



THE TERRACE.

Photograph of portion of East flank of East Steps.

(SPRING.)

Calvert Vaux and J. Wrey Mould, Arch'ts.

ELEVENTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

OF THE

CENTRAL PARK,

FOR THE

YEAR ENDING DECEMBER 31, 1867.



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1868.

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Board of Commissioners of the Central Park.

OFFICERS AND COMMITTEES.

1868.

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THOMAS C. FIELDS,

ANDREW H. GREEN,
HENRY G. STEBBINS,
R. M. BLATCHFORD,
M. H. GRINNELL.

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ANDREW H. GREEN.

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M. H. GRINNELL.

Secretary.

THOMAS C. FIELDS.

Finance.—Messrs. RUSSELL, GRINNELL, BUTTERWORTH.

Executive.—Messrs. GRINNELL, GREEN, HUTCHINS, RUSSELL, FIELDS.

Auditing.—Messrs. GRINNELL, FIELDS, BUTTERWORTH.

By-Laws and Ordinances.—Messrs. HUTCHINS, FIELDS, GREEN.

Statuary, Fountains, and Architectural Structures.—Messrs. RUSSELL,
BUTTERWORTH, GREEN.

Roads and Avenues.—Messrs. BLATCHFORD, FIELDS, GREEN, HUTCHINS,
BUTTERWORTH.

R E P O R T .

To the Honorable

the Common Council of the City of New York :

The Board of Commissioners of the Central Park respectfully presents this, its report, for the year ending with December 31, 1867.

The expenditures for the year, in prosecuting work at the Park, will be found much reduced.

The total amount expended on the Park during the year, exclusive of the operations of maintenance, being \$199,264 06.

The work accomplished during this year is briefly the following :

A Walk, after the usual method of the Park walks, has been completed, in connection with the Children's Shelter, leading northerly toward the Marble Arch, and eastwardly south of the open lawn intended for the little children's play-ground, and north of the Bridle Road, from which it is separated by dense plantations.

This walk, passing along the base of a mass of rocks, in the clefts of which a cluster of young sassafras trees,

from their peculiar growth, afford a shaded resting-place of something of a tropical aspect, terminates just north of Bridge No. 11.

Several walks have been opened of a diversified character, tending to develop the area at the north part of the Park in the vicinity of the Block House.

In all, 4,798 lineal feet of walk, of various widths, have been made; 14 recesses have been formed in the sidewalks for the rustic seats.

Increased height has been given to the two masses of rock just north of the Scholars' and Artists' Gates, respectively, the proper planting of which will give variety and interest to the horizon line, as seen from without and within the limits of the Park.

The foundation-work of a structure contemplated as a lookout at the southwest corner of the old Reservoir has been commenced.

The Nursery, or Children's Shelter, is nearly complete.

The following structures of rustic work have been completed:

2 rustic arbors, 54 feet in length and 20 in width.

610 lineal feet of seats.

135 small rustic bird-cages.

100 feet of rustic fence.

16 rustic tables, 4 feet in diameter.



THE TERRACE.

Photograph of Die at foot of East flank of West Steps.

(AUTUMN.)

Calvert Vaux and J. Wrey Mould, Arch'ts.

550 feet of Park seats, of iron and wood, have been provided.

850 feet of picket fence built.

6 drinking fountains erected.

10 stop-cocks set.

33 walk and 5 road basins built.

5 water trucks and 1 two horse roller made.

1,282 feet of lead, and 915 feet of vitrified pipe laid.

The Mt. St. Vincent buildings have been improved for use, and the grounds about them have been graded and arranged for a flower-garden.

The ornamental and other iron work of the interior of the Terrace is nearly complete, and the encaustic tile for its ceiling and flooring are arriving from the manufacturers, and are now being laid.

The passage-way of the Terrace has been substantially inclosed, and the work of tiling will, it is hoped, be completed in the coming spring. The emblematic carving on the stone of this structure has also been considerably advanced.

A contract has been made for casting in bronze the artistic figures of the fountain of the Esplanade, north of the Terrace.

2,293 feet of base course of mountain graywacke have been set on the east boundary wall of the Park.

The Croton Aqueduct Board having brought the stone dwelling-house, situated between the two Reservoirs,

and in immediate connection with Transverse Road No. 3, to a sufficient degree of completion for occupancy, the old house, a much dilapidated building, west of the old Reservoir, has been removed, without disturbing the ancient willows that surrounded it.

To the east of the Block House a ravine has been opened, and a small stream of water is here and there caught in pools from miniature cascades, as it falls over the boulders that have been mysteriously carried in great numbers to this place, adding greatly to its natural wildness.

An area of about $2\frac{1}{2}$ acres, lying northeast of Mt. St. Vincent, has been appropriated for the nursery grounds, from which a great variety of cuttings, shrubs, and trees can be drawn as occasion requires; contiguous thereto is a vegetable garden, containing specimens of most of the esculents that will thrive in this climate, properly arranged, with their respective names so conspicuously placed that a person passing through it may see and readily recognize them.

The ripened vegetables, which while growing serve the purpose of instruction, are used in feeding the animals.

The frequent contributions of rare tropical plants to the collections, rendered it necessary that a stove or green house should be provided for their preservation, without delay.

A house of this character, 94 feet in length, 25 feet in width, has been completed, and provided with approved heating apparatus, as has also a propagating house, 30 feet in length by 12 in width.

The Green-House is situated on the southerly side of the Art Gallery, at St. Vincent.

Several hundred signs, bearing the common as well as the botanical name of the respective plants, have been placed at the foot of the more uncommon shrubs and trees, for information of visitors, to remain until the Arboretum and Botanical Gardens furnish a more regularly classified and complete collection, for the observation of those seeking precise information.

Among the contributions above alluded to, may be mentioned 353 valuable plants from the green-house of James Lenox, Esq.; also 71 from the house of W. G. Wood, M. D.

The removal of trees, both deciduous and evergreen, is continually going on in the proper season, as the thickets become sufficiently dense to require it.

Among the most noteworthy evergreen trees cultivated on the Park are a scattered group northeast of the Ramble, consisting of the Lofty Bhotan Pine, *Pinus excelsa*; Swiss Stone Pine, *Pinus Cembra*; Oriental Spruce, *Abies orientalis*; Mount Enos Fir, *Pinus Cephalonica*; Pinsapo Fir, *Pinus Pinsapo*; the Red Pine, *Pinus resinosa*; European Silver Fir, *Abies pectinata*;

intermixed with the White Pine, *Pinus Strobus*; White and Norway Spruces, *Abies alba* and *excelsa*. They are remarkable with regard to their vigorous growth and fine development.

The "Big Tree" of California, *Sequoia gigantea*, west of the Terrace, and the Cedar of Lebanon, *Cedrus Libani*; the Japanese Cedar, *Cryptomeria Japonica*; Menzies' Spruce, *Abies Menziesii*; Great Silver Fir, *Picea grandis*; Golden Arbor Vitæ, *Thuja aurea*; are also worthy of attention.

There are other fine specimens of coniferous trees, as the rough-barked Pine of Mexico, *Pinus Montezumæ*; the Star or Cluster Pine, *Pinus Pinaster*; the Corsican Pine, *Pinus Laricio*; the Siberian Silver Fir, *Picea Pichta*; the compact dwarf White Pine, *Pinus Strobus compacta*; the Low Mountain Pine, *Pinus Pumilio*; the Mount Atlas Cedar, *Cedrus atlantica*; and the yew-leaved Torreya, *Torreya taxifolia*; the weeping and golden Yew, *Taxus Dovastonii* and *variegata*; the Lawson Cypress, *Cupressus Lawsoniana*; and many more less rare, besides a great variety of Catawba Rhododendron, *Rhododendron Catawbiense*; the hairy and rusty-leaved Rhododendron of the Alps, *Rhododendron hirsutum* and *ferugineum*; the numerous-flowered and calyculate Andromeda, *Andromeda floribunda* and *A. calyculata*.

Among the deciduous trees may be especially mentioned a collection of Magnolias, consisting of nine differ-

ent varieties: the fastigate Locust, *Robinia pyramidalis*; the dwarf Locust, *R. Bessoniana*; the globe-headed Locust, *Robinia umbraculifera*, are remarkable with regard to their peculiar habit and delicacy of foliage; the weeping, purple and fern-leaved Beech, *Fagus pendula*, *purpurea* and *heterophylla*; the weeping silver-leaved Linden, *Tilia argentea* var. *pendula*; the cork-barked and Fords' Elm, *Ulmus suberosa* and *montana fastigiata*; the Ginkgo or Maiden Hair Tree, *Salisburia adiantifolia*; the Oriental Sycamore, *Platanus orientalis*; the double-flowering Chinese Crab, *Pyrus spectabilis* fl. pl.; and the weeping Larch, *Larix pendula*, are all well-grown specimens, and, as their names indicate, very characteristic trees.

Among the large number of flowering shrubs cultivated in the Park, the following deserve special notice: The flaming and Pontic Azaleas, *Azalea calendulacea* and *Pontica*; the Chinese Guelder Rose, *Hydrangea hortensia*; several groups of these may be seen in the Ramble and at the Terrace. Less showy but quite as noteworthy are the Two-winged Snow-Drop Tree, *Halesia diptera*; the Sorrel Tree, *Oxydendron arboreum*; the Indian Tamarisk, *Tamarix Africana*; the purple and cut-leaved Hazel, *Corylus purpurea* and *C. laciniata*; the shining-leaved Privet, *Ligustrum lucidum*; the *Stuartia pentagyna* and the White Fringe Tree, *Chionanthus Virginica*.

A material, or combination of materials, that will withstand the influences of the extremes of temperature of this climate and work in with natural surroundings, with less formalness and rigidness than do all sorts of stone or brick pavement, has long been sought. Especially is this want felt in Walks, the lines and the undulations of which must be shaped to the ever-varying natural conditions of the area through which they lead.

Experiments have been made for several years with cements, asphalt, concrete, and pavements of various sorts, none of which have proved entirely satisfactory, though some have developed valuable qualities.

Several pieces of walk have been laid in the Park during the fall, with a composition of tar, gravel and cement, coal tar having been first used, and subsequently the ordinary tar of commerce.

The appearance, when properly mixed and laid, is thus far the most satisfactory of anything that has yet been tried: it is readily formed and shaped to meet the various conditions of the ground through which it is laid—it is compact and pleasant to walk upon—it is claimed to be free from dust, and that it is not so materially affected by the heat or cold as to diminish its practical usefulness. It is not intended to express any opinion as to the merits of this combination of material. If experience proves that it answers all that is promised, it will be very serviceable in all places where walks of a rural char-

acter are desired, especially on those which, from the steepness of the acclivity, are liable to wash.

These materials have been put down in several different methods on the Park in various localities, and with a variety of substructure, for the purpose of testing its merits.

It is quite likely that where walks thus made are in much frequented places, they will require washing and cleansing to preserve a neat appearance. This composition has also been laid on two portions of the Drive, for the purpose of testing its value as a carriage-way. Its effects on vegetation are yet to be observed.

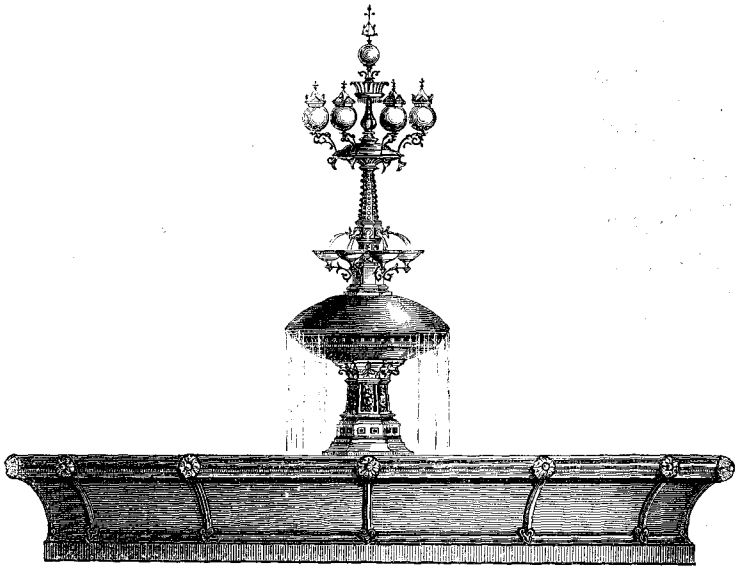
The demand upon the Arsenal building for storage purposes, and for the accommodation of the collection of living animals and specimens illustrative of natural history, has been so great as to render it desirable to provide another place for the statuary.

The interior of the portion of the brick edifice at Mt. St. Vincent, formerly used as the chapel of the Convent, has been decorated and fitted for the reception of the statuary, and although this gallery is situated at a remote part of the grounds, it is much frequented, and is probably the most generally attractive collection and arrangement of statuary in the whole country.

Numerous rustic rock fountains for supplying pedestrians with drinking water, have been provided in different localities; fountains of this simple, natural

character, have the great merit of being less expensive and much more pleasing and satisfactory than any other, for the Park purposes and objects.

It is intended to execute a design for a new drinking fountain for horses at the Circle, provided with cups for birds, during the coming year.



DRINKING FOUNTAIN FOR HORSES.

The undetermined condition of the grades of the avenues bordering the Park, as well as of the extent of the area of public places proposed at the entrance-ways, have, with other circumstances, combined to render it inexpedient to prosecute the erection of the exterior enclosing walls and entrance gates.

In the administration of the grounds, new problems

arise with each season, that are to be resolved with reference not only to immediate requirements, but to the results that will grow out of any privileges or uses of the grounds that may at the present time seem advantageous.

It will be found much less difficult and much more satisfactory to maintain at the outset proper restrictions as to the uses of the grounds by multitudes of people, than to restrain them within these limits after they have been accustomed to exceed them.

With the development of each department of the Park comes the necessity of further subdivisions of the classes of labor and of the supervision required in it.

It is doubtless advantageous in most of the departments, that those familiar with the special duty assigned to them should be continuously employed; in fact a large proportion of Park labor is not of the ruder class; continuousness and permanency are essential to satisfactory results, and so long as these characteristics do not degenerate into a chronic easiness and dullness, and a mere perfunctory discharge of duty, they promote economy and excellence in the work performed.

The successful conduct of all affairs, where any especial knowledge, skill, or delicacy of treatment are required, demands experience, and it would not be too dearly obtained by the retention of competent employees, by the offer of rewards, in the shape of pensions or half-

pay, when, after a long term of service, they become unfitted by years or accident, for the further full accomplishment of a regular day's task.

The constant changing of persons employed in the public service, is inconsistent with a vigorous, compact, and intelligent administration of affairs, and is believed to be one reason why this service is so generally characterized by negligence and inefficiency.

The policy of the Board has been to continue in employment those who show themselves capable and faithful, so long as their services are needed in the occupations in which they were engaged.

The whole force now employed on the Park, both in operations of maintenance and construction, is, at the date of this report, as follows :

- 1 (Firm) Landscape Architects.
- 8 Clerks and Assistants.
- 1 General Foreman.
- 3 Foremen of Laborers.
- 1 Foreman of Mechanics.
- 186 Laborers.
- 1 Painter.
- 18 Carpenters.
- 4 Blacksmiths and Helpers.
- 32 Stone Cutters and Masons.
- 6 Double Teams.

35 Carts.
 13 Gardeners and Assistants
 1 Plumber.
 50 Park-keepers.
 19 Uniformed Gate-keepers.
 6 Ununiformed “

The out-of-door working force is employed only as required.

Of these eight Clerks and Assistants :—

Five have been in the employ of the Board over nine years.

Three have been in the employ of the Board over five years.

The Head Gardener has been in the employ of the Board over nine years, and his Assistant over five years.

Seven of the Gardeners have been in the employ of the Board over nine years.

Three of the Gardeners have been in the employ of the Board over six years.

One of the Gardeners has been in the employ of the Board over four years.

The General Foreman, and three Foremen, all have been in the employ of the Board over eight years. The Foreman of Mechanics is employed, from time to time, only as required.

Of the fifty Park-keepers now employed, six have been employed over nine years.

Six have been employed over eight years.

Ten have been employed over seven years.

Fourteen have been employed over six years.

Six have been employed over five years.

Two have been employed over four years.

Five have been employed over three years.

One has been employed over two years.

Of the twenty-five Gate-keepers, one has been employed about eight years.

Two have been employed about five years.

Six have been employed about four years.

Five have been employed about two years.

Six have been employed about one year.

Five have been employed less than a year.

The Gate-keepers are regularly promoted to Park-keepers as vacancies occur, and in all the departments of the Park service, as far as is consistent with its efficiency, promotions are made from one grade to another, as opportunity offers.

In addition to the above, the following persons are temporarily employed on works outside of the Park, most of whom were transferred from the Park service, when there no longer required :

Four engineers.

One clerk.

Two draughtsmen.

One foreman.

Three axemen.

Fifty-eight laborers, employed as required in grading Mount Morris Square.

Of these six engineers and draughtsmen :—

Two of them have been in the employ of the Board over nine years.

One of them has been in the employ of the Board about five years.

One of them has been in the employ of the Board about two years.

Wages have, on the whole, ranged higher than in any previous year since the Park work commenced.

Materials used on the Park have generally declined a small percentage in price.

The following tables show the force employed on the Park during each month, and the average working force per day for each month during the past year :

STATEMENT showing force employed on the Park during each month of the year 1867, and the number of hours of work performed by each class.

MONTH.	General Foremen.	Foremen.	Laborers.	Carts.	Double Teams.	Gardeners.	Skilled Laborers.	Carpenters.	Stone Cutters.	Masons.	Painters.	Blacksmiths.	Helpers.	Carvers.	Plumbers.	Gas Fitters.	Plasterers.	Sculptors.	Janitors.	Laborers, Zoological Department.	Ladies' Maids.	Uniformed Gatekeepers.	Ununiformed Gatekeepers.	Messenger Boys.
January.....	31	124	4,804	628	152	297	61	259	8	8	26	49	26	....	..	....	26	93	152	124	558	153	52	
February.....	28	85	2,080	443	136	279	53	234	... ..	9	47	48	24	....	....	17	....	24	84	139	85	521	188	48
March.....	31	93	2,566	502	165	299	59	250	....	11	51	51	26	....	27	....	....	26	93	136	93	572	129	52
April.....	30	90	3,268	983	186	297	57	288	25	45	52	51	26	....	23	....	....	26	90	121	90	526	122	52
May.....	31	108	3,799	1,094	181	292	61	319	45	54	40	54	27	....	14	....	....	25	93	146	93	513	139	54
June.....	30	113	4,330	1,221	173	286	59	420	76	193	34	50	25	42	24	....	10	25	90	146	90	500	187	50
July... ..	31	120	5,376	1,282	221	296	62	510	187	233	26	52	26	66	25	....	9	23	93	155	93	514	193	52
August....	31	119	5,410	1,272	215	282	61	470	209	81	24	52	26	64	27	... ..	6	15	93	155	93	513	180	54
September.....	30	127	4,931	1,190	260	287	59	411	397	51	25	51	25	25	5	....	....	18	90	148	90	520	143	50
October.....	31	145	4,882	1,049	199	233	87	440	697	123	27	89	27	51	22	....	....	93	155	93	553	130	54	
November.....	31	149	4,570	871	186	255	89	428	593	122	26	96	25	25	8	....	....	90	150	90	544	146	52	
December.....	31	145	4,206	487	95	273	92	413	495	82	25	92	....	10	25	....	....	90	155	93	541	152	50	

STATEMENT of the average working force per day employed for each month of the year 1867.

