. The result of the selection of a number of species in two species of pelicans, herons, egrets, etc., is the condition of the birds. They are remarkably healthy and active, and the mortality in this group has been very low. Indeed, in fact, the condition of the pelicans, flying eagle, that when water birds quarrel, quarrel, fight in show against illness or lack of appetite they are immediately transferred to the flying eagle, where in nearly every instance they have been benefited by the constant sunshine.

The following is a list of the collections of the large aquarium tank for diving birds have delayed its completion, and it was not until January 20 that it was filled with water for the first time. These two tanks which had been provided for the water supply proved inadequate, and necessitated further improvements.

The birds of prey, gathered together in the cages along the outer walls of the bird house have been maintained in good condition, but the eagles and condors are perceptibly emaciated. It is to be hoped that the eagles' and condors' aviary, or at least an important section of it, may be constructed soon, and thereby furnish the birds of prey with as good accommodations as have been provided for the water birds.

The bird stock of the ducks' aviary was composed of ducks, representing eight species. It was not until January 20 that it was filled with water for the first time.

It was not until January 20 that it was filled with water for the first time. These two tanks which had been provided for the water supply proved inadequate, and necessitated further improvements.

On January 1 the bird collections of the Zoological Park consisted of the following:

Kingbirds	1 species	1 specimen
Regent's	1 "	21 "
Amazons	10 "	62 "
Chlorophanes	1 "	4 "
Herons	12 "	28 "
Pelicans	1 "	2 "
Gulls	2 "	13 "
Kangaroos	11 "	29 "
Pheasants	1 "	2 "
Pheasants	2 "	10 "
<b>Total</b>	<b>43 species</b>	<b>185 specimens</b>

#### 3. REPTILES AND AMPHIBIANS.

No event in connection with the opening of the Zoological Park was watched by the public with keener interest than the completion and opening of the reptile house. The public had become acquainted with the fact that because of the general lack of facilities for studying reptiles, the Zoological Society proposed to devote early attention to animals of this class. The Society was fortunate in securing for Assistant Curator, in charge of reptiles, Mr. Raymond L. Loomis, a thoroughly qualified expert in the care of reptiles in captivity, and also a man well versed in systematic classification and life history. Mr. Loomis assumed the duties of his position on July 17, 1899, and in addition to caring for the reptiles then in the park, he at once began to take measure for the increase of the collections. He immediately presented to the Society his entire collection of living serpents, consisting of 45 specimens, representing 15 species.

Handling the completion of the reptile house, all the reptilian collections were temporarily provided for in the animal yard, which has been previously mentioned. One very difficult feature in connection with the collections of this department is the food supply, and the ingenuity of the Curator and his assistants has been taxed to the utmost to supply the great variety of kinds of food which the voracious appetites of captive reptiles demand.

From the outset, a fair share of attention had been bestowed upon the formation of collections for this building, and the degree of progress that had been made by the opening day seemed acceptable to the public. The venomous serpents of North America were particularly represented. A special effort was made to show as many as possible of the batrachians, which resulted in the exhibition of thirteen species. A very fair collection of turtles and terrapins filled the central pools and sand banks which had been provided for them, and the alligator pool contained some alligators, varying in length from 6 to 12 feet. The largest individual was obtained for the Society in Texas, Florida, and brought up with the two carloads of specimens received from that State. A Florida crocodile, which had been held for some weeks at Palm Beach for the Society, unfortunately died before it was delivered.

Two very fine crocodiles were secured by purchase in New York City, but owing to the unseasonable cold wave which visited the Atlantic coast in October, before the reptile house was heated, one of these specimens died of congestion of the lungs. The other survived and is still in good condition. Purchases of reptiles have been made from time to time as opportunity offered.

On January 1 the reptilian collections of the Zoological Park consisted of the following:

Crocodylia	1 species	18 specimens
Chelonid	22 "	85 "
Lacertilia	12 "	65 "
Ophidia—Venomous	11 "	51 "
Non-venomous	33 "	186 "
Amphibia	44 "	237 "
	13 "	40 "
<b>Total</b>	<b>92 species</b>	<b>445 specimens</b>

#### Summary of Live Animals on hand January 1, 1900.

Mammals .....	44 species .....	151 specimens .....
Birds .....	43 " .....	185 " .....
Reptiles .....	92 " .....	445 " .....
<b>Total .....</b>	<b>179 species .....</b>	<b>781 specimens .....</b>

#### Forestry, Gardening and Park Service.

The amount and variety of work performed during the year by Chief Forester Hermann W. Merkel and his force was very great. Under the spur of imperative necessity, and to meet the demands of each month, a large force of laborers, skilled and unskilled, was placed at Mr. Merkel's disposal, and by him kept very busily engaged until the exhaustion of the maintenance fund rendered it necessary to disburse with twenty-three men out of thirty.

To many of those who visited the park during the working season of 1899, and observed the chaos which then prevailed, it seemed impossible that it could be reduced to order before the opening day. The amount of work required to smooth up the grounds after the various kinds of contract work had been completed, was really enormous, and unfortunately this work was of such a peculiar nature, and the requirement so constant for the exercise of artistic taste and expert judgment, it was impossible for it to be specified and performed by contract. In the matter of road and walk making, the contractor's duties extended only two feet beyond his macadam work, and the regulating, grading and seeding necessary to join the park surface to the walks was work which could be performed satisfactorily only by the chief forester and his men.

For similar reasons, the work of finishing the borders of all ponds devolved upon this department, and in connection with the aquatic mammals' pond and ducks' aviary, required a great amount of labor. For example, it was found necessary to cover practically the entire bottom and borders of the former with broken rock and gravel six inches in depth. Several hundred loads of rock were donated for this purpose by the Zoological Society, from the excavation made for the antelope house; and by permission of Park Commissioner Moebus, about one hundred loads of gravel were hauled from a bank in Mulhous parkway and spread upon the banks.

The following is a brief résumé of the principal work performed by Mr. Merkel's department during the year:

- About nine hundred trees were pruned, and cavities filled in about eighty.
- About two hundred dead, dangerous and unsightly trees were removed, sawn into cord wood and piled up.
- A nursery was established in the northeastern corner of the park.
- A road was opened from Boston road to the nursery.
- About twenty thousand trees, shrubs, vines and perennials were collected and propagated.
- The whole of the ducks' aviary was surfaced and seeded.
- The whole of the aquatic mammals' pond was dressed down to a finish, and surfaced with 6 inches of broken stone and gravel.
- About 100,000 square feet of walk borders were regulated, graded and seeded.
- About 700 feet of old roads through animal ranges were obliterated and seeded.
- About 2,000 feet of posts and guard wire erected along walk borders.
- The crocodile pool and fifty-one reptile cases in reptile house decorated with plants, and carefully maintained.
- About one thousand cabbages, two thousand ears of corn, one thousand five hundred pumpkins, mangel-wurzels, one thousand heads of lettuce and twenty barrels of turnips raised in nursery for animal food.

Maintained all walks and roads, and daily service of carts and cleaners for the entire park. The Director desires to call special attention to the practical difficulties involved in selecting and maintaining living plants in glass cases containing reptiles, and also in the main halls of such buildings as the Reptile House, Bird House and Small Mammals' House, when the great accumulations of sand and dust from the feet of the visitors render the care of living plants a continuous struggle. The fifty-one cases in the Reptile House abundantly attest both the botanical knowledge and the artistic taste of Mr. Merkel, who, in spite of many difficulties, has successfully collected and arranged the plant life they contain.

In view of the very important and even imperative duties now devolving upon the Society in the preservation of the forests of the Zoological Park, in doing the planting that is absolutely necessary, and in maintaining these two hundred and sixty-one acres of park lands in a condition which will be satisfactory to the people of Greater New York, the special appropriation of \$10,000 which was asked for last year is very seriously needed, considering the work to be done. The amount is not one dollar more than is necessary, and it is earnestly hoped that for 1901 it will be granted.

#### Construction.

During the year 1899, the position of Chief Constructor was filled most acceptably by Mr. W. H. Puffer. We cannot speak too highly in praise of the ability displayed by Mr. Puffer in the discharge of the very complex and exacting duties which devolved upon him, and the diligence with which he pushed forward the Society's work. It was his duty to see that all contracts in connection with the Society's buildings were carried out faithfully and promptly, and also that the force of day laborers and mechanics at work under his direction met all expectations regarding them. A very important part of his duties consisted in securing bids on such materials as were used in the construction work carried on by our own force. In many instances, special features of construction were carried out by Mr. Puffer's force at considerably less cost than the lowest bid of contractors.

Several special features in masonry were constructed by our own masons, for the reason that satisfactory results could not be secured by contract work. Of this class the leading example is the series of sleeping dens for the bears. They were built against a ledge of bare granite rock, and faced with weathered blocks of granite so carefully selected, and so skillfully joined together, that at a trifling distance the sleeping dens appear to be a part of the natural ledge. The sleeping den of the Russian wolf is generally considered by visitors to have been dug out of a huge boulder of solid granite.

Owing to the complicated nature of the plumbing required for the Reptile House and Bird House, the whole of it was put in by our own force.

In this connection it is worthy of note that while nearly thirty-one contractors were engaged during the past year in the execution of orders for the Zoological Society, often upon work which required additions and alterations in course of construction, the Society's relations with all have been entirely harmonious. Not a single serious difference of opinion has arisen, nor one requiring the services of a referee. In view of the complex nature of many portions of our work, this result is well worthy of mention.

#### Engineering.

Throughout the year, Mr. George M. Beerbower has continued to serve the Society most acceptably as its civil engineer, and has been obliged to work with great diligence to meet the multitude of demands made upon him. He has staked out the lines of every building, aviary, den, range, corral, park boundary, walk and road, and he has also erected the latter boards for each of seventeen buildings that have up to this date been erected in the park. All the maps produced during the year were drawn by him, as also were numerous working drawings for wrought-iron work.

#### Ground Improvements by the Park Department.

In 1898 and 1899, the Board of Estimate placed at the disposal of the Park Department for the Borough of The Bronx, the sum of \$125,000 to be expended in preparing the grounds of South Bronx Park for use as a zoological park. Aside from the making of Park roads, this appears to have been the first appropriation ever made for the improvement of one of the great northern parks of this City, in a manner calculated to promote its utilization by pedestrians.

The amount of work accomplished during 1899 at the expense of this fund was very considerable, and the opinion has been freely expressed by citizens in no way connected with the work, save as taxpayers, that it is to be doubted whether the City has ever secured more results or the money expended than it obtained in this park during the year 1899.

As has previously been stated, all the improvements made were in harmony with the general scheme of development as proposed in 1897 by the Zoological Society. The general plans and specifications furnished by the Society were elaborated by Chief Engineer Daniel Ulrich into detailed plans and specifications, and various contracts were let by the Park Department to the lowest bidders. Assistant Engineer John P. Schermerhorn and a field party were especially detailed to take charge of the work in progress, and it required very nearly his undivided attention. It was the duty of the Director of the Park to explain and interpret to the engineers the



general scheme of the Society, in order that the work performed by the City might exactly fit together with that of the Society, and that both together might harmonize with the natural surface and other natural features of the park.

From the very beginning, all parties concerned have labored most earnestly to fit the general plan to the grounds, and not to make the grounds conform to the plan. The exact grades of every walk and road, and the lines of every enclosure for animals were determined upon the ground, not in an office. The 12,000 lineal feet of walks and roads have been carefully fitted to the natural contours of the park, and the construction of the entire system completed thus far has not cost the life or even one valuable tree.

The task of providing this very uneven tract of forest and meadow land with walks, water, sewerage, buildings, dens, aviaries and ponds, all of which shall serve their functions, maintain the harmony of Nature, and yet do all work with both rapidity and economy, is to-day and from the beginning has been a difficult one. It is both a duty and a pleasure to record the fact that Park Commissioner Moebius and his engineers have, in every possible manner and on all occasions, labored most earnestly in co-operation with the Society to secure for the public the best possible results with a minimum of expenditure.

Up to the close of 1899, the work of the Park Department in the preparation of the grounds of the zoological park consisted of the following items:

#### Aquatic Mammals' Pond.

The first work of the City in the Zoological Park was the excavation of the aquatic mammals' pond, which was performed in the year 1898. The rough excavation had been almost completed by the time the winter put an end to all further operations. Owing to the soft, spongy nature of the material to be removed, the difficulties encountered in making the excavation were very great. The cost of the original excavation was over four thousand dollars, but, aside from the value of the pond, the supply of rich, black soil obtained has been estimated by experts to be worth the entire sum expended in removing it. As stated above, the sides and bottom of this pond were finished by a force from the forestry and gardening department, working under the personal direction of Chief Forester Merkel. This pond, as completed, is highly satisfactory, and serves a number of important practical purposes, not the least of which is the continuous supply of pure ice it will yield for the park.

#### Service Road and Motor-carriage Road.

No other feature of the ground improvements has afforded such general relief to the park administration as the Service road. Prior to its completion there was a constant struggle with teamsters to keep them from ruining the southern portion of the park. This road enters the grounds from the Southern Boulevard, between the elk and moose ranges, touches the wolf dens and storehouse, passes close behind the reptile house, taps the bear dens by a short spur and sweeps around Rocking Stone Hill to the buffalo house and Public Comfort Building. It is built of red granite macadam covered with trap-rock screenings, and is 3,000 feet in length. As a matter of course, it has been constructed to fit the contours of the ground over which it passes, beside providing for the service of nearly the entire southern portion of the park, this road will presently form the middle half of the Motor-carriage road which has been designed for vehicles to carry visitors to various points in the area devoted to collections. An extension eastward of about 900 feet will carry the line to the Boston road, and an extension 1,400 feet northward will reach the proposed terminus of the line at the carriage entrance on Pelham avenue.

#### Gravel Walks.

On account of the numerous fillings required in constructing the walks made last year, it was inadvisable to surface them with asphalt until their foundations had settled as much as they ever will. It was therefore decided that for the first year, at least, the walks should all be finished as gravel walks, which was done. Between March 1 and November 1, Mr. William Macerason constructed, under the terms of his contract, 9,750 lineal feet of gravel walks, varying in width from 10 to 20 feet, with a total surface of about 140,000 square feet. From each of three entrances a main walk 20 feet wide leads into the grounds, until it divides; and nearly all other walks are 12 feet in width. The system completed last year carries the visitor through the park diagonally from southeast to northwest, branching off midway to the southwest entrance, and reaches all of the twenty-six buildings and other inclosures which contain animals. During future years this system will be extended to the northeast entrance, Baird Court, the carriage entrance, and, in fact, all other portions of the grounds, on the lines laid down in the final plan.

#### Water Lines.

By dint of great effort, both on the part of the Park Department and the Zoological Park force, water pipes were laid, not only to the large buildings, dens and aviaries, but also to every range for animals. The two mains which have been laid into the grounds from the Southern Boulevard are large enough to provide adequate protection from fire; but a very moderate fraction of their capacity is sufficient for the ordinary needs of the park. Strict injunctions against unnecessary use of water have been laid upon the park officers.

The total length of water pipe of all sizes laid in the grounds last year was 6,110 feet, the greatest amount being of 1½-inch and 2-inch galvanized pipe, leading to the ranges for large game and the bear dens. Thus far no water pipes have been laid in Baird Court, for obvious reasons; but the present 6-inch main terminates within a few feet of the lion house and bird house.

#### Sewers.

The first sewer constructed in the zoological park was that in birds' valley, 1,200 feet in length, to receive the sewer stream coming into the park from Belmont. This was constructed by the Sewer Department, at a cost of \$2,250, which sum was specially appropriated in 1898. All the sewerage connected with the bear dens was constructed by the Zoological Society. Mr. Macerason constructed, under his general contract, a main sewer from the crocodile pool and reptile house on the east, and the others' pool on the south, to a point in the northeast of the wolf dens. In birds' valley a lateral was built to the bird house, and many shorter lines were laid. Including the birds' valley sewer, the total length of sewers and drains constructed in the park up to date is 4,775 feet.

#### New Dam at Waterfall.

During the summer of 1899 the water in Lake Agassiz began to break through the old stone wall which abuts against the northern end of the rock ledge which forms the waterfall in the linear river. By degrees this wall was washed away, until Lake Agassiz was quite emptied of water. The malarious exhalations from the mud flats that were exposed became a public menace to health, and created a condition which demanded prompt abatement. Park Commissioner Moebius immediately ordered construction work which resulted in the rebuilding of the broken wall, and in replacing the decayed wooden timbers on top of the rock ledge with a coping of solid concrete, laid in curves conforming to the natural lines of the ledge. By this means the water in Lake Agassiz was again raised to its original level, and the nuisance was abated. While this work was in progress, a special force of men was employed in cleaning out the channel around the island near the southern shore, in order that a current might flow around it and abate the condition of unwholesome stagnation that had previously existed at that point. This end was successfully accomplished, and one more malarious influence has thereby been eliminated from that region.

#### Fences for Park Boundary and Ranges for Animals.

In April, 1899, a contract for wire fencing on steel posts was let to the Page Woven Wire Fence Company, and on July 1 that company completed the erection of 27,855 feet of elastic steel-wire fence, on heavy steel posts, a large number of which were set in concrete.

This contract inclosed all of the Zoological Park which lies west of the Boston road and south of Lake Agassiz, with a fence 7 feet 4 inches high, made of 25 wires of hardened steel, each having a tensile strength of between 4,000 and 4,500 pounds. The end and corner posts are of plate steel, the heaviest ever made for this fence, and are set four feet deep in a mass of solid concrete two feet in diameter. The same kind of fence incloses each of the ranges for buffalo, antelope, deer of various kinds, moose and caribou. At a little distance, say 200 feet, the wire of these fences very often is absolutely invisible. The entire work of erecting these fences and gates, and connecting them with buildings, has been done in a most painstaking and skillful manner, and they constitute a valuable object lesson for other cities wherein zoological gardens are to be established.

#### Toilet Cottages.

For temporary use, until a regular outlet for sewage has been secured via West Farms, four small toilet cottages of wood were erected last October by T. W. Timpson & Co., and completed before the park was formally opened to the public.

#### Entrance Pavilions.

A contract for the construction of four entrance pavilions, with rooms for gate-keepers, self-registering turnstiles, etc., was let to John R. Sheehan; but while work upon them had been well advanced by the end of 1899, they are not yet ready for use. These pavilions are situated at the extreme corners of the inclosed area of the park, with the exception that the one nearest to West Farms is situated at the northeastern corner of the buffalo range. Pending the completion and acceptance of these pavilions, the Zoological Society has provided temporary entry boxes for the gate-keepers.

#### Public Comfort Building No. 1.

On November 2, 1899, a contract was let to T. W. Timpson & Co. for the erection of a public comfort building, quite near the rocking stone. In addition to spacious toilet rooms, it will con-

tain an interior dining room for the serving of cooked meals and extensive lunch counters in the two pavilion wings. This structure will be greatly needed as soon as spring opens, and it should be completed by June 1, 1900.

#### Grading of Baird Court.

A very important contract was let on September 7, 1899, to John C. Rogers, Jr., for \$29,756, for the grading of Baird Court, the erection of some retaining-walls along both sides and certain other work. This work is a necessary preliminary to the erection of the large animal buildings that are to be located in that open space. Immediately upon the approval of his contract, Mr. Rogers began work with a large force of men and machinery, and by the end of the year had very nearly completed the task. One feature of this work is the excavation and concreting of a pond for sea-lions, situated in the centre of the court, which will be ready for use early in the coming spring.

#### Excavation of Cape Lake and Elk Pond.

Both these features are included in the contract with J. C. Rogers, Jr., mentioned above. The Elk pond excavation was completed in October. Work on Cape lake has been in almost constant progress for several months, and will be completed early in the spring. The Society will then take up promptly the work of finishing and seeding the banks of both these lakes, and confidently expects to have them in satisfactory condition by the time the mild weather of May brings the usual throng of visitors.