MONTH.	General Foremen.	Foremen.	Laborers.	Carts.	Double Teams.	Gardeners.	Skilled Laborers.	Carpenters.	Stone Cutters.	Masons.	Painters.	Blacksmiths.	Helpers.	Carvers.	Plumbers.	Gas Fitters.	Plasterers.	Sculptors.	Janitors.	Laborers, Zoological Department.	Ladies' Maids.	Messenger Boys.
January.....	1	4	160	23	4	10	2	9	.....	.....	1	2	1	.....	.....	2	..	1	3	5	4	2
February	1	3	76	16	5	11	2	10	.....	1	2	2	1	.....	.....	1	...	1	3	5	3	2
March	1	3	85	32	6	10	2	9	.....	.....	2	2	1	.....	1	.....	...	1	3	4	3	2
April.....	1	3	110	34	7	11	2	11	1	2	2	2	1	.....	1	.....	...	1	3	4	3	2
May.....	1	3	122	33	6	11	2	13	2	2	1	2	1	.....	.....	.....	...	1	3	4	3	2
June.....	1	4	146	45	6	11	2	17	8	8	1	2	1	.....	1	.....	1	1	3	5	3	2
July.....	1	4	175	45	8	10	2	20	7	11	1	2	1	2	1	.....	...	1	3	5	3	2
August.....	1	4	178	45	7	10	2	17	8	3	1	2	1	2	1	.....	.....	...	3	5	3	2
September....	1	4	167	42	6	11	2	16	15	2	1	2	1	1	.....	.....	...	1	3	5	3	2
October.....	1	5	166	35	7	10	3	17	23	4	1	3	1	2	1	.....	...	.....	3	5	3	2
November.....	1	5	153	30	7	10	3	16	24	5	1	4	1	1	.....	..	...	.....	3	5	3	2
December.....	1	5	145	18	3	9	3	17	20	3	1	4	.....	.....	1	.....	...	.....	3	5	3	2

Several of the most eminent physicians of the city expressed, in a memorial to the Board, their approval of "An establishment where springs and wells of artificial mineral waters, such as Selters, Vichy, Kissengen, Congress, &c., may be dispensed to convalescents and invalids, as well as to the public generally;" and their belief "that the results in the increased health and satisfaction of the people must be very great from the use of such waters, in connection with exercise in the open air."

Messrs. Shultz & Warker, of this city, a firm of high reputation, engaged in the manufacture of mineral waters, and who were strongly recommended by these physicians, made application some years since to the Board, for permission to erect on the Park an establishment of this character.

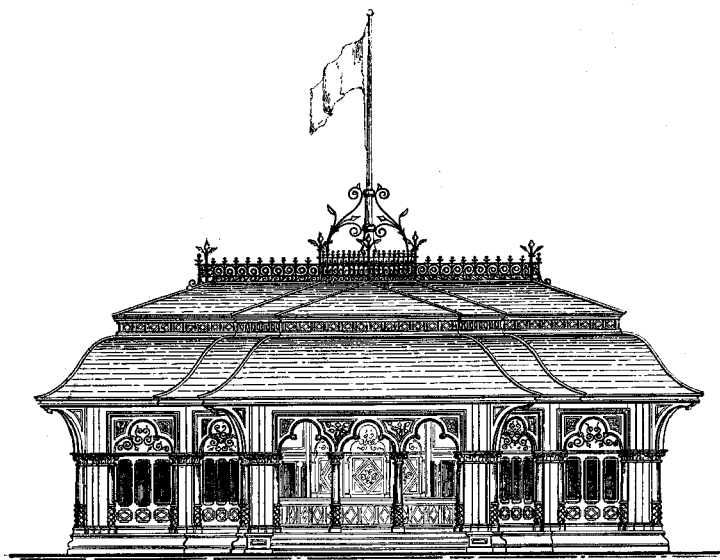
In their application they say:

"Nature has treasured up in different parts of the globe a number of healing springs, the great power of which, as curative agencies upon the human system, has been acknowledged since a remote period, and which are annually resorted to by thousands of patients.

"Exercise in the open air, change of habits and freedom from the cares of life, have always constituted necessary adjuncts to a successful cure.

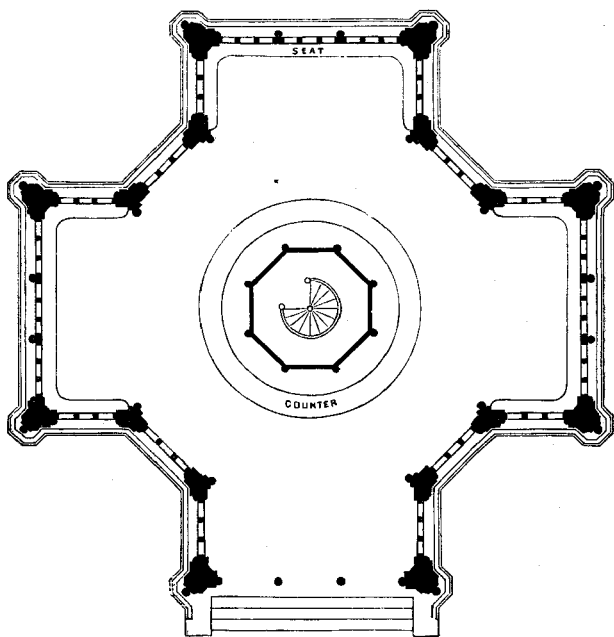
"The remoteness, however, of such springs exclude the less wealthy from their use. * * *

"Dr. Struve, who must be called the father of artificial min-



THE SPRINGS.

Front Elevation.



Plan.

eral waters," * * * "opened his institution in Dresden, Saxony, as early as 1820," * * * "conquered all prejudices, and now we find similar institutions in almost all the larger cities of Europe." * * * "They are situated on or in close proximity to promenades," * * * "enjoy the patronage of physicians, and are, in many cases, frequented in preference to watering-places."

"Why should the Central Park, with its many natural attractions and beautiful walks, not be devoted to the *direct* promotion of health in our community?"

To carry out these recommendations, Messrs. Schultz & Warker are, by agreement with the Board, at their own expense, to erect an ornamental structure north of the Green, upon a plan and in a manner to be approved by the Commissioners of the Park, at which they are to keep their mineral waters for sale, in the most pure and healthful, and agreeable forms.

The Board have deemed it better that the plan should be sufficiently comprehensive to include such of the waters of springs of established reputation in all parts of the world, as will bear transportation without deterioration.

The structure will be completed next year, at a cost of not less than \$30,000.

The conditions of the establishment of the springs reserve to the Commissioners of the Park entire control of the quality and kinds of water to be sold, and the most

rigid measures will be taken to secure excellence and reliability.

By the terms of the contract, a per-centage of the receipts on the annual sales is to be paid over by the contractors, to the Park funds.

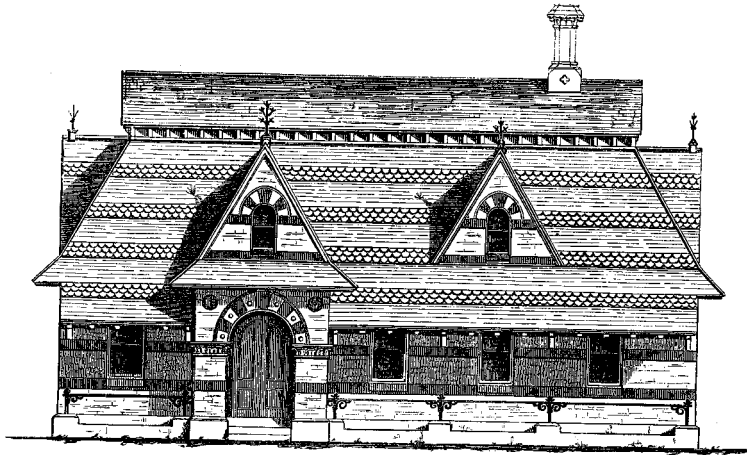
The increased demands upon the area of the play-ground by the boys of the public schools, have shown the desirability of a structure for their accommodation, at a point convenient to the play-ground.

The foundations of a moderate-sized building of brick and stone, of 52x25 feet, with an extension, 18x17 feet, have been laid at the north end of the play-ground, and in immediate connection with Transverse Road No. 1.

It is intended to supply a place of deposit and distribution of the bats and balls and other paraphernalia of players, on a system of checks, and also for appropriate toilet arrangements.

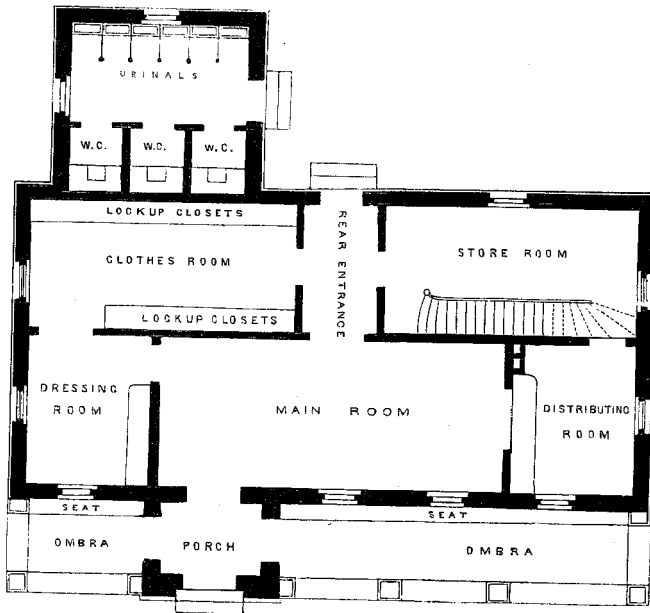
The play-ground is very much resorted to by the boys of the schools, and its capacity is often found insufficient to accommodate all who come to play. When the bases into which the ground is subdivided are filled, as is often the case, arrangements are made for the surplus players on the green.

A neat house of 12x20 feet, with an extension, has been erected in connection with the girls' play-ground,



BOYS' PLAY HOUSE.

Front Elevation.



Plan.

south of the Childrens' Gate, at 72d street and 5th avenue.

At a late date in the season, a circular was sent to the female departments of the public schools of the city, giving notice that the grounds were ready for use, and a considerable number of applications have been received.

The regulations will be necessarily strict, and the next season will, without doubt, see the grounds sufficiently occupied.

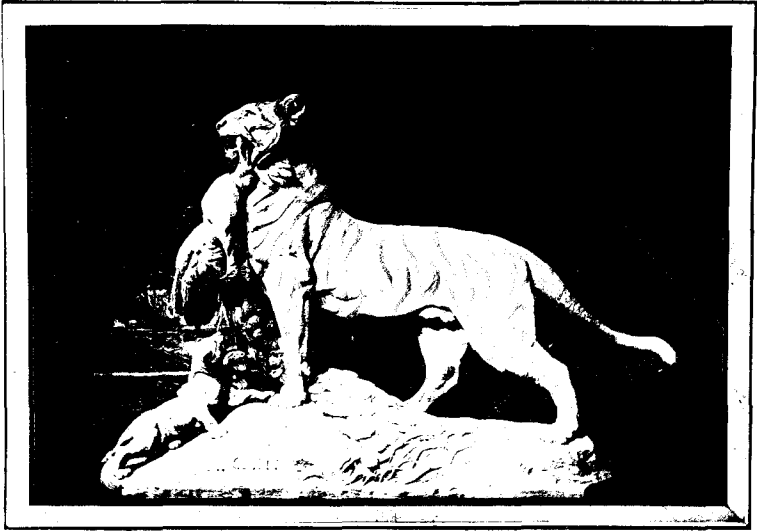
The Commissioners of the Park are thus developing, year by year, their intention to make the Park useful to the children of the city, and an aid in its beneficent system of common school education.

A house 12x20 on the shore of the Lake has also been erected for the use of the boatmen, and as a depositing place for clothing and furniture of the boats.

To provide a place for the additions that are being made to the collection of natural history and of antiquity from various parts of the world, the old Arsenal building will be put in a proper condition to receive them. Some progress towards this has already been made.

Among the donations to the Park collection during the past year, are the statue of the Tigress in bronze, by Cain, a work of great merit, and of a class of statuary peculiarly adapted to the Park scenery. Its height is six feet, and its extreme length seven and a half feet. It is

the gift of several public-spirited gentlemen, and is more particularly alluded to in a copy of the correspondence relating to it, which accompanies this report, marked Appendix A.



THE TIGRESS.

A statue by Carl Muller, in marble, representing the protection extended by a lad to a wounded dog, presented by A. K. GARDNER, M. D.

Capt. N. COLLINS, of the U. S. Navy, has been at much pains to secure for the Park rare specimens of the animal and vegetable kingdom, from various countries, among others a spotted deer from the Presidency of Madras, in British India.

Admiral GORDON, of the U. S. Navy, has also presented several interesting birds.

C. W. DABNEY, Esq., U. S. Consul at Fayal, in the Azores, has kindly forwarded, through J. W. ALSOP, Esq., of this city, a cow and calf from the Island of Flores, a diminutive specimen of mountain breed of cattle of peculiar interest.

G. F. PRICHARD, Esq., has presented two Mexican deer.

GEORGE T. POST, M. D., of Beyrout, Syria, presented a young eagle captured at Mount Lebanon.

Appendix B, hereto annexed, shows a statement in detail of the gifts, devises, and bequests during the past year, for the purpose of embellishing or ornamenting the Park, and of the names of the persons by whom the same are so given, devised or bequeathed.

In Appendix C, hereto annexed, will be found a list of the living animals in captivity, and of the mammals that have bred on the Park during the past year.

Various shanties, booths, and stands have for several years been placed on the walks bordering the Park, as is claimed, by some city authority or permission.

The Commissioners of the Park see no good results to arise from permission to encumber the sidewalks with this class of structures. They often operate unjustly upon others in a similar class of business, who pay rent and taxes.

The public passageways are narrowed and encumbered

by them so much as to be the occasion of very great inconvenience.

The Commissioners have, under the law of last winter, caused the removal of all these structures that came within the limits of their jurisdiction.

Some progress has been made in regulating the positions of the hacks standing outside of the Park. This class of carriages require further systemization and regulation, to prevent the impositions upon citizens and strangers, that are perpetrated by some of those having charge of them, and which the Commissioners of the Park have not sufficient power to prevent.

The officers and members of the Seventh Regiment N. G. S. N. Y. made application for a site in the Park, upon which to erect a monument to those of its members who have fallen in defence of the Union.

In their memorial the officers of the regiment say :
 "It is expressly agreed, upon the part of the regiment, that no designs will be presented, the execution of which would give to the Park a sepulchral character ; and it is expressly agreed, upon the part of the regiment, that this monument shall be so elegant in its character and design that it shall be an ornament to the Park, and to the city of New York." * * * "The committee of the Seventh Regiment upon this subject do not desire, and would not consent, by any act or any manner, to

change the purpose or character of the Park, which purpose is understood to be the health and amusement of the people."

The Commissioners of the Park have expressed their willingness to accede to the request of the regiment, "provided that such structure, nor any of its appendages, be of a sepulchral character, and that the design and plan of said structure shall be submitted to and approved by this Board, before any site be set apart; and provided that, before any site be set apart, the Association shall give satisfactory evidence to this Board of its pecuniary ability to complete the structure, according to such design and plan as shall be approved by the Board; and provided further, that said structure, when erected, shall be subject to the regulations made, or to be hereafter established, by the Board for the care and preservation of monuments, statuary, and such structures within the Park." The Commissioners of the Park have been thus guarded in dealing with this subject, because they have deemed the Park not an appropriate place for sepulchral memorials; it is for recreation and pleasure; its especial aim and object is, by all justifiable means, to dispel from the mind of the visitor, once within its enclosure, thoughts of business and memories calculated to sadden or oppress. It is a pleasure-ground. The beautiful cemeteries in the vicinity of the city offer abundant

opportunity to commemorate, by appropriate memorials, the virtues of those who are passing away from the strifes and distinctions of the cabinet or the field.

It will, on the whole, perhaps, always be wiser to defer the admission of monuments intended to commemorate individuals chiefly characterized by an active participation in any questions upon which the public mind is



THE LAKE AND BOW BRIDGE.

divided with a greater or less degree of vehemence, until time determines whether they are of those reputations that briefly flame and flicker, or of those whose lives of sacrifice and labor have formed characters that all ages delight to honor.

To prescribe a rule upon which sculpture is to be admitted to, or excluded from the Park, is often a very delicate duty.

The Commissioners of the Park will aim to discriminate on this subject with sole reference to the highest permanent development of the grounds for the objects that they were primarily intended to subserve.

The number of arrests made during the past year, and the offences by which they were occasioned, are given in the following tables.

The number of Arrests on the Park for the past five years are as follows :

MONTHS.	1863.	1864.	1865.	1866.	1867.
January.....	18	2	8	1	5
February.....	5	6	11	4	2
March.....	5	10	1	6	5
April.....	8	7	3	10	7
May.....	13	30	17	17	19
June.....	11	8	11	10	14
July.....	3	18	16	17	13
August.....	1	17	15	17	15
September.....	5	13	11	9	20
October.....	5	7	6	9	19
November.....	7	6	7	7	3
December.....	5	6	9	3	5
Total.....	86	130	115	110	127

These arrests were for the following causes :

CAUSES.	1863.	1864.	1865.	1866.	1867.
Fast driving.....	47	63	60	52	57
Fast riding.....	1	5	3	1	0
Breaking shrubs and flowers...	9	2	0	2	1
Assault and battery.....	1	6	6	1	5
Thieving.....	1	6	1	2	2
Disorderly conduct.....	23	48	34	31	41
Interfering with an officer.....	0	0	0	4	0
Insane persons.....	0	0	0	3	2
Impersonating an officer.....	0	0	0	1	0
Other offences.....	4	0	11	13	19
Total.....	86	130	115	110	127

The penalties imposed upon those arrested and taken before the Magistrate during the year, were as follows :

Fined ten dollars and less each.....	72
Bound over for trial, or to keep the peace.....	5
Sent to House of Correction or Asylum.....	8
Committed for ten days each.....	1
Discharged with reprimand or otherwise.....	41
Total.....	127

More than 100 lost children have been returned to their friends, their homes, or sent to the Police Stations during the year.

The increased expense of the Department of Park keepers during this year amounts to \$5,156 89.

*The Assessed Value of the Three Wards surrounding the Park,
for twelve years, is as follows :*

WARD.	1856.	1857.	1858.	1859.
Twelfth. . . .	\$8,149,360	\$8,134,013	\$8,476,890	\$10,062,725
Nineteenth . .	8,041,183	8,558,624	10,971,775	12,621,894
Twenty-second .	10,239,022	10,489,454	11,563,506	13,261,025
Total . . .	*\$26,429,565	\$27,182,091	\$31,012,171	\$35,945,644

WARD.	1860.	1861.	1862.	1863.
Twelfth. . . .	\$11,857,114	\$12,454,375	\$13,100,385	\$14,134,825
Nineteenth . .	16,830,472	16,986,152	17,903,137	19,003,452
Twenty-second .	14,775,440	17,666,866	18,041,857	18,281,222
Total . . .	\$43,463,026	\$47,107,393	\$49,045,379	†\$51,419,499

WARD.	1864.	1865.	1866.	1867.
Twelfth. . . .	\$15,493,575	\$18,134,805	\$18,381,650	\$24,940,737
Nineteenth . .	20,462,607	23,070,890	37,636,050	46,249,340
Twenty-second .	18,756,276	19,824,265	24,052,715	30,915,240
Total . . .	\$54,712,458	\$61,029,960	\$80,070,415	\$102,105,317 26,429,567

Showing a total increased valuation in these three
wards, from 1856 to 1867, of \$75,675,750

* The area occupied by the Park to One Hundred and Sixth street was dropped from the assessment books this year, the last tax collected on it being that of 1855.

† The area occupied by the Park from one Hundred and Sixth to One hundred and Tenth street, was dropped from the assessment books this year.

The rate of tax for the year 1867 is 2.67, yielding on the increased valuation above stated an increased tax of \$2,020,542.53.

The total expenditure for construction from

May 1, 1857, to January 1, 1868, is.....	\$5,185,299 11
The cost of the land of the Park to the city is	5,028,844 10
Total cost of Park up to this time...	<u>\$10,214,143 21</u>

Total increased tax in three wards... \$2,020,542 53

The annual interest on the cost

of the land and improvement

of the Park up to this time,

at six per cent..... \$612,848 58

Deduct one per ct. on \$399,300

of the above stock, issued at

five per cent..... 3,993 00

\$608,855 58

Excess of increased tax in three wards over

interest on cost of land and improvements.. \$1,411,686 95

These tables show an extraordinary rapidity of increase in the values of the real estate in the upper portions of the Island, the Nineteenth Ward being chiefly conspicuous for the advance in its values. This is not entirely, but largely attributable to the improvements of the Park.

The newly-projected avenues and improvements of the past year in the north end of the Island, between the

Park and the Hudson River, have given fresh impetus to values, and new opportunities for permanent development of property.

The subjoined table shows the days on which Musical Entertainments were given at the Park during the past nine years.

1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.
July 9.	Aug. 25.	Aug. 10.	June 7.	May 30.	June 4.	June 3.	June 2.	June 8.
" 23.	Sept. 1.	" 17.	" 14.	June 6.	" 11.	" 10.	" 9.	" 15.
" 30.	" 8.	" 24.	" 21.	" 18.	" 18.	" 17.	" 16.	" 22.
Aug. 6.	" 15.	" 31.	" 28.	" 20.	" 25.	" 24.	" 23.	" 29.
" 27.	" 22.	Sept. 7.	July 5.	July 2.	July 2.	July 1.	" 30.	July 4.
Sept. 3.	Oct. 13.	" 14.	July 12.	July 4.	" 4.	" 4.	July 4.	" 6.
" 10.	" 27.	" 21.	" 19.	" 11.	" 9.	" 8.	" 7.	" 13.
Oct. 1.	Nov. 18.	" 28.	" 26.	" 18.	" 16.	" 15.	" 14.	" 20.
" 15.		Oct. 5.	Aug. 2.	" 25.	" 23.	" 29.	" 21.	" 24.
		" 12.	" 9.	Aug. 1.	" 30.	Aug. 5.	" 28.	" 27.
			" 16.	" 8.	Aug. 6.	" 12.	Aug. 4.	" 31.
			" 23.	" 15.	" 13.	" 16.	" 11.	Aug. 7.
			" 30.	" 22.	" 20.	" 19.	" 13.	" 14.
			Sept. 6.	" 29.	" 27.	" 23.	" 25.	" 17.
			" 13.	Sept. 5.	Sept. 3.	" 26.	Sept. 1.	" 21.
			" 20.	" 12.	" 10.	" 8.	" 8.	" 24.
			" 27.	" 26.	" 17.	Sept. 2.	" 15.	" 25.
			Oct. 4.	Oct. 3.	" 24.	" 6.	" 22.	" 31.
			" 18.	" 10.	Oct. 1.	" 9.	" 29.	Sept. 4.
			" 25.	" 17.	" 8.	" 13.	Oct. 6.	" 7.
			Nov. 1.		" 15.	" 16.	" 13.	" 11.
					" 22.	" 20.	" 20.	" 14.
					" 29.	" 23.	" 27.	" 18.
					Ev'nings	" 27.		" 21.
					July 6.	" 30.		" 25.
					" 13.	Oct. 4.		" 28.
					" 20.	" 7.		" 2.
						" 14.		" 9.
						" 21.		" 12.
						" 23.		" 16.
								" 19.
								" 23.
								" 26.

TOTAL NUMBER OF MUSIC DAYS.

1859.....	10
1860.....	9
1861.....	10
1862.....	21
1863.....	20
1864.....	26
1865.....	30
1866.....	23
1867.....	33

It will be seen that there have been ten more music-

days than in the year 1866, and three more than in any previous year.

In that part of the year when the temperature invites the people to the pleasures of the open air, musical entertainments are given on the Mall and on the Lake, and the performances are attended with unabated interest.

Travellers in the European capitals almost universally go to listen to the music which is generally furnished in the public squares by the Government Army Bands. The brilliancy of the gatherings and the effects of the music are among the most pleasing of their remembrances.

Comparisons of the excellence of these bands, of their numbers, modes of performance, their appearance, of the compositions played, of the surroundings, and of the arrangements for the public convenience and gratification, are not unfrequent, begetting an emulation which results in constant efforts at improvement, the reputation of the leader depending upon his exertions to excel.

The progress lately made in the quality of these bands is quite marked. At the late Paris Exhibition prizes were offered for the best Military Band. The first premium was divided among the bands of three cities, of which the rival cities of Berlin and Vienna were two. The combination of instruments usually known as a military band has the unquestioned preference over the

orchestral, it being possible to bring out the full effects of the latter only within inclosed gardens or halls. The more refined and delicate notes are, in the open air, except on a very still day, lost to all but the few most contiguous to the instruments, by reason of the want of means of confinement, or of producing reverberation of the sounds. Within two or three years several new musical instruments, producing entirely novel effects in combination, have been invented in Europe, and are being brought into use. These instruments, being quite costly, are generally furnished the band at Government expense, and no pains are omitted to bring the bands up to the highest degree of efficiency in performance, and to a disciplined and orderly appearance.

The music in the Park improves in character; the leader of the Park Band, and its members, are earnest in their efforts to attain the highest excellence. At its own expense the Band, during the year, provided three instruments newly brought into use in Europe, known respectively as Tenor Clarinet, Saxophone, a contra bass or Bombardome, an instrument of deeper quality of tone than has heretofore been used in this country, and with their aid a quality has been added to the music that is both pleasing and effective.

The performances have been always reliable on the fixed days, Saturdays and Wednesdays; the programmes

have been varied; specimen works, considered standard by authors held in high esteem, are followed by melodies more popular, because more familiar to the ear.

In every instance where new music has promised to be at all generally acceptable, it has, after the work of arrangement for Park execution is completed, taken its place on the programmes.

The number of pieces played is greater than at any series of the same number of concerts elsewhere.

The lovers of what is called the classical will be glad to know that several of the best compositions, such as "Iphigeneia in Tauris" by Gluck; "Tannhauser" of Wagner; "Leonora" of Beethoven; and others of the same class, have been received by the audiences with evident pleasure.

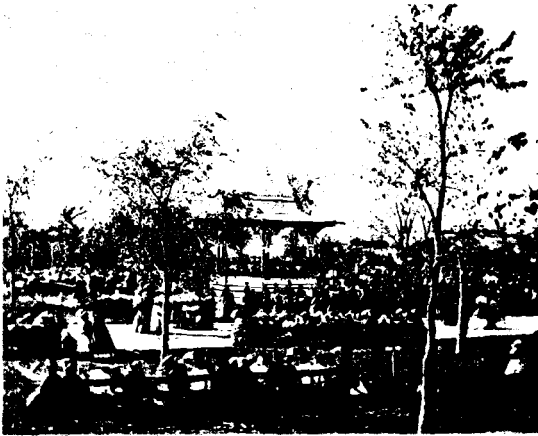
It is not saying too much to assert that while the character of the music is not excelled anywhere, at least in this country, the audiences are attentive and appreciative. It ought not to be the subject of remark that good order always prevails at these entertainments, it is chiefly because every individual takes it upon himself to take care of himself and not to interrupt or annoy others.

It is desired that the usual modes of expressing satisfaction with the performances should be dispensed with on the Park.

What is now needed to give fullness and perfectness to

the music is an increase in the number of the performers, and others of the new instruments lately introduced in Europe.

There is no popular entertainment more refined, more soothing and agreeable, than that of the harmony of sweet sounds under the influence of leaves and flowers, and all the other elements of the natural landscape.



A MUSIC DAY.

The cost of these entertainments, kept within reasonable limits, is but trifling when the numbers who find pleasure in them is taken into account.

Application has been made by the Board to the Secretary of War, and the Secretary of the Navy, for the ser-

vices of the Army and Navy Bands, stationed near the city, for one day in each week during the season.

In their communication on this subject to these officers, the Commissioners of the Park say :

“If this could be insured, we should be able to double the music days, and by combination, perhaps, go even further than this.” * * *

“We are thus specific because regularity and certainty in the recurrence of musical performances at the Park are essential, where so large numbers would be disappointed in case of failure.” * * *

“We would, therefore, respectfully request that such directions be given to the officer in charge here respecting this subject, as in your judgment will be consistent with the demands of the Government service, and, at the same time, give to the Commissioners of the Park, as far as practicable, the control of the Band on the days that you may deem proper to order it to the Park for duty.”

For reasons, which are given in response to these applications, and which seem to be well grounded, neither the Secretary of War nor of the Navy, felt at liberty to comply with the suggestions of the Commissioners in this regard.

Though assurances were given by some of the City Railroads of contributions toward sustaining the music, no moneys have been received from any of them for this purpose.

The total expenses of the music for the year, was... \$4,912 00

Of this was contributed by those licensed to

sell refreshments and hire boats.....\$925 00

By W. R..... 10 00

935 00

Leaving a balance paid from the funds for main-

tenance of the Park of..... \$3,977 00



RUSTIC STONE ARCH CARRYING THE
DRIVE OVER THE BROOK.

The subjoined table shows the statistics of the BOAT service for the year 1867.

	CALL BOATS.	PASSAGE BOATS.
For the week ending April 13th, . .	46	1941 $\frac{1}{2}$
" " " 20th, . .	1671 $\frac{1}{2}$	713
" " " 27th, . .	1471 $\frac{1}{2}$	955
" " May 4th, . .	1751 $\frac{1}{2}$	9611 $\frac{1}{2}$
" " " 11th, . .	157	7391 $\frac{1}{2}$
" " " 18th, . .	364	1,756
" " " 25th, . .	1931 $\frac{1}{2}$	1,474
" " June 1st, . .	4411 $\frac{1}{2}$	2,3791 $\frac{1}{2}$
" " " 8th, . .	3881 $\frac{1}{2}$	2,1791 $\frac{1}{2}$
" " " 15th, . .	547	4,1731 $\frac{1}{2}$
" " " 22d, . .	667	4,6501 $\frac{1}{2}$
" " " 29th, . .	3651 $\frac{1}{2}$	3,485
" " July 6th, . .	7421 $\frac{1}{2}$	6,020
" " " 13th, . .	6491 $\frac{1}{2}$	5,398
" " " 20th, . .	7701 $\frac{1}{2}$	4,0791 $\frac{1}{2}$
" " " 27th, . .	7451 $\frac{1}{2}$	4,3501 $\frac{1}{2}$
" " Aug. 3d, . .	5381 $\frac{1}{2}$	3,134
" " " 10th, . .	638	3,5801 $\frac{1}{2}$
" " " 17th, . .	1,187	4,7361 $\frac{1}{2}$
" " " 24th, . .	1,1371 $\frac{1}{2}$	4,2551 $\frac{1}{2}$
" " " 31st, . .	1,081	5,0211 $\frac{1}{2}$
" " Sept. 7th, . .	853	3,9901 $\frac{1}{2}$
" " " 14th, . .	1,1121 $\frac{1}{2}$	4,0621 $\frac{1}{2}$
" " " 21st, . .	1,100	3,256
" " " 28th, . .	5481 $\frac{1}{2}$	3,0831 $\frac{1}{2}$
" " Oct. 5th, . .	5221 $\frac{1}{2}$	2,4411 $\frac{1}{2}$
" " " 12th, . .	3431 $\frac{1}{2}$	1,627
" " " 19th, . .	7871 $\frac{1}{2}$	2,699
" " " 26th, . .	4511 $\frac{1}{2}$	1,9351 $\frac{1}{2}$
" " Nov. 2d, . .	3861 $\frac{1}{2}$	1,3201 $\frac{1}{2}$
" " " 9th, . .	971 $\frac{1}{2}$	6291 $\frac{1}{2}$
TOTAL,	17,3351 $\frac{1}{2}$	89,2821 $\frac{1}{2}$

The total revenue derived from these passengers, by the contractor, was \$12,412 20.

Total expense of conducting the boats, \$10,844 93.

As compared with the year 1866, there appears an increase of 23,281 persons carried.

Three new boats have been added to the former number. There are now running on the Lake 25 ; one has also been placed on Harlem Lake.

A visitor can pass an hour very pleasantly, and derive new impressions of portions of the Park from the water, in a brief tour of the Lake.

The rates for the use of the boats are very low, barely sufficient to pay the expenses of maintaining them.

The sum of \$1,000 has been received as a compensation from the contractor, for the privilege of placing and operating the boats on the Lake.



Following an intention, announced in their last report, the Commissioners of the Park have instituted a system of regular meteorological observations, comprising barometrical, thermometrical, and hygrometrical observa-

tions, as well as those showing the force and direction of the winds, and other atmospheric phenomena.

Although the Central Park Observatory is not yet provided with astronomical instruments of especial value or power, yet observations have been made which leave no inconsiderable records, and which are full of interest. The arrangements of the Observatory are such as to compare favorably with those of much longer existence.

Notes of the results obtained at the Observatory, are published weekly in several of the most prominent of the city journals, and have attracted attention all over the country.

It will be the aim of the Commissioners of the Park to render this institution practically useful to the whole community, as rapidly as circumstances will admit.

It is not to be denied that the city of New York should maintain an Observatory within its limits, of the first class. The one now modestly inaugurated at the Park, it is hoped, will grow into an establishment that will be worthy of the rank of this city, and such a one as has been contemplated and talked about for more than a quarter of a century.

The condensed tables of these observations for the year 1867, are given in schedule D.

The unusual moisture of the spring and summer stimulated vegetation to a very marked development.

The grass has required more frequent mowing, rendering this service more expensive than usual.

Those portions of the Park which could be allowed to grow up without seriously detracting from its appearance, were mown with less frequency.

The acreage cut over with machines and by hand, with the expense of each method of cutting, are shown approximately in the following figures:

	Number of acres.	Price per acre.	Cost.
Cut by machine.....	2,101.75.....	\$2.....	\$4,239 50
Cut by scythe.....	465.70.....	7.....	3,259 70
Total number of acres...	2,567.45	Total cost..	\$7,499 40

To save expense and to serve the purpose of fertilization, much of the grass cut frequently is not removed from the ground.

The quantity of green grass sold was 3,186 cart loads, of about 90 cubic feet each. This grass is carried from the field to certain gates of the Park, and by a system of tickets, sold principally to milk-men—often to those who keep horses for private use, or in the large establishments of livery or railroad stables.

The amount of money received this year from the sale of grass was \$4,774 46. In addition to the quantity sold, sufficient is retained to feed the Park animals, and hay is made sufficient for winter, and some for sale.

There have been 132 days during the year on which rain fell—an unusual number; the quantity of water that

fell is far above the average rain fall, being 45.10 inches. This shows itself immediately in the expense of keeping the roads and walks in order, the wash being greater in the sudden and heavy showers. The increased expenses under this head are \$8,716 32. About 11,000 cubic yards of gravel have been used during the year, in the repair of the roads and walks ; 6,084 hand-cart loads, or about 3,600 cubic yards of manure, have been gathered from the roads, and composted for fertilizing purposes for next year.

Notwithstanding the unprecedented number of rainy days during the year, the visitors at the Park have been very large, the number, as shown by the following tables, being 7,228,855.



CHILDREN AT THE LAKE.

Table of the number of Visitors at the Park during each month of the year, for the past six years.

MONTH.	1862.			1863.			1864.			1865.			1866.			1867.		
	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.
January..	254,672	1,984	82,778	51,462	3,952	88,069	555,668	3,958	88,246	658,741	1,641	77,864	640,964	2,755	99,917	481,135	2,485	169,868
February..	302,327	1,671	39,052	49,050	3,489	49,344	131,322	6,244	55,088	163,858	4,472	70,768	290,191	3,897	68,329	70,501	3,956	59,665
March....	81,865	4, 2	32,446	41,064	4,490	44,520	90,680	7,635	67,757	77,748	6,191	86,548	64,200	5,943	78,754	76,144	6,205	59,988
April.....	76,927	7, 3	58,567	115,764	10,094	79,095	95,386	14,192	87,575	188,019	11,844	125,864	77,141	3,882	53,028	292,252	14,188	126,853
May.....	183,701	10,349	77,974	187,999	449	3,618	151,678	13,533	147,344	191,527	10,386	126,759	269,604	12,394	163,868	224,847	12,047	126,079
June.....	202,000	8,919	84,254	159,779	12,630	110,792	121,574	14,802	111,253	299,974	11,874	153,279	375,160	13,390	163,563	336,751	9,831	135,669
July.....	181,048	4,814	62,074	89,160	9,378	92,863	380,165	8,085	242,511	467,729	8,750	146,023	313,851	6,372	130,924	337,597	7,150	126,964
August....	272,093	4,715	69,502	189,866	12,250	115,970	186,016	4,778	89,524	467,665	9,705	157,756	330,011	5,321	115,691	309,151	4,588	100,125
September	192,236	7,334	70,184	181,850	9,211	163,600	225,256	5,388	92,159	340,355	9,985	180,526	356,881	7,331	154,127	361,863	6,687	132,695
October...	153,387	7,822	67,099	150,418	10,035	103,581	148,488	9,395	98,112	205,444	10,429	104,709	242,641	12,135	263,135	260,430	7,066	158,821
November	97,507	7,049	60,789	75,231	9,105	50,990	87,291	9,308	92,361	94,578	8,097	124,431	125,049	8,582	134,618	91,205	6,804	92,085
December.	55,153	5,125	53,996	227,163	5,551	65,558	118,725	8,184	51,281	68,593	5,486	71,181	327,199	4,755	62,459	156,594	3,957	94,085
Totals..	1,996,918	71,645	709,010	1,469,335	90,724	922,450	2,395,199	100,897	1,143,161	3,210,056	98,360	1,425,241	3,412,592	56,737	1,579,808	2,993,770	84,994	1,381,697

The largest number of pedestrians entering the Park during any one month of 1867 was in January..... 481,135
The largest number of equestrians entering the Park during any one month was in April..... 14,188
The largest number of vehicles entering the Park during any one month was in January..... 169,886
Allowing two extra for each vehicle, the number of visitors in 1867 was... 7,223,855

Table of the number of Visitors at each entrance to the Park for each month during the year.

PEDESTRIANS.														
1867.	59th st. and 5th av.	72d st. and 5th av.	79th st. and 5th av.	90th st. and 5th av.	102d st. and 5th av.	59th st. and 6th av.	59th st. and 7th av.	59th st. and 8th av.	72d st. and 8th av.	85th st. and 8th av.	96th st. and 8th av.	100th st. and 8th av.	110th st. and 6th av.	110th st. and 7th av.
January	74,476	49,738	22,085	1,623	229	112,467	37,385	108,048	58,714	1,716	224	568	13,737	125
February....	17,089	6,946	5,053	2,010	145	15,225	7,321	9,003	3,666	1,153	204	345	2,341	.....
March	19,282	4,651	3,673	1,762	180	15,042	14,168	11,086	2,889	614	263	476	2,058	.....
April	75,632	17,592	12,227	4,124	508	51,858	57,780	52,779	9,406	3,301	425	793	5,827	.....
May	56,121	18,999	8,402	5,850	488	31,331	55,482	31,955	5,204	3,532	583	1,022	5,878	.....
June	67,348	26,511	7,075	5,462	514	73,326	69,121	64,163	11,155	4,177	568	1,041	6,350	.....
July	85,406	20,708	12,708	5,075	540	54,921	66,881	65,504	12,494	4,628	643	1,122	6,968	.....
August	65,592	29,353	18,441	4,396	469	56,614	51,545	62,219	9,868	4,043	570	1,021	5,015	.....
September...	74,359	23,356	14,737	6,784	676	57,984	77,801	86,643	7,488	4,320	708	1,229	5,718	.....
October	54,165	17,265	10,524	4,567	528	54,905	50,165	49,628	9,078	2,865	575	1,006	5,159	.....
November...	20,392	6,580	4,920	2,162	333	13,270	14,330	18,870	3,550	2,041	406	629	3,722	.....
December....	32,455	17,218	7,859	2,004	271	35,068	14,707	32,095	5,982	1,775	285	484	6,691	.....
Totals.....	642,316	238,917	127,704	45,819	4,881	572,011	516,686	591,933	139,494	34,170	5,454	9,736	69,524	125

EQUESTRIANS.

1867.	59th st. and 5th av.	72d st. and 5th av.	79th st. and 5th av.	90th st. and 5th av.	102d st. and 5th av.	59th st. and 8th av.	72d st. and 8th av.	85th st. and 8th av.	96th st. and 8th av.	100th st. and 8th av.	110th st. and 6th av.	116th st. and 7th av.
January	1,311	139	130	124	3	476	40	32	4	12	207	7
February	2,035	230	301	200	37	531	145	14	7	13	443	.....
March	3,286	138	234	269	8	1,564	138	19	29	13	507	.....
April	8,208	892	443	621	10	2,139	340	117	84	15	1,319	.....
May	7,497	426	173	524	28	1,538	242	113	139	20	1,347	.....
June	5,476	510	174	461	11	1,239	311	153	110	9	1,377	.....
July	3,642	293	257	342	20	1,235	206	126	51	17	991	.....
August	2,041	335	216	363	24	724	127	74	47	15	622	.....
September	3,432	271	212	236	13	1,155	87	92	66	27	1,096	.....
October	3,382	219	131	343	22	1,544	164	77	115	31	1,038	.....
November	3,851	186	99	211	31	1,150	180	81	66	32	917	.....
December	1,964	125	58	234	6	1,101	62	43	7	7	350	.....
Totals	46,125	3,764	2,428	3,928	213	14,396	2,042	941	725	211	10,214	7

VEHICLES.