#### Benches.

Two hundred park benches have been contracted for by the Park Department and are almost ready for delivery. These will be distributed generally throughout the Zoological Park grounds, in shady situations, where they will be most useful to visitors. Quite a number will be placed in the pleasure grounds bordering the river.

#### STATEMENT OF GROUND IMPROVEMENT CONTRACTS AND GENERAL WORK.

##### Expended for Ground Improvements in January 1, 1900.

Fences for ranges, corals and boundary, 2½ miles .....	\$10,371 84
9,750 lineal feet of gravel walks .....	
6,110 lineal feet of water-pipe (Macerason's) .....	
4,775 lineal feet of sewers .....	
3,000 lineal feet of service road (contract) .....	30,970 48
22 flights of stone steps .....	
Manholes, street washers, etc. ....	
Excavating aquatic mammals' pond up to November 24, 1898 .....	
New dam at waterfall, and other labor .....	8,064 17
Four toilet cottages .....	1,400 00
Engineering expenses .....	4,872 23
Miscellaneous bills and supplies .....	1,523 54
	\$57,199 26

##### Under Contract with Ground Improvement Fund.

Four entrance pavilions .....	\$5,600 00
Grading of Baird Court .....	
Erection of retaining-walls .....	
Excavation of Cape Lake .....	
Excavation of elk pond .....	
Public Comfort Building No. 1 .....	10,550 00
200 park benches .....	1,200 00
	47,100 00
Total .....	\$104,299 26
Lessing an unexpended balance of .....	20,764 74
Total fund appropriated .....	\$125,064 00

#### Graveling Work.

At the north end of Baird Court, and extending along the entire line of the carriage way, course to the proposed carriage entrance at the Pelham Avenue Bridge, there existed a depression from five to seven feet in depth, which required to be filled before the entrance could be constructed. At the northwest entrance, also, a similar depression existed. By a piece of very timely good fortune, the space which required filling was needed by Mr. J. C. Rogers as a dumping place for stone which he was removing from a quarry near the park. As a result, the delivery of several thousand cubic yards of earth was secured, free of charge, where the Society most desired to have it.

Several thousand dollars were saved to the City, and the final completion of the carriage and motor concourses was advanced by nearly a year.

#### Privileges.

During the year 1899 the Zoological Society claimed none of the privileges existing in the park, save that from November 9th onward an admission fee has been charged every Monday and Thursday at the gates to the fenced grounds. The fee is 15 cents for adults and 15 cents for children under twelve years of age. During the year 1900, however, and for the future, the Society will assume the management of all the privileges available in the Park, and devote the revenue from them solely to the purchase of animals for the collections.

The first edition of the Official Guidebook to the Park is being sold at cost 25¢ after the cost of the plates has been made up, its sale may possibly yield a small profit.

#### Attendance and Gate Receipts.

November 8—Formal opening of the Zoological Park .....	
November 9—First pay-day .....	
Attendance for remainder of November, 21 days .....	67,910
Attendance for December .....	11,032
Received at gates during November .....	3,791 75
Received at gates during December .....	5,167 03
Greatest number of visitors in one day, November 11th .....	18,000

#### Maintenance Fund.

The following is a statement of the expenditures incurred for the maintenance of the Zoological Park during 1899. During the year reported upon the drain upon the fund for labor, which was imperatively necessary in connection with the proper care and treatment of the park grounds, roads, walks, etc., was much greater than was expected.

To offset this, the arrival of the animals and the engagement of curators and keepers was delayed as long as possible. During the year 1900 the increased expenditure necessary for services, food for animals, etc., will require at least \$5,000 per month, without providing for the planting operations that are so imperatively necessary. Aside from the care of the collections, the proper grounds of the Zoological Park, and the wants of the public, require at all times, save in midwinter, a force of twenty men constantly employed. At present this force consists of seven men only.

##### Maintenance Expenditures in the Zoological Park.

January 1, 1899—Received "for six months' maintenance" .....	\$30,000 00
Expended from City Maintenance Fund—January .....	\$162 30
" " " " February .....	215 75
" " " " March .....	705 87
" " " " April .....	1,453 18
" " " " May .....	3,185 38
" " " " June .....	3,582 77
" " " " July .....	3,510 42
" " " " August .....	4,910 38
" " " " September .....	4,988 00
" " " " October .....	4,436 17
" " " " November .....	823 38
Total .....	\$30,000 00
Paid by the Zoological Society for maintenance, November and December .....	\$7,038 61
Total .....	\$37,038 61

##### Detailed Statement of Maintenance Expenditures.

Salaries .....	\$20,645 35
Tools and hardware .....	1,474 95
Palats .....	41 35
Sundries .....	205 22
Nursery fixtures .....	557 02







*Gifts to the Park.*

The following is a list of the donations to the Department during the year 1899:

Plants, from Mrs. E. M. Champney, No. 716 Union street, Brooklyn; seeds, from Mrs. J. U. Foster, Meriden, Conn.; porcupine, from Mr. R. S. Miller, No. 573 Fulton street, Brooklyn; plants, from Mr. A. Schwartzman, St. Mark's and Nostrand avenues, Brooklyn; giant Abyssinian banana tree, from Dr. Warner, Arlington, N. Y.; cedar trees, from C. H. Higbee, Fishkill, N. Y.; plants and roots, from Mrs. E. S. Rabbitt, Bristol, R. I.; three bamboos, from Fairmount Park, Philadelphia, through Mr. C. H. Miller, Landscape Gardener; collection of plants and cuttings, from Miss Helen Gould, Irvington, N. Y.; small deer (from Cuba), from Mr. A. L. Ruland, Brooklyn; pair of peacocks, from Mrs. G. H. Peabody, Abenia, Lake George, N. Y.; one pheasant, from Mr. L. J. Cunningham, No. 201 State street, Brooklyn; three bantam chickens, from Master N. G. Herreshoff, Jr., Bristol, R. I.; one large owl, from Mrs. Lucinda Grace, No. 220 Hewes street, Brooklyn; one monkey, from Mr. James M. Blackford, No. 340 Thirteenth street, Brooklyn; one opossum, from Mr. Ernest Bahot, No. 319 Seventeenth street, Brooklyn; one peacock, from Mr. G. H. Lovett, No. 480 Clinton avenue, Brooklyn; two West Indian turtles, from Captain H. Low, No. 474 Thirteenth street, Brooklyn; two foxes, from Mr. Warren Crookshank, No. 141 Broadway, Borough of Manhattan; one raccoon, from Dr. C. F. Fidler, No. 23 Kosuth place, Brooklyn; one cactus, from Mr. Joseph Bugger, Brooklyn.

*East Side Lands (Institute Gardens).*

The work of forming the terrace on the East Side Lands was continued throughout the year, 81,523 cubic yards of earth having been received and distributed, and large quantities of top-soil received and stored, ready for distribution when the ground is ready. The formation of the terrace has also made considerable progress.

A large cold frame building was erected on these grounds for propagating purposes. Seventy-five sugar maples were planted on the outside of the grounds, to take the place of dead and diseased ones that had been taken up.

*Tompkins Park.*

In addition to the regular work of keeping the shelters, walks, gutters, etc., clean and in order, the lawns mown and their borders trimmed, over fifty new trees have been planted inside and around the park. The trees and shrubs were trimmed during the winter and spring and sprayed twice with insecticide during the summer.

The shelter in the centre of the park was prepared by park employees for use as a public library, and was placed under the direction of the Brooklyn Public Library Association. New walks were laid around the library shelter, and the grounds around the same were filled in with top-soil and sodded.

The flower-beds were prepared and taken care of, and were replanted in the fall with hyacinths, tulips and other early blooming bulbs for spring exhibition.

*Helford Park.*

A new concrete sidewalk was laid around Helford Park, on Park place and Kingston avenue, and the sides filled in with top-soil, preparatory to seeding down in the spring. A new flagpole was erected on July 3, in addition to which the regular work of maintenance has been carried on.

*Red Hook Park.*

In accordance with the accepted design, the work of improving this park is being pushed forward as rapidly as possible. Over 13,000 cubic yards of earth and other refuse have been removed under contract, and about 20,000 cubic yards of top-soil received. There has also been received 1,300 cubic yards of manure, which was worked over with 2,850 cubic yards of poor soil.

The iron fence around the outside of the park has been rebuilt and painted, 1,257 feet of irrigation pipe and 140 feet of drain pipe laid, the new shelter partially built, fountain basins dug out and the formation of the ground well advanced.

*Fort Greene.*

The regular work of maintenance has been carried on, and the walks, gutters, basins and shelters kept clean and in order. New trees, shrubbery and flower-beds have been planted and cared for. The trees were sprayed during the summer and new designs in flower-beds executed, which in the fall were planted with early blooming bulbs for spring exhibition.

A design prepared by the Landscape Architect has been accepted for the improvement of the "Giant," and all the old asphalt pavement has been taken up and carted away, the surface covered with top-soil, fertilized with over four truck loads of manure and graded, preparatory to sowing down in the spring. Walks have been laid out, ready for asphaltizing the coming season.

The old pavement on the DeKalb avenue side of this park was taken up and relaid, and the borders partly repaved.

The customary celebration was held on July 4, at the Martyrs' Tomb, under the auspices of the Daughters of the American Revolution.

*Sunset Park.*

Sunset Park is now open to the public. A six-hole golf course was laid out on the grounds, and is used by several golf clubs.

The rustic stonework on the Fifth avenue side of the park has been carried on throughout the year, as the weather permitted. The amount of work accomplished during the year was as follows: 300 cubic yards of stone masonry excavated and set; 200 boulders set, and 1,200 cubic yards of earth and top-soil carted, to fill in between boulders and tree holes. The unfavorable criticism of this work has entirely subsided, as the construction advances, and the people realize the object of the contract and appreciate the fact that this improvement will greatly benefit that section of the city.

*Fort Hamilton Park.*

At Fort Hamilton Park, 11,000 cubic yards of top-soil has been received, preparatory to commencing the construction of the park. The weeds were mown down and the park cleaned up, and curbs and gutters laid around the outside.

*Forest Park.*

Owing to the small force of men available for work at Forest Park, it has been maintained in its natural state, the men having been employed in trimming the trees and guarding the park from fires and reckless shooting. A number of arrests have been made by the park guards for shooting, and as in each case the offender has been fined or imprisoned, it is hoped that there will be much less shooting in the future.

As the men could be spared, they have been kept busy in repairing the roads and cleaning up surplus trees and underbrush. A small pond was filled in, by order of the Department of Health.

*Small Parks.*

Brooklyn Heights, Carroll, City, Winthrop, Bushwick, Bensonhurst, Municipal, Long Island City, Flushing, Kings (Jamaica), Cooper, Zindel, Underhill, Cooper, Gore, Cuyler, City Hall and Woodpoint Parks, and Saratoga and Irving squares and Lincoln terrace, have all received the necessary attention. The walks, gutters, basins, fountains and shelters were kept clean and in good order. The lawns were regularly mown and their borders trimmed, the trees, shrubbery and hedges trimmed and kept free from insects, and the flower-beds planted and kept in order. All the old flower-beds were dug up and planted with bulbs for spring exhibition.

Old and diseased trees on the outside of parks were dug up and replaced by new ones as follows: Winthrop Park, 92 sugar maples; Bushwick Park, 27 Oriental planes; Saratoga square, 35 Oriental planes; Irving square, 10 European linden; City Park, 7 poplars, and City Hall Park, 1 sugar maple.

New flag-poles were erected at Saratoga square, Irving square, Bushwick Park and Cooper Park.

*Dyker Beach, Canastota Beach and New Lots Playground.*

These parks have all received the necessary attention. A new plank drain was built at Dyker Beach to drain the meadow.

*College Point Park.*

A design for this park was prepared, and the work of grading and covering the park with top-soil, according to contract, has been carried on.

Walks were made and covered with crushed bluestone, and an excavation dug for a fountain basin. It is hoped to continue this improvement during the coming season.

*Linden Park, Corona.*

This park has been entirely cleaned of garbage and other refuse and put in a sanitary condition. The lake was cleaned and weeds cut away.

*Coney Island Lido.*

The Concourse at Coney Island has been kept clean and in good order. A new horse-bowl was put in and stone pavement laid around it.

A very severe storm on Sunday, December 24, carried away a large part of the asphalt pavement and otherwise severely damaged the beach. This, however, has been repaired as far as possible during the winter weather.

*The Boulevard.*

Over 1,400 sugar maples, Norway maples, American elms and Oriental plane trees have been planted along Ocean parkway, Eastern parkway, Eastern parkway extension and Highland Boulevard, to take the place of old and diseased trees that had been taken up. The trees on the entire length of the boulevards have been trimmed and sprayed, to destroy insects.

All the boulevards and roads have been regularly sprinkled, which, owing to the dryness of the season, was continued until December 10.

*Ocean Parkway.*

All of the drives, bicycle paths, side roads, gutters and bridge roads have been properly maintained. The main drive of the parkway was covered with trap-rock screenings and rolled, from Fort Hamilton avenue to Twenty-second avenue. The west drive was rebuilt from Twenty-second avenue to Avenue M with trap-rock and screenings, 17,300 cubic yards being used.

Three new catch-basins were built and 321 linear feet of nine-inch pipe laid at the Plaza Circle and Fort Hamilton avenue.

*Bay Parkway (Twenty-second Avenue).*

In addition to the regular maintenance, part of the main drive of Bay parkway was resurfaced with trap-rock and gravel, over 6,000 cubic yards having been used.

The roadway at the foot of Bay parkway, and also the drive through Bensonhurst Park, were resurfaced with 3,250 cubic yards of Hudson river gravel.

The main drive through Dyker Beach was repaired with gravel and screenings wherever required.

*Fort Hamilton Avenue.*

The contract of the Manhattan Construction Company, for improving Fort Hamilton avenue, from Seventy-ninth street to the shore of New York Bay, has been completed. The total amount of work performed was as follows: curbing, 12,211 linear feet; macadam, 29,293 square yards; Belgian-block gutters, 2,752 square yards; excavation, 14,000 cubic yards; brick pavement, 99 square yards.

The remainder of the roadway of Fort Hamilton avenue was kept clean and in good condition.

Part of the roadway between Ocean parkway and Gravesend avenue was rebuilt with a layer of 5 inches in thickness of crushed trap-rock, bound with Hudson river gravel and topped with trap-rock screenings.

*Eastern Parkway and Eastern Parkway Extension.*

All of the drives, gutters and side roads of Eastern parkway and its extension have been kept clean and in good order.

Two blocks of Eastern parkway, extending to Ralph avenue, have been covered with Hudson river gravel and rolled. Part of the main drive, from the entrance to the Museum of Arts and Sciences to the Plaza at the main entrance to Prospect Park, an area of about 4,000 square yards, was resurfaced with Marcellus Shale sandstone screenings.

The Eastern parkway extension was rebuilt from Atlantic avenue to Fulton avenue, a total of 2,000 square yards having been resurfaced with trap-rock and screenings.

*Twenty-sixth Ward Streets.*

The streets under the jurisdiction of the Park Department in the Twenty-sixth Ward have all received regular attention, the roads, gutters, etc., having been kept clean and in good condition.

Some avenue was improved with gravel and trap-rock screenings, 4,550 square yards having been resurfaced. The avenue was curbed and guttered throughout its entire length.

The widening and resurfacing of New Lots road has been completed as far as Miller avenue.

*Bay Ridge Parkway (Shore Drive).*

The contract of Kelly & Byrnes for the improvement of the Shore road terminus, on which work was commenced June 14, has been completed. The total amount of work performed was as follows:

Curbing, 1,123 linear feet; brick pavement, 1,354 square yards; telford pavement, 7,477 square yards; drain pipes, 15-inch, 2,139 linear feet; drain-pipes, 12-inch, 597 linear feet; catch-basins and manholes, 29; excavation and refilling, 5,272 cubic yards.

The balance of the roadway of the Shore drive was regularly maintained in good condition. A flag-pole, 140 feet high, was erected on the Shore road at "Owl's Head," and was presented to the City by the citizens of Bay Ridge, with appropriate ceremonies, on September 28, 1899.

Respectfully submitted,

ALVIN BODDY, Superintendent,  
JOHN DE WOLF, C. A.

*REPORT OF THE CAPTAIN OF POLICE.*

OFFICE OF THE DEPARTMENT OF PARKS—BOROUGH OF BROOKLYN AND QUEENS,  
LEITCHFIELD MANSION, PROSPECT PARK, BROOKLYN,  
January 1, 1900.

Hon. GEORGE V. BROWER, Commissioner, Department of Parks, Boroughs of Brooklyn and Queens:

SIR—I have the honor to submit herewith my annual report of the work accomplished by the men constituting the Police force of the Prospect Park (Seventy-third) Precinct, together with such other information in relation to games, misdeeds, etc., as is of general interest, and which comes under Police supervision.

*Prospect Park Police Force.*

The Police permanently assigned to duty in this precinct, sixty-seven in number, are composed of the following officers:

One captain, five sergeants, one detective sergeant, two roundsmen and fifty-eight patrolmen.

One sergeant, permanently assigned to duty in this precinct, is in charge of the horses and equipments of the Police Department of the Borough of Brooklyn, and is therefore not an active list.

Six of the fifty-eight patrolmen permanently assigned to duty in this precinct are, at the present time, temporarily attached to the Twenty-seventh Precinct, in the former town of Flatbush.

One patrolman died, one was retired and three were transferred to other precincts without being replaced by substitutes since my last annual report, thus leaving our total force five patrolmen short of what it was a year ago.

*Arrests in the Park.*

There were fifty-four arrests made by the members of this precinct during the year ending December 31, 1899, for the following causes:

Homicide, 1; grand larceny, 2; burglary, 3; indecent exposure, 3; disorderly conduct, 4; attempted felonious assault, 1; reckless driving, 2; assault in the third degree, 6; carrying concealed weapons, 1; loitering, 5; vagrancy, 2; violation of park ordinances, 6; intoxication, 9; suspicious persons, 1, and petit larceny, 8.

*Musical in the Parks.*

The following concerts were given in Prospect Park and some of the larger outside parks during the summer months:

Saturday concerts in Prospect Park, 16; first concert June 3, last concert September 2.

Sunday concerts in Prospect Park, 12; first concert June 4, last concert September 3.

There were also special concerts given in Prospect Park on July 4 and September 16, the latter being a military concert under the auspices of the Grand Army of the Republic.

In Fort Greene Park there were nine regular Saturday concerts given, the first being on July 2 and the last on August 26, with an additional special concert on July 4, which made ten concerts in all.

In City Park there were four Sunday concerts, the first being on July 30 and the last on August 20.

In Winthrop Park there were six Saturday concerts, the first on July 22 and the last on August 26.

In Bushwick Park there were five Saturday concerts, the first on July 22 and the last on August 19.

In Tompkins Park there were four Saturday concerts, the first on July 29 and the last on August 19.

*Summer Picnics.*

During the year there were 412 picnics in Prospect Park, representing an attendance of 43,365 persons. Of these there were 172 Sunday school picnics, with an attendance of 23,990 persons; 14 private school picnics, attendance, 357; and 215 social and family parties, with an attendance of 7,473 persons.



During the month of May there were 162 picnics, with an attendance of 4,801 persons; in June, 161 picnics, with an attendance of 4,700 persons; in July, 127 picnics, with an attendance of 16,021 persons; in August, 54 picnics, with an attendance of 6,690 persons; and in September 27 picnics, with an attendance of 3,793 persons.

#### Park Work.

There were 1,037 games of baseball played on the Parks Ground during the season, in the following order:

In April, 82; in May, 234; in June, 315; in July, 343; in August, 384; in September, 326; and in October, 93.

There were 81 games of cricket played during the following months: May, 12; June, 18; July, 14; August, 24; and September, 15.

There were 108 games of football played during the months of October and November.

There were 45 games of basket-ball played by young ladies connected with different clubs during the months of May and September.