January	91,287	1,995	3,096	928	43	31,240	2,056	475	539	590	37,074	45
February	24,847	1,700	3,223	1,700	39	6,063	1,649	262	306	251	19,025	.....
March	30,156	811	2,192	963	45	9,053	798	168	341	164	15,297	.....
April	49,046	6,591	6,099	3,279	141	22,233	1,480	1,067	532	395	35,990	.....
May	54,325	5,264	2,014	4,065	223	11,288	2,114	1,031	750	346	44,659	.....
June	55,004	6,308	2,754	5,586	242	12,274	1,617	1,406	729	561	49,188	.....
July	54,433	2,771	2,658	3,651	180	12,548	2,061	1,705	596	632	45,729	.....
August	41,643	3,380	4,349	2,322	222	9,250	2,751	1,467	671	558	33,512	.....
September	50,605	3,113	3,005	2,873	263	14,190	1,100	1,512	781	974	54,279	.....
October	81,268	2,834	3,056	3,302	295	14,434	1,198	1,200	805	1,161	49,268	.....
November	38,239	2,560	1,905	2,037	218	7,324	2,345	1,124	521	835	34,927	.....
December	40,645	4,070	2,213	1,848	90	10,275	527	1,001	390	663	32,313	.....
Totals	611,498	41,397	36,564	32,564	2,001	160,172	19,696	12,418	6,961	7,130	451,261	45

The largest number of pedestrians that entered the Park on any one day was on April 21—59,780.
The smallest number of pedestrians that entered the Park on any one day was on December 12—66.
The largest number of equestrians that entered the Park on any one day was on April 19—836.
The smallest number of equestrians that entered the Park on any one day was on January 17—2.
The largest number of vehicles that entered the Park on any one day was on January 19—13,508.
The smallest number of vehicles that entered the Park on any one day was on December 12—187.

STATEMENT

Showing Sunday attendance at the Central Park, by months, during the past five years.

MONTH.	1863.				1864.				1865.				1866.				1867.			
	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.
January.....	17,589	792	8,254	22	184,735	757	9,881	11,097	183,477	201	6,560	4,404	129,200	323	8,363	6,453	116,570	226	5,448	17,279
February.....	13,334	522	11,794	..	68,355	1,231	14,972	.....	21,755	819	7,293	.....	71,533	486	9,403	.....	24,660	525	7,296	969
March.....	18,019	661	6,476	..	59,453	1,755	16,911	.....	38,279	1,152	16,840	.....	30,657	732	12,332	.....	43,699	1,305	19,522	2,746
April.....	42,043	1,439	12,781	..	50,245	2,631	15,552	.....	107,513	2,232	27,346	.....	13,064	1,423	32,702	.....	161,768	2,460	20,759	.....
May.....	63,994	2,141	20,423	..	115,493	1,880	50,601	.....	55,988	1,186	17,122	.....	149,846	1,960	28,482	.....	117,852	1,666	23,982	.....
June.....	65,113	2,134	17,881	..	74,707	1,997	16,561	.....	118,982	1,663	26,509	.....	121,849	1,025	20,297	.....	129,725	1,231	23,821	.....
July.....	38,613	1,018	13,845	..	135,673	1,416	29,488	.....	171,737	1,626	31,007	.....	125,517	1,289	25,653	.....	123,578	984	27,589	.....
August.....	73,428	2,606	21,875	..	55,298	540	11,400	.....	106,430	1,595	27,467	.....	127,784	954	24,184	.....	130,676	612	24,402	.....
September.....	43,651	1,498	21,729	..	51,287	576	12,962	.....	107,416	2,153	34,205	.....	153,624	1,496	37,637	.....	161,115	1,365	32,096	.....
October.....	60,159	1,575	18,206	..	46,698	1,196	16,743	.....	96,522	1,832	32,736	.....	104,022	1,312	22,117	.....	104,791	1,255	33,094	.....
November.....	40,775	1,614	16,550	..	32,634	1,478	15,728	.....	40,630	1,386	24,450	.....	47,440	1,144	20,304	.....	30,657	929	10,966	.....
December.....	25,276	461	7,032	..	57,542	403	7,793	9,624	26,113	810	10,748	4,989	101,536	886	13,634	26	25,507	749	11,791	6,822
Totals.....	501,944	16,455	176,826	22	882,123	15,860	193,590	20,721	1,021,878	16,155	262,373	9,898	1,226,072	13,080	255,220	6,479	1,170,898	18,540	257,066	29,316

Table showing the number of Visitors entering the Park during each hour of the day for each month during the year.

PEDESTRIANS.

MONTH.	From 5 A. M. to 6 A. M.	6 A. M. to 7 A. M.	7 A. M. to 8 A. M.	8 A. M. to 9 A. M.	9 A. M. to 10 A. M.	10 A. M. to 11 A. M.	11 A. M. to 12 M.	12 M. to 1 P. M.	1 P. M. to 2 P. M.	2 P. M. to 3 P. M.	3 P. M. to 4 P. M.	4 P. M. to 5 P. M.	5 P. M. to 6 P. M.	6 P. M. to 7 P. M.	7 P. M. to 8 P. M.	8 P. M. to 9 P. M.	9 P. M. to 10 P. M.	10 P. M. to 11 P. M.
	6 A. M.	7 A. M.	8 A. M.	9 A. M.	10 A. M.	11 A. M.	12 M.	1 P. M.	2 P. M.	3 P. M.	4 P. M.	5 P. M.	6 P. M.	7 P. M.	8 P. M.	9 P. M.	10 P. M.	11 P. M.
January.....		7	1,254	3,564	9,134	18,277	23,923	26,169	52,799	89,893	77,146	55,653	23,767	14,059	36,465	85,676	12,463	1,456
February.....			569	1,468	2,695	3,795	4,231	6,430	9,140	13,862	13,262	8,890	4,215	1,336	551	7		
March.....		465	1,336	2,408	3,957	5,161	6,208	4,350	6,397	12,509	14,847	10,606	5,471	1,763	541	111	14	
April.....		1,183	2,230	3,722	6,304	10,397	11,330	14,123	26,653	54,071	67,772	53,962	25,006	9,294	4,889	1,573	8	
May.....		1,830	2,551	4,260	7,375	11,083	11,681	11,642	20,435	34,363	42,686	40,015	21,402	8,430	4,312	2,767	15	
June.....		2,996	3,693	6,322	10,950	15,648	16,055	12,766	23,353	45,576	63,694	55,169	33,199	16,462	14,019	11,421	4,239	1,184
July.....	1,525	3,129	4,783	7,188	12,983	13,960	17,453	13,296	19,962	35,644	53,370	54,556	37,663	21,030	16,418	13,492	5,159	926
August.....	638	2,041	3,158	5,425	9,730	14,838	15,004	11,120	19,583	41,379	65,493	54,582	28,321	13,524	11,601	8,761	3,121	832
September.....	321	1,562	3,240	5,117	10,314	17,693	19,938	16,880	27,999	52,162	75,154	62,630	36,867	14,279	8,271	6,379	2,610	447
October.....		869	1,806	3,095	6,189	10,665	13,301	11,431	20,552	46,151	66,947	46,862	20,302	6,260	3,640	2,166	254	
November.....		551	1,326	2,820	5,218	7,743	7,720	6,537	9,256	17,369	18,238	9,105	2,793	1,228	859	440	2	
December.....			826	2,517	6,610	10,733	12,353	10,547	17,906	26,959	26,377	19,766	8,603	5,623	4,710	2,127	931	176
Totals.....	2,484	14,573	26,777	47,906	91,464	145,043	159,252	145,291	254,035	469,968	534,986	471,136	247,609	113,868	105,776	85,220	28,561	5,021

EQUESTRIANS.

January.....		1	311	224	229	198	260	166	266	264		210	112	30	13	11	3	
February.....			194	292	296	276	229	297	278	499	607	616	236	29	7			
March.....		390	549	537	539	527	429	302	395	581	756	742	354	89	14		1	
April.....		1,706	1,474	712	653	675	581	578	855	1,193	1,970	2,075	1,209	395	72	25		
May.....		2,130	1,296	567	551	541	386	247	339	671	1,191	1,937	1,380	554	168	89		
June.....		1,858	853	424	387	294	309	193	272	420	690	1,001	1,297	1,136	527	145	18	7
July.....	626	1,157	634	518	304	306	203	110	178	272	381	434	503	669	520	133	21	6
August.....	232	510	335	242	215	202	126	82	146	232	320	486	548	508	277	71	5	
September.....	236	900	611	413	396	431	213	73	172	337	553	725	732	459	214	84	8	1
October.....	107	892	799	491	490	519	434	225	355	437	620	736	627	249	74	8		
November.....		475	648	430	462	449	395	220	298	624	1,110	1,035	469	149	32	8		
December.....			300	295	261	269	213	185	268	493	609	718	214	47	1			
Totals.....	1,258	10,019	8,004	5,145	4,703	4,737	3,753	2,681	3,975	6,031	9,135	10,715	7,771	4,364	1,919	574	56	14

VEHICLES.

MONTH.	From 5 A. M. to 6 A. M.	6 A. M. to 7 A. M.	7 A. M. to 8 A. M.	8 A. M. to 9 A. M.	9 A. M. to 10 A. M.	10 A. M. to 11 A. M.	11 A. M. to 12 M.	12 M. to 1 P. M.	1 P. M. to 2 P. M.	2 P. M. to 3 P. M.	3 P. M. to 4 P. M.	4 P. M. to 5 P. M.	5 P. M. to 6 P. M.	6 P. M. to 7 P. M.	7 P. M. to 8 P. M.	8 P. M. to 9 P. M.	9 P. M. to 10 P. M.	10 P. M. to 11 P. M.
January.....	6	150	1,874	8,579	5,798	8,812	10,442	8,956	13,119	20,105	30,187	32,575	16,279	7,189	4,095	3,107	2,054	1,047
February.....			957	1,737	2,531	3,444	3,730	3,884	4,314	7,502	9,606	10,255	7,131	2,617	806	229	158	78
March.....		861	1,455	2,494	3,827	4,933	5,560	2,686	3,381	6,929	9,179	9,023	6,633	2,441	1,143	451	10	2
April.....	479	2,393	3,542	4,195	5,018	5,134	5,229	7,019	10,301	17,260	22,726	20,951	13,465	6,328	2,225	596	13	.....
May.....		2,184	3,271	4,011	4,674	5,850	5,716	4,325	5,455	9,010	15,910	22,355	21,558	13,689	6,245	1,711	2	.....
June.....		2,721	3,821	4,258	4,814	5,161	4,351	3,594	4,504	6,956	11,879	18,609	21,106	21,720	14,636	5,088	1,623	712
July.....	885	1,930	3,943	4,470	4,962	5,169	4,894	2,558	3,163	5,607	9,621	13,626	16,170	20,551	18,836	7,226	2,588	815
August.....	509	1,613	3,556	4,013	4,126	4,532	4,076	2,659	3,706	5,805	9,166	12,298	12,569	14,281	10,308	4,551	1,763	754
September.....	840	1,284	3,797	4,441	4,542	5,579	5,480	2,657	3,710	7,503	13,939	20,048	21,420	18,502	10,809	4,850	2,351	993
October.....	36	977	3,325	4,264	5,114	6,016	6,782	6,075	8,364	17,414	28,348	32,176	23,924	9,619	4,050	1,637	.....	.....
November.....		897	2,531	3,297	3,993	4,421	4,421	2,821	3,979	9,283	17,124	19,231	12,124	5,522	1,934	634	18	.....
December.....			1,470	2,683	3,845	4,788	5,121	3,327	5,569	11,005	17,456	22,827	10,294	3,451	1,433	269	148	89
Totals.....	2,235	13,856	33,542	43,492	53,550	63,866	65,802	50,764	69,771	123,784	195,931	234,620	182,783	125,904	76,625	30,479	10,683	4,490

These tables approximate correctness, but do not include large numbers that enter the Park on skating nights, and at the Arsenal and other entrances.

The receipts from the products of the Park during the past year were :

From pound receipts.....	\$257 70
“ sale of grass.....	4,774 46
“ “ hay.....	396 00
“ “ sheep.....	761 60
“ “ wool.....	193 94
“ “ old tools and materials.....	788 99
“ “ white mice.....	1 75
“ “ hide of steer.....	6 74
“ pasturage of cattle.....	198 00
“ license to sell refreshments.....	5,057 79
“ “ “ hire skates.....	800 00
“ “ “ “ ice-chairs.....	300 00
“ “ “ “ boats.....	1,000 00
“ cash received for removing broken vehicles to Arsenal.....	53 00
	<hr/>
	\$14,589 97

There has also been received the sum of \$4,598.55, as interest on the deposits of the funds of the Board in the National Bank of Commerce in New York.

The Commissioners of the Park hope the next year to be able to make a disposition of the ice from such of the waters of the Park as are not used in skating, and to realize a fund therefrom.

The roads and walks are kept in proper condition by a continual application of water; the wear of the gravel by the throngs of carriages and of pedestrians is very great, and to suppress the dust, sprinkling is resorted to.

The method has been to distribute the water from ordinary casks upon trucks, filled from the hydrants that are situated near the roads.

With the view of dispensing with the trucks, experiments have been made with hand machines somewhat similar to those used in Paris, but it is found that the expense of manipulating them, in the present state of wages, amounts to more than the ordinary method of distributing the water by carts.

The sprinkling of the roads, under the constantly changing conditions of the weather, requires more care than is generally supposed, to deliver to the road surface the amount of water required.

On the higher elevations the roads dry rapidly—the heat of summer, the winds, and the humidity of the atmosphere, all affect the quantity required; a change sometimes occurs in course of half an hour, and several times a day, that requires a fresh exercise of discretion to properly regulate the amount of water needed upon the roads, in order that they may not be too wet, nor, on the other hand, too dry. This is only reasonably well

accomplished by an active supervision and direction of the class of workmen to whom it is necessarily intrusted.

There are several elevations on the Park to which the Croton water will not rise ; in these places the water will have to be carried either by engines or by carts.

The number of gallons of water distributed over the Park by means of carts during the past year was 18,993,-260 gallons, weighing 79,139 tons, which, with the weight of the carts, &c., used for applying the same, is equivalent to 136,550 tons, and costing for its distribution about the sum of \$14,616.16. This immense tonnage was carried a distance of about 7,357 $\frac{9}{10}$ miles, wearing the roads, and to the occasional inconvenience to the free passage of vehicles.

It will be dispensed with as soon as any more economical method within the means of the Park can be substituted.

The number of days of skating in the season of 1866 and 1867 is, as will be seen by the table, larger than the previous year. Frequent snow-storms, 36 in number, have occasioned increased expenditures for keeping the ice in good condition for the enjoyment of this healthful recreation. The depth of snow which fell during the year was 92.32 inches.

The increased expense under this head amounts to \$4,663.98.

With the view of gathering information on the subject of the insects of the Park, a collection of caterpillars has been made, and proper record taken of the trees which they seem to frequent.

The very large number and variety of trees and shrubs at the Park will afford an excellent opportunity to observe the character of the insects by which they are respectively infested.

The sewer, which is intended to take the water from that part of the Park formerly known as Manhattan Square, the site of the proposed Zoological Garden, is not complete, but in progress of construction. It is hoped that the grounds will be in such condition as to admit the improvements on these grounds to commence next year.

The Board has heretofore alluded to the scheme upon which gardens of this character, as well as Museums of Natural History and Galleries of Art, should be founded and maintained. Undoubtedly the most extensive of these establishments are in Paris. They are there instituted and fostered by the direct action of the Government, are made free of ingress to citizens and strangers alike, and comprehend within their scope all the modern methods by which these magnificent collections from the treasures of time, are made to minister at the same

time to the popular gratification, and to the advancement of the Natural Sciences and Arts.

In the cities of Europe, Amsterdam, Ghent, Antwerp, and Brussels, Zoological Gardens are organized, supported, and conducted by societies formed for the purpose, and are self-sustaining.

The Antwerp Gardens were established by a Society formed in 1843; a loan of \$20,000 was taken up in shares by the inhabitants of Antwerp, and devoted to the purchase of grounds, and to the erection of buildings; the grounds were enlarged in 1847, and the internal works increased. Its annual expenses are about \$20,000, and are met from an admission fee of one franc, from the sale of exotic birds and animals, mostly bred in the establishment, and by an entrance fee of twenty francs, and an annual sum of twenty-five francs, paid by each member of the society. Each of the shareholders, regarding himself as a joint proprietor, displays a sort of self-esteem in maintaining the prosperity of the institution, and in increasing the collection.

The gardens are kept in order by all the members interested: the wealth of natural history is placed under their safeguard, and everywhere is noticed in the management, that spirit of regularity and preservation which is developed by a feeling of responsibility.

The capital of the Ghent Garden, originally \$60,000,

was enlarged to \$90,000; the grounds comprise 13 acres.

The number of shareholders is about 4,000. In 1855 its income was about \$12,500, and its expenses about \$9,000; it is, like that of Antwerp, at the same time a place of study and amusement.

In Brussels the grounds are well planted; "a few pleasing houses have been built, and the cages are so arranged as to hide under natural ornaments that sadness that ever clings to captivity." The remarks of a director to a visitor express the difficulties inherent in the maintenance of these collections; he says: "I have been engaged in this business for forty years, and I learn something every day."

An intelligent writer, from whose contributions on the institutions and inhabitants of Holland, M. Esquiros, from whom the substance of the foregoing paragraphs, on the subject of Zoological Gardens, is derived, says: "Altogether the Zoological Gardens of Amsterdam, Antwerp, Ghent, and Brussels offer us a type of institutions unknown in France. Formed by subscriptions, they owe nothing to the State, and they derive their resources from their own development. It is proposed to annex to the collections of living animals a Library of Natural History and Public Lectures; but, in their present state, even if the se institutions do not profit science,

they teach a liking for it. Hardly half a century back the Giraffe, Kangaroo, and Ornithorynchus were to the multitude of animals as paradoxical as the Unicorn and Griffin of the ancients. Even if a few exotic animals were better known, they were only met with in our collections of natural history; those cold catacombs of science, gloomy galleries, in which nature was classified, ticketed, stuffed, and covered with dust, were better suited to create weariness, than to attract people to the study of animals.

“At the present day, these animals live, walk about, crawl, or fly before our eyes, and that is progress. The Zoological Gardens have rendered real service to natural history, by popularizing the knowledge of animals, and giving science a holiday air. They add to the pleasure of cities, and public education, civilization, and morality; for, as the old sage says, ‘Man becomes better by studying the works of God.’ In spite of incontestible services, we must be permitted to say that the true character of these institutions has not yet been determined. Created by the initiative of a few individuals, and by the aid of the town, Zoological Gardens cannot pretend to be free of instruction, illumined by all the scientific lights of the age. They will never rival the Natural History Museum of Paris, which is protected by the central power of a great State.

"These institutions, nevertheless, have a place to take. Nothing can be better than the propagation of a knowledge of animals, and rendering science attractive, by stripping it of its morose gravity; but the ambition of the directors ought not to stop here. The Zoological Garden of Amsterdam, and the rest we have mentioned, have hitherto only had a value as curiosities, but they might arise themselves to the rank of useful institutions. We have said what they might be.

"The true destination of Zoological Gardens would be to serve as a stage for facts and experiments in natural history. An investigation into the laws, by virtue of which animals pass from the savage into the domestic state, attempts at acclimatization, the improvement of the conquered races, and the education of those that remain to conquer—such, in our view, is the field of practical studies, to which Zoological Gardens ought to limit their instructions."

In London there seems to be no fixed rule concerning these establishments. The British Museum, which is accessible to visitors without any price, is supported entirely by the Government. The Zoological Gardens were established and are supported by private societies.

The best method of carrying on these institutions, under our form of government, is yet to be determined, and it is the desire of the Board to exercise proper fore-

cast in their organization, in order that they may be established upon foundations that will be likely to render them enduring.

OPERATIONS OUTSIDE OF THE PARK.

The Legislature, at each of its last three sessions, committed to the Board duties of various, complicated, and responsible character, to the discharge of which much of the time of the last year has been devoted.

Without entering upon any lengthy recital of the details of this legislation, or of the considerations that have controlled in carrying them into effect, the Board will proceed to state briefly, under appropriate heads, the progress made in the execution of the various powers thus conferred.

THE GRADE OF THE EIGHTH AVENUE.

As stated in its report for the year 1866, the grades of that part of this avenue, between Fifty-Ninth and One Hundred and Twenty-second streets, were fixed by the Board, and the consequences of the change of grade were briefly alluded to.

The Legislature of 1867, in one Act, (chap. 580 of Laws of 1867), again fixed the grades of this avenue, making some changes from those previously settled by the Commissioners of the Park; but by a subsequent Act of the

same year, (chap. 697), the Legislature again authorized the Board to act upon such of these grades as come within a district bounded by a line 350 feet outside of, and around the Central Park.

Acting under this authority, the Board has again fixed these grades, from Fifty-ninth street to about One Hundred and Eleventh street, and it is hoped that the actual work of regulation will now soon be entered upon.

EIGHTY-FIRST STREET.

The regulating and grading of the south side of Eighty-first street, between the Eighth and Ninth avenues, is nearly completed.

THE SEVENTH AVENUE NORTH OF THE PARK.

The work of regulating and grading this avenue, from One Hundred and Tenth street to the Harlem River, has been let in two contracts, and the work is now in progress. About 31,800 yards of rock, and 45,000 yards of earth, have already been excavated.

THE SIXTH AVENUE, NORTH OF THE PARK.

The Commissioners of Assessment, appointed on this avenue August 5, 1865, not having yet made their re-

port, the Commissioners of the Park are unable to proceed with the work of its grading and regulation.

MOUNT MORRIS SQUARE.

By virtue of a clause in Chap. 585 of Laws of 1867, in the following words: "Mount Morris Square, improvement of, ten thousand dollars, to be expended by the Commissioners of Central Park;" the Commissioners of the Park have commenced the work of grading and improving this square, in accomplishing which about 11,000 cubic yards of earth and mould have been moved.

It is a first requisite that a substantial enclosure be provided for these grounds, otherwise improvements made will be subject to injury from the incursions of cattle and goats that range about the neighborhood.

A temporary wooden fence might serve the purpose for several years, but as the neighborhood is rapidly being settled, it will, perhaps, be as well to put up a permanent, satisfactory enclosure at once.

The square comprises about 20 acres, and is formed by a mass of rocks rising to the height of about 80 feet above the surrounding plain, a portion of which is comprised within the limits of the square.

It is a very picturesque piece of land, the elevated portion being well covered with forest trees, and with

proper arrangement it will be quite unique, differing entirely in the character of its surface from any other of the city squares.

The Commissioners of the Park have represented to the Comptroller of the city, that of the above-mentioned sum of ten thousand dollars, "a balance of about five thousand dollars will probably remain unexpended at the close of the present calendar year," and that "the sum of forty thousand dollars will be required for the proper continuance of the work of regulating, improving, and enclosing the square during the year ending with December 31, 1868."

CIRCLE AT EIGHTH AVENUE, BROADWAY, AND FIFTY-NINTH STREET.

The Commissioners to acquire the land for the circular place at the intersection of Eighth avenue, Broadway, and Fifty-ninth street, were appointed July 31, 1866, and as their report has not been made to the Court, the Commissioners of the Park cannot yet proceed with the improvement.

AVENUE ST. NICHOLAS AND MANHATTAN STREET.

The Commissioners appointed by the Court on the 7th May, 1867, for the purpose of acquiring the land for the

Avenue St. Nicholas, and for widening and extending Manhattan street, are now engaged on the work.

FIFTH AVENUE GRADE.

The grades of the Fifth avenue, which bounds the Park on the east, being at several points very objectionable, the Board has changed them between Sixty-ninth and Seventy-first streets, between Seventy-third and Seventy-fifth streets, between Eighty-ninth and Ninety-first streets, and between Ninety-seventh and One Hundred and Ninth streets, and it is believed with advantage to the avenue and the property lying upon it, though at some expense in making alterations to the Park improvements.

Further improvements of a less important character could doubtless have been made in the grades of the avenue along the Park, but considerations of cost have rendered it inexpedient to entertain them.

THE GRADES OF STREETS AND AVENUES EAST OF THE EIGHTH AVENUE.

In considering the grades of the Sixth and Seventh avenues, between the Park and the Harlem river, those of the intersecting streets necessarily required attention.

The Commissioners of the Park therefore proceeded to

change, where necessary, the grades of all intersecting streets from One Hundred and Tenth to and including One Hundred and Thirty-fifth street between the Fifth and Eighth avenues, and to fix the grades of all streets from One Hundred and Thirty-sixth to One Hundred and Fifty-fifth streets, both inclusive, and between the Eighth avenue and the Harlem river.

No grades for the avenues and streets above One Hundred and Thirty-fifth street were ever before established: this whole area is now ready for improvement.

The number of miles of grades thus fixed to the east of Eighth avenue is about $28\frac{1}{4}$.

This area constitutes a large portion of the level land known as Harlem Plains.

In determining these grades, especial attention has been given to making provisions for the drainage that is so much required in this vicinity, as well as for proper cellar-room to the future buildings that may occupy it.

THAT PORTION OF THE ISLAND NORTH OF ONE HUNDRED AND FIFTY-FIFTH STREET.

In this district the following avenues and streets have been laid out:

A street from Kingsbridge road at Inwood.

Street to Harlem river at Sherman's creek.

155th street from Hudson river to Harlem river.

156th street from Kingsbridge road to 11th avenue.

157th street from Kingsbridge road to Road or Drive.

158th street from Kingsbridge road to Hudson river.

159th street from Kingsbridge road to 11th avenue.

160th street from Kingsbridge road to 11th avenue.

161st street from 10th avenue to 11th avenue.

11th avenue from Kingsbridge road to the street leading from Kingsbridge road at Inwood street to Harlem river.

The Road or Public Drive along the easterly or Harlem river side of city from One Hundred and Fifty-fourth street to the street south of Sherman's creek.

A street from Harlem river at High Bridge to the Road or Public Drive.

A street between the lands of the Institute for the Deaf and Dumb and the Institute for the Blind from the Kingsbridge road to the Road or Public Drive to the Hudson river.

A street over the present Fort Washington Depot road from Kingsbridge to Hudson river.

A street from the Kingsbridge road to the Road or Public Drive on the westerly side of the city, between lands of John A. Haven, Esq., and those of Charles M. Connolly, Jr., Esq.

River street on the North river from One Hundred and

Fifty-fifth street to and through Spuyten Duyvil creek and Harlem river to One Hundred and Fifty-fifth street.

Tenth avenue from One Hundred and Fifty-fifth street to Fort George Hill, and a street from that termination around Fort George Hill to the Eleventh avenue.

Eighth avenue from One Hundred and Fifty-fifth street to River street.

Kingsbridge road has been laid out, straightened, and widened from One Hundred and Fifty-fifth street to Harlem river near Kingsbridge.

Making together in that part of the city above One Hundred and Fifty-fifth street, $14\frac{4}{10}$ miles of streets and roads laid out.

$8\frac{3}{10}$ miles of exterior street laid out.

$3\frac{2}{10}$ miles of Kingsbridge road straightened and widened.

A public square or park has been provided of about 25 acres on the Harlem river, that will include all the important structures of the Croton Aqueduct Board at this point, viz., the west terminus of the High Bridge, the new Distributing Reservoir for high service of Croton water, the water-tower, and the engine-house.

The lines of land now owned by the city in this vicinity are quite irregular, the grounds now proposed to be taken will afford abundant room for convenient public

access to the massive and interesting public works situated within its limits.

A park of about 22 acres has also been laid out at Fort Washington Point, extending from the Public Drive to the Hudson river. This piece of land affords the only feasible opportunity on the Island, except at the Battery, for a public ground where the natural shore can be preserved.

The railroad passes a considerable distance in from the river shore. From the land proposed to be taken, which is of a varied and rocky surface, well adapted for a public pleasure-ground, most extensive views are obtained both southward to Staten Island and northward up the river.

The exterior street has been run across this point so as to leave the natural formation of the shore untouched, and afford opportunity for those aquatic exercises which add so much to the attractions of a park.

Surveys have been made preparatory to laying out the avenues and streets in that part of the Island north of Tubby Hook.

The work of setting substantial monuments to permanently indicate the lines of the ways that have been laid out, is now going on, and the maps are in course of preparation for filing, as required by law.

In opening streets, the Board will regard the wishes

of the property owners in especial districts, except when public exigencies on general important lines require their opening for immediate public use.

THE DISTRICT BETWEEN FIFTY-FIFTH AND ONE HUNDRED
AND FIFTY-FIFTH STREETS, WEST OF EIGHTH AVENUE
AND AROUND THE CENTRAL PARK.

The Legislature, after a report made by this Board, in compliance with an Act passed in 1856, passed a further Act at its session of 1867, authorizing the Board to make changes in the existing plan and grade of that portion of the city lying within the above-mentioned district.

Acting under the Act last mentioned, as soon as the necessary surveys were made, and the requisite information obtained as to the subdivision of property within the district, the Board proceeded to make such changes in the plan as seemed requisite to set the property free from the hindrances that had long operated to prevent its improvement. These changes consisted chiefly in the discontinuance of portions of streets and avenues that lie on ground so precipitous, as to make the expense of cutting the streets through greater than the value of the lots, and the streets, after being cut through, of but little use, by reason of their steepness, and in laying out avenues in the immediate vicinity of the streets discontinued.

The face of the precipitous slope toward the Hudson river, and also on the Harlem Heights, being quite steep and generally held in small ownerships, gave rise to the question whether the land on these slopes, from which the lines of streets were stricken out should be left to private improvement, as the various owners may think proper, or be taken as open public grounds. The difficulty of access to the various lots situated on the avenues and streets so obliterated, were so great as to incline the Board to the latter as the wiser course. Wherever streets and avenues are abandoned through large subdivisions of property, the land has been left to private improvement.

The subject of revising the grades within this district is now under consideration, and maps showing the streets and avenues are now in course of preparation.

In dealing with such an extent of territory so much subdivided, the Board has deemed it better to confine its action mainly to the removal of these chief obstacles to improvement. While new streets, avenues, squares, parks, and terraces might have been laid out, considerations of expense and of the injury to existing subdivisions of property, by leaving it in unfit parcels to build upon, except by the tedious processes of exchanges and sales between owners, have led the Board to forbear

interference with existing lines of streets and avenues, except where obvious advantages were to be reached.

Alterations have been made in the pier and bulkhead lines of the Hudson river, Spuyten Duyvil creek, and Harlem river, which are subject to the approval of the Legislature. They have been made in the interests of commerce, giving due weight to all the considerations that should be regarded in making changes affecting the harbor lines of this port. The changes made in these lines in the Spuyten Duyvil creek and Harlem river will be found of great value in facilitating the commerce that at no distant period must find its way through these tidal channels.

In addition to soundings previously made on the Hudson river, between Fifty-fifth and One Hundred and Fifty-fifth street, more than 550 distinct soundings have been taken in the Hudson river, from high-water mark to about the depth of fifty feet below high-water level, from One Hundred and Fifty-fifth street to Spuyten Duyvil creek, and a full survey, and more than 235 separate soundings made of the present and former channel of the Harlem river, on both sides of Kingsbridge, for the determination of the new pier and bulkhead lines above referred to.

The Commissioners of the Central Park believe that

all interests will be promoted by a Legislative approval of the pier and bulkhead lines adopted by them.

Proceedings have been directed to open One Hundred and Forty-fifth street from river to river, and Seventy-second street from Tenth avenue to the Hudson river.

The accounts of the Treasurer are herewith submitted. They contain a detailed statement of the receipts and expenditures of the Board for the past year, and are accompanied by tables showing a classification of these expenditures.

Dated New York, December 31, 1867.

Respectfully submitted,

R. M. BLATCHFORD,

*President pro. tem. of the
Board of Commissioners of the
Central Park.*

ANDW. H. GREEN,

Comptroller of the Park.

SUMMARY OF THE TREASURER'S ACCOUNT.

Construction Account.

Balance on hand Dec. 31, 1866, \$159,778 92

The total receipts for the year ending December

31, 1867, are as follows:

From issue of stock by the city of New York,	\$125,000 00	
Interest on deposits in Bank of Commerce,	4,598 55	
Sale of old tools and materials,	788 99	
Amount retransferred to general fund from Maintenance, 1866,	29,779 96	
Amount retransferred to general fund from "West Side Improvement,"	4,928 09	
Amount retransferred to general fund from "Seventh avenue,"	433 86	
Amount retransferred to general fund from "Seventy-seventh street,"	32 20	
	<hr/>	165,561 65
		<hr/>
		\$325,340 57

The total expenditures for the year ending December 31, 1867, are as follows:

Salaries and compensation of officers and clerks,	\$19,354 24	
Surveys, engineers, architects, draughtsmen, &c.,	10,152 04	
Salaries of gardening department	2,482 50	
Incidental expenses,	8,214 25	
Materials of construction and tools,	73,573 98	
Stationery, printing, advertising, drawing materials, &c.,	4,020 15	
Trees and plants,	1,159 52	
Labor account, amount paid laborers, mechanics, cartmen, &c.,	77,428 43	
Earth filling,	2,878 95	
	<hr/>	199,264 06
		<hr/>
Balance,		<hr/>
		\$126,076 51

The total receipts of the Board from the commencement of its organization, May 1, 1857, are as follows:

From issue of stock by the city of New York,	\$5,260,697 48
Sale of buildings on the Park.	6,155 87
Payment of lost tools,	451 23
Rent of buildings,	153 33
Exhibition of plans,	294 85
Sales of Grass,	2,213 25
Sales of wool,	222 40
Interest on deposits,	25,657 34
Pound receipts,	1,199 87
Licenses for the sale of refreshments, skates, &c.,	7,175 61
Sales of old materials,	2,467 18
Sale of time-books,	7 75
Payment of labor and materials furnished by Park,	4,655 94
Premium on exchange, gold for silver,	23 52
	<hr/> \$5,311,375 62

The expenditures thus far are as follows:

From May 1, 1857, to January 1, 1858,	\$77,881 41
January 1, 1858, to January 1, 1859,	507,487 86
" 1859, " 1860,	1,179,246 47
" 1860, " 1861,	878,354 95
" 1861, " 1862,	479,163 66
" 1862, " 1863,	461,540 32
" 1863, " 1864,	331,871 60
" 1864, " 1865,	452,590 23
" 1865, " 1866,	366,915 38
" 1866, " 1867,	250,983 17
" 1867, " 1868,	199,264 06
	<hr/> 5,185,299 11
Balance,	<hr/> \$126,076 51

Maintenance Account for the Year 1866.

To balance transferred from general fund, \$29,779 96

The expenditures on account of maintenance in the year 1866,
in addition to these in the report of last year, are as follows:

	LABOR.	MATERIALS.	TOTAL.
Roads,	\$679 65	\$12 02	\$691 67
Walks,	478 94		478 94
Plantations,	336 55	35 04	371 59
Turf,		8 86	8 86
Ice,	1,157 53	1,394 00	2,551 53
Irrigation,	10 60	20 00	30 60
Masonry,		8 00	8 00
Tools,	40 50	102 44	142 94
Surface Drainage,	2 07		2 07
Buildings,	232 66		232 66
Park and gate-keepers' wages,	4,720 12		4,720 12
Animals,	174 22	221 74	395 96
Manure,	13 57		13 57
Special Police,	257 92		257 92
Art Gallery,	49 00		49 00
Lighting Park,	677 22		677 22
Stationery and Printing,		137 55	137 55
Miscellaneous,	270 20	274 57	544 77
			<u>11,314 97</u>
			<u>\$41,094 93</u>
Received from the city of New York for deficiency for maintenance, 1866,			41,095 00
To balance carried to maintenance, 1867,			<u>07</u>

Maintenance Account for the Year 1867.

The expenditures on account of maintenance, 1867, thus far are as follows :

	LABOR.	MATERIALS.	TOTAL.
Roads, care of,	\$23,591 73	\$534 94	\$24,126 67
Roads, repairs of,	6,580 63	30,333 18	36,913 81
Bridle roads, care of,	950 17	28 55	978 72
Bridle roads, repairs of,	25 84		25 84
Walks, care of,	10,602 02	8 71	10,610 73
Walks, repairs of,	2,915 37	184 60	3,099 97
Plantations,	9,292 64	463 85	9,756 49
Turf,	17,338 36	496 50	17,834 86
Water,	147 36		147 36
Ice,	12,440 41	1,298 85	13,739 26
Irrigation,	13,405 96	1,210 20	14,616 16
Thorough drainage,	55 48		55 48
Transverse roads,	174 25		174 25
Masonry and bridges,	464 15	561 98	1,026 13
Tools,	717 20	1,120 74	1,837 94
Surface drainage,	313 66		313 66
Buildings,	4,478 34	747 47	5,225 81
Lighting Park,	1,367 50	533 74	1,901 24
Animals,	3,486 92	6,129 67	9,616 59
Sheep,	813 61	530 28	1,343 89
Manure,	792 57		792 57
Park and gate-keepers' wages and uniforms,	67,515 31		67,515 31
Special park-keepers' wages,	3,633 42		3,633 42
Music,	4,912 00		4,912 00
Stationery, printing and advertising	877 88		877 88
Gallery of Art,	2,203 43	526 98	2,730 41
Miscellaneous,	5,533 00	5,071 51	10,604 51
Proportion of salaries,	10,000 00		10,000 00
			\$254,410 96

By balance carried from maintenance, 1866,	07
Received from the city of New York for maintenance of the Park for the year 1867,	\$200,000 00
Received from sundries towards paying for music,	935 00
Received from licenses for sale of refreshments, skates, boats, &c.,	7,157 79
Received from pound receipts,	257 70
Received from sale of grass,	4,774 46
Received from sale of hay,	396 00
Received from sale of sheep and wool,	955 54
Received from sale of white mice,	1 75
Received from sale of hide of steer,	6 74
Received for pasturage of cows, &c.,	198 00
Received for removing broken vehicles to Arsenal,	53 00
By balance transferred from general fund,	39,674 91
	<u>\$254,410 96</u>

*Island above One Hundred and Fifty-fifth Street and Public Drive.
(Chapter 565 of the Laws of 1865.)*

Balance on hand December 31, 1866,	\$15,054 72
Received from the city of New York for improvement of Island above One Hundred and Fifty-fifth street and Public Drive, for the year 1867,	15,000 00
	<u>\$30,054 72</u>

The payments on this account for the year 1867,
are as follows:

Surveys, maps, &c.,	\$6,657 17
Stationery, printing and drawing materials,	704 33
Tools and materials,	283 27
Incidental expenses	188 51
	<u>7,833 28</u>

Balance on hand December 31, 1867,	<u>\$22,221 44</u>
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*Claims against Old Commissioners for laying out City north of One Hundred
and Fifty-fifth Street.*

Balance on hand December 31, 1866,	\$8,538 32
The following claim has been paid during the year ending De- cember 31, 1867:	
C. O'B. Bryant,	1,500 00
Balance on hand December 31, 1867,	<u>\$7,038 32</u>

Eighty-first Street.

Balance on hand December 31, 1866,	\$20,984 41
The payments on this account for the year ending December 31, 1867, are as follows:	
John Healy, contractor, regulating and grading south half of Eighty-first street,	\$16,521 29
Surveys and estimates,	456 26
Stationery and incidental expenses,	104 68
	<hr/>
	17,082 23
Balance on hand December 31, 1867,	<hr/> <u>\$3,902 18</u>

Seventh Avenue.

Received from the city of New York on estimates for regulating and grading Seventh avenue during the year ending De- cember 31, 1867,	\$58,899 80
To amount which was transferred from general fund December 31, 1866,	
	\$433 86
The payments on this account during the year end- ing December 31, 1867, are as follows:	
Thomas Crimmins, contractor, regulating and grading,	25,147 50
J. H. Sullivan & Co., contractors, regulating and grading,	7,507 50
Surveys, maps, and estimates,	2,639 44
Stationery and incidental expenses,	176 70
	<hr/>
	35,905 00
Balance on hand December 31, 1867,	<hr/> <u>\$22,994 80</u>

West Side Improvement. (Chapter 550 of the Laws of 1866.)

To balance transferred from general fund December 31, 1866,	\$4,928 09
The expenditures on this account for the year end- ing December 31, 1867, are as follows:	
Surveys, maps, &c.,	\$4,030 65
Stationery, printing, and drawing materials,	647 29
Tools and materials,	141 63
Incidental expenses,	188 52
	<hr/>
	5,008 09
To balance transferred from general fund, December 31, 1867,	<hr/> <u>\$9,936 18</u>

Mount Morris Square.

Received from the city of New York for improvement of

Mount Morris Square, \$10,000 00

The payments on this account for the year ending

December 31, 1867, are as follows:

Labor, amount paid laborers, cartmen, &c., . . \$3,937 29

Tools and materials, 429 10

Surveys, maps, &c., 758 75

Stationery and incidental expenses, 26 37

5,151 51

Balance on hand December 31, 1867, \$4,848 49

Seventy-seventh Street. (Chapter 632 of the Laws of 1866.)