There were four days of shooting during the months of January and February.

There were (estimated) about 1,400 games of croquet and from 3,800 to 4,000 games of lawn tennis played during the summer season.

#### List of Accidents.

The total number of accidents of all kinds during the year was 102, and the number requiring medical attendance was 58. Of these 58 cases 30 were removed to the hospital and 28 were sent or removed to their homes.

The accidents (above mentioned) were as follows: Miscellaneous accidents to carriages and sleighs, 28; accidents to bicyclists, 11; accidents to saddle horses, 7; collisions between carriages and other vehicles, 15; collisions between carriages and bicycles, 3; collisions between bicycles, 8; collisions between trolley cars, trucks, wagons and bicycles, 8; run down and injured by carriages, 12; run down and injured by bicycles, 5; run down and injured by trolley cars, 3; run down and injured by saddle horses, 2; fell from trolley cars and injured, 5; injured while playing ball on the Parks Ground, 3; injured while skating on Prospect Park lake, 1; fell in Prospect Park and injured, 5; injured by premature discharge of cannon at military concert, 1; injured by attempting to stop runaway horse, 1; number of persons who fell in the lake and were rescued, 3.

There were ten persons taken sick in Prospect Park, all of whom were removed to their homes or to the hospital; five lost children found wandering in the park were restored to their homes; and one lost child, for whom there was no claimant, was turned over to the Society for the Prevention of Cruelty to Children.

There was one suicide by poison in the rose garden in Prospect Park, and the body of one dead infant, which was removed to the morgue, was found in the park.

The number of ambulance calls during the year was 58.

Respectfully submitted,

MICHAEL A. McNAMARA, Captain of Police.

#### REPORT OF THE SECRETARY.

Charles H. Henshaw, Jr., *Secretary of the Department of Parks of the Borough of Brooklyn and Queens during the year 1899.*

Item.	Name.	For What Purpose.	Amount.
1	Brooklyn Institute of Art and Science	Water and supplies, December, 1899	\$5.04 75
2	J. M. Thompson & Co.	Seeds	124 00
3	Thomas & Sons Company	Grass seed, 1899	27 75
4	Thames & Co.	Grass seed, 1899	30 50
5	General Water Supply Company	Water, Prospect Park, May, 1899 to November, 1899	14 25
6	"	Water, Forest Park, November, 1899 to the present date	0 72
7	Edison Electric Manufacturing Company	Electric light at Lake House, January 1, 1900, to November 1, 1900	100 27
8	N. & J. C. J. Discharge Company	Electricity, 1899	107 00
9	"	"	43 89
10	Insurance Mutual Lending Company	Interest on 1899	25 00
11	James J. Henshaw & Son	Account of 1899 in connection with purchase of Water Supply, 1899 to 1900	100 75
12	A. E. Henshaw, 1899 to 1900	Office disbursements	104 55
13	Wagon & Carriage	Repairs, 1899	44 10
14	Samuel W. Cornell	Hardware, 1899	107 50
15	N. Langley & Son	Carriage hardware	71 54
16	James A. Stillwell	Home furniture	2 40
17	H. W. Bond	Boat launch and repairs	20 00
18	C. Henshaw	Two iron counterbalanced wheels	7 20
19	James A. Stillwell	Repairs on boiler of 1899	17 00
20	Henry McShane Manufacturing Company	Painting materials	107 00
21	A. Henshaw & Son	Grass seed, 1899	0 60
22	J. M. Thompson & Co.	Grass seed, 1899	20 50
23	S. E. Henshaw	Painting materials	20 24
24	P. Kane Harness Manufacturing Company	Repairing harness, 1899	0 45
25	C. W. Henshaw	Rock polish, 1899	0 00
26	The Boston Drug Co., Limited	London purple, sulphur, etc.	10 50
27	Michael T. Henshaw	Flour and butter	12 50
28	William Henshaw City Fire Insurance Company	Insurance, Forest Park property	25 00
29	J. Henshaw & Son	Outy corn, hay, etc.	114 25
30	Charles Henshaw & Son	Plants	10 50
31	C. Henshaw	Coal	937 32
32	William Henshaw City Fire Insurance Company	Insurance, Shore road property	104 75
33	Brooklyn Union Gas Company	Gas at 1899	11 35
34	Flushing Water Works Company	Water at Ocean pool Flushing	11 85
35	Michael Kennedy	Corn	10 50
36	Department of Correction	Brooms	25 00
37	Amsterdam Supply Company	Screens	50 00
38	James Campbell	Charcoal	0 00
39	Joseph A. Morris	Shoe and peg shoe	10 75
40	Charles J. Morris	Shoe and peg shoe	14 40
41	"	Shoe and peg shoe	14 80
42	Ed. T. Henshaw	Plants	0 50
43	Edison Electric Manufacturing Company	Electric light, 1899 and 1900	92 57
44	C. Henshaw	Electricity, 1899	100 00
45	Nassau Fire Insurance Company	Premium on insurance, Bedford Park building	12 00

Item.	Name.	For What Purpose.	Amount.
46	Robert T. Brown, Secretary	Office disbursements	841 60
47	S. Henshaw & Son	Outy, hay, straw, etc.	100 00
48	New York and New Jersey Telephone Company	Telephone at 1899	0 70
49	Henry McShane Manufacturing Company	Painting materials	100 00
50	James Water Supply Company	Water, Forest Park	7 80
51	Francis X. Kerrigan, Chief Clerk	Office disbursements	88 41
52	Brooklyn Lumber Company	Lumber	107 40
53	Leggett Bros.	Books on gardening	21 00
54	C. W. Henshaw	Frame and frame	4 00
55	Edison Electric Manufacturing Company	Electric light, 1899 and 1900	92 57
56	"	Electric light at Lake House	25 00
57	W. A. Morris	Fancy-leaved collars	40 00
58	Brooklyn Borough Gas Company	Gas, Coney Island Concourse	100 00
59	C. Henshaw	1899	0 00
60	James Smith	25 loads of manure	11 40
61	The P. Kane Harness Manufacturing Company	Shank supplies, repairs, etc.	10 15
62	C. W. Henshaw	Painting materials	100 00
63	Photographic and Silver Company	Designs for 1899	100 00
64	David G. Van & Co.	Plants	100 75
65	A. M. Henshaw & Co.	Five loads of manure	100 00
66	Dickson and Lock Company	Mining, 1899 Prospect Park in Borough	0 00
67	Patrick Henshaw	25 loads of manure	11 40
68	William H. Henshaw & Co.	Boat and ship for 1899	1 00
69	Patrick Henshaw	27 loads of manure	12 40
70	James Henshaw	25 loads of manure	11 40
71	James J. Henshaw	25 loads of manure	11 40
72	James Campbell	Charcoal	100 00
73	Flushing Water Works Company	Water, 1899 and 1900	11 85
74	Ball & Carlow	Reception and repairs on 1899	0 00
75	Samuel W. Cornell	Hardware, 1899	107 50
76	James Henshaw & Son	Grass seed, 1899	0 60
77	John T. Morris	400 cubic yards top soil	2,000 00
78	"	2,000 cubic yards	114 00
79	"	Trap-rod, 1899	10 80
80	Frederick MacNamara	Third payment on contract for 1899	1,000 00
81	Robert T. Brown, Secretary	Office disbursements	14 20
82	S. E. Henshaw	Painting materials	10 00
83	Philip S. Langley	Wagon and carriage hardware	107 80
84	Wagon & Carriage	Lumber	107 40
85	W. Henshaw	25 loads of manure	11 40
86	Brooklyn Union Gas Company	Gas at 1899	11 35
87	The J. L. Henshaw Works	Grass seed, 1899	1 00
88	A. V. Henshaw	Business supplies	14 00
89	N. Langley & Son	Star gold and luggy stoves	12 00
90	P. Henshaw & Son	Grass seed, 1899	10 00
91	W. L. Henshaw	Two 1899	10 00
92	James T. Henshaw	Home furniture	2 40
93	Francis X. Kerrigan, Chief Clerk	Office disbursements	88 41
94	Ed. Henshaw	Removal of Ocean park way and Avenue U	400 00
95	William S. Henshaw	Book, 1899 and 1900	10 00
96	Bauch & Henshaw, 1899	1899	100 00
97	Brooklyn Institute of Art and Science	Wages and supplies, January	1,000 00
98	"	Wages and supplies, February	1,000 00
99	Thomas Kelly	25 loads of manure	11 40
100	Michael McGarry	25 " "	11 40
101	W. Henshaw	25 " "	11 40
102	S. Henshaw & Son	Hay, straw, oats, etc.	100 00
103	The Nystyle Company	1 rotary nystyle and paper	51 60
104	M. O'Hara	25 loads of manure	11 40
105	B. E. Gray	25 " "	11 40
106	T. Kennington	25 " "	11 40
107	P. H. Henshaw	30 " "	11 40
108	Peter Fink	Boilers for Sunset Park	100 00
109	Peter Fink	25 loads of manure	11 40
110	Edward Bailey	30 " "	11 40
111	Patrick McGarry	30 " "	11 40
112	Peter Kerrigan	30 " "	11 40
113	Timothy Cinklin	75 " "	11 40
114	Peter S. Braiken	95 " "	11 40
115	William O'Keefe	85 " "	11 40
116	J. F. Smith	95 " "	11 40
117	John Golden	74 " "	11 40
118	Edward Henshaw	100 " "	11 40
119	P. J. Langley	Blacksmithing materials	145 00
120	Michael Lynch	30 loads of manure	11 40
121	James Malone	25 " "	11 40
122	Robert T. Brown, Secretary	Office disbursements	18 60



DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.	DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.
Apr. 6	Andrew Riley	Twenty-four horses	\$122.00	May 21	Thomas W. Wood's Sons	Various household and coal	\$1.00
" 8	John Lantry	25 "	51.45	" 21	James T. Sullivan	Horse harnesses	50.00
" 8	John M. Fox	75 "	52.70	" 21	P. W. Cunningham	Plumbing materials	30.00
" 8	T. Bates	20 "	11.00	" 22	Henry A. Brown	Flower seeds	5.00
" 10	James Murray	15 "	11.00	" 24	Brooklyn Institute of Arts and Sciences	Pay-roll and disbursements, April, plus	\$75.11
" 10	Edward Benson	20 "	11.00	" 24	Joseph A. Mankin	Various live animals	20.00
" 10	John Clancy	20 "	50.00	" 24	Rose Bros.	Boiler packing	20.75
" 10	P. Kane Harness Manufacturing Company	Harness repairs, repairs, etc.	57.50	" 24	John Lewis Childs	Plants and seeds	170.00
" 10	Samuel W. Cornell	Hardware supplies	44.14	" 24	Furness & Sons Company	Twine	55.10
" 10	Charles J. Dunne	Meat and fish for animals	7.80	" 24	Henry A. Brown	Various small seed and fruit	10.00
" 10	Ed. T. Buckingham	Plants	60.00	" 24	Henry Matthews Manufacturing Company	Blowling materials	600.00
" 10	The Brooklyn Union Gas Company	Gas, Litchfield Mansion	90.00	" 24	Edith Stock	One book on gardening	4.00
" 10	Flushing Water Works Company	Water, Ocean Avenue, corner Flushing Avenue	4.00	" 24	The P. Kane Harness Manufacturing Company	Repairing harnesses	140.00
" 10	The Kunda Fire Hose Company	Painted hose	77.00	" 24	H. Aschendorf	A pair of hart harness	10.00
" 10	Charles & Clarke	Portland cement	74.00	" 24	A. V. Brown	Blue-print paper	10.00
" 10	M. M. Corbett	Feeds, etc., for range	4.00	" 24	D. W. Brown	Gaps for roofing	5.00
" 10	E. W. Cradley	Plumbing	95.00	" 24	Martin D. Brown Company	Various fixtures	15.00
" 10	Henry McShane Mfg. Company	Plumbing materials	20.00	" 24	William N. Keegan	Plaster and cement	50.00
" 10	Department of Correction	Brushes and brooms	40.00	" 24	The Anchor Post Company	75,000 for pens	20.00
" 10	F. Donovan & Son	Corn, etc., for animals	20.00	" 24	The P. Kane Harness Manufacturing Company	Repairing harnesses	7.75
" 10	John S. May	Chrysanthemums	20.00	" 24	Brooklyn Hardware and Sporting Goods Company	Various small goods	10.00
" 10	Joseph A. Mankin	10 barrels of paint	100.00	" 24	Seuffel & Sons Co.	Various tools	10.00
" 10	S. H. Kinn	2 barrels kerosene oil	10.00	" 24	Peter Henderson & Co.	Various tools	10.00
" 10	Thomas Hart	25 loads of manure	25.00	" 24	John Hartman	Various tools	10.00
" 10	Richard McCarthy	10 loads of cow manure	10.00	" 24	Rose Bros.	Blacksmithing materials	20.00
" 10	Charles B. Atkinson	25 loads of manure	25.00	" 24	James T. Sullivan	Horse harnesses	10.00
" 10	Michael Padden	15 "	15.00	" 24	Robert T. Brown & Son	Office disbursements	50.00
" 10	Frank J. Phelan	75 "	91.75	" 24	Samuel W. Cornell	Harnesses	40.00
" 10	P. McLaughlin	20 "	60.00	" 24	Harris & Maguire	Hay	20.00
" 10	David Hill	20 "	10.00	" 24	Thomas Brown	Charred Aquia Jails	10.00
" 10	M. Kelly	20 "	10.00	" 24	Thomas G. Knight	Plumbing materials	20.00
" 10	Edward Louis	25 "	10.00	" 24	Alfred & Co.	Chrysanthemums	40.00
" 10	John Tavel	75 "	10.00	" 24	H. Aschendorf	Harness supplies	140.00
" 10	Brooklyn Lumber Company	Lumber	10.75	" 24	The Brooklyn Citizen	Various fixtures	10.00
" 10	C. H. Tidwell & Son	Wagon supplies	10.00	" 24	William N. Keegan	Portland cement	40.00
" 10	Tenn. Weber & Co.	Wagon, for carrying in Shilling House	5.75	" 24	Brooklyn Lumber Company	Lumber	10.00
" 10	Francis X. Kerrigan	Chief Clerk Office Disbursements	91.00	" 24	Abraham S. Stone	Land and chair	30.00
" 10	John F. Mankin	Topsoil	500.00	" 24	The J. L. Mott Iron Works	Iron for drinking fountain	10.00
" 10	V. Offerman	Coal	687.00	" 24	The P. Kane Harness Manufacturing Company	Shoes and tool bags	10.00
" 10	Manhattan Supply Company	Hardware	285.00	" 24	Francis X. Kerrigan, Chief Clerk	Various disbursements	90.00
" 10	Watson & Dillinger	Lumber	4.00	" 24	Barthelme Nathan	Blue disbursements	75.00
" 10	Brooklyn Lumber Company	"	10.00	" 24	Immigly Institute of Arts and Sciences	Pay-roll and disbursements, May	140.70
" 10	Charles J. Dunne	Meat and fish for animals	10.00	" 24	P. W. Brown	Office disbursements	10.00
" 10	Martin Kelly	25 loads of manure	25.00	" 24	James Cunningham	Cement for Prospect Park, June 10	10.00
" 10	Frank L. Gallagher	75 "	91.75	" 24	W. S. McGrath	"	10.00
" 10	John F. Mankin	10 "	60.00	" 24	"	"	10.00
" 10	John J. Crowley	25 "	10.00	" 24	"	"	10.00
" 10	Brooklyn Institute of Arts and Sciences	Pay-roll and disbursements, month of March	2,600.00	" 24	Harris & Maguire	Various fixtures	10.00
" 10	The Brooklyn Citizen	Printing	7.50	" 24	Law Hark & Son	Various fixtures	10.00
" 10	W. W. Livingston	Coal	210.00	" 24	Wm. T. J. J. J.	Various fixtures	10.00
" 10	New York and New Jersey Telephone Company	Telephone service	47.00	" 24	David G. Vint & Co.	Tools and planks	50.00
" 10	New York and New Jersey Telephone Company	"	907.00	" 24	P. Donovan & Son	Various fixtures	10.00
" 10	New York and New Jersey Telephone Company	"	45.70	" 24	M. Kelly	Various fixtures	10.00
" 10	Samuel W. Cornell	Harnesses	7.00	" 24	Ed. T. Buckingham	Various fixtures	10.00
" 10	Edwin S. Swann, C. F.	Disbursements, Bay Ridge Parkway	909.00	" 24	Brooklyn Union Gas Company	Gas, Litchfield Mansion	33.77
" 10	F. Donovan & Son	Hay, oats, straw, etc.	390.00	" 24	Charles J. Dunne	Meat and fish for animals	10.00
" 10	Frederick MacNaughton	Seventh payment on contract for horse groups for Ocean Parkway entrance	1,000.00	" 24	Charles Zeller's Sons	Plants	60.00
" 10	Henry McShane Manufacturing Company	Plumbing materials	2.00	" 24	W. A. Mankin	Boilers	4.00
" 10	Peter Henderson & Co.	Seeds and plant labels	57.00	" 24	Edward H. Hark	Hire of land	1.00
" 10	Flushing Water Works Company	Water, Ocean Avenue, corner Flushing Avenue	3.40	" 24	P. S. Dutton	Plumbing materials	150.00
" 10	C. Offerman	Coal	11.88	" 24	John Lantry	Plants	140.00
" 10	Rose Bros.	Horse shoes, etc.	10.00	" 24	William Young	Hay and	10.00
" 10	William P. Perkins	Grass seed	270.70	" 24	Caldwell Lawn Mower Company	Retained percentage on contract for lawn mowers	240.77
" 10	Robert T. Brown, Secretary	Office disbursements	14.00	" 24	Frederick W. Kelley	Grass seed	40.00
" 10	Frank Hanley	60 truck loads of manure	77.50	" 24	Brooklyn Lumber Company	Lumber	80.00
" 10	R. P. Jerrery & Sons	200 hemlock trees	20.00	" 24	S. S. Kinn	Kerosene oil	10.00
" 10	F. W. Howell	47 American elms	10.00	" 24	Brooklyn Union Gas Company	Gas, Litchfield Mansion	33.77
" 10	Ed. T. Buckingham	Plants	15.40	" 24	Jamaica Water Supply Company	Water, Forest Park	1.20
" 10	"	Grass seed	214.20	" 24	Charles J. Dunne	Meat and fish for animals	10.00
" 10	W. W. Livingston	Coal	250.00	" 24	Wood Bros.	Various fixtures	75.00
" 10	Michael Padden	15 loads cow manure	10.75	" 24	Harris & Maguire	Hay, etc.	20.00
" 10	F. Donovan & Son	1 tub of grease	50.00	" 24	The P. Kane Harness Manufacturing Company	Repairing harnesses, etc.	10.00
" 10	"	Corn, meal, etc.	20.00	" 24	Patrick Keegan	25 loads of manure	10.00
" 10	"	Oats, hay, straw, etc.	272.00	" 24	MacBeth & Bellin	Repairs to wagon	17.00
" 10	Francis X. Kerrigan, Chief Clerk	Office disbursements	100.00	" 24	Louis Boyes	Concert at Prospect Park, June 17	215.00
" 10	The Brooklyn Union Gas Company	Gas, Litchfield Mansion	10.00	" 24	Thomas F. Shannon	"	215.00
" 10	The P. Kane Harness Manufacturing Company	Repairing harnesses, etc.	10.00	" 24	Brooklyn Lumber Company	Lumber	1,000.00
" 10	A. & C. Ferguson	Corn, meal, etc.	94.75	" 24	James T. Sullivan	Horse medicines	10.00
" 10	Henry McShane Manufacturing Company	Plumbing materials	10.00	" 24	Brooklyn Lumber Company	Lumber	120.00
" 10	J. L. Mott Iron Works	Castings for drinking fountain	2.00	" 24	Samuel W. Cornell	Hardware, etc.	100.00
" 10	Duparquet, Hunt & Monseu Company	Repairs to range	15.45	" 24	Rose Bros.	Blacksmithing materials	270.00



DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.	DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.
June 2	Western & Straus	Stables	42.00	June 8	Charles H. Hays	Part of painted permanent Day-Ridge pavilion	27.50 00
" 2	E. W. Krenn	2 painted steel double	2.40	" 8	George V. Brown	Disbursements	11.00
" 7	Harry Jackson-Kiss Company	Flange fastening, etc.	100.44	" 8	Thomas F. Shannon	Concert at Prospect Park, July 2	212.00
" 8	E. W. Johnson	Ropes	33.40	" 8	"	"	212.00
" 10	James W. H. & S. H. Hays	Overhauling	26.00	" 8	R. L. Halle	Concert at Fort Greene, July 2	140.00
" 10	J. E. West-John Works Company	Dredging fountain, etc.	70.58	" 8	Edwin W. Brown	Concert at Winthrop Park, July 2	140.00
" 11	W. Miller & Co.	Toilet paper	30.00	" 11	Manhattan Construction Company	Manufacturing Fort Hamilton pavilion	1,041.00
" 11	John C. Brown	Plaster	280.75	" 11	Samuel W. Cornell	Hardware	54.44
" 11	J. W. Longdon	Printing (the stamps)	8.00	" 11	Photographers and Color Company	Most programs	100.75
" 11	James W. Wood's Sons	1 ton Enamelized coal	4.00	" 11	G. K. Conover	Concert at Tompkins Park, August 1	140.00
" 11	Brooklyn Citizens	Fishing permit books	8.00	" 11	"	Concert at City Park, August 1	140.00
" 11	W. W. Longdon	Civil	260.48	" 11	Otto M. Bergner	Concert at Fort Greene, July 3	140.00
" 11	James Brown	Water gauges and salt grates	97.00	" 11	F. X. Karyon, Chief Clerk	Office disbursements	50.00
" 11	H. W. Brown	Gasman for drinking fountains	2.00	" 11	Pease Bros.	Buildings for Sunset Park	1,000.00
" 11	George M. Eddy & Co.	1 sand pipe, 100 ft.	14.00	" 11	Otto M. Bergner	Concert at Tompkins Park, July 3	140.00
" 11	Valentine E. Hays	2 books	2.75	" 11	"	Concert at Bushwick Park, July 3	140.00
" 11	Flannery & Co.	Repairing platform scale	10.00	" 11	Edwin W. Brown	Concert at Winthrop Park, August 1	140.00
" 11	Miss E. B. Clark	Preparing report of Commissioners, East (see Parkway Extension)	40.00	" 11	Thomas F. Shannon	Concert at City Park, July 3	202.00
" 11	Trade Company	Concert at Prospect Park, June 2	100.00	" 11	Edward S. Duffy	Concert at Bushwick Park, August 1	140.00
" 11	W. S. Myer	"	212.00	" 11	R. L. Halle	Concert at Winthrop Park, July 3	140.00
" 11	"	"	212.00	" 11	Hofble Bros. Company	Shower outfit, 100 ft. water pipe	7.50 00
" 11	Brooklyn Institute of Art and Science	Payroll and disbursements, June	4,402.70	" 11	Edwin W. Brown	Concert at Fort Greene, August 1	140.00
" 11	Robert E. Brown, Secretary	Office disbursements	10.00	" 11	Robert E. Brown, Secretary	Office disbursements	10.00
" 11	American District Telegraph Company	Manager's services	1.00	" 11	Edwin W. Brown	Concert at Winthrop Park, August 1	140.00
" 11	Harris & Morgan	Supplied materials in contract, Bay Ridge Park	2,700.00	" 11	R. L. Halle	Concert at Winthrop Park, August 1	140.00
" 11	Frederick G. Adams	Foundry repair on motor for this group (for Municipal Building)	10,000.00	" 11	E. J. McCormick	Concert at Fort Greene, July 3	140.00
" 11	The Brooklyn Institute	for building	1.25	" 11	James Conover	Concert at Prospect Park, August 1	140.00
" 11	Local Harbor	Concert at Kings Park, August 1	140.00	" 11	W. S. Myer	"	212.00
" 11	Local Harbor	Concert at Prospect Park, July 3	140.00	" 11	Otto M. Bergner	Concert at Fort Greene, August 1	140.00
" 11	W. W. Longdon	Civil	408.00	" 11	Edward S. Duffy	Concert at City Park, August 1	140.00
" 11	Wing Vanhook, New Jersey Telephone Company	Telephone service	111.75	" 11	Otto M. Bergner	Concert at Tompkins Park, August 1	140.00
" 11	George V. Brown	Disbursements	47.00	" 11	Thomas F. Shannon	Concert at Prospect Park, August 1	212.00
" 11	F. X. Karyon, Chief Clerk	Office disbursements	20.00	" 11	"	"	212.00
" 11	James Brown	Concert at Prospect Park, July 3	140.00	" 11	T. Thomson & Son	Hay, oats, straw, etc.	200.00
" 11	"	"	140.00	" 11	C. A. Thompson	Hay, oats and straw	200.00
" 11	James E. Shannon	"	140.00	" 11	William M. Karyon	Portland cement and sand	75.00
" 11	"	"	140.00	" 11	"	Cement and shingles	34.75
" 11	"	Concert at Prospect Park, July 3	140.00	" 11	American District Telegraph Company	Manager's services	1.00
" 11	R. L. McCormick	Concert at Fort Greene, July 3	140.00	" 11	W. W. Longdon	Civil	340.00
" 11	"	"	140.00	" 11	Harris & Morgan	Utility work, water, etc.	44.25
" 11	The Hastings Parkmen Company	Artistic portrait (the)	1,000.00	" 11	Manhattan Construction Company	Contract building all	15.00
" 11	Robert E. Brown & Co.	Regulating lenses on Maryland Monument	40.00	" 11	Thomas G. Knight	Gas brackets	1.75
" 11	John F. Walker	Hudson River gravel	500.00	" 11	"	120 ft. vertical limb	47.75
" 11	Hannah Water Works Company	Water for sprinkling	434.50	" 11	D. W. Bates	2 street manholes and manholes	20.00
" 11	Richard McElroy	Asbestos of business	24.00	" 11	Harris & Morgan	Drying 400 ft. pipe	170.00
" 11	James Smith	Tools for Bushwick Park	24.00	" 11	J. Warren Mack, agent	2 dozen chairs	80.00
" 11	Charles J. Brown	Shed and fuel house, etc.	14.40	" 11	Adrian Johnson & Sons	Bushes	12.00
" 11	Brooklyn Union Gas Company	Gas, low and medium	11.00	" 11	David E. Duffy	Bolt, dyers and oil tank	40.00
" 11	Henry A. Brown	Flower seeds and plants	40.75	" 11	J. Warren Mack, agent	Whale bones	2.00
" 11	Charles A. Brown	Plaster	32.50	Sept. 1	E. J. McCormick	Concert at Fort Greene, August 1	140.00
" 11	Frederick G. Adams	Foundry repair	1.47	" 11	Local Harbor	Concert at Prospect Park, August 1	140.00
" 11	John F. Longdon	Plaster and green work	210.00	" 11	"	"	140.00
" 11	G. E. Conover	Concert at Fort Greene, July 3	140.00	" 11	M. E. Conover	Concert at Tompkins Park, August 1	140.00
" 11	"	Concert at City Park, July 3	140.00	" 11	E. J. McCormick	Concert at Bushwick Park, August 1	140.00
" 11	Local Harbor	Concert at Prospect Park, July 3	212.00	" 11	Mann & Co.	Chloro-anthracene	40.00
" 11	The Hastings Parkmen Company	Laying asphalt stone in flower garden	340.00	" 11	R. L. Halle	Concert at City Park, August 1	140.00
" 11	Henry B. Warrington	Recess triangles at well	7.50	" 11	Manhattan Construction Company	Manufacturing Fort Hamilton pavilion	1,041.00
" 11	William M. Karyon	Cement and sand	75.00	" 11	Edward S. Duffy	Concert at Winthrop Park, August 1	140.00
" 11	Van E. Brown	Repair work for water of well	2.00	" 11	"	Concert at City Park, August 1	140.00
" 11	Thos. P. Kane Harness Manufacturing Company	Brake supplies	10.00	" 11	Thomas F. Shannon	Concert at Prospect Park, August 1	212.00
" 11	James E. Shannon	Washers for sprinklers	15.00	" 11	R. L. Halle	Concert at Fort Greene, August 1	140.00
" 11	James E. Shannon	Repairs to building wall	41.00	" 11	"	Concert at Winthrop Park, August 1	140.00
" 11	E. V. Conover	Repairing clock in Madison	5.00	" 11	E. J. McCormick	Concert at Fort Greene, August 1	140.00
" 11	Brooklyn Union Gas Company	Lumber	24.00	" 11	Louis Brown	Concert at Prospect Park, September 1	140.00
" 11	Thos. P. Kane Harness Manufacturing Company	200 photographs from Madison	7.00	" 11	C. A. Birmingham	Forage	111.75
" 11	Thos. P. Kane Harness Manufacturing Company	Harness repairs and trade supplies	20.00	" 11	Kings County Gas and Illuminating Company	Removing gas mains on the Shore road	400.00
" 11	Brooklyn Union Gas Company	Street washers	15.00	" 11	S. B. Kruis	Paints and painting materials	175.00
" 11	E. W. Krenn	200 pounds of paper	5.00	" 11	William M. Karyon	Brick and brown	24.00
" 11	G. E. Conover	One steel tape	5.00	" 11	P. J. May	Horse shoes	40.00
" 11	Pease Brothers & Co.	Bone neck and ground bone	2.00	" 11	M. S. Koef	Ice, month of July	0.00
" 11	Brooklyn Lumber Company	200 feet yellow pine	50.00	" 11	William M. Karyon	Staten Island at cement	20.00
" 11	The Hudson Drug Company (Hudson)	Chemicals for spraying trees	40.00	" 11	Samuel W. Cornell	Hardware	64.00
" 11	M. S. Koef	Ice, for June	2.00	" 11	Stevens & Masters	Altering two ve badges	5.00
" 11	Brooklyn's Rubber Glove Manufacturing Company	200 ft. rubber hose	150.00	" 11	H. Aschbacher	Two sets of harness	85.00
" 11	James E. Shannon	Copper pipe for steam boiler	5.00	" 11	Robert T. Brown, Secretary	Office disbursements	17.00
" 11	Dixie, James & Co.	Seamless "B" Pipe of Choice Form	10.00	" 11	C. & N. Pollen	Six flagpoles	100.00
" 11	Alfred A. Brown	Two books on Gardening	1.00	" 11	J. Norwood	Three iron grilles	35.00
" 11	James E. Shannon	Horse medicine	4.00	" 11	R. J. Macanlay	Glass	2.00
" 11	Samuel W. Cornell	Hardware, etc.	275.00	" 11	The P. Kane Harness Manufacturing Company	Repairing harness, etc.	21.00
" 11	Miss W. P. G. Brown	Opening safe and fitting two keys	10.00	" 11	Thomas G. Knight	Plumbing materials	2.00



DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.	DATE.	NAME.	FOR WHAT PURPOSE.	AMOUNT.
Sept. 24	P. Thompson & Son	Clay pipe, salt, etc.	412.34	Oct. 15	Thomas F. Shannon	Concrete drainage, Park, October	444.00
" 12	Flatbush Water Works Company	Water, Ocean Avenue	15.34	" 20	Harris & Maguire	Trap-rock screenings	129.11
" 13	Ed. T. Buckingham	Sniffers	1.30	" 20	I. S. Benson Manufacturing Company	One wagon	143.00
" 23	Brooklyn Lumber Company	Lumber	110.94	" 20	The American Floor Company	One floor's flooring	4.00
" 23	American District Telegraph Company	Messenger service	4.76	" 20	Harris & Maguire	Curtain window blind	18.50
" 25	Allen, subcontractor	One pair bicycle tires	5.00	" 20	The Boston Drug Company (Latham)	One barrel London powder	48.34
" 14	H. Aschbach	Two portable truck pumps	90.00	" 20	Swan Steam Pump Works	Repaired steam pump	7.50
" 15	Bush & Johnson Company	Three single street awnings	11.41	" 20	"The Brooklyn Daily Eagle"	Printing advertisements	1.75
" 15	Thomas M. DeLaney & Co.	Three Bartholomew hydrants	41.00	" 20	Brooklyn Lumber Company	Boarding plank	6.00
" 16	Charles J. Dunne	Meat and fish, for animals	40.40	" 20	Brooklyn Lumber Company	40 yellow pine ceiling boards	8.00
" 17	Stanley & Uckler	Yellow pine frames and casings	400.00	" 20	Brooklyn Lumber Company	12 board & strips	4.30
" 20	Francis S. Kerrigan, Chief Clerk	Office disbursements	74.53	" 20	Floorwood Strickland	Use of one London	8.00
" 20	John Hanaway	Ashterum	1.00	" 20	Samuel W. Cornell	Hauling	230.34
" 21	John W. Broad	Two myrtle plants	10.00	" 20	William N. Kanyan	Cement	148.84
" 25	Brooklyn Institute of Arts and Sciences	Wagon and supplies for August	4,314.15	" 21	M. McCormick	30 truck loads of soil	60.00
" 25	"	Wagon and supplies for July	4,240.80	" 23	Marion Kelly	Three myrtle plants	40.00
" 28	J. Warren Mead, Agent	1 dozen chairs	11.83	" 24	John W. Broad	Two myrtle plants	20.00
" 28	Mark Manufacturing Company	Verified block	491.00	" 25	David B. Yates & Co.	Plants	10.00
" 28	P. W. Coughlin	Japanese fly bottles	7.30	" 25	Charles H. Ewert	Plants	60.00
" 28	J. Warren Mead, Agent	Two pairs water fogs	1,180.00	" 25	Ed. T. Buckingham	Grass seed and plants	101.77
" 28	Department of Corrections	Drum	140.00	" 25	Flatbush Water Works Company	Water, for use on Fort Hamilton Avenue	60.00
" 28	J. W. Pinckney & Company	Flower seeds	8.00	" 25	Stevenson & Martens	Engel top and bottom, paper	14.50
" 28	Joseph A. March	Milk and goat	42.30	" 25	William N. Kanyan	Cement, brick, etc.	20.00
" 28	Henry A. Drew	4 Aspidistra lilies	9.00	" 25	New York and New Jersey Telephone Company	Telephone service	150.00
" 28	Ernest Iron Works	Repairs to steam boiler	11.84	" 25	The Lord & Burham Company	Furniture, piano, etc., for town-house	200.00
" 29	Abraham & Straus	Services for mansion	48.15	" 25	Charles J. Dunne	Meat and fish for animals	40.00
" 29	Addison Johnson, Agent	More brushes	12.84	" 25	S. D. Kanyan	3 barrels kerosene oil	14.00
" 29	Lambert	Contract at Prospect Park, August 10	910.00	" 25	Brooklyn Lumber Company	Lumber	274.00
" 29	"	Contract at Prospect Park, September 14	915.00	" 25	Harris & Maguire	Trap-rock and trap-rock screenings	5,510.81
" 29	Thomas F. Shannon	Excavation at Red Hook Park	5,097.00	" 25	William N. Kanyan	Fire clay and brick	37.00
" 29	Photographers and Color Company	Music programmes	150.00	" 25	W. W. Livingston	Coal	200.00
" 29	Howe Bros.	Blacksmithing materials	57.20	" 25	S. H. Knott	4 barrels kerosene oil	10.48
" 29	W. W. Livingston	Coal	139.40	" 25	Brooklyn Lumber Company	Lumber	54.40
" 29	John Hays	Contract at Prospect Park, September 14	345.00	" 25	Rosalee & Johnson Co.	Plumbing materials	70.55
" 29	General Excavation and Light Company	4 arc lamps at Plaza entrance	100.00	" 25	Brooklyn Union Gas Company	Gas, Southold mansion	14.00
" 29	Brooklyn & Johnson Company	Plumbing materials	100.00	" 25	Flatbush Water Works Company	Water, August	13.84
" 29	Samuel W. Cornell	Hauling	170.45	" 25	M. S. Ketch	100, Southold mansion	10.00
" 29	William N. Kanyan	Brick and cement	91.25	" 25	E. Donovan & Son	3 bags of meal	8.72
" 29	Howe Bros.	Iron, truck poles, etc.	54.87	" 25	Harris & Maguire	Cracked corn and meal	9.00
" 29	The F. Kane Manufacturing Company	Repairs to harness, etc.	7.00	" 25	The F. Kane Harness Manufacturing Company	Kears and harness soap	10.00
" 29	D. W. Binn	20 heavy grasses for drains	80.00	" 25	"The Brooklyn Union"	Upper lawn tickets	15.00
" 29	J. E. Proctor	Repairing and fitting up debris	21.00	" 25	Marshall Oil Company	2 barrel machine oil	18.00
" 29	Ernest Iron Works	Rebuilding party board iron railing	1,714.00	" 25	Thomas W. Wood's Sons	2 ton Cumberland and	4.00
" 29	Brooklyn & Johnson Company	Repaired porch on Eastern (Long Island) Commerce	900.00	" 25	James T. Sullivan	Horse medicines	1.00
" 29	C. A. Plumb	Clay pipe, salt, etc.	280.12	" 25	G. W. Kanyan	Front and back oil	10.00
" 29	Kelly & Brown	First payment on contract Bay Ridge parkway	4,079.75	" 25	Department, Hunt & Munson Company	Glaze bricks, etc.	8.25
" 29	S. B. Kanyan	4 barrels kerosene oil	14.00	" 25	F. S. Dillman	Plumbing materials	100.00
" 29	Kings County Gas and Illuminating Company	Lowering gas mains, etc., Fort Hamilton Avenue	320.00	" 25	Nathan Lane's Sons	4 gutter locks	8.00
" 29	J. E. Brown	Use of debris	45.00	" 25	Thomas Brown	Charrel Algon Jail	12.00
" 29	Charles J. Dunne	Meat and fish, for animals	40.00	" 25	Wooly Hill Survey Company	Plants	10.00
" 29	Brooklyn Union Gas Company	Gas, Southold mansion	14.00	" 25	United Typewriter and Supply Company	Repairing typewriter	40.00
" 29	Brooklyn Lumber Company	One lot white pine	18.75	" 25	Thomas Connor	25 loads of manure	10.00
" 29	Flatbush Water Works Company	Water, Fort Hamilton Avenue	100.00	" 25	William H. Gray	"	10.00
" 29	Brooklyn Lumber Company	Lumber	10.00	" 25	Thomas Cunningham	"	10.00
" 29	John May	4 cushion seats	20.00	" 25	James Danforth	"	10.00
" 29	Charles E. Hall	Grass and bricks, for range	5.00	" 25	James Murray	"	10.00
" 29	Stevenson & Martens	Stationery	7.00	" 25	John F. Mullin	Grass seeds	85.00
" 29	Abraham & Straus	Rugs and carpets	187.00	" 25	Millard S. Smith	1 Ludlow valve screw	4.00
" 29	E. Donovan & Son	Ediment	4.00	" 25	G. W. Kanyan	25 pounds Atlantic white lead	1.44
" 29	William Churchill Ouster	Spikes, etc., for steam rollers	10.00	" 25	John F. Mullin	Top soil	107.00
" 29	N. C. Walter & Son	Copper burning boards	10.00	" 25	The Greenwich Insurance Company	Premium on insurance, Prospect Park property	715.55
" 29	Rose Brothers	Iron, axes and horse pads	90.00	" 25	Christopher McCormick	25 loads of manure	10.00
" 29	Photographers and Color Company	Music programmes	150.00	" 25	Rose Brothers	Repairs to ballroom, etc.	10.00
" 29	Thomas Rice	20 loads of manure	10.00	" 25	The F. Kane Harness Manufacturing Company	Repairs to harness, etc.	7.00
" 29	James Kelly	"	10.00	" 25	Peter Han	Cleaning lake at Linden Park, Corona	100.00
" 29	Joseph F. Daley	"	10.00	" 25	John F. Mullin	Trap-rock screenings	1,000.00
" 29	Marion Kelly	"	10.00	" 25	Delaware and Hudson Stone and Construction Company	Marcellus shale sandstone screenings	1,000.00
" 29	Thomas Kane	"	10.00	" 25	Harris & McGee	Corn, meal, etc.	14.00
" 29	John M. Fox	"	10.00	" 25	Richardson & Boynton Co.	1 set of grate bars	4.40
" 29	John F. Mullin	"	10.00	" 25	Timothy Conklin	Glass seeds	10.00
" 29	P. Riley	"	10.00	" 25	M. J. Kelly	20 loads of manure	10.00
" 29	M. McCormick	"	10.00	" 25	Peter McCormick	"	10.00
" 29	Owen Cullen	"	10.00	" 25	Robert T. Brown, Secretary	Office disbursements	10.00
" 29	Patrick McDermott	"	10.00	" 25	Ed. T. Buckingham	Plants	15.00
" 29	James F. Farrell	"	10.00	" 25	Frederick MacMonnies	Second payment on contract Gen. H. W. Slocum monument	3,000.00
" 29	Robert T. Brown, Secretary	Office disbursements	10.00	" 25	Brooklyn Institute of Arts and Sciences	Pay-roll and disbursements, October	4,314.75
" 29	F. X. Kerrigan, Chief Clerk	"	10.00	" 25	John M. Fox	25 loads of manure	10.00
" 29	Brooklyn Institute of Arts and Sciences	Pay-roll and disbursements, September	4,074.50	" 25	Charles J. Dunne	Meat and fish, for animals	34.50
" 29	James T. Sullivan	Horse medicines	7.00	" 25	John Condon	120,350 imported bulbs	2,400.00
" 29	American District Telegraph Company	Messenger service	8.00	" 25	Brooklyn Lumber Company	Lumber	405.00