To balance transferred from general fund December 31, 1866, \$32 20

Avenue St. Nicholas. (Chapter 367 of the Laws of 1866.)

Amount transferred from general fund during year ending De-

cember 31, 1867, for surveys and maps \$422 50

Manhattan Street. (Chapter 367 of the Laws of 1866.)

Amount transferred from general fund during the year ending

December 31, 1867, for surveys and maps, \$80 00

Grades, Fifth to Eighth Avenue, One Hundred and Tenth to One Hundred and Fifty-fifth Street. (Chapter 367 of the Laws of 1866.)

Amount transferred from general fund during the year ending

December 31, 1867, for surveys and maps, \$525 62

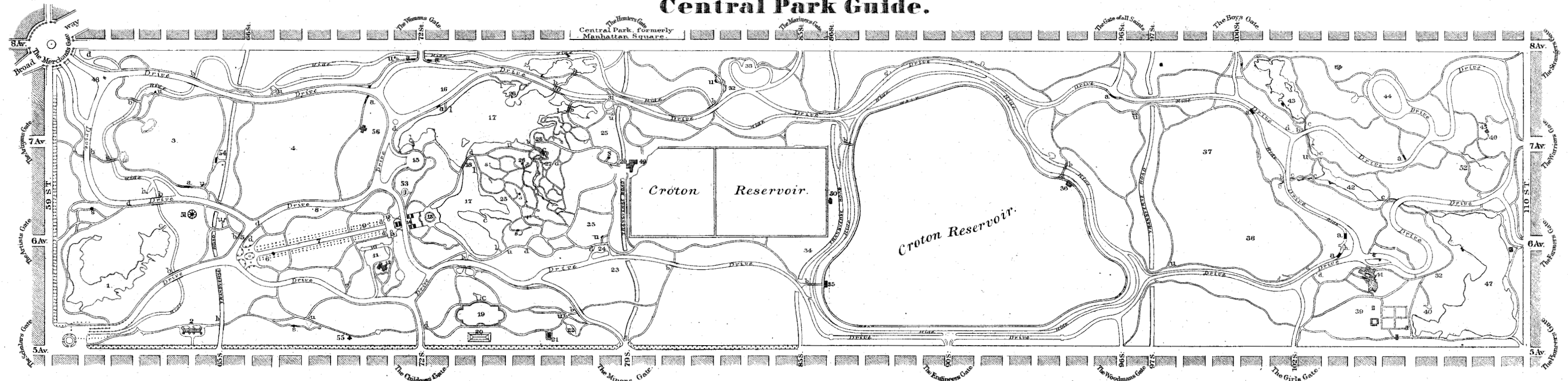
RECAPITULATION.

Balance on hand December 31, 1867—Construction account, .	\$126,076 51
Less amount transferred to the credit of the following accounts:	
Maintenance, 1867,	\$39,674 91
West side improvement,	9,936 18
Seventy-seventh street,	32 20
Avenue St. Nicholas,	422 50
Manhattan street,	80 00
Grades Fifth to Eighth avenue, One Hundred and Tenth to One Hundred and Fifty-fifth street,	525 62
	<hr/> 50,671 41
Balance on hand December 31, 1867—Construction account, .	\$75,405 10
Balance on hand December 31, 1867, "Island above One Hundred and Fifty-fifth street, and Public Drive,"	22,221 44
Balance on hand December 31, 1867, "Claims against old Commissioners for laying out city north of One Hundred and Fifty-fifth street,"	7,038 32
Balance on hand December 31, 1867, "Eighty-first street, .	3,902 18
Balance on hand December 31, 1867, "Seventh avenue," .	22,994 80
Balance on hand December 31, 1867, "Mount Morris square,"	4,848 49
	<hr/> \$136,410 33
Balance on hand December 31, 1867,	
Dated, New York, December 31, 1867.	

ANDREW H. GREEN,

Treasurer of the Board of Commissioners of the Central Park.

Central Park Guide.



REFERENCE TO THE CENTRAL PARK GUIDE.

GATES.

5th Avenue and 59th Street—	The Scholars' Gate.
6th " " 59th "	The Artists' Gate.
7th " " 59th "	The Artizans' Gate.
8th " " 59th "	The Merchants' Gate.
8th " " 72d "	The Womens' Gate.
8th " " 79th "	The Hunters' Gate.
8th " " 85th "	The Mariners' Gate.
8th " " 96th "	The Gate of All Saints.
8th " " 100th "	The Boys' Gate.
5th " " 72d "	The Childrens' Gate.
5th " " 79th "	The Miners' Gate.
5th " " 90th "	The Engineers' Gate.
5th " " 96th "	The Woodman's Gate.
5th " " 102d "	The Girls' Gate.
5th " " 110th "	The Pioneers' Gate.
6th " " 110th "	The Farmers' Gate.
7th " " 110th "	The Warriors' Gate.
8th " " 110th "	The Strangers' Gate.

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| <ol style="list-style-type: none"> 1. The Pond. 2. Museum and Park Offices. 3. Play Ground. 4. The Green. 5. The Marble Arch. 6. Site of the Shakespeare Monument. 7. The Mall. 8. Oak and Elm, planted by the Prince of Wales. 9. Music Pavilion. 10. Vine-covered Walk. 11. Carriage Concourse. | <ol style="list-style-type: none"> 12. Casino, or Refreshment House. 13. Fountain. 14. The Terrace. 15. The Circle. 16. Site for Refectory. 17. The Lake. 18. The Bow Bridge. 19. Conservatory Lake. 20. Site for Flower-house. 21. Dove Cot. 22. Evergreen Walk. 23. The Cedars. |
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| <p>24. East Carriage Step—entrance to Ramble.</p> <p>25. The Ramble.</p> <p>26. Ladies' Cottages.</p> <p>27. Gentlemen's Cottage.</p> <p>28. Schiller's Monument.</p> <p>29. The Tunnel.</p> <p>30. Balcony Bridge.</p> <p>31. West Carriage Step—entrance to Ramble.</p> <p>32. Spring.</p> <p>33. The Knoll.</p> <p>34. Site for the Maze.</p> <p>35. South Gate House.</p> <p>36. North Gate House.</p> <p>37. The West Meadow.</p> <p>38. The East Meadow.</p> <p>39. The Nursery.</p> <p>40. Old Fortification.</p> <p>41. Mount St. Vincent House of Refreshment.</p> <p>42. The Loch.</p> | <p>43. The Pool.</p> <p>44. The Great Hill.</p> <p>45. Block House, War of 1812.</p> <p>46. The Cliffs.</p> <p>47. Harlem Lake.</p> <p>48. Statue of Commerce.</p> <p>49. Proposed Belvedere.</p> <p>50. Croton Board House.</p> <p>51. Children's Summer House and Play Ground.</p> <p>52. The Briars.</p> <p>53. Bronze Statue of the Tigress.</p> <p>54. Ball Players' House.</p> <p>55. Croquet Players' House.</p> <p>56. Mineral Spring.</p> <p><i>a.</i> Arbor.</p> <p><i>c.</i> Cascade.</p> <p><i>s.</i> Summer House.</p> <p><i>d.</i> Drinking Fountain.</p> <p><i>h.</i> Drinking Place for Horses.</p> <p><i>b.</i> Bridge, or Archway.</p> <p><i>l.</i> Boat Landing.</p> |
|--|---|
- u.* Urinal.

Length of carriage roads completed, $9\frac{4.3.5}{1000}$ miles.

Length of bridle roads completed, $5\frac{5.0.3}{1000}$ miles.

Length of walks completed, $27\frac{4.1.3}{1000}$ miles.

APPENDIX A.

NEW YORK, October 28, 1867.

ANDREW H. GREEN, Esq.,

Comptroller of Central Park :

DEAR SIR,—The undersigned citizens of the United States, many of whom are temporarily residing in Europe, have great pleasure in presenting, through you, to the Central Park, the bronze statue of the “Tigress,” heroic size, the master-piece of Cain, the celebrated French sculptor in animals, F. Barbedienne, fondeur, Paris.

Its vigorous execution and acknowledged artistic merit, we trust, will entitle it to be considered by the Commissioners of Central Park as worthy of occupying a prominent position in the pleasure grounds to which every American points with pride.

We are,

My dear Sir,

Very respectfully yours,

S. F. B. MORSE,

WILLIAM T. BLODGETT,

CHAS. S. P. BOWLES,

ROBERT HOE,

W. W. CLARKE,

CHAS. E. WHITEHEAD,

JOHN JAY,

JAMES MCKAYE,

ERNEST TUCKERMAN,

JOHN S. KENNEDY,

JOHN A. HALL,

H. G. WARD.

OFFICE OF THE BOARD OF COMMISSIONERS }
OF THE CENTRAL PARK. }

NEW YORK, October 29, 1867.

MESSRS. S. F. B. MORSE, JOHN JAY, WILLIAM T. BLODGETT,
AND OTHERS :

GENTLEMEN,—Your note of yesterday, presenting to the Central Park a bronze statue of the “Tigress,” is received. The Commissioners of the Park accept this munificent gift with peculiar grati-

fication, as well for its artistic merit, as an evidence of the public spirit and discriminating taste of the absent citizens who thus effectively co-operate with those at home in the intention to place our City in the same rank in the field of literature and art that she occupies in the affairs of commerce.

The artist, by the freedom, vigor, and commanding expression with which he has treated his subject, has placed himself among the first of the school of sculpture to which it belongs—a school especially adapted to the landscape of the Park.

The design, its execution, and the liberal disposition of its donors, among whom I recognize with pleasure names widely known in this community, as influential promoters of the interests of art, all combine to render this addition to the Park collection the subject of especial interest and regard. The Commissioners of the Park are very happy to be able to place it in the grounds under their charge, where its merits will long command the popular admiration, and where its example will be an enduring invitation to similar liberalities,

I am, gentlemen,

With great respect,

ANDW. H. GREEN,

Comptroller of the Park.

APPENDIX B.

Statement in detail of the gifts, devises, and bequests during the past year for the purpose of embellishing or ornamenting the Park, and of the names of the persons by whom the same are so given, devised, or bequeathed :

Miscellaneous.

1867.

- Jan. 3. One Oil-painting, "View of Dover Cliffs," presented by Master James T. Montgomery, Harlem, N. Y.
- April 8. One Matthews Medal, presented by Mr. Charles Muller, New York.
- " 17. A collection of Minerals, presented by Mr. William R. Jenkins, New York.
- " 18. One Oil-painting, "Head of Flores Bull," presented by Miss Amelia Inez Ludlow, New York.
- May 17. One Water color "Deer's-head," presented by Miss Amelia Inez Ludlow, New York.
- June 19. Bronze,—Cast of a "New York Fireman," presented by "E. S. C."
- " 26. Bronze,—"Harsen Medal," presented by Gordon Buck, M.D., New York.
- July 15. "Father Mathew" Medal, presented by Mr. Thomas Booth, New York.
- " 15. Schiller Medal, presented by Mr. W. A. Conklin, New York.
- " 25. "Masonic Temple" Medal, presented by Mr. W. A. G. Horton, New York.
- " 25. Ten Medals, presented by Mr. William A. Conklin, New York.
- Aug. 24. Lithograph of Australian Chief, "Simon," and one Australian Boomerang, presented by Mrs. Oldham, New York.

- Sept. 21. Two Fountain Ornaments, presented by Messrs. Miller and Coats, New York.
- “ 21. Plaster Cast of Head and Bust, presented by Mr. Charles J. Innes.
- “ 25. Birch Bark Canoe, presented by Messrs. Buck and Pendar, Newport, Vt.
- Oct. 21. Siamese Canoe, presented by Mr. William M. Tileston, New York.
- “ 28. Bronze Statue of Tigress and Cubs.
- Dec. 10. Marble Statue of Boy Protecting Dog, presented by A. K. Gardner, M.D., New York.

Botanical.

1867.

- April 4. One package Bearsfoot Plant Seeds, presented by Mr. Thomas Ingham, New York.
- “ 11. One hundred and fifty-five Plants, presented by Mr. James Lenox, New York.
- May 2. One package Water-lily Seeds, presented by Mrs. Sarah P. Mather, New York.
- “ 15. Twenty-five packages Sandwich Island Seeds, presented by Mr. John T. Doyle, San Francisco.
- “ 17. One hundred and ninety-eight Plants, presented by Mr. James Lenox, New York.
- June 1. Three packages Seeds, presented by Mr. Alexander Melville, New York.
- “ 6. Five Plants, presented by Capt. N. Collins, U. S. N.
- “ 6. One box Seeds, presented by John P. Green, M.D., Copiapo, Chili,
- Sept. 3. Thirty-two packages Seeds, presented by John P. Green, M.D., Copiapo, Chili.
- “ 28. One package Seeds, presented by Mr. John H. Wyman, New York.
- “ 30. Seventy-one Plants, presented by William G. Wood, M.D., Harlem, N. Y.
- Oct. 23. One Plant, “*Diffenbachia Picta*,” presented by Mr. Ch. W. Turba, New York.
- Nov. 5. Sixteen bulbs “*Lilium Candeum*,” presented by Mr. William Carr, New York.

- Dec. 5. Two Cedars of Lebanon, presented by Mr. Arthur Leary, New York.
- " 11. One Herbarium, consisting of 1,325 specimens, presented by Mr. Frank A. Pollard, New York,
- " 20. Three Acorns of "*Quercus Macrocarpa*," presented by Miss Minnie Willard, Philadelphia, Pa.
- " 20. Eighteen packages Seed from India, nine packages Seed from South Africa, presented by Capt. N. Collins, U. S. Navy.
-

Animals.

1867.

- Jan. 2. One Opossum (D), presented by Master William Shelley, New York.
- " 12. One Rabbit (D), presented by Mr. William Astor, Jr., New York.
- " 28. One Hawk (D), presented by Mr. Louis H. Weinman, New York.
- " 28. One Virginia Horned Owl, presented by Mr. James H. Roome, New York.
- Feb. 8. One Armadillo (D), presented by Mr. Abram J. Dovale, New York.
- " 8. One Angola Rabbit (D), presented by Mr. Frederick P. Smith, New York.
- " 8. Two S. A. Whitefaced Monkeys (1 D).
- " 11. One Arctic Owl (D), presented by Mr. Robert L. Maitland, Jr., New York.
- " 26. One Hawk, presented by Mr. W. Pubenbring, New York.
- " 26. One Gallinule, presented by Capt. Edward E. Vaill.
- " 26. One pair Silver Pheasant, one English Male Pheasant, presented by Mr. Robert L. Maitland, Jr., New York.
- March 2. One Raccoon, presented by Mr. Albert A. Brockway, New York.
- " 19. One Owl, presented by Henry F. Quackenbos, M.D., New York.
- April 2. One American Elk or Wapiti, presented by Hon. J. D. Caton, Illinois.
- " 5. One Sea Gull, presented by Engine Company No. 17, New York.

- April 9. One pair of Swamp Turtles, presented by Master Duncan Emmet, New York.
- “ 12. One Owl (D), presented by Mr. H. P. Hover, Milertown, N. Y.
- “ “ One Marmozet (D.), presented by Mr. Juan E. Serrano, New York.
- “ 17. One Eagle (D.), presented by Mr. W. S. Hartshorne, New York.
- “ 18. One Black Rabbit, presented by Mr. Herman H. Von Dreele, New York.
- “ 22. One Rabbit, presented by Mr. Joseph Ogle, New York.
- “ 24. Two Spectacle Bears, presented by Hon. A. A. Burton. Lancaster, Ky. (1 D).
- “ 26. One Quail (D.), presented by Mrs. Elizabeth Hubble, New York.
- “ 29. Three Horned Toads, presented by Mr. Charles Boorman, New York.
- May 1. One Guinea Pig, presented by Miss Annie Beattie, New York.
- “ 7. One Gannet (D.), presented by Mr. Sering Potter, Jr., New York.
- “ 13. One Red Fox (D.); presented by Master Otto Kramer, New York.
- “ 16. Two Red Squirrels, presented by Masters Charles and John Brown, New York.
- “ 17. One Black Bear, one Prairie Wolf, presented by Hon. J. D. Caton, Illinois.
- “ 29. One Water Hen, presented by Mr. Edward Marwedel, New York.
- June 3. One Gold Fish, presented by Master Frank Stoutenburgh.
- “ 6. One Civet Cat, presented by Capt. N. Collins, U. S. N.
Three Pair English Skylarks, presented by Mr. J. Jones, New York.
- “ 7. One Deer, presented by Mr. E. W. Turner.
- “ 8. Two Peacocks, two Pea Hens, presented by Mr. Joseph Dixon, New York.
- “ 10. One Hawk, presented by Mr. John Wisnowski, New York.
- “ 11. One Esquimaux Dog, presented by Mr. S. Whitney Phoenix.
- “ 15. Three Pair English Skylarks, presented by Mr. J. Jones, New York.

- June 15. One Pair Mountain Geese, presented by Capt. N. Collins,
U. S. N.
- “ 19. Two Purple Gallinules (D.), presented by Capt. Joseph E.
Corson.
- “ 22. One Mexican Coatimundi, presented by Master George B.
Walter, Jr.
- “ 25. One Curassow (D.), presented by Mr. Lewis Joel, Angos-
tura, Venezuela.
- July 1. One Great Horned Owl (D.), presented by Master Hiram
C. Calkins, New York.
- “ 2. One Monkey (D.), presented by Mr. Alfred L. Baker,
New York.
- “ 9. One Pair Box Turtles, presented by Master Alfred R.
Leonard, New York.
- “ 12. One Gray Squirrel, presented by Mr. G. Sigel, New York.
- “ 20. One Java Monkey, presented by Mr. Robert B. Boyd,
New York.
- “ 25. Two Small Black Bears, presented by Bt. Lt. Col. Horatio
B. Reed, Harrisonburg, Va.
- Aug. 15. One Wild Cat, one Silver Gray Fox (D.), presented by
Capt. M. S. Woodhull.
- “ 19. Four Turtles (2 D.), presented by Mr. George Mixer.
- “ “ One Deer, presented by Mr. Thomas W. Palmer, Stoning-
ton, Ct.
- “ 23. One Eagle, presented by Mr. Benjamin Hall, Brooklyn.
- “ 24. One Red Fox (D.), presented by Messrs. Coughlan, Run-
dle & Co., New York.
- Sept. 3. One Silver Gray Fox, presented by Mr. Sylvanus Carter,
Ellsworth, Maine.
- “ 3. One Agouti, presented by Mr. George Mills, New York.
- “ 7. One White Rat, one Striped Ground Squirrel, presented
by Mr. Hugh Mitchell, New York.
- “ 11. One Flores Cow and Calf, presented by Charles W. Dab-
ney, Esq., U. S. Consul at Azores.
- “ 18. One Monkey, presented by Mr. W. K. Crick, Brooklyn.
- “ 20. One Fox Squirrel, presented by Mr. A. A. Rice, New
York.
- “ 21. One Mexican Parrot, presented by Master James Klaver,
New York.
- “ 26. One Raccoon, presented by Mr. Henry Hammock, New
York.

- Sept. 27. One Hawk, presented by Mr. Ely M. Boggs, Cleveland, Ohio.
- “ 30. One Penelope, presented by Mr. John F. Baldwin, New York.
- “ “ One Marmozet, presented by Albert H. Gallatin, M. D., New York.
- “ “ One Deer, presented by Mr. Charles H. Ludington, New York.
- “ “ One Red Fox, presented by Mr. Stephen Lownsbay, New York.
- Oct. 7. One Pigeon, presented by Miss Malina Durand, New Jersey.
- “ 9. One Galeated Curassow, presented by Mr. Royal Phelps, New York.
- “ 12. One Red Fox, presented by Masters Franklin and Charles Benner, Astoria, L. I.
- “ 15. Two Curassows, two Penelopes, presented by Admiral S. W. Godon, U. S. N.
- “ “ Two Ring Doves, presented by Mr. Eugene D. Miller, New Jersey.
- “ 16. One Pair Wild Rabbits, presented by Mr. Henry H. Thompson, New York.
- “ 18. Two Hawks, presented by Messrs. Clark Brothers, New Haven, Conn.
- “ 22. One Red Fox.
- “ 23. Eighteen Box Turtles, presented by Mr. William H. Radford, New York.
- “ 28. One Ring-tail Monkey, presented by Masters Simeon and Fred. Leland, New York.
- “ “ Two Eagles.
- Nov. 2. One Black Squirrel, presented by Master George Adams, New York.
- “ 4. One White Rat, presented by Mr. S. Beebe, Brooklyn.
- “ 11. One Mocking Bird, presented by Master Lewis E. Smith, New York.
- “ 12. One Ring-tail Monkey, presented by Mr. James L. Jackson, Jr., New York.
- “ 13. One Robin, presented by Mr. John Fagin.
- “ 14. One Virginia Horned Owl, presented by Mr. E. Willard Smith, Detroit, Mich.