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☆ 1992 年 10 月 1 日起施行。1993 年 1 月 1 日起施行。1993 年 1 月 1 日起施行。

General Park	See District and National Law Firm, District and City, etc.	\$1.00
First Washington Bank	First Washington Bank, District Office	\$1.00
Federal Reserve Bank	See District and National Law Firm, District and City, etc.	\$1.00
First Savings Bank	See District and National Law Firm, District and City, etc.	\$1.00
National D. Standard Bank	See District and National Law Firm, District and City, etc.	\$1.00

1995-1996, 1996-1997, 1997-1998, 1998-1999, 1999-2000, 2000-2001, 2001-2002, 2002-2003, 2003-2004, 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018, 2018-2019, 2019-2020, 2020-2021, 2021-2022, 2022-2023, 2023-2024, 2024-2025, 2025-2026, 2026-2027, 2027-2028, 2028-2029, 2029-2030, 2030-2031, 2031-2032, 2032-2033, 2033-2034, 2034-2035, 2035-2036, 2036-2037, 2037-2038, 2038-2039, 2039-2040, 2040-2041, 2041-2042, 2042-2043, 2043-2044, 2044-2045, 2045-2046, 2046-2047, 2047-2048, 2048-2049, 2049-2050, 2050-2051, 2051-2052, 2052-2053, 2053-2054, 2054-2055, 2055-2056, 2056-2057, 2057-2058, 2058-2059, 2059-2060, 2060-2061, 2061-2062, 2062-2063, 2063-2064, 2064-2065, 2065-2066, 2066-2067, 2067-2068, 2068-2069, 2069-2070, 2070-2071, 2071-2072, 2072-2073, 2073-2074, 2074-2075, 2075-2076, 2076-2077, 2077-2078, 2078-2079, 2079-2080, 2080-2081, 2081-2082, 2082-2083, 2083-2084, 2084-2085, 2085-2086, 2086-2087, 2087-2088, 2088-2089, 2089-2090, 2090-2091, 2091-2092, 2092-2093, 2093-2094, 2094-2095, 2095-2096, 2096-2097, 2097-2098, 2098-2099, 2099-2100, 2100-2101, 2101-2102, 2102-2103, 2103-2104, 2104-2105, 2105-2106, 2106-2107, 2107-2108, 2108-2109, 2109-2110, 2110-2111, 2111-2112, 2112-2113, 2113-2114, 2114-2115, 2115-2116, 2116-2117, 2117-2118, 2118-2119, 2119-2120, 2120-2121, 2121-2122, 2122-2123, 2123-2124, 2124-2125, 2125-2126, 2126-2127, 2127-2128, 2128-2129, 2129-2130, 2130-2131, 2131-2132, 2132-2133, 2133-2134, 2134-2135, 2135-2136, 2136-2137, 2137-2138, 2138-2139, 2139-2140, 2140-2141, 2141-2142, 2142-2143, 2143-2144, 2144-2145, 2145-2146, 2146-2147, 2147-2148, 2148-2149, 2149-2150, 2150-2151, 2151-2152, 2152-2153, 2153-2154, 2154-2155, 2155-2156, 2156-2157, 2157-2158, 2158-2159, 2159-2160, 2160-2161, 2161-2162, 2162-2163, 2163-2164, 2164-2165, 2165-2166, 2166-2167, 2167-2168, 2168-2169, 2169-2170, 2170-2171, 2171-2172, 2172-2173, 2173-2174, 2174-2175, 2175-2176, 2176-2177, 2177-2178, 2178-2179, 2179-2180, 2180-2181, 2181-2182, 2182-2183, 2183-2184, 2184-2185, 2185-2186, 2186-2187, 2187-2188, 2188-2189, 2189-2190, 2190-2191, 2191-2192, 2192-2193, 2193-2194, 2194-2195, 2195-2196, 2196-2197, 2197-2198, 2198-2199, 2199-2200, 2200-2201, 2201-2202, 2202-2203, 2203-2204, 2204-2205, 2205-2206, 2206-2207, 2207-2208, 2208-2209, 2209-2210, 2210-2211, 2211-2212, 2212-2213, 2213-2214, 2214-2215, 2215-2216, 2216-2217, 2217-2218, 2218-2219, 2219-2220, 2220-2221, 2221-2222, 2222-2223, 2223-2224, 2224-2225, 2225-2226, 2226-2227, 2227-2228, 2228-2229, 2229-2230, 2230-2231, 2231-2232, 2232-2233, 2233-2234, 2234-2235, 2235-2236, 2236-2237, 2237-2238, 2238-2239, 2239-2240, 2240-2241, 2241-2242, 2242-2243, 2243-2244, 2244-2245, 2245-2246, 2246-2247, 2247-2248, 2248-2249, 2249-2250, 2250-2251, 2251-2252, 2252-2253, 2253-2254, 2254-2255, 2255-2256, 2256-2257, 2257-2258, 2258-2259, 2259-2260, 2260-2261, 2261-2262, 2262-2263, 2263-2264, 2264-2265, 2265-2266, 2266-2267, 2267-2268, 2268-2269, 2269-2270, 2270-2271, 2271-2272, 2272-2273, 2273-2274, 2274-2275, 2275-2276, 2276-2277, 2277-2278, 2278-2279, 2279-2280, 2280-2281, 2281-2282, 2282-2283, 2283-2284, 2284-2285, 2285-2286, 2286-2287, 2287-2288, 2288-2289, 2289-2290, 2290-2291, 2291-2292, 2292-2293, 2293-2294, 2294-2295, 2295-2296, 2296-2297, 2297-2298, 2298-2299, 2299-2300, 2300-2301, 2301-2302, 2302-2303, 2303-2304, 2304-2305, 2305-2306, 2306-2307, 2307-2308, 2308-2309, 2309-2310, 2310-2311, 2311-2312, 2312-2313, 2313-2314, 2314-2315, 2315-2316, 2316-2317, 2317-2318, 2318-2319, 2319-2320, 2320-2321, 2321-2322, 2322-2323, 2323-2324, 2324-2325, 2325-2326, 2326-2327, 2327-2328, 2328-2329, 2329-2330, 2330-2331, 2331-2332, 2332-2333, 2333-2334, 2334-2335, 2335-2336, 2336-2337, 2337-2338, 2338-2339, 2339-2340, 2340-2341, 2341-2342, 2342-2343, 2343-2344, 2344-2345, 2345-2346, 2346-2347, 2347-2348, 2348-2349, 2349-2350, 2350-2351, 2351-2352, 2352-2353, 2353-2354, 2354-2355, 2355-2356, 2356-2357, 2357-2358, 2358-2359, 2359-2360, 2360-2361, 2361-2362, 2362-2363, 2363-2364, 2364-2365, 2365-2366, 2366-2367, 23

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## TABLE 12. ROUTES OF COLLESMANSHIP

Albion Hamilton Park	South to South Avenue Twenty seventh to Twenty-eighth street	1-12
DeWitt Clinton Park	Twenty-second to Fifty-fifth street, River front	7-33
John Jay Park	Second street to Twenty-fifth street, East river	1-20
St. Nicholas Park	One Hundred and Fifteenth to One Hundred and Forty-fifth street, Avenue St. Nicholas and Third street	1-20
Park west of Hudson River Broadway	From Washington Bridge to Twentieth street	1-20
Riverside Park, East River	Twenty-second street to One Hundred and Twenty-sixth street, New York Central Railroad to Hudson of Hudson River	1-20

Handwritten: GEORGE W. BROWN  
 Printed: GEORGE W. BROWN, WITH NAME

于国忠和冯金莲:《王吉集疏》,《WZ》第11期,《程古集疏》。

Warming/cooling...	dry mass, Water mass and Carbon mass, Temperature	...	...	...	...
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TM 数据库的存取方法见 AM 数据库 PA 数据库。

Broadway, Bazaar street, Hudson street and Yondal street, Port

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## INVESTED TAXES AND SMALL CORP.

Location of Market Avenue and Thirteenth street.....	6
Fourteenth and Fifteenth streets and FOUR avenue.....	7
Location of Jackson Avenue and Eleventh street.....	8
Varney and West Twelfth and Hickock street.....	8
Location of Jackson Avenue and Twelfth street.....	9
Location of Jackson Avenue and Sixth street.....	10
Location of Jackson Avenue and Ninth street.....	10
Location of East New York and Fifth Avenue.....	11

LOCATIONS.	Length, in Miles.	Went to Year.
From Ocean parkway to Baysidepark beach.....	1	1904
From Fort Hamilton avenue to shore of New York Bay, and along shore of New York Bay to Fort Hamilton.....	1	1905
From Eastern parkway extension to Jamaica avenue.....	1/2	1906



NAME	LOCATION	LENGTH, in MILES	WIDE in FEET
Durham Avenue	From New York Avenue to Fourth Avenue	1½	20
Eastern Parkway	From Prospect Park to Ralph Avenue	2½	100
Eastern Parkway Extension	From Ralph Avenue and Eastern Parkway to Highland Park	2½	100
Fourth Avenue	From Flatbush Avenue to the Stone Road	4½	100
Fort Hamilton Parkway	From Ocean Parkway to Fort Hamilton	4½	100
Glenwood Avenue	From State Avenue to Elders Lane	3	60
Millers Road	From Eastern Parkway Extension to Jamaica Avenue	½	60
New York Avenue	From Riverside Avenue to Duane Avenue	1	70
Ocean Parkway	From Prospect Park to Coney Island	1½	110
Oran Avenue	From Flatbush Avenue to Fort Hamilton Avenue	3½	100
Pennsylvania Avenue	From Junior Avenue to Junior City	1½	100
Pine Avenue	From East New York Avenue to Grand Avenue	1½	80
Riverside Avenue	From State Avenue to New York Avenue	1½	70
Rockaway Parkway	From Fulton Avenue to Carleton Street	7	100
State Avenue	From Eastern Parkway Extension to Duane Avenue	1	80
Savoy Hill Avenue	From Fort Hamilton Parkway to Bay Parkway Twenty Second Avenue	—	100
Union Street	From Fourth Avenue to Prospect Park	¾	—
Uxw Avenue	From Junior Avenue to Forest Park, Borough of Queens	¾	80

### HOWARD OF THE HEAVY WARS

Name	Location	Area in Acres
Dyers Park	One Hundred and Eighty-second street, Southern Boulevard, to John's College property, New York Central and Hudson River Railroad, and White Plains road	26.4
Calder Park	Washington, One Hundred and Fifty-eight street and Montgomery	12.4
Conant Park	Valley avenue, Third avenue and Arthur avenue	134.5
Channing Park	Teller avenue, Belmont street, Clay avenue and One Hundred and Seventy-third streets	36.6
Fortham Park	Fortham road, Sulgrave street and One Hundred and Eighty-third street	5.5
Mosely's Elm Park	Jerome avenue, One Hundred and Sixty-second street, Convent's lane, and One Hundred street	17.0
Dyckon Elm Park	Seventeen and of New York City	67.8
Peet Park	East One Hundred and Sixty-second street and Eighty-first road	0.4
St. James Park	Jerome avenue, Convent avenue and East One Hundred and Ninety-first street	40.0
St. Mary's Park	St. Ann's avenue, One Hundred and Twenty-fourth street and Hudson avenue	20.0
University Park	Convent avenue, One Hundred and Eighty-fifth street and Sulgrave street	10.7
Van Cortlandt Park	Southern boundary line of city, Broadway, Van Cortlandt avenue, Locust avenue and Mount Vernon avenue	1,439.3
Washington Heights Park	Seventh avenue, Hudson river, Washington Bridge	1.0
	Brown road and One Hundred and Sixty-fourth street	0.6
	Brown road and One Hundred and Sixty-fifth street	0.6
	Franklin avenue and One Hundred and Sixty-seventh street	0.3
	Valley avenue and One Hundred and Sixty-seventh street	0.2
	Valley avenue and One Hundred and Sixty-ninth street	0.5
	Throgs Neck, Fort schuyler road, Eastern Boulevard	0.4
	Washington avenue, Locust avenue and One Hundred and Sixty-third street	0.2
	Washington avenue, Third avenue and One Hundred and Eighty-third street	0.1

## CONCLUSIONS

[illegible]

## RECAPITULATION

Park area, Manhattan and Richmond .....	1,291.09
Park area, Brooklyn and Queens .....	1,573.37
Park area, The Bronx .....	4,060.65
Total .....	6,925.12

LIST OF STATUARY, MONUMENTS, MEMORIALS, FOUNTAINS, ETC., IN THE  
PUBLIC PARKS.

## BROOKLYN OF MANHATTAN.

Central Park—  
Bolivar,  
Schiller,  
Beethoven,  
Eagles with prey (group),  
Daniel Webster,  
Indian hunter with dog (group),  
Columbus,  
Shakespeare,  
Robert Burns,  
Walter Scott,  
Fitz Greene Halleck,  
Humboldt,  
Thorwaldsen,  
Statue of Commerce,  
Seventh Regiment Monument,  
Maxim,  
Morse,  
Pilgrim Fathers.

Central Park—  
Still Hunt (group),  
The Falconer,  
The Tigris,  
Moore,  
Hamilton,  
The Obelisk,  
Richard M. Hunt,  
Shepard Fountain,  
Riverside Park, near Eighty-eighth street—  
George Washington,  
One Hundred and Fourteenth street, Morning-  
side avenue, East, and Manhattan  
avenue—  
Washington-Lafayette,  
Hancock Square, One Hundred and Twenty-  
third street, Manhattan and St. Nicholas  
avenue—  
General Winfield Scott Hancock.

Thirty-third street, Broadway and Sixth Avenue— Hance Greely.	Third and Fourth avenues and Seventh street— Peter Chopet.
Madison Square— Charles A. Arthur, David Glasgow Farragut, Roscoe Conkling, William H. Seward.	Twenty-fifth street, Fifth Avenue and Broadway— Major General Worth.
Bryant Park— J. Marion Sims, Washington Irving.	Union Square— Lafayette, Washington, Lincoln, William James Bonham.
Thirty-fifth street, Broadway and Sixth Avenue— William Earl Dodge.	City Hall Park— Nathan O'Neil.
Washington Square— Washington Arch, Garibaldi, Alexander L. Hailey.	Bowling Green Park— Albanus Delaplane.
	Battery Park— Erasmus.

## BROOKLYN OF BROOKLYN.

Soldiers' and Sailors' Memorial Arch.  
 Panthers, at each side of the Third street entrance, Prospect Park.  
 Equestrian Groups at each side of the Ocean parkway entrance to Prospect Park.  
 Louises and Cubes, to be erected at the Fifteenth street entrance to Prospect Park.  
 J. S. T. Stranahan, at main entrance to Prospect Park.  
 General G. K. Warren, at Prospect Park plaza, near main entrance.  
 Abraham Lincoln, flower garden, Prospect Park.  
 Henry Ward Beecher, with children, City Hall Park.  
 Mozart, flower garden, Prospect Park.  
 Beethoven, flower garden, Prospect Park.  
 Washington Irving, Prospect Park, opposite the flower garden.  
 John Howard Payne, near the farm-house, Prospect Park.  
 Thomas Moore, flower garden, Prospect Park.

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Poppenhausen, Poppenhausen Park, College Point.

## DEPARTMENT OF SEWERS.

DEPARTMENT OF SEWERS—COMMISSIONER'S OFFICE,  
JULY 20, 1922.

*Supervisor of the City Board.*

DEAR SIR:—In accordance with section 1546, chapter 378, Laws of 1897, I herewith transmit, for publication in the CITY RECORD, a statement of the transactions of the Department of Sewers for the week ending June 16, 1900.

IAS, KANE, Commissioner of Sewers.

	Number of.	Amount	Amount.	
			Appropriation.	Paid.
<i>MISCELLANEOUS.</i>				
For sewer permits.....	100	\$7,000 00	6,000 00	6,000 00
Number of permits issued.....	100	6,000 00	6,000 00	6,000 00
For new sewer connections.....	180	6,000 00	6,000 00	6,000 00
For old sewer connections (repairs).....	20	6,000 00	6,000 00	6,000 00
Regulations drawn up Completed.....	10	Regulation of	Regulation of	Regulation of
Linear feet of sewer built.....	1,000	1,000 00	1,000 00	1,000 00
Number of basins built.....	5	1,000 00	1,000 00	1,000 00
Linear feet of sewer cleaned.....	15,000	1,000 00	1,000 00	1,000 00
Kindred of basin cleaned.....	507	1,000 00	1,000 00	1,000 00
Linear feet of sewer examined.....	17,000	1,000 00	1,000 00	1,000 00
Number of basins examined.....	98	1,000 00	1,000 00	1,000 00
Number of basins repaired.....	3	1,000 00	1,000 00	1,000 00
Linear feet of sewer repaired.....	57	1,000 00	1,000 00	1,000 00
Number of basin tanks used.....	10	1,000 00	1,000 00	1,000 00
Number of manhole basins and covers set.....	14	1,000 00	1,000 00	1,000 00
Number of manhole heads and covers found.....	7	1,000 00	1,000 00	1,000 00
Square yards of pavement raised.....	30	1,000 00	1,000 00	1,000 00
Number of basin tanks put down.....	4	1,000 00	1,000 00	1,000 00
Linear feet of pipe sewer relined.....	6	1,000 00	1,000 00	1,000 00
Number of basin covers put on.....	2	1,000 00	1,000 00	1,000 00
Linear feet culverts, drains and ditches repaired and cleaned.....	1,000	1,000 00	1,000 00	1,000 00
Number of basins relieved.....	10	1,000 00	1,000 00	1,000 00
Number of manholes built.....	30	1,000 00	1,000 00	1,000 00
Number of manhole covers put on.....	6	1,000 00	1,000 00	1,000 00
Cubic feet at brickwork built.....	110	1,000 00	1,000 00	1,000 00
Number of basin grates put down.....	4	1,000 00	1,000 00	1,000 00
Linear feet of pipe sewer relined.....	20	1,000 00	1,000 00	1,000 00
Linear feet of sewer drained.....	4,000	1,000 00	1,000 00	1,000 00
Cut loads of dirt removed.....	724	1,000 00	1,000 00	1,000 00
Number of manholes cleaned.....	468	1,000 00	1,000 00	1,000 00
Cubic feet of earth excavated and refilled.....	12,000	1,000 00	1,000 00	1,000 00
Cubic feet of walls built for drains.....	180	1,000 00	1,000 00	1,000 00

*Laboring Force Employed during the Week.*

Inspectors of Sewers and Basins.....	9	Assistant Foremen.....	28
Inspector of Pipe Laying.....	1	Firemen.....	11
Inspectors of Construction.....	74	Mechanics.....	18
Inspectors of Sewer Connections.....	26	Laborers.....	300
Foremen.....	43	Horses and Carts.....	90

#### APPOINTMENT

BOROUGH OF BROOKLYN.

Four Gasmakers' Assistants, \$2.25 per day.



## POLICE DEPARTMENT.

At a meeting of the Police Board of the Police Department of The City of New York, held on the 14th day of June, 1900.  
Present—Commissioners York (President), Sexton, Hess and Abell.  
The minutes of June 11 were read and approved.

## LEAVE OF ABSENCE WAS GRANTED TO

Surgeon D. H. Smith, ten days, if pay is released.  
Captain George F. Titus, Sixth Precinct, twenty days, with pay; vacation.  
Alex S. Lees, Sixty-fifth Precinct, twenty days, with pay; vacation.  
Patrolman Albert Werner, Sixth Precinct, ninety days, half pay; sick; extension.  
Charles D. Perry, Seventh Precinct, ninety days, half pay; sick.

## REPORTS, ETC., ORDERED ON FILE.

Comptroller—As to valid contract with Bacon & Co., for coal.  
Comptroller—As to valid contract with Patrick Cavanagh for Doormen's supplies, etc.  
Comptroller—As to valid contract with Joseph N. Early, for Doormen's supplies, etc.  
Comptroller—As to valid contract with D. J. Barry, for Doormen's supplies, etc.  
Comptroller—Approving proposal of M. B. Brown Company for election stationery and printing.  
Comptroller—Approving proposal of M. B. Brown Company, for election ballots.  
Comptroller—Approving proposal of Atlantic Basin Iron Works for repairs Steamer "Patrol."  
Corporation Counsel—Approving form of contract for new station-house, Sixty-fifth Precinct.  
Contagious disease in family of Patrolman John D. Taylor, Twenty-second Precinct.  
Patrolman George Hubbard, Thirty-ninth Precinct; Patrolman George R. Reynolds, Forty-seventh Precinct; Patrolman Jere Halloran, Forty-ninth Precinct.  
Robert A. Plakerton—Acknowledgment.  
James A. Hearn & Son—Commending Patrolman Eugene C. Casey.  
Inspector J. H. Grant—On letter of George H. Rollins, commending Acting Captain Gannon.  
Inspector Kane—On letter of James H. Lalor, commending Patrolman George Walker.  
Inspector Kane—On letter of Thomas A. Mooney, commending Patrolman Thomas H. Lynch, Thirtieth Precinct.  
Inspector Harley—On letter of Bayard W. Parrell, commending Patrolman Luke A. Parslow, Twenty-sixth Precinct.  
Inspector Harley—On letter of Dr. M. Jackson, commending Patrolman Luke A. Parslow, Twenty-sixth Precinct.  
Twenty-second Precinct—Complaint of A. Marlan of disorderly boys.

## Send Copies.

Twelfth Precinct—On complaint of Max Simposky of disorderly women, No. 204 Forsyth street.  
Sixteenth Precinct—On complaint of G. Smanol of disorderly boys, etc.  
Sixteenth Precinct—On complaint of E. Griesbach of California Hair Food Company.  
Eighteenth Precinct—On complaint of W. G. Clark of driving, etc., in East Twenty-fourth street.

## APPLICATIONS REFERRED TO COMMITTEE ON PENSIONS.

Julia Maxwell and Catharine F. Monarch for pension.  
Josephine Haughey and Mary E. Shea for increase of pension.  
Communication from Charles C. Hoffman relative to debt complaint against Patrolman M. J. Murphy, Tenth Precinct, was referred to the Chief Clerk to answer.

## COMMUNICATIONS REFERRED TO THE CHIEF OF POLICE.

A. C. Smith—Notice of house closed for summer.  
Tenant—Complaint of block, Forty-ninth street, between Sixth and Seventh avenues.  
Sixteenth Precinct—Report on complaint of G. F. Kessler of dive, No. 157 Bleecker street, for attention by Headquarters Squad.

## For Report.

Mayor—Inquiry of Bella Watkins as to Samuel Watkins.  
Mayor—Inquiry of Hattie Griffling as to C. E. Griffling.  
Mayor—Complaint of Maud Elliott of Popular Fashion Company.  
Health Department—Complaint of noises near Willard Parker Hospital, East Sixteenth street.  
Charles W. Benson—Commending Patrolman Bailly, Bicycle Squad.  
Patrick Connaughtan—Commending Patrolman Henry W. Lemkul.  
Mrs. Brian—Inquiry as to George Cole or Hammond.  
J. P. Face—Inquiry as to J. P. Hunter & Co.  
Brighton Pier Navigation Company—Asking appointment of Martin Neary as Special Patrolman.  
Holmes Electric Company—Asking appointment of Dennis J. Shea as Special Patrolman.  
Conrad Stein & Sons—Asking appointment of Martin Bender as Special Patrolman.  
M. A. Russell—Asking appointment of William Morris as Special Patrolman.  
Brooklyn Rapid Transit Company—Asking appointment of F. Bush, William Burns, D. Hines, W. Keyvire, James Feeney, Frederick Petersen, Charles Overland, Daniel Undermark, Reginald Fay and James McChesney as Special Patrolmen.  
Report of the Sixty-ninth Precinct relative to the arrest of Peter Fallon, Special Patrolman, was laid over.

## THE FOLLOWING LAW CASES WERE REFERRED TO THE CORPORATION COUNSEL:

Fourth District Court—Simon Klapper vs. The Property Clerk, summons and complaint.  
New York Supreme Court—Writ of Alternative Mandamus in following cases:  
John H. Allen, William H. Funsten, Thomas A. Kenney,  
George Arfken, Ellis C. Frazer, Andrew J. Kiernan,  
Edward J. Armstrong, Edw. J. Gallagher, Charles B. McManus,  
Owen H. Bergen, Patrick F. Gargan, Andrew J. McCarthy,  
Richard Berkley, Charles Gracie, Michael McDonough,  
Thomas Brady, James A. Walsh, William Moody,  
Thomas A. Butler, Walter S. Granville, John Mooney,  
James Campbell, John Hennessy, William Mulcare,  
William J. Capper, John J. Herlihy, Cornelius J. Sullivan,  
Alexander Chandler, Jr., Edw. P. Hughes, Ladislaus Strasky,  
John Collins, Edwin Murray, Theodore F. Snyder,  
James J. Crobin, Thomas J. O'Connell, William H. Rynders,  
William E. Daly, Francis O'Rourke, John T. Reuth,  
Samuel B. Davis, Adolph Offenhein, Michael J. Rein,  
William J. Deevey, John F. Tucker, Alphonso S. Rheame,  
Daniel H. Driscoll, Charles W. Thompson, Henry Lang,  
Charles F. Farley, John Taylor, George T. Leeson,  
John Farley, Louis Pollock, Jeremiah W. Mahony,  
Joseph A. Faurot, Joseph Petrosens, Charles J. Meehan,  
Charles A. Flay, Alonzo Powell, Jr., Guido A. Mengoni,  
Henry G. Fuziloon, George W. Pepperted, George J. Milburn,  
John M. Millmore, Michael J. Murphy.

Communication from D. A. McCormick, Bedford Park Tax Payers' Association, asking interview with Police Board relative to a new station-house, was ordered on file and hearing set down for June 20th instant, at 2 o'clock P. M.

Communication from Civil Service Board, eligible list for Patrolmen, was ordered on file, and the persons on such list be ordered examined by the Surgeons on Monday, 18th instant.

Resolved, That the pay-roll containing the name of Patrolman Louis Luss \$300.37 for 1899 and \$36.92 for 1900, be and is hereby ordered to be paid by the Treasurer.

Resolved, That the bill of the Mercantile Safe Deposit Company, \$15 for rent of safe, be and is hereby ordered to be paid by the Treasurer.

Resolved, That the Treasurer be and is hereby directed to pay over to the Police Pension Fund the following sums of money for the month of May, 1900:

For fines imposed.....	\$1,991 54
For absence without pay.....	2,644 07
Sick time deducted.....	14,331 39
For two per cent.....	17,392 21
	<hr/> \$32,359 21

Resolved, That full pay while sick be granted to the following officers:

Patrolman Michael Hegerty, Twelfth Precinct, from May 13 to June 4, 1900.  
Wayne C. Poucher, Thirty-eighth Precinct, from May 7 to June 1, 1900.  
Joseph P. McCormack, Forty-seventh Precinct, from May 20 to May 26, 1900.

Resolved, That the following resignations be accepted:

Patrolman Charles H. Rye, Nineteenth Precinct.

Special Patrolman Louis Walters.

Resolved, That the appointment of James Humphreys and George Oestreicher as Special Patrolmen be and is hereby revoked.

Resolved, That the following persons be and are hereby appointed Special Patrolmen in the service of the parties named:

Henry Reith, for F. W. Repper.  
William A. Howard, for Henry C. Quaritus.  
M. J. Hayes, for George Gira.  
Henry Driscoll, for D. Delehaney.  
John H. Abrams, for Sanford Murray.  
M. Bower, for Frederick Erbe.  
A. J. Glennon, for Frank Mellen.  
Frank Winkler, for J. M. Donnelly.

## RETIRED OFFICER—ON SURGEON'S CERTIFICATE.

Patrolman Andrew Byrnes, Eighteenth Precinct, \$700 per annum.

Resolved, That Hannah Dunn, widow of Patrick Dunn, late Pensioner, be and is hereby awarded and granted a pension of \$200 per annum from and after June 14, 1900.

Resolved, That Isabella Gallagher and Margaret D. Kane, guardians of George, Annie, Francis and Philomena, children of George W. Kiarow, late Patrolman, be and are hereby awarded and granted a pension of \$60 per year to each said child until they shall respectively arrive at the age of eighteen years, from and after June 14, 1900.

Communication having been received from the Corporation Counsel in the matter of action in the Supreme Court against Detective Maurice Barnood for recovery of damages, the President is directed to acknowledge the receipt of said communication and to request the opinion of the Corporation Counsel as to the power of the Board to make provision for the giving of bond referred to in said communication.

Resolved, That requisition be and is hereby made upon the Municipal Civil Service Commission for an eligible list to enable the Police Board to appoint one carpenter.

On report of Dr. A. S. Vosburgh, Fourth District,

Resolved, That the Board of Surgeons be and are hereby directed to examine Martin F. Healy, Health Squad, with a view to his retirement.

On reading and filing communication from M. R. Brennan, Superintendent of Telegraph,

Resolved, That the President be and is hereby authorized to execute contract for furnishing current for electric lighting at New Headquarters, No. 16 Smith street, Borough of Brooklyn.

Commissioner Sexton moved that concert license be granted to Ellis Semansky for No. 1915 Third avenue.

Carried, Commissioners Sexton, Abell and Hess voting aye.

Commissioner York voting no.

Commissioner Sexton moved that concert license be granted to Caspar Ilse for No. 333 Bowery.

Carried, Commissioners Sexton, Abell and Hess voting aye.

Commissioner York voting no.

Commissioner Sexton moved that concert license be granted to Martin Stahl for No. 297 Bowery.

Carried, Commissioners Sexton, Abell and Hess voting aye.

Commissioner York voting no.

Resolved, That the application of William J. Gilmartin, Nos. 201 to 209 West One Hundred and Twenty-fifth street, for concert license, be denied, and the Treasurer directed to return the deposit.

Resolved, That the Commissioners of the Sinking Fund be and are hereby respectfully requested to authorize the Comptroller to execute renewal of leases of the following premises, for one year from September 1, 1900:

Nereid Engine Company, Wakefield, Westchester County, station-house for Thirty-ninth Precinct, \$800 per annum.  
New York Land and Warehouse Company, northwest corner East avenue and Ninth street, Long Island City, Borough Headquarters, Queens, \$500 per annum.

On reading and filing eligible list of Patrolmen from Municipal Civil Service Commission,

Resolved, That the following-named persons be ordered to appear before the Board of Surgeons for examination on Monday, June 18, at 1 P. M.: Martin Mannix, Daniel McCullen, Herman L. Ringelmann, George C. Bancker, James W. Shields, John Campion, James T. McMahon, Louis E. Welge, Edward J. Norton and William F. Henne.

Resolved, That the pay-rolls of the Police Department and force of the Central Department and of the Bureau of Elections for the month of June, 1900, when properly audited and approved, be and are hereby ordered to be paid by the Treasurer, and that the Chief Clerk be directed to certify such pay-rolls as provided by Rule 32 of the Civil Service Rules.

Resolved, That regulation be and is hereby made upon the Comptroller for the sum of \$946,816.28 for the month of June, 1900, being one-twelfth part of the appropriation raised and appropriated by the Board of Estimate and Apportionment for the current year, as follows:

"Police Fund—Salaries".....	\$893,445 83
"Police Fund—Salaries—Clerical and Employees".....	14,895 25
"Supplies for Police".....	29,000 00
"Alterations, Fitting up and Repairs in Station-houses".....	2,916 60
"Contingent Expenses Central Department and Station-houses".....	2,500 00
"Additions to Mounted Squad".....	1,333 54
"Bureau Elections—Salaries of Chief, Chief Clerk and Clerks".....	5,730 00
Total.....	<hr/> \$946,816 28

Trial was had of charges against members of the force before Commissioner Hess, who reported the disposition of such trials, as follows:

## FINES IMPOSED.

Patrolman John H. Driscoll, First Precinct, neglect of duty, one day's pay.  
" Henry D. Ward, Sixth Precinct, neglect of duty, one day's pay.  
" Richard F. Schaeffer, Eighth Precinct, neglect of duty, one-half day's pay.  
" Frederick Wick, Tenth Precinct, neglect of duty, three days' pay.  
" William Hoar, Tenth Precinct, neglect of duty, two days' pay.  
" William D. Mills, Sixteenth Precinct, neglect of duty, one day's pay.  
" Philip M. Miner, Sixteenth Precinct, neglect of duty, one day's pay.  
" Andrew L. Cahill, Seventeenth Precinct, neglect of duty, one-half day's pay.  
" John Hession, Eighteenth Precinct, neglect of duty, one-half day's pay.  
" Wilbur N. Bacon, Nineteenth Precinct, neglect of duty, one-half day's pay.  
" Frank T. Lane, Twentieth Precinct, neglect of duty, one day's pay.  
" John B. Goldhammer, Twenty-second Precinct, neglect of duty, one-half day's pay.  
" John M. Guildfoyle, Twenty-fourth Precinct, neglect of duty, three days' pay.  
" Michael J. Coyne, Twenty-fourth Precinct, neglect of duty, two days' pay.  
" William J. Holmes, Jr., Twenty-fourth Precinct, neglect of duty, three days' pay.  
" William C. Sheehan, Twenty-fourth Precinct, neglect of duty, one day's pay.  
" John J. Godfrey, Thirtieth Precinct, neglect of duty, two days' pay.  
" Nelson J. Greenison, Thirtieth Precinct, neglect of duty, three days' pay.  
" Robert T. Simpson, Thirtieth Precinct, neglect of duty, one-half day's pay.  
" John J. Powers, Thirty-fifth Precinct, neglect of duty, one day's pay.

## REPRIMANDS.

Patrolman Frederick Wick, Tenth Precinct, neglect of duty.  
" Charles W. Crittenden, Seventeenth Precinct, neglect of duty.  
" Thomas F. Dolan, Nineteenth Precinct, neglect of duty.  
" John J. O'Connor, Thirty-second Precinct, neglect of duty.  
" Lawrence F. Coleman, Thirty-second Precinct, neglect of duty.  
" Edward Mann, Thirty-fourth Precinct, neglect of duty.

## COMPLAINTS DISMISSED.

Patrolman Charles H. Tate, Fifteenth Precinct, conduct unbecoming an officer.  
" Frank E. Walker, Twentieth Precinct, conduct unbecoming an officer.  
" Walter J. Landers, Twenty-first Precinct, neglect of duty.  
" Edmund C. Thompson, Twenty-first Precinct, conduct unbecoming an officer.  
" William Moore, Thirtieth Precinct, conduct unbecoming an officer.  
" Patrick Green, Thirty-second Precinct, conduct unbecoming an officer.  
" Henry A. Teupler, Thirty-fifth Precinct, neglect of duty.

Trial was had of charges against members of the force before Commissioner Abell, who reported the disposition of such trials, as follows:

## FINES IMPOSED.

Patrolman John G. Muhlbach, Twenty-fourth Precinct, neglect of duty, two days' pay.  
" Joseph Siess, Thirtieth Precinct, neglect of duty, two days' pay.  
" John E. Kelleher, Thirtieth Precinct, neglect of duty, one day's pay.  
" Charles Fried, Thirtieth Precinct, neglect of duty, one day's pay.  
" Edward J. O'Connor, Seventieth Precinct, conduct unbecoming an officer, five days' pay.  
" Philip Roth, Seventieth Precinct, conduct unbecoming an officer, five days' pay.  
" Martin Owendorff, Seventy-second Precinct, violation of rules, three days' pay.







## DEPARTMENT OF EDUCATION.

DEPARTMENT OF EDUCATION,  
CITY OF NEW YORK,  
SCHOOL BOARD, BOROUGHS OF  
MANHATTAN AND THE BRONX,  
PARK AVENUE AND FIFTY-FIFTH STREET,  
NEW YORK, June 23, 1900.

## Supervisor of the City Record.

DEAR SIR:—Pursuant to section 1546, chapter 378, Laws of 1897, you are hereby notified that, at a meeting of the School Board for the boroughs of Manhattan and The Bronx, held June 20, 1900, Lawrence P. Hogan, No. 1570 Second avenue, was appointed bookkeeper in the office of the Secretary, vice E. E. Stander, transferred, at an annual salary of \$1,200, to take effect from commencement of service, the appointment being made in accordance with Civil Service Rules and Regulations.

At the same meeting the salary of Patrick J. O'Connor, Clerk, was fixed at \$1,500 per annum, to take effect from date.

Respectfully,

W. J. ELLIS,  
Secretary.

## MUNICIPAL ASSEMBLY.

THE CITY OF NEW YORK,  
OFFICE OF THE CITY CLERK,  
CITY HALL,  
NEW YORK, June 21, 1900.

## To whom it may concern.

There will be a public hearing before the Joint Committee of Railroads of the Council and the Board of Aldermen in the Council Chamber, City Hall, on Tuesday, June 26, 1900, at 11 o'clock A.M., to consider the petition of the Elm Street Connecting Railway Company.

P. J. SCULLY,  
City Clerk.

## OFFICIAL DIRECTORY.

STATEMENT OF THE HOURS DURING which the Public Offices in the City are open for business, and at which the Courts regularly open and adjourn, as well as at the places where such offices are kept and such Courts are held, together with the heads of Departments and Courts:

## EXECUTIVE DEPARTMENT.

## Mayor's Office.

No. 5 City Hall, 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

ROBERT A. VAN WYCK, Mayor.

ALFRED M. DOWNS, Private Secretary.

## Bureau of Licenses.

9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

DAVID T. HUGHES, Chief of Bureau.