- Nov. 17. Two Mexican Deer (1 D.), presented by Mr. Guillermo T. Prichard, Mexico.
- “ 20. One Robin, presented by Mrs. C. O. Turbin, New York.
- “ “ One Syrian Eagle, presented by George E. Post, M. D., Beyrout, Syria.
- “ 21. One Pair Opossums, presented by Mr. Thomas Farran, New York.
- “ 21. One Spotted Axis Deer, presented by Capt. N. Collins, U. S. N.
- “ 25. One Boa Constrictor, presented by Mr. C. Fred. Hartt, New York.
- “ 26. One Silver Gray Fox, presented by Messrs. Bennett & Co., Beaufort, S. C.
- “ 30. One Deer, presented by Mr. G. F. D. Lanier, New York.
- “ “ One Monkey, presented by Masters James and Arthur Eyre, New York.
- “ “ One Curassow, presented by Mr. A. Joel, New York.
- Dec. 3. Two Mexican Coatimundi, presented by Master Freddie Swinburne, Staten Island.
- “ “ One Moongus (D.), presented by Mr. E. Brown, New York.
- “ 14. Two Lop-eared Rabbits, one Common Rabbit, presented by Messrs. J. W. Mount and W. U. Reynolds.

The letter D, opposite the donation, denotes that it is dead.
The above are in good condition, except otherwise noted.

APPENDIX C.

A detailed statement of the Living Animals in captivity, and Mammalia, that have bred on the Central Park during the year 1867:

Mammalia.

511 Specimens.

Order: QUADRUMANA. 9 specimens.

Family: *Simia*.

Genus: *Circopithecus*. 1 specimen.

Genus: *Cynocephalus*. 1 specimen, Chacma Baboon, *C. Pocarius*.

Family: *Cebidus*.

Genus: *Cebus*. 6 specimens, 3 species, 3 White-breasted Sajous, *C. Hypoleucus*; 1 Brown Sajou, *C. Apella*; 2 Sai, *C. Capucinus*.

Genus: *Iacchus*. 1 specimen, Titi, *Simia Sciurea*.

Order: CARNIVORA. 44 specimens.

Tribe: *Plantigrada*.

Genus: *Ursus*. 6 specimens, 2 species, 5 American Black Bears, *U. Americanus*; 1 Spectacled Bear, of New Granada, *U. Ornatus*.

Genus: *Viverra*. 5 specimens, 2 species, 4 Brown Coatimundi, *V. Nasua Narica*; 1 Red Coatimundi, *V. Nasua Rufa*.

Genus: *Procyon*. 6 specimens, Raccoon, *P. Lotor*.

Genus: *Taxidea*. 1 specimen, American Badger, *T. Americanus*.

Tribe: *Digitigrada*.

Genus: *Felis*. 1 specimen, Ocelot, *F. Pardalis*.

Genus: *Lynx*. 1 specimen, Texas Wild Cat, *L. Rufus*, *Var. Maculatus*.

Genus: *Canis*. 19 specimens, 5 species, 10 Prairie Wolves, *C. Latrans*; 6 Esquimaux Dogs, *C. Familiaris*, *Var. Borealis*; 1 English Greyhound, *C.*

Familiaris; 1 Shepherd's Dog, *C. Familiaris*;
1 Alpine Mastiff, *C. Familiaris*.

Genus: *Vulpes*. 5 specimens, 2 species, 1 Gray Fox, *V. Virginianus*; 4 Red Foxes, *V. Fulvus*.

Order: MARSUPIALA. 2 specimens.

Genus: *Didelphis*. 2 specimens, Common Opossum, *D. Virginiana*.

Order: RODENTIA. 251 specimens.

Genus: *Sciurus*. 13 specimens, 5 species, 2 varieties, 3 Southern Fox Squirrels, *S. Vulpinus*; 1 Fox or Cat Squirrel, *S. Cinereus*; 4 Gray Squirrels, *S. Carolinensis*; 2 Black Squirrels, *S. Carolinensis*, Var. *Niger*; 2 Red Squirrels, *S. Hudsonius*; 1 Costa Rica Squirrel.

Genus: *Tamias*. 1 specimen, Striped Squirrel, or Chipmunk, *T. Striatus*.

Genus: *Cynomys*. 2 specimens, Short-tailed Prairie Dog, *C. Gunnisonii*.

Genus: *Arctomys*. 1 specimen, Woodchuck, or Ground Hog, *A. Monax*.

Genus: *Mus*. 202 specimens, 2 species, 2 White Rats; 200 White Mice.

Genus: *Cavia*. 25 specimens, Guinea Pigs, *C. Cobaya*.

Genus: *Lepus*. 5 specimens, 3 varieties, Rabbits.

Genus: *Dasyprocta*. 2 specimens, Common Agouti, *D. Acuti*.

Order: PACHYDERMATA. 7 specimens.

Genus: *Tapirus*. 1 specimen, American Tapir, *T. Americanus*.

Genus: *Sus*. 2 specimens, Japanese Hog.

Genus: *Dicotyles*. 4 specimens, Collared Peccary or Mexican Hog, *D. Torquatus* (*sus Tajassu*).

Order: RUMINANTIA. 198 specimens.

Family: *Cervidae*.

Genus: *Cervus*. 19 specimens, 3 species, 2 American Elk or Wapiti, *C. Canadensis*; 16 Virginia Deer, *C. Virginianus*; 1 Mexican Deer, *C. Mexicanus*.

Genus: *Axis*. 1 specimen, Axis Deer, *A. Maculata*.

Family: *Cavicornia*.

Genus: *Ovis*. 164 specimens, 2 species, 1 Cape or broad-tailed African Sheep; 163 South down Sheep, *O. Aries*.

Genus: *Capra*. 1 specimen Domestic Goat.

- Genus: *Bos*. 10 specimens, 3 species, 4 Cape Buffaloes, *B. Caffer*;
4 Flores Cattle; 3 Kerry Cattle.

Family: *Camelidæ*.

- Genus: *Camelus*. 3 specimens, Dromedary or African Camel, *C. Dromedarius*.

Aves.

339 specimens.

Order: RAPACIÆ. 36 specimens.

Family: *Falconidæ*.

Genus: *Accipiter*. 3 specimens, Hawks.

Genus: *Buteo*. 3 specimens, 2 species, 2 Red-tailed Hawks, *B. Borealis*; 1 Hawk, *B. ———*.

Genus: *Archibuteo*. 1 specimen, Rough-legged Hawk, *A. Lagopus*.

Genus: *Aquila*. 1 specimen, Imperial Eagle, *A. Mogilnik*.

Genus: *Haliaetus*. 18 specimens, Bald-headed Eagle, *H. Leucocephalus*.

Genus: *Thrasætus*. 1 specimen, Harpy Eagle, *T. Destructor*.

Family: *Strigidæ*.

Genus: *Strix*. 2 specimens, Barn Owl, *S. Pratincola*.

Genus: *Bubo*. 8 specimens, Great Horned Owl, *B. Virginianus*.

Order: PASSERINÆ. 9 specimens.

Family: *Turdidæ*.

Genus: *Turdus*. 4 specimens, 3 species, 1 English Blackbird, *T. Merula*; 1 Central American Robin, *T. infuscatus*; 2 Common Robins, *T. migratorius*.

Family: *Liotrichidæ*.

Genus: *Mimus*. 1 specimen, Mocking Bird, *M. Polyglottus*.

Family: *Fringillidæ*.

Genus: *Cyanospiza*. 1 specimen, Indigo Bird, *C. Cyanea*.

Genus: *Carduelis*. 1 specimen, Canary Bird, *C. Canaria*.

Family: *Corvidæ*.

Genus: *Corvus*. 1 specimen, Common Crow, *C. Americanus*.

Genus: *Pica*. 1 specimen, Magpie, *P. Caudata*.

Order: SCANSORIÆ. 10 specimens.

Genus: *Ara*. 1 specimen, Red Macaw, *A. Aracanga*.

Genus: *Cacatua*. 2 specimens, Greater Sulphur-crested Cockatoo, *C. Sulphurea*.

Genus: *Conurus*. 5 specimens, 2 species, Paroquets.

Genus: *Psittacus*. 2 specimens, 2 species, 1 Mexican Parrot, 1 Parrot.

Order: GALLINACIÆ. 150 specimens.

Sub-order: COLUMBÆ.

Genus: *Streptopelia*. 19 specimens, 2 varieties, 17 Ringdoves, *S. Risoria* (Linn.); 2 Ringdoves, *S. Risoria*, var. *alb.*

Sub-order: GALLINÆ.

Genus: *Pavo*. 50 specimens, Pea Fowl, *P. Cristatus*.

Genus: *Numida*. 54 specimens, 2 varieties, Guinea Fowl, 52 Gray, 2 White, *N. Meleagris*.

Genus: *Phasianus*. 8 specimens, 2 species, 1 English Pheasant, *P. Colchicus*; 7 Sebright Bantams.

Genus: *Gallophasias*. 3 specimens, 2 varieties, 2 Silver Pheasants, *G. Nycthemerus*; 1 Hybrid Pheasant.

Genus: *Lophortyx*. 3 specimens, California Valley Quail, *L. Californicus*.

Genus: *Penelope*. 5 specimens, 2 varieties, Penelopes, *P. Cristatus*.

Genus: *Ouraz*. 1 specimen, Galeated Curassow, *O. Pauxi*.

Genus: *Crax*. 7 specimens, 2 species, Curassows, 5 *C. Globicera*; 2 *C. Alector*, var. *Fasciolata* (Spix).

Order: GRALLATORIÆ. 6 specimens.

Genus: *Nyctiardea*. 1 specimen, Heron, *N. Gardeni* (Gm).

Genus: *Tigrisoma*. 2 specimens, Tiger Bitterns, *T. Brasiliense*.

Genus: *Ciconia*. 1 specimen, White Stork, *C. Alba*.

Genus: *Cancroma*. 1 specimen, Arapapa or Boat-bill, *C. Cochlearia*.

Genus: *Rallus*. 1 specimen, Rail, *R. ———*.

Order: PALMIPIDES. 128 specimens.

Genus: *Cygnus*. 65 specimens, 2 species, 1 Trumpeter Swan, *C. Buccinator*; 64 White European Swans, *C. Olor*.

Genus: *Cygnopsis*. 20 specimens, 2 varieties, 7 White and 1 Gray Chinese Swan Geese, *C. Sinensis*.

Genus: *Anser*. 1 specimen, African Mountain Goose.

Genus: *Bernicla*. 6 specimens, Canada or Wild Geese, *B. Canadensis*.

Genus: *Cairina*. 35 specimens, 2 varieties, 19 Brazilian Ducks, 16 Hybrid Ducks.

Genus: *Chroicocephalus*. 1 specimen, Gull, *C. ———*.

Reptilia.

29 specimens.

Order: CHELONIA. 23 specimens.

Genus: *Cistudo*. 16 specimens, Box Turtle, *C. Virginica*.

Genus: *Emys*. 2 specimens, Carolina Terrapins.

Genus: *Chrysemys*. 1 specimen, Painted Turtle, *C. Picta*, Gray.

Genus: *Thyrosternum*. 3 specimens, Mud Tortoise, *T. Pennsylvanicum*, Ag.

Genus: *Chelydra*. 1 specimen, Common Snapping Turtle, *C. Serpentina*.

Order: SAURIA. 3 specimens.

Genus: *Alligator*. 3 specimens, Common Alligator, *A. Mississippiensis*.

Order: OPHIDIA. 3 specimens.

Genus: *Eunectes*. 1 specimen, Anaconda, *E. Marinus*.

Genus: *Chilabothrus*. 2 specimens, Jamaica Yellow Snake, *C. Inosnatus*.

SUMMARY.

<i>Mammalia.</i>	<i>Aves.</i>	<i>Reptilia.</i>
Quadrumana . . 9	Rapaciæ . . 36	Chelonia . . 23
Carnivora . . 44	Passerinae . . 9	Sauria . . 3
Marsupialia . . 2	Scansoriae . . 10	Ophidia . . 3
Rodentia . . 251	Gallinaciæ . . 150	
Pachydermata . . 7	Grallatoriae . . 6	
Ruminantia . . 198	Palmipides . . 128	
Total . . 511	Total . . 339	Total . . 29

GRAND TOTAL.

Mammalia	511
Aves	339
Reptilia	29
Living collection	879

NUMBER OF ORDERS, GENERA, AND VARIETIES.

	<i>Orders.</i>	<i>Genera.</i>	<i>Varieties.</i>
Mammalia	6	30	54
Aves	6	38	52
Reptilia	3	8	8
Totals	15	76	114

LIST OF SPECIES EXHIBITED FOR THE FIRST TIME ON
THE CENTRAL PARK, DURING THE YEAR 1867.

Mammalia.

QUADRUMANA.

Sai Monkey, *Cebus Capucinus*. Brazil.

Tee-tee Monkey, *Callithrix*. Central America.

CARNIVORA.

Spectacled Bear, *Ursus Ornatus*. Central America.

Civet, *Viverra Civetta*. Asia.

Moongus, *Hespestes Griseus*. Asia.

St. Bernard Dog, *Canis Familiaris*. Switzerland.

RODENTIA.

Red Squirrel, *Sciurus Hudsonius*. North America.

EDENTATA.

Armadillo, *Dasypus Novemcinctus*. South America.

PACHYDERMATA.

Japanese Hog, *Sus*———. Japan.

RUMINANTIA.

Axis Deer, *Axis Maculata*. India.

Kerry Cattle, *Bos*. Ireland.

Aves.

RAPACIÆ.

Imperial Eagle, *Aquila Mogilnik*. Asia.

PASSERINÆ.

Mocking Bird, *Mimus Polyglottus*. North America.

GALLINACIÆ.

English Pheasant, *Phasianus Colchicus*. China.

Silver Pheasant, *Gallophasius Nycthemerus*. China.

Galeated Curassow, *Ourax Pauix*. South America.

GRALLATORIÆ.

Purple Gallinule, *Gallinula Martinica*. North America.

PALMIPIDES.

Gull, *Chroicocephalus*. North America.

Reptilia.**CHELONIA.**

Carolina Terrapin, *Emys*. North America.

Painted Turtle, *Chrysemys Picta*. North America.

Mud Tortoise, *Thryosternum Pennsylvanicum*. North America.

SAURIA,

Horned Toad, *Phrynosoma Cornuta*. North America.

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LIST OF SPECIES THAT HAVE BRED IN THE CENTRAL  
PARK FOR THE YEAR 1867.

**Mammalia.**

Number  
bred.

6 Prairie Wolf, *Canis Latrans*. North America.

4 Esquimaux Dog, *Canis Familiaris*. North America.

300 White Mice, *Mus*. Europe.

40 Guinea Pig, *Cavia Cobaya*. South America.

2 Collared Peccary, *Dicotyles Torquatus*. South America.

3 Virginia Deer, *Cervus Virginianus*. North America.

95 Southdown Sheep, *Ovis Aries*. England.

**Aves.**

16 Ring Dove, *Streptopelia Risoria*. North America.

29 Pea Fowl, *Pavo Cristatus*. Asia.

100 Guinea Fowl, *Numida Meleagris*. Guinea.

4 Sebright Bantams, *Phasianus*. Java.

27 White Swans, *Cygnus Olor*. G. Britain.

30 Brazilian Black Ducks, *Cairina*. Brazil.

## APPENDIX D.

## OBSERVATORY.

Latitude - - - - 40°, 45', 58" north.  
 Longitude - - - - 73°, 57', 58" west.  
 Height of ground above the sea - - 44 feet.  
 Height of instrument above the ground - 24 "  


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 Height of instrument above the sea - - 68 "

## METEOROLOGICAL TABLE No. 1.

*Table showing the observed heights of the Barometer, monthly, for the year 1867.*

| Month,<br>1867. | Mean at<br>7 A. M. | Mean at<br>2 P. M. | Mean at<br>9 P. M. | Month<br>mean. | Maximum. | Minimum. | Difference<br>or range. |
|-----------------|--------------------|--------------------|--------------------|----------------|----------|----------|-------------------------|
| January .....   | 29.865             | 29.855             | 29.858             | 29.859         | 30.454   | 29.354   | 1.100                   |
| February .....  | 30.100             | 30.082             | 29.734             | 29.972         | 30.941   | 29.312   | 1.622                   |
| March .....     | 29.734             | 30.013             | 30.043             | 29.930         | 30.471   | 29.431   | 1.040                   |
| April .....     | 29.994             | 29.934             | 29.959             | 29.962         | 30.383   | 29.380   | 1.003                   |
| May .....       | 29.894             | 29.860             | 29.886             | 29.880         | 30.453   | 29.051   | 1.402                   |
| June .....      | 30.099             | 30.085             | 30.088             | 30.101         | 30.362   | 29.663   | 0.699                   |
| July .....      | 30.015             | 30.006             | 30.015             | 30.012         | 30.340   | 29.742   | 0.598                   |
| August .....    | 30.060             | 30.039             | 30.049             | 30.049         | 30.302   | 29.710   | 0.592                   |
| September ..... | 30.162             | 30.120             | 30.138             | 30.140         | 30.513   | 29.703   | 0.810                   |
| October .....   | 30.099             | 30.060             | 30.078             | 30.079         | 30.512   | 29.643   | 0.869                   |
| November .....  | 30.038             | 29.990             | 30.019             | 30.016         | 30.364   | 29.353   | 1.011                   |
| December .....  | 30.048             | 30.019             | 30.039             | 30.035         | 30.593   | 29.542   | 1.051                   |

Year mean, at 7 A. M., of 1,095 observations.. 30.009

Year mean, at 2 P. M., of 1,095 observations.. 30.005

Year mean, at 9 P. M., of 1,095 observations.. 29.992

Year mean of..... 3,285 observations.. 30.002

Maximum for the year..... 30.941 at 2 P. M. of February 11.

Minimum for the year..... 29.051 at 2 P. M. of May 8.

Difference or range..... 1.890

## METEOROLOGICAL TABLE No. 2.

*Table showing the state of the Thermometer, monthly, for the year 1867.*

| MONTH,<br>1867. | FORENOON.                    |       | AFTERNOON.                   |       | Month<br>mean. | Maximum. | Minimum. | Difference or<br>range. |
|-----------------|------------------------------|-------|------------------------------|-------|----------------|----------|----------|-------------------------|
|                 | No. of<br>obser-<br>vations. | Mean. | No. of<br>obser-<br>vations. | Mean. |                |          |          |                         |
| January .....   | 274                          | 20.44 | 287                          | 24.18 | 22.31          | 39.00    | 1.50     | 37.50                   |
| February .....  | 267                          | 34.04 | 284                          | 37.99 | 36.01          | 54.20    | 12.00    | 42.20                   |
| March .....     | 349                          | 32.87 | 303                          | 36.15 | 34.51          | 54.20    | 18.00    | 36.20                   |
| April .....     | 328                          | 46.00 | 315                          | 51.25 | 48.62          | 69.50    | 32.50    | 37.00                   |
| May .....       | 358                          | 51.55 | 359                          | 56.39 | 53.97          | 80.10    | 32.00    | 48.10                   |
| June .....      | 356                          | 64.09 | 358                          | 70.17 | 67.13          | 85.00    | 46.00    | 39.00                   |
| July .....      | 372                          | 68.30 | 372                          | 73.32 | 70.81          | 89.00    | 56.50    | 32.50                   |
| August .....    | 360                          | 68.29 | 366                          | 72.17 | 70.23          | 85.30    | 51.50    | 33.80                   |
| September ..... | 335                          | 61.70 | 342                          | 66.14 | 63.92          | 81.00    | 44.00    | 37.00                   |
| October .....   | 371                          | 51.31 | 363                          | 57.06 | 54.18          | 75.00    | 37.80    | 37.20                   |
| November .....  | 346                          | 43.29 | 345                          | 45.76 | 44.52          | 65.40    | 20.00    | 45.40                   |
| December .....  | 351                          | 27.32 | 365                          | 31.02 | 29.17          | 50.00    | 3.80     | 46.20                   |

Year mean, in forenoon, of 4,067 observations.. 47.43

Year mean, in afternoon, of 4,059 observations.. 51.80

Year mean of ..... 8,126 observations.. 49.61

Maximum during the year..... 89.00 at 4 P. M. of July 4.