Principal Office, Room 2, City Hall. GEORGE W. BROWN, Jr., Deputy Chief in Boroughs of Manhattan and The Bronx.

Branch Office, Room 18, Borough Hall, Brooklyn; WILLIAM H. JENNINS, Deputy Chief in Borough of Brooklyn.

Branch Office, "Richmond Building," New Brighton, S.I.; WILLIAM H. MCKAY, Deputy Chief in Borough of Richmond.

Branch Office, "Hackett Building," Long Island City; PETER FLAMAGAS, Deputy Chief in Borough of Queens.

## THE CITY RECORD OFFICE.

And Bureau of Printing, Stationery and Blank Books.  
No. 2 City Hall, 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

WILLIAM A. BUTLER, Supervisor; SOLON BERRICK, Deputy Supervisor; THOMAS C. COWELL, Deputy Supervisor and Accountant.

COMMISSIONERS OF THE SINKING FUND.  
The Mayor, Chairman; RICH S. COLER, Comptroller; PATRICK KERRAN, Clerk; RAYMOND GRONKOWSKI, President of the Council; and ROBERT MOW, Chairman, Finance Committee, Board of Aldermen. EDGAR J. LEVY, Secretary.

Office of Secretary, Room No. 11, Stewart Building.

BOARD OF ESTIMATE AND APPORTIONMENT.  
The Mayor, Chairman; THOMAS L. FRITHSEN (President, Department of Taxes and Assessments), Secretary; the COMPTROLLER, President of the Council, and the CORPORATION COUNCIL, Members; CHARLES V. ADER, Clerk.

Office of Clerk, Department of Taxes and Assessments, Room 8, Stewart Building, 9 A.M. to 4 P.M.; Saturdays, 12 M.

BOARD OF ARMY COMMISSIONERS.  
The Mayor, ROBERT A. VAN WYCK, Chairman; THE PRESIDENT OF THE DEPARTMENT OF TAXES AND ASSESSMENTS, THOMAS L. FRITHSEN, Secretary; THE COMMISSIONER OF PUBLIC BUILDINGS, LIGHTING AND SUPPLIES, HENRY S. KRAVY, Brigadier-General JAMES McLENNAN and Brigadier-General McCOSKAY BUTT, Commissioners.

Address: THOMAS L. FRITHSEN, Secretary, Stewart Building.  
Office hours, 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

## MUNICIPAL ASSEMBLY.

## The Council.

RANDOLPH GRONKOWSKI, President of the Council.  
P. J. SCULLY, City Clerk.  
Clerk's office open from 10 A.M. to 4 P.M.; Saturdays 10 A.M. to 12 M.

## BOARD OF ALDERMEN.

THOMAS F. WOODS, President.  
MICHAEL F. BLAKE, Clerk.

## BOROUGH PRESIDENTS.

Borough of Manhattan.  
Office of the President of the Borough of Manhattan, Nos. 10, 11 and 12 City Hall. 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

JAMES J. COUGAN, President.  
IRA EDGAR RIGBY, Secretary.

Borough of The Bronx.  
Office of the President of the Borough of The Bronx, corner Third avenue and One Hundred and Seventy-seventh street. 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

LOUIS F. HAPPEL, President.  
Borough of Brooklyn.  
President's Office, No. 11 Borough Hall, 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

EDWARD M. GROUT, President.

## Borough of Queens.

FREDERICK HOWLAND, President.  
Office, Long Island City, 9 A.M. to 4 P.M.; Saturdays, from 9 A.M. until 12 M.

## Borough of Richmond.

GEORGE CROWTHER, President.  
Office of the President, First National Bank Building, New Brighton; 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

## COMMISSIONERS OF ACCOUNTS.

Rooms 114 and 115 Stewart Building, 9 A.M. to 4 P.M.  
JOHN C. HESTER and EDWARD OWEN, Commissioners.

## PUBLIC ADMINISTRATOR.

No. 110 Nassau street, 9 A.M. to 4 P.M.  
WILLIAM M. HORN, Public Administrator.

## PUBLIC ADMINISTRATOR, KINGS COUNTY.

No. 189 Montague street, Brooklyn, 9 A.M. to 5 P.M., except Saturdays in June, July and August, 9 A.M. to 4 P.M.  
Wm. B. DAVENPORT, Public Administrator.

## PUBLIC ADMINISTRATOR, QUEENS COUNTY.

No. 103 Third street, Long Island City.  
CHARLES A. WATLEY, Public Administrator.

## AQUEDUCT COMMISSIONERS.

Room 207 Stewart Building, 5th floor, 9 A.M. to 4 P.M.  
JOHN J. RYAN, MAURICE J. POWAN, WILLIAM H. TEN EYCK, JOHN P. WOODRUP and THE MAYOR and COMPTROLLER, Commissioners; HARRY W. WALKER, Secretary; WILLIAM R. HILL, Chief Engineer.

## DEPARTMENT OF FINANCE.

Stewart Building, Chambers street and Broadway, 9 A.M. to 4 P.M.  
RICH S. COLER, Comptroller.  
MICHAEL T. DALY, EDGAR J. LEVY, Deputy Comptrollers.

## Auditing Bureau.

JOHN F. GONZALEZ, Auditor of Accounts.  
F. L. W. SCHAFER, Auditor of Accounts.  
F. J. BREITMAN, Auditor of Accounts.  
NORMAN OVERHEIMER, Auditor of Accounts.  
WILLIAM McKINLEY, Auditor of Accounts.  
DAVID B. PHILLIPS, Auditor of Accounts.  
EDWARD J. CONNELL, Auditor of Accounts.  
FRANKLIN R. CLARK, Auditor of Accounts.  
WALTER H. HOLTY, Auditor of Accounts.  
WILLIAM J. LEVY, Auditor of Accounts.  
JAMES F. McKENNEY, Auditor of Accounts.  
PAUL T. McLENNAN, Auditor of Accounts.  
TERESA H. McLENNAN, Auditor of Accounts.

## Bureau for the Collection of Arrears and Assessments.

EDWARD GILMAN, Collector of Assessments and Arrears.  
JOHN KELLER, Deputy Collector of Assessments and Arrears, Borough of Manhattan.

JAMES B. SEANFORD, Deputy Collector of Assessments and Arrears, Borough of The Bronx.

MICHAEL O'KEEFE, Deputy Collector of Assessments and Arrears, Borough of Brooklyn.

JOHN F. ROBERTS, Deputy Collector of Assessments and Arrears, Borough of Queens.

GEORGE BLAND, Deputy Collector of Assessments and Arrears, Borough of Richmond.

## Bureau for the Collection of Taxes.

DAVID E. ARSTEN, Receiver of Taxes.  
JOHN J. McDONOUGH, Deputy Receiver of Taxes, Borough of Manhattan.

JOHN B. UNDERHILL, Deputy Receiver of Taxes, Borough of The Bronx.

JAMES B. HOUSE, Deputy Receiver of Taxes, Borough of Brooklyn.

FREDERICK W. BLACKWATER, Deputy Receiver of Taxes, Borough of Queens.

MATTHEW S. TOLLY, Deputy Receiver of Taxes, Borough of Richmond.

Bureau for the Collection of City Revenue and of Markets.

DAVID O'BRIEN, Collector of City Revenue and Superintendent of Markets.  
ALFRED M. MAKIN, Clerk of Markets.

## Bureau of the City Chamberlain.

PATRICK KERRAN, City Chamberlain.  
JOHN H. CAMPBELL, Deputy Chamberlain.

## Office of the City Paymaster.

No. 53 Chambers street and No. 53 Reade street, JOHN H. THORNTON, City Paymaster.

## BOARD OF PUBLIC IMPROVEMENTS.

Nos. 13 to 21 Park Row, 18th floor, 9 A.M. to 4 P.M. Saturdays, 9 A.M. to 12 M.

MAURICE F. HOLAHAN, President.  
JOHN H. MOONEY, Secretary.

## Department of Highways.

Nos. 13 to 21 Park Row, 9 A.M. to 4 P.M.

JAMES P. KRATON, Commissioner of Highways.  
WILLIAM N. SHANNON, Deputy for Manhattan.

THOMAS R. FARRELL, Deputy for Brooklyn.

JAMES H. MALONEY, Deputy for Bronx.

JOHN P. MADON, Deputy for Queens.

HENRY F. MORRISON, Deputy and Chief Engineer for Richmond, Office, "Richmond Building," corner Richmond Terrace and York avenue, New Brighton, S.I.

## Department of Sewers.

Nos. 13 to 21 Park Row, 9 A.M. to 4 P.M.

JAMES KANE, Commissioner of Sewers.

MATTHEW F. DONOUGH, Deputy for Manhattan.

THOMAS J. BYRNES, Deputy for Bronx, Office, Third avenue and One Hundred and Seventy-seventh street.

WILLIAM BERNARD, Deputy for Brooklyn, Office, Municipal Building, Room 42.

MATTHEW J. GOLDNER, Deputy Commissioner of Sewers, Borough of Queens, Office, Hackett Building, Long Island City.

HENRY P. MORRISON, Deputy Commissioner and Chief Engineer of Sewers, Borough of Richmond, Office, "Richmond Building," corner Richmond Terrace and York avenue, New Brighton, S.I.

Department of Bridges.

Nos. 13 to 21 Park Row, 9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

JOHN L. SHRA, Commissioner.

THOMAS H. YORK, Deputy.

SAMUEL R. PROACIS, Chief Engineer.

MATTHEW H. MOORE, Deputy for Bronx.

JAMES BEAM, Deputy for Brooklyn.

JOHN E. BACKUS, Deputy for Queens.

Department of Water Supply.

Nos. 13 to 21 Park Row, Office hours, 9 A.M. to 4 P.M.

WILLIAM DALTON, Commissioner of Water Supply.

JAMES H. HASLON, Deputy Commissioner, Borough of Manhattan.

GEORGE W. BRIDGELL, Chief Engineer.

W. G. BYRNE, Water Registrar.

JAMES MOPPERT, Deputy Commissioner, Borough of Brooklyn, Municipal Building, Brooklyn.

LAWRENCE GRIMES, Deputy Commissioner, Borough of Queens, Long Island City.

THOMAS J. MULLIGAN, Deputy Commissioner, Borough of The Bronx, Crotona Park Building.  
HENRY P. MORRISON, Deputy Commissioner, Borough of Richmond, Office, "Richmond Building," corner Richmond Terrace and York avenue, New Brighton, S.I.

## Department of Street Cleaning.

Nos. 13 to 21 Park Row, 9 A.M. to 4 P.M.  
FREDERICK H. NAGLE, Commissioner.

P. M. GROSS, Deputy Commissioner for Borough of Manhattan.

PATRICK H. QUINN, Deputy Commissioner for Borough of Brooklyn, Room 12 Municipal Building.

JOSEPH LARSEN, Deputy Commissioner for Borough of The Bronx, No. 615 East One Hundred and Fifty-second street.

JAMES P. O'BRYEN, Deputy Commissioner for Borough of Queens, No. 48 Jackson avenue, Long Island City.

## Department of Buildings, Lighting and Supplies.

Nos. 13 to 21 Park Row, 9 A.M. to 4 P.M.  
HENRY S. KRAVY, Commissioner of Public Buildings, Lighting and Supplies.

PATRICK J. DOOLAN, Deputy Commissioner for Manhattan.

CRO. E. BEST, Deputy Commissioner for The Bronx.

JAMES J. KROWN, Deputy Commissioner for Brooklyn.

JOEL FOWLER, Deputy Commissioner for Queens.

EDWARD I. MILLER, Deputy Commissioner for Richmond.

## LAW DEPARTMENT.

## Office of Corporation Counsel.

State-Zeiling Building, 3d and 4th floors, 9 A.M. to 5 P.M.; Saturdays, 9 A.M. to 12 M.

JOHN WALSH, Corporation Counsel.

THOMAS CONNOLLY, W. W. LAUD, JR., CHARLES BLAND, GEORGE HILL, Assistants.

WILLIAM J. CARR, Assistant Corporation Counsel for Brooklyn.

Bureau for Collection of Arrears of Personal Taxes.

Stewart Building, Broadway and Chambers street, 9 A.M. to 4 P.M.

JAMES C. SPENCER, Assistant Corporation Counsel.

## Bureau for the Recovery of Penalties.

Nos. 119 and 121 Nassau street.

ADRIAN T. KIRKMAN, Assistant Corporation Counsel.

## Bureau of Street Openings.

Nos. 30 and 32 West Broadway.

JOHN P. DINE, Assistant to Corporation Counsel.

## POLICE DEPARTMENT.

## Central Office.

No. 100 Mulberry street, 9 A.M. to 4 P.M.

BERNARD J. YORK, President of the Board; JOHN P. SEXTON, JACOB HESS, HENRY V. ARNET, Commissioners.

## Bureau of Elections.

9 A.M. to 4 P.M.; Saturdays, 9 A.M. to 12 M.

General Bureau at Elections, Borough of Manhattan—No. 100 Mulberry street. T. F. ROBINSON, Superintendent; WILLIAM FARLEY, Chief Clerk.

Branch Bureau, Borough of Brooklyn—No. 15 Smith street. GEORGE RUSSELL, Chief; JOHN K. NEAL, Chief Clerk.

Branch Bureau, Borough of The Bronx—One Hundred and Thirty-eighth street and Mott avenue. COMPTROLLER A. B. VANDERBILT, Chief.

Branch Bureau, Borough of Queens—Police Station, Astoria. JAMES R. ROBINSON, Chief.

Branch Bureau, Borough of Richmond—Staten Island Savings Bank Building, Stapleton, S.I. CHARLES A. JONES, Chief.

## DEPARTMENT OF PUBLIC CHARITIES.

## Central Office.

Foot of East Twenty-sixth street, 9 A.M. to 4 P.M.

JOHN W. KRAVY, President of the Board; Commissioners for Manhattan and Bronx.

THOMAS S. BERNMAN, Deputy Commissioner.

ADOLPH SMITH, Jr., Commissioner for Brooklyn and Queens, Nos. 126 and 128 Livingston street, Brooklyn.

EDWARD GLIMMER, Deputy Commissioner.

JAMES FERRY, Commissioner for Richmond.

Plans and Specifications, Contracts, Proposals and Estimates for Work and Materials for Building, Repairs and Supplies, Bills and Accounts, 9 A.M. to 4 P.M.; Saturdays, 12 M.

Out-door Poor Department. Office hours, 8:30 A.M. to 4:10 P.M.

Department for Care of Destitute Children, No. 66 Third avenue, 8:30 A.M. to 4:30 P.M.

## DEPARTMENT OF CORRECTION.

## Central Office.

No. 148 East Twentieth street. Office hours from 9 A.M. to 4 P.M.; Saturdays 10 A.M. to 12 M.

FRANCIS J. LANTIER, Commissioner.

N. D. FARMING, Deputy Commissioner.

JOHN MURPHY, Deputy Commissioner for Boroughs of Brooklyn and Queens.

## FIRE DEPARTMENT.

Office hours for all, except where otherwise noted, from 9 A.M. to 4 P.M.; Saturdays, 12 M.

Headquarters.

Nos. 157 and 159 East Sixty-seventh street.

JOHN J. SCANNELL, Fire Commissioner.

JAMES H. TULLY, Deputy Commissioner, Boroughs of Brooklyn and Queens.

Augustus T. DOUGHERTY, Secretary.

EDWARD F. CROKER, Chief of Department, and in Charge of Fire-alarm Telegraph.

JAMES DALY, Deputy Chief, in Charge of Boroughs of Brooklyn and Queens.

GEORGE E. MURPHY, Inspector of Combustibles.

PETER SERRY, Fire Marshal, Boroughs of Manhattan, The Bronx and Richmond.

ALONZO RYMER, Fire Marshal, Boroughs of Brooklyn and Queens.

Central Office open at all hours.

Committee to examine persons who handle explosives meets Thursday of each week, at 2 o'clock P.M.

DEPARTMENT OF DOCKS AND FERRIES.

## Pier "A," N. R., Battery place.

J. SHERIDAN CARM, President; CHARLES F. MURPHY, Treasurer; PETER F. MEYER, Commissioners.

WILLIAM H. BURKE, Secretary.

Office hours, 9 A.M. to 4 P.M.; Saturdays, 12 M.

## DEPARTMENT OF HEALTH.

Southwest corner of Fifty-fifth street and Sixth avenue, 9 A.M. to 4 P.M.

Burial Permits and Contagious Disease Offices always open.

MICHAEL C. MURPHY, President, and WILLIAM T. JENKINS, M.D., JOHN B. CONRY, M.D., THE PRESIDENT OF THE POLICE BOARD, ex-officio, and the HEALTH OFFICERS OF THE PORT, ex-officio, Commissioners.

CARPA GOLDMAN, Secretary pro tem.

CHARLES F. ROBERTS, M.D., Sanitary Superintendent.

FREDERICK H. DILLON, M.D., Assistant Sanitary Superintendent, Borough of Manhattan.  
KINGS COUNTY, M.D., Assistant Sanitary Superintendent, Borough of The Bronx.  
ROBERT A. BLAKE, M.D., Assistant Sanitary Superintendent, Borough of Brooklyn.  
CHAS. L. JONES, M.D., Assistant Sanitary Superintendent, Borough of Queens.  
JOHN L. FERRY, M.D., Assistant Sanitary Superintendent, Borough of Richmond.

## DEPARTMENT OF PARKS.

GEORGE C. CLARKSON, President, Park Board, Commissioner in Manhattan and Richmond.

WILLIAM HOLLY, Secretary, Park Board.

Offices, Arsenal, Central Park.

GEORGE V. BROWN, Commissioner in Brooklyn and Queens.

Offices, City Hall, Brooklyn, and Lincolnfield Mansion, Prospect Park.

AMSTER DAMME, Commissioner in Borough of The Bronx.

Offices, Zborowski Mansion, Claremont Park.

Office hours, 9 A.M. to 4 P.M.; Saturdays, 12 M.

## Act Commissioners.

SAMUEL P. AYER, DANIEL C. FRECH, Commissioners.

## DEPARTMENT OF BUILDINGS.

Main Office, No. 100 Fourth avenue, Borough of Manhattan. Office hours, 9 A.M. to 4 P.M.; Saturday, 9 A.M. to 12 M.

THOMAS J. BEADY, President of the Board of Buildings and Commissioner for the Boroughs of Manhattan and The Bronx.

JOHN GUNDEL, Commissioner for the Borough of Brooklyn.

DANIEL CAMPBELL, Commissioner for the Boroughs of Queens and Richmond.



## COMMISSIONER OF JURORS.

Room 127 Stewart Building, Chambers street and Broadway, 9 A. M. to 4 P. M.  
 CHAMBERS WARD, Commissioner; JAMES E. CONWAY, Deputy Commissioner.

## SPECIAL COMMISSIONER OF JURORS.

No. 111 Fifth Avenue, 9 A. M. to 4 P. M.  
 H. W. GRAY, Commissioner.  
 FREDERICK P. SIMMONS, Assistant Commissioner.

## COMMISSIONER OF JURORS, KINGS COUNTY.

A Court House.  
 WILLIAM A. FURRY, Commissioner.

## SPECIAL COMMISSIONER OF JURORS, KINGS COUNTY.

No. 335 Fulton street.  
 EDWARD J. DOOLLEY, Deputy Commissioner.

## COMMISSIONER OF JURORS, QUEENS COUNTY.

Office hours, 9 A. M. to 4 P. M.; Saturdays, 10 A. M. to 12 M.  
 EDWARD J. KRAUSE, Commissioner.  
 H. HUNTER MOORE, Assistant Commissioner.

## COMMISSIONER OF JURORS, RICHMOND COUNTY.

CHAS. J. KRAMER, Commissioner.  
 WILLIAM J. THORNTON, Deputy Commissioner.  
 Office open from 9 A. M. to 4 P. M.; Saturdays, from 9 A. M. to 12 M.

## NEW YORK COUNTY JAIL.

No. 70 Ludlow street, 9 A. M. to 4 P. M., daily.  
 WILLIAM J. GIBBS, Warden.  
 PATRICK H. FARRER, Warden.

## KINGS COUNTY JAIL.

Reynolds street, between Willoughby street and Franklin street, Brooklyn, New York.  
 WILLIAM WATSON, Warden; MICHAEL BERLIN, Warden.

## COUNTY CLERK'S OFFICE.

No. 8, 9, 10 and 11 New County Court-house, 9 A. M. to 4 P. M.  
 WILLIAM BROWN, County Clerk.  
 GEORGE H. FARRER, Deputy.

## KINGS COUNTY CLERK'S OFFICE.

Hall of Records, Brooklyn, 9 A. M. to 4 P. M.  
 PETER P. HENRY, County Clerk.

## QUEENS COUNTY CLERK'S OFFICE.

Jamaica, N. Y., Fourth Ward, Borough of Queens.  
 Office hours, April 1 to October 1, 9 A. M. to 4 P. M.; October 1 to April 1, 9 A. M. to 3 P. M.; Saturdays, 10 A. M. to 12 M.  
 County and Supreme Court held at the Queens County Court-house, Long Island City. Court opens 9 A. M. on Mondays, 9 P. M.  
 JOHN H. SYLVESTER, County Clerk.  
 CHARLES DUFFY, Deputy County Clerk.

## RICHMOND COUNTY CLERK'S OFFICE.

County Office Building, Richmond, N. Y., 9 A. M. to 4 P. M.  
 EDWARD M. MILNER, County Clerk.  
 GEORGE M. CONWAY, Deputy County Clerk.

## NEW EAST RIVER BRIDGE COMMISSION.

Commissioners' Office, No. 235 Broadway, Borough of Manhattan, New York, 9 A. M. to 4 P. M.  
 LEWIS KAPLAN, President; JAMES W. HENRY, Vice-President; JAMES D. BENT, Secretary; JAMES D. FARRER, Treasurer; JOHN W. WATSON, Surveyor; L. L. LANE and THE MAYOR, Commissioners.  
 Chief Engineer's Office, No. 34 Broadway, Brooklyn, E. D., 9 A. M. to 4 P. M.

## DISTRICT ATTORNEY.

New Criminal Court Building, Centre street, 9 A. M. to 4 P. M.  
 ASA IRVING GARDNER, District Attorney; WILLIAM J. McKENNA, Chief Law Clerk.

## KINGS COUNTY DISTRICT ATTORNEY.

Office, County Court-house, Borough of Brooklyn, Room 9, 9 A. M. to 3 P. M.  
 JOHN F. CLARKE, District Attorney.

## QUEENS COUNTY DISTRICT ATTORNEY.

Office, Queens County Court-house, Long Island City, 9 A. M. to 4 P. M.  
 JOHN B. MERRILL, District Attorney.  
 CLARENCE A. TUCKER, Chief Clerk.

## RICHMOND COUNTY DISTRICT ATTORNEY.

Port Richmond, N. Y.  
 EDWARD S. KAPLAN, District Attorney.

## CORONERS.

## Borough of Manhattan.

Office, New Criminal Court Building. Open at all times of day and night.  
 EDWARD J. FITZPATRICK, JACOB E. BARNES, EDWARD W. HART, ANTONIO ZUCCA.

## Borough of The Bronx.

No. 508 East One Hundred and Sixty-sixth street.  
 Open from 9 A. M. to 12 M., midnight.  
 ANTHONY McQUEEN, Deputee M. LYNN.

## Borough of Brooklyn.

Office, Room 17, Borough Hall. Open all times of day and night, except between the hours of 12 M. and 2 P. M. on Sundays and holidays.  
 ANTHONY J. BUCKER, GEORGE W. DELAY.

## Borough of Queens.

Office, Borough Hall, Fulton street, Jamaica, L. I.  
 FRANK T. CANNON, LEONARD ROBBY, JR., and SAMUEL S. GOTTLIEB, Jr.  
 CHARLES J. SCHILLER, Clerk.

## Borough of Richmond.

No. 34 New York avenue, Rosbank.  
 Open for the transaction of business all hours of the day and night.  
 JOHN REAVES, GEORGE C. TRAMER.

## CHANGE OF GRADE DAMAGE COMMISSION, TWENTY-THIRD AND TWENTY-FOURTH WARDS.

Room 58, Schermerhorn Building, No. 36 Broadway.  
 Meetings, Mondays, Wednesdays and Fridays, at 3 P. M.  
 WILLIAM E. STILLINGS, Chairman; CHARLES A. JACKSON, OSCAR S. BAILEY, Commissioners.  
 LAWSON McLOUGHLIN, Clerk.

## SURROGATE'S COURT.

New County Court-house. Court open from 9 A. M. to 4 P. M., except Saturdays, when it closes at 12 M.  
 FRANK T. FITZPATRICK, JAMES C. THOMAS, and JACOB W. LEAHY, Chief Clerk.

## CITY MAGISTRATE'S COURTS.

Courts open from 9 A. M. to 4 P. M.  
 City Magistrate—HENRY A. BRADY, ROBERT C. CONNELL, LEONARD E. CRANE, JOSEPH M. DUFFY, CHARLES A. FLAMMER, LORENZO ZELLEN, CLARENCE W. MEADS, JOHN O. MURPHY, JOSEPH P. POSE, JOHN B. MATO, EDWARD HODAN, WILLIAM H. OLSEN.  
 PHILIP BRADY, Secretary.  
 First District—Criminal Court Building.  
 Second District—Jefferson Market.  
 Third District—No. 39 Kanar street.  
 Fourth District—Fifty-seventh street, near Lexington avenue.  
 Fifth District—One Hundred and Twenty-first street, southeast corner of Sylvan place.  
 Sixth District—One Hundred and Fifty-eighth street and Third Avenue.  
 Seventh District—Fifty-fourth street, west of Eighth Avenue.

## SECOND DIVISION.

## Borough of Brooklyn.

First District—No. 311 Adams street. JACOB BARNES, Magistrate.  
 Second District—Court and Butler streets. HENRY BRIDGEMAN, Magistrate.  
 Third District—Myrtle and Vanderbilt avenues. CHARLES E. TRALA, Magistrate.  
 Fourth District—Nos. 6 and 8 Lee avenue. WILLIAM KRAMER, Magistrate.  
 Fifth District—Kean and Twenty streets. ANDREW LEWIS, Magistrate.  
 Sixth District—Gates and Reid avenues. LEWIS R. WORTH, Magistrate.  
 Seventh District—No. 31 Grant street, Flatbush. ALFRED E. STANLEY, Magistrate.  
 Eighth District—Coney Island—ALBERT VAN BRUNT, Van Brunt, Jr., Magistrate.

## Borough of Queens.

First District—Nos. 31 and 33 Jackson avenue, Long Island City. MATTHEW J. SMITH, Magistrate.  
 Second District—Farming, Long Island City. LUKA J. CANNON, Magistrate.  
 Third District—Four Rockaway, Long Island. EDWARD J. HALE, Magistrate.

## Borough of Richmond.

First District—New Brighton, Staten Island. JOHN COGAN, Magistrate.  
 Second District—Stapleton, Staten Island. NATHANIEL MARSH, Magistrate.  
 Secretary to the Bench, JAMES J. CHAMBERS, Myrtle and Vanderbilt avenues, Borough of Brooklyn.

## KINGS COUNTY SURROGATE'S COURT.

Hall of Records, Brooklyn.  
 GEORGE H. ABBOTT, Surrogate.  
 MURRAY F. MCGOWAN, Chief Clerk.  
 Court opens 9 A. M. Office hours, 9 A. M. to 4 P. M.

## COUNTY JUDGE AND SURROGATE.

County Office Building, Richmond, N. Y.  
 STEPHEN D. STEVENSON, County Judge.

## THE COMMISSIONER OF RECORDS, KINGS COUNTY.

Room 1, Hall of Records. Office hours, 9 A. M. to 4 P. M.  
 GEORGE B. WALDO, Commissioner.  
 FRANK M. THORNTON, Deputy Commissioner.  
 THOMAS D. MASON, Superintendent.  
 JAMES H. GLENN, Secretary.

## KINGS COUNTY TREASURER.

Court-house, Room 14.  
 JOHN W. KIMBALL, Treasurer; THOMAS F. FARRER, Deputy Treasurer.

## EXAMINING BOARD OF PLUMBERS.

Rooms 14, 15 and 16 No. 129 in 127 Church street.  
 President, JOHN KENNEDY; Secretary, JAMES K. MCGOWAN; Treasurer, EDWARD HALEY; HONORARY LEONARD E. CRANE, JACOB W. LEAHY.  
 Office open during business hours every day in the year, except legal holidays. Examinations are held on Monday, Wednesday and Friday after 4 P. M.

## SUPREME COURT.

County Court-house, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000.

## CRIMINAL DIVISION, SUPREME COURT.

New Criminal Court Building, Centre street. Court opens at 10:30 P. M. 9 A. M. to 4 P. M.  
 EDWARD E. CARROLL, Clerk. Hours from 10 A. M. to 4 P. M.

## APPELLATE DIVISION, SUPREME COURT.

Court-house, Madison avenue, corner Twenty-fifth street. Court opens at 1 P. M.  
 CHARLES H. VAN BRUNT, Presiding Justice; CHESTER B. McLAUGHLIN, EDWARD PATTERSON, MORRIS J. O'BRYEN, GEORGE L. JACOBSON, WILLIAM RUSSELL, EDWARD W. HATCH, JUSTICES. ALFRED WAGSTAFF, Clerk; WILLIAM LAMM, Jr., Deputy Clerk.

## COUNTY COURT, KINGS COUNTY.

County Court-house, Brooklyn, Rooms 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000.

## COUNTY COURT, KINGS COUNTY.

County Court-house, Brooklyn, Rooms 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300, 310, 320, 330, 340, 350, 360, 370, 380, 390, 400, 410, 420, 430, 440, 450, 460, 470, 480, 490, 500, 510, 520, 530, 540, 550, 560, 570, 580, 590, 600, 610, 620, 630, 640, 650, 660, 670, 680, 690, 700, 710, 720, 730, 740, 750, 760, 770, 780, 790, 800, 810, 820, 830, 840, 850, 860, 870, 880, 890, 900, 910, 920, 930, 940, 950, 960, 970, 980, 990, 1000.

## QUEENS COUNTY COURT.

County Court-house, Long Island City.  
 County Court opens at 9:30 A. M.; adjourns at 3 P. M.  
 County Judge's office always open at Flushing, N. Y.  
 HARRISON B. MOORE, County Judge.

## CITY COURT OF THE CITY OF NEW YORK.

No. 29 Chambers street, Brown-stone Building, City Hall Park, from 9 A. M. to 4 P. M.  
 General Term.  
 Trial Term, Part I.  
 Part II.  
 Part III.  
 Part IV.  
 Special Term Chambers will be held 10 A. M. to 4 P. M.  
 Clerk's Office, from 9 A. M. to 4 P. M.  
 JAMES M. FREDERICKS, Chief Justice; JOHN R. MCCARTHY, LEWIS J. CONLAN, JOHN P. SCRIMMAM, EDWARD F. O'DWYER and THOMAS E. HASCALL, Justices. THOMAS E. SMITH, Clerk.

## COURT OF GENERAL SESSIONS.

Held in the building for Criminal Courts, Centre Street, White and Franklin streets. Court opens at half-past 10 o'clock.  
 RUFUS B. COWING, City Judge; JOHN W. GORE, Recorder; JOSEPH E. NEWSBARGER, MARTIN T. McMAHON and WARREN W. FOSTER, Judges of the Court of General Sessions. EDWARD K. CARROLL, Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

## COURT OF SPECIAL SESSIONS.

Building for Criminal Courts, Centre street, between Franklin and White streets, Borough of Manhattan. Court opens at 10 A. M.  
 Justice, First Division—ELIZABETH H. HINDALL, WILLIAM TRAVES, JEROME, EDWARD A. JACOB, JOHN B. MCKINLEY, WILLIAM C. HOLMES, WILLIAM M. FULLER, Clerk; JOSEPH H. JONES, Deputy Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

Second Division—Trial days—Borough Hall, Brooklyn, Mondays, Wednesdays and Fridays, at 10 o'clock; Town Hall, Jamaica, Borough of Queens, Tuesdays, at 10 o'clock; Town Hall, New Brighton, Borough of Richmond, Thursdays, at 10 o'clock.  
 Justice—JOHN CONWAY, HOWARD J. FORBES, PATRICK KEADY, JOHN FLEMING, THOMAS W. FITZPATRICK, JOSEPH L. KERRIGAN, Clerk; CHARLES F. WOLF, Deputy Clerk.  
 Clerk's office, Borough Hall, Borough of Brooklyn, open from 9 A. M. to 4 P. M.

## MUNICIPAL COURTS.

## Borough of Manhattan.

First District—Third, Fifth and Eighth Wards, and all that part of the First Ward lying west of Broadway and Whitehall street, including Governor's Island, Bedloe's Island, Ellis Island and the Outer Islands, New Court-house, No. 121 Prince street, corner of Waverly street.  
 DANIEL E. FOST, Justice. FRANK L. MACON, Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

Second District—Second, Fourth, Sixth and Fourteenth Wards, and all that portion of the First Ward lying south and east of Broadway and Whitehall street, Court-house, corner of Grand and Centre streets.  
 HERMAN HOLTS, Justice. FRANCIS MANNING, Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.  
 Court opens daily (Sundays and legal holidays excepted) from 9 A. M. to 4 P. M., and remains open until daily calendar is disposed of and close of the daily business, except on Sundays and legal holidays.

Third District—Ninth and Fifteenth Wards. Court-house, southwest corner Sixth Avenue and West Tenth street. Court open daily (Sundays and legal holidays excepted) from 9 A. M. to 4 P. M.  
 Wm. F. MOORE, Justice. DANIEL WILLIAMS, Clerk.

Fourth District—Tenth and Seventeenth Wards. Court-house, No. 30 First street, corner Second Avenue. Court opens 9 A. M. daily, and remains open to close of business.  
 GEORGE F. RUSSELL, Justice. JOHN E. LYNN, Clerk.

Fifth District—Seventh, Eleventh and Thirteenth Wards. Court-house, No. 134 Clinton street.  
 ROSEMAN HOFFMAN, Justice. THOMAS FLETCHER, Clerk.

Sixth District—Eighteenth and Twenty-first Wards. Court-house, northwest corner Twenty-third street and Second Avenue. Court opens 9 A. M. daily, and continues open to close of business.  
 DANIEL F. MARTIN, Justice. ABRAHAM EDWARDS, Clerk.

Seventh District—Nineteenth Ward. Court-house, No. 151 East Fifty-seventh street. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business.  
 HERMAN JONES, Justice. PATRICK McDAVITY, Clerk.

Eighth District—Sixteenth and Twentieth Wards. Court-house, northwest corner of Twenty-third street and Eighth Avenue. Court opens at 9 A. M. and continues open to close of business.  
 Clerk's office open from 9 A. M. to 4 P. M., each Court day.

Trial days and Return days, each Court day.  
 JOSEPH H. STICKER, Justice. THOMAS CUSTUMAR, Clerk.

Ninth District—Twelfth Ward, except that portion thereof which lies west of the centre line of Lenox or Sixth Avenue, and of the Harlem river north of the terminus of Lenox Avenue. Court-house, No. 170 East One Hundred and Twenty-first street, southeast corner of Sylvan place. Court opens every morning at 9 o'clock (except Sundays and legal holidays), and continues open to close of business.  
 JOSEPH P. FALLOW, Justice. WILLIAM J. KENNEDY, Clerk.

Tenth District—Twenty-second Ward, and all that portion of the Twelfth Ward which is bounded on the north by the centre line of One Hundred and Tenth street, on the south by the centre line of Eighty-sixth street, on the east by the centre line of Sixth Avenue, and on the west by the North River. Court-house, No. 314 West Fifty-fourth street. Court opens daily (Sundays and legal holidays excepted) from 9 A. M. to 4 P. M.

THOMAS E. MURRAY, Justice. HUGH GRANT, Clerk.  
 Eleventh District—That portion of the Twelfth Ward which lies north of the centre line of West One Hundred and Tenth street and west of the centre line of Lenox or Sixth Avenue, and of the Harlem river north of the terminus of Lenox or Sixth Avenue. Court-house, corner of One Hundred and Twenty-sixth street and Columbus Avenue. Court opens daily (Sundays and legal holidays excepted) from 9 A. M. to 4 P. M.

FRANCIS J. WOLFE, Justice. ADOLPH N. DUNAHUT, Clerk.

## Borough of The Bronx.

First District—All that part of the Twenty-fourth Ward which was lately annexed to the City and County of New York by chapter 1034 of the Laws of 1895, comprising all of the late Town of Westchester and part of the Towns of Eastchester and Pelham, including the Villages of Wakefield and Williamsbridge. Court-house, Town Hall, Main street, Westchester Village. Court opens daily (Sundays and legal holidays excepted) from 9 A. M. to 4 P. M. Trial of causes are Tuesday and Friday of each week.  
 WILLIAM W. FENFIELD, Justice. JOHN N. STEWART, Clerk.

Second District—Twenty-third and Twenty-fourth Wards. Court-house, corner of Third Avenue and One Hundred and Fifty-eighth street. Office hours from 9 A. M. to 4 P. M. Court opens at 10 A. M.  
 JOHN M. TINKER, Justice. HOWARD SPRAUS, Clerk.

## Borough of Brooklyn.

First District—Comprising First, Second, Third, Fourth, Fifth, Sixth, Tenth and Twelfth Wards of the Borough of Brooklyn. Court-house, northwest corner State and Court streets.  
 JOHN J. WALSH, Justice. EDWARD MORAN, Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

Second District—Seventh, Eighth, Ninth, Eleventh, Twelfth, Twenty-first, Twenty-second and Twenty-third Wards. Court-house located at No. 704 Broadway, Brooklyn.  
 GEORGE S. VAN WART, Justice. WILLIAM H. ALLEN, Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

Third District—Includes the Thirteenth, Fourteenth, Fifteenth, Sixteenth, Seventeenth, Eighteenth and Nineteenth Wards. Court-house, Nos. 5 and 8 Leavenworth, Brooklyn.  
 WILLIAM J. LYNN, Justice. JOHN W. CARPENTER, Clerk.  
 Clerk's office open from 9 A. M. until 4 P. M. Court opens at 10 o'clock.

Fourth District—Twenty-fourth, Twenty-fifth, Twenty-sixth, Twenty-seventh and Twenty-eighth Wards. Court-house, No. 14 Howard Avenue.  
 THOMAS H. WILLIAMS, Justice. HERMAN GOULDING, Justice Clerk; JAMES P. SIKKOT, Assistant Clerk.  
 Clerk's office open from 9 A. M. to 4 P. M.

Fifth District—Twenty-ninth, Thirtieth, Thirty-first and Thirty-second Wards. Court-house on Bath Avenue and Bay Twenty-second street, Bath Beach.  
 CORNELIUS FURKLESON, Justice. JEREMIAH J. O



The award of the contract will be made as soon as practicable after the opening of the bids.

will be required to give security for the performance of the contract, by his or their bond, with two sufficient sureties, each in the amount of TEN THOUSAND (\$10,000) DOLLARS.

it shall distinctly state that fact; also that it is made without any connection with any other person making an estimate for the same purpose and is in all respects

assembly, head of a department, chief of a bureau, deputy director, or clerk therein or other officer of the Corporation, is directly or indirectly interested therein, or in the work to which it relates, or in any per-



3d. Thence westerly to the intersection of the canal, the elevation to be 5.07 feet above mean high-water datum as heretofore.











The work to be done under this contract is to be commenced within five days after the date of the re-







the respective trusts or parcels of land to be taken or to be assessed therefor, and of performing the trusts and