Minimum during the year..... 1.50 at 6 A. M. of January 30.

Difference or range.... 87.50

## METEOROLOGICAL TABLE No. 3.

*Table showing the durations and depths of rain and snow, monthly, during the year 1867.*

## RAIN.

| MONTH,<br>1867. | No. of days on<br>which rain<br>occurred. | DURATION. |        |          | Depth in<br>inches. | Total depth<br>in inches. | REMARKS.                                                                                       |
|-----------------|-------------------------------------------|-----------|--------|----------|---------------------|---------------------------|------------------------------------------------------------------------------------------------|
|                 |                                           | Days.     | Hours. | Minutes. |                     |                           |                                                                                                |
| January...      | .....                                     | .....     | .....  | .....    | .....               | .....                     | No rain in January.                                                                            |
| February..      | 11                                        | 2         | 21     | 27       | 4.34                | 4.34                      |                                                                                                |
| March....       | 9                                         | 3         | 6      | 20       | 2.86                | 6.70                      |                                                                                                |
| April.....      | 13                                        | 3         | 16     | 59       | 2.24                | 8.94                      |                                                                                                |
| May.....        | 15                                        | 4         | 4      | 37       | 5.76                | 14.70                     |                                                                                                |
| June.....       | 16                                        | 5         | 11     | 03       | 10.48               | 25.18                     |                                                                                                |
| July.....       | 15                                        | 2         | 11     | 59       | 3.90                | 29.08                     |                                                                                                |
| August....      | 18                                        | 4         | .....  | 01       | 7.93                | 37.01                     |                                                                                                |
| September..     | 8                                         | ....      | 6      | 52       | 0.84                | 37.85                     |                                                                                                |
| October...      | 11                                        | 2         | 16     | 34       | 4.15                | 42.00                     |                                                                                                |
| November..      | 9                                         | 1         | 22     | 21       | 1.83                | 43.85                     |                                                                                                |
| December..      | 7                                         | ....      | 17     | 20       | 2.27                | .....                     |                                                                                                |
| Totals...       | 132                                       | 31        | 15     | 33       | 45 10               | 45.10<br>8.03<br>53.13    | Depth of water produced from<br>snow.<br>Total depth of rain and melted<br>snow for year 1867. |

## SNOW.

| MONTH,<br>1867. | No. of days on<br>which snow<br>occurred. | DURATION. |        |          | Depth in<br>inches. | Total depth<br>in inches. | Depth of wa-<br>ter produced<br>in inches. | REMARKS.                                     |
|-----------------|-------------------------------------------|-----------|--------|----------|---------------------|---------------------------|--------------------------------------------|----------------------------------------------|
|                 |                                           | Days.     | Hours. | Minutes. |                     |                           |                                            |                                              |
| January...      | 9                                         | 2         | 1      | 30       | 30.50               | 30.50                     | 2.646                                      | Depth not measureable,<br>a few flakes only. |
| February...     | 4                                         | 2         | 2      | 10       | 20.25               | 50.75                     | 1.698                                      |                                              |
| March....       | 11                                        | 3         | ....   | 34       | 24.00               | 74.75                     | 2.101                                      |                                              |
| April....       | 1                                         | ....      | ....   | 11       | .....               | .....                     | .....                                      |                                              |
| May.....        | 1                                         | ....      | 1      | 16       | 0.37                | 75.12                     | 0.031                                      |                                              |
| November..      | 2                                         | ....      | ....   | 48       | .....               | .....                     | .....                                      |                                              |
| December..      | 8                                         | 1         | 19     | 15       | 17.20               | 92.32                     | 1.554                                      |                                              |
| Totals...       | 36                                        | 9         | 1      | 44       | 92.32               | .....                     | 8.030                                      |                                              |

## METEOROLOGICAL TABLE No. 4.

*Table showing the number of Igneous Meteors observed, monthly,  
during the year 1867.*

| Months,<br>1867. | Shooting Stars.     |                                  | Fire Balls. | Aeolites. | Remarks.                                                            |
|------------------|---------------------|----------------------------------|-------------|-----------|---------------------------------------------------------------------|
|                  | Number<br>observed. | Full particulars<br>obtained of. |             |           |                                                                     |
| January.....     | 16                  | 15                               |             |           |                                                                     |
| February.....    | 4                   | 4                                |             |           |                                                                     |
| March.....       |                     |                                  | .....       | .....     | Not one observed in March.                                          |
| April.....       | 5                   | 4                                |             |           |                                                                     |
| May.....         | 11                  | 10                               |             |           |                                                                     |
| June.....        | 3                   | 3                                |             |           |                                                                     |
| July.....        | 5                   | 5                                |             |           |                                                                     |
| August.....      | 262                 | 62                               | .....       | .....     | Of this number 198 were observed<br>on the 12th.                    |
| September.....   | 25                  | 4                                |             |           |                                                                     |
| October.....     | 8                   | 4                                |             |           |                                                                     |
| November.....    | 335                 | 8                                | .....       | .....     | 334 of these were observed on night<br>of 13th and morning of 14th. |
| December.....    | 3                   | 3                                |             | 1*        |                                                                     |
| Total.....       | 677                 | 122                              | .....       | 1         |                                                                     |

## \* PARTICULARS.

Time of observation, 6 + 47 A. M. of 19th.

Position, N., 82 degrees W., and 47 degrees above horizon.

Course, about S, 18 degrees W. and downward, at angle of 30 degrees  
with horizon.

Velocity, moderate and uniform.

Distance travelled, 26 degrees.

Size, fully four times that of Jupiter.

Shape, spherical, and not changeable.

Color, whitish-yellow of great brilliancy; lower part tinged with brilliant  
blue.

Time visible, two and a quarter seconds.

Scintillation, none; left no luminous train behind.

## METEOROLOGICAL TABLE No. 5.

*Table showing the number of Luminous Meteors observed, monthly, during the year 1867.*

| Months, 1867.  | Solar.   |        | Lunar.   |        | Rainbows. |         | Paraselenæ. |             | Polar Lights. | Total. |
|----------------|----------|--------|----------|--------|-----------|---------|-------------|-------------|---------------|--------|
|                | Glories. | Halos. | Glories. | Halos. | Single.   | Double. |             | Mock Moons. |               |        |
| January .....  | 1*       | 1      | .....    | 4      | .....     | .....   | .....       | .....       | .....         | 6      |
| February.....  | 1        | 1      | 1        | 8      | .....     | .....   | .....       | .....       | .....         | 6      |
| March.....     | 11       | 2      | .....    | 1      | .....     | .....   | .....       | .....       | 1             | 15     |
| April.....     | 21       | 2      | 2        | 7      | .....     | .....   | .....       | .....       | 1             | 83     |
| May .....      | 18       | 1      | .....    | 1      | .....     | .....   | 6           | .....       | 2             | 23     |
| June.....      | 12       | .....  | .....    | 2      | .....     | .....   | 11          | 16          | .....         | 41     |
| July .....     | 13       | .....  | .....    | .....  | 2         | 2       | 6           | 4           | 1             | 28     |
| August.....    | 6        | .....  | .....    | .....  | 1         | 2       | 1           | 4           | .....         | 14     |
| September..... | 13       | .....  | .....    | 1      | .....     | .....   | 1           | 8           | 4             | 22     |
| October.....   | 14       | .....  | .....    | 1      | 1         | .....   | 5           | 11          | 5             | 37     |
| November.....  | 5        | .....  | 1        | .....  | .....     | .....   | 1           | 2           | .....         | 9      |
| December.....  | .....    | .....  | .....    | 2      | .....     | .....   | 1†          | 4           | .....         | 7      |
| Total.....     | 115      | 7      | 4        | 22     | 4         | 4       | 32          | 44          | 14            | 246    |

\* This was observed at 4 P. M. of 19th. Diameter 22 degrees. It was very grand.

† This was observed at 8.34 1-2 A. M. of 21st. It, with its two mock moons, were very peculiar and beautiful.

## METEOROLOGICAL TABLE No. 6.

*Table showing the number of Thunder Storms, monthly, and the days on which they occurred, during the year 1867.*

| Months,<br>1867. | Number of Storms. | Days on which they occurred.               | Number of Days. | Remarks.                                                                                    |
|------------------|-------------------|--------------------------------------------|-----------------|---------------------------------------------------------------------------------------------|
| January.....     |                   |                                            |                 |                                                                                             |
| February.....    | 2                 | 2d, 9th.....                               | 2               |                                                                                             |
| March.....       |                   |                                            |                 |                                                                                             |
| April.....       | 2                 | 20th, 22d*                                 | 2               | * Two thunder clouds from N. W. and S. W. met. Thunder loud, and lightning terribly severe. |
| May.....         | 5                 | 1st, 13th, 14th†, 29th.....                | 4               | † Two storms.                                                                               |
| June.....        | 2                 | 16th, 18th.....                            | 2               |                                                                                             |
| July.....        | 8                 | 4th, 5th, 6th, 9th, 12th, 19th, 26th, 28th | 8               |                                                                                             |
| August.....      | 6                 | 9th, 10th, 14th†, 15th, 19th, 29th.....    | 6               | † Thunder distant, but lightning seen and thunder heard. Rain present.                      |
| September.....   |                   |                                            |                 |                                                                                             |
| October.....     | 1                 | 11th.....                                  | 1               |                                                                                             |
| November.....    |                   |                                            |                 |                                                                                             |
| December.....    |                   |                                            |                 |                                                                                             |
| Total.....       | 26                |                                            | 25              | The lightning, generally, was very mild.                                                    |

# METEOROLOGICAL TABLE No. 7.

Table showing the temperatures (Fahrenheit) of springs and Croton water for eight months of the year 1867.

| MONTH,<br>1867. | SPRINGS.       |             |                       |                 |             |                     |                       |                 |             |                                       |                       |                 | CROTON WATER, UNDER BRIDGE 3. |             |                       |                 |             |
|-----------------|----------------|-------------|-----------------------|-----------------|-------------|---------------------|-----------------------|-----------------|-------------|---------------------------------------|-----------------------|-----------------|-------------------------------|-------------|-----------------------|-----------------|-------------|
|                 | Base of Knoll. |             |                       |                 |             | Base of Great Hill. |                       |                 |             | Rustic Bridge at head of Harlem Lake. |                       |                 |                               |             |                       |                 |             |
|                 | Days.          | Hour, A. M. | Ther.<br>in open air. | Ther. in water. | Difference. | Hour, A. M.         | Ther.<br>in open air. | Ther. in water. | Difference. | Hour, A. M.                           | Ther.<br>in open air. | Ther. in water. | Difference.                   | Hour, A. M. | Ther.<br>in open air. | Ther. in water. | Difference. |
| January.....    | .....          | .....       | .....                 | .....           | .....       | .....               | .....                 | .....           | .....       | .....                                 | .....                 | .....           | .....                         | .....       | .....                 | .....           | .....       |
| February.....   | .....          | .....       | .....                 | .....           | .....       | .....               | .....                 | .....           | .....       | .....                                 | .....                 | .....           | .....                         | .....       | .....                 | .....           | .....       |
| March.....      | .....          | .....       | .....                 | .....           | .....       | .....               | .....                 | .....           | .....       | .....                                 | .....                 | .....           | .....                         | .....       | .....                 | .....           | .....       |
| April.....      | .....          | .....       | .....                 | .....           | .....       | .....               | .....                 | .....           | .....       | .....                                 | .....                 | .....           | .....                         | .....       | .....                 | .....           | .....       |
| May.....        | 13             | 9.5         | 60.0                  | 47.5            | 12.5        | 10.15               | 63.3                  | 48.1            | 15.2        | 10.45                                 | 56.3                  | 45.0            | 10.3                          | .....       | .....                 | .....           | .....       |
| June.....       | 5              | 10.10       | 69.5                  | 49.1            | 20.4        | 11.30               | 79.0                  | 50.2            | 28.8        | 11.50                                 | 78.0                  | 48.5            | 29.5                          | 9.20        | 72.3                  | 55.5            | 16.8        |
| July.....       | 5              | 10.5        | 81.6                  | 52.5            | 29.1        | 10.36               | 77.3                  | 52.7            | 24.6        | 10.55                                 | 72.3                  | 51.0            | 21.3                          | 9.30        | 79.8                  | 63.8            | 16.0        |
| August.....     | 5              | 10.5        | 77.0                  | 55.0            | 22.0        | 11.25               | 83.1                  | 55.8            | 27.6        | 11.50                                 | 79.0                  | 55.0            | 24.0                          | 9.30        | 76.4                  | 65.8            | 10.6        |
| September.....  | 5              | 10.10       | 80.0                  | 56.0            | 24.0        | 11.15               | 78.0                  | 56.0            | 22.0        | 11.30                                 | 74.5                  | 56.5            | 18.0                          | 9.40        | 79.5                  | 66.5            | 13.0        |
| October.....    | 3              | 9 11        | 61.5                  | 56.2            | 5.3         | 10.40               | 68.0                  | 56.0            | 12.0        | 11.05                                 | 69.0                  | 57.1            | 11.9                          | 8.35        | 59.2                  | 59.2            | .....       |
| November.....   | 6              | 10 0        | 45.4                  | 52.0            | 6.6         | 11 06               | 44.0                  | 50.3            | 6.3         | 11.22                                 | 47.0                  | 56.0            | 8.3                           | 9.27        | 45.4                  | 52.0            | 6.6         |
| December.....   | 4              | 10.45       | 32.5                  | 48.0            | 15.5        | 11.22               | 38.0                  | 45.5            | 7.5         | Noon.                                 | 33 5                  | 53.0            | 19.5                          | 10.15       | 34.0                  | 42.0            | 8.0         |

NOTE.—From the above it may be seen, that in May, June, July, August, September, and October, the temperatures of the waters were below that of the air, with the exception of the Croton water, in October, when there was no difference.

In November and December the temperatures of the waters were above that of the air.

The waters of the lakes and ponds were, during the year, unusually pure, and that supplied from the Croton reservoirs, was almost free from sediment and all other impurities



# METEOROLOGICAL TABLE No. 8.

*Table showing the number of observations made and recorded, monthly, during the year 1867.*

| MONTH,<br>1867. | Barometrical. | Thermometrical. | Psychrometrical. | Hydrometrical. | Igneous Meteors. | Luminous Meteors. | Aerial Meteors. | Aqueous Meteors. | Thunder Storms. | Temperatures of<br>Springs and Croton<br>Water. | Miscellaneous. | Total. |
|-----------------|---------------|-----------------|------------------|----------------|------------------|-------------------|-----------------|------------------|-----------------|-------------------------------------------------|----------------|--------|
| January.....    | 93            | 561             | .....            | .....          | 16               | 6                 | 93              | 9                | .....           | .....                                           | 4              | 782    |
| February.....   | 84            | 551             | 84               | .....          | 4                | 6                 | 87              | 15               | 2               | .....                                           | 11             | 844    |
| March.....      | 93            | 652             | 93               | .....          | .....            | 15                | 95              | 20               | 2               | .....                                           | 11             | 981    |
| April.....      | 90            | 643             | 90               | .....          | 5                | 33                | 90              | 14               | 5               | .....                                           | 31             | 1,001  |
| May.....        | 93            | 717             | 93               | .....          | 11               | 28                | 63              | 16               | 2               | 3                                               | 37             | 1,093  |
| June.....       | 90            | 714             | 90               | .....          | 3                | 41                | 90              | 16               | 8               | 4                                               | 46             | 1,102  |
| July.....       | 95            | 744             | 93               | .....          | 5                | 28                | 124             | 15               | 6               | 4                                               | 33             | 1,147  |
| August.....     | 94            | 736             | 93               | .....          | 262              | 14                | 124             | 18               | .....           | 4                                               | 42             | 1,387  |
| September.....  | 95            | 677             | 90               | 90             | 25               | 22                | 121             | 8                | 1               | 4                                               | 32             | 1,165  |
| October.....    | 93            | 734             | 93               | 93             | 8                | 37                | 124             | 11               | .....           | 4                                               | 19             | 1,216  |
| November.....   | 90            | 691             | 90               | 93             | 335              | 9                 | 121             | 12               | .....           | 4                                               | 22             | 1,467  |
| December... ..  | 93            | 716             | 98               | 90             | 3                | 7                 | 124             | 15               | .....           | 4                                               | 11             | 1,156  |
| Totals.....     | 1,103         | 8,136           | 1,002            | 366            | 677              | 246               | 1,286           | 169              | 26              | 31                                              | 299            | 13,341 |

# CIRCULAR.

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OFFICE OF THE BOARD OF COMMISSIONERS  
OF THE CENTRAL PARK,  
31 Nassau Street,  
New York, October 20, 1867.

The Commissioners of the Central Park, carrying out their intention with respect to out of door exercises on the Play Grounds of the Park, as heretofore communicated to the Board of Education, have, during the past three years, endeavored, by observation, to determine to what extent these exercises can be allowed without injury to the lawns, and without impairing their attractiveness in the landscape.

It is intended to confine the privilege of playing upon the grounds of the Park to children attending the Schools of the City; and it is the desire of the Commissioners of the Park to make this privilege, as far as is practicable, dependent upon regular attendance and good standing of the pupil in the School. To this end, the co-operation of School Officers and Teachers is desired, in order that the advantages of these arrangements may be extended to those only who will use it properly, and that the influence of the teacher may be made available to secure the proper behavior of their pupils while at the Park.

It will be readily seen that the large numbers that will desire the use of the grounds will render it essential for the preservation of order that the Regulations of the Park be strictly observed. These Regulations are simple, and intended to secure the convenience and gratification of all.

Girls, regularly attending the Public Schools, within the School age, in good standing, are allowed to play at croquet, and such other games or exercises, on the grounds of the Park set apart for that purpose as the Commissioners may approve, on Saturday of each week, from 9 A. M. till sundown, and on Wednesday and Friday, from 1 P. M. till sundown, during the season.

Applications for permission should be signed by those desiring to play, addressed to the Commissioners of the Central Park, at their Office, 31 Nassau Street, accompanied by a certificate, in the form shown on the next page, signed by the Principal of the School at which they attend. On the receipt of the application and certificate, the necessary permission will be issued.

While these arrangements are specially designed for pupils of the Public Schools, those of private schools making similar applications and bringing a similar certificate from their principals, will be afforded equal advantages on the grounds.

The Commissioners of the Park desire that it be expressly understood that these arrangements are still experimental, and that they will be modified or suspended from time to time, or altogether discontinued, as experience may prove necessary for the proper appearance of the Park, or if they are found to conflict with its convenient enjoyment by the general public.

ANDW. H. GREEN,  
*Comptroller of the Park.*

To

*Principal of Grammar School No.*

## CHAPTER 580.

## AN ACT

*To amend an Act entitled, "An Act to amend an Act entitled 'An Act in relation to the Croton Aqueduct in the city of New York, and certain streets in said city,' passed April twenty-seventh, one thousand eight hundred and sixty-five, and to provide for the full execution thereof," passed April seventeenth, one thousand eight hundred and sixty-six.*

Passed April 23, 1867; three-fifths being present.

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

SECTION 1. Sections one, two, and three of an Act entitled "An Act to amend an Act entitled an Act in relation to the Croton Aqueduct in the city of New York, and certain streets in said city, passed April twenty-seventh, one thousand eight hundred and sixty-five, and to provide for the full execution thereof," passed April seventeenth, one thousand eight hundred and sixty-six, are hereby amended so as to read as follows :

§ 1. The second section of the Act entitled "An Act in relation to the Croton Aqueduct in the city of New York, and certain streets in said city," passed April 27, 1865, is hereby amended so as to read as follows :

§ 2. The grade of the Eighth avenue, between Fifty-ninth and One Hundred and Twenty-second streets, is hereby established as follows: Commencing at an elevation seventy-six feet four inches above the high water line, at the point where the centre line of Fifty-ninth street intersects the centre line of the Eighth avenue, and continuing thence along the centre line of said avenue, on a level line, to the intersection of the centre line

of Sixty-sixth street; thence on a straight line to the intersection of the centre line of Sixty-ninth street, at such rate of ascent as to intersect the same at an elevation eighty-eight feet above the high water line; thence on a level line to the intersection of the centre line of Eightieth street; thence on a straight line to the intersection of the centre line of Eighty-fourth street, at such rate of ascent as to intersect the same at an elevation one hundred and six feet above high water line; thence on a straight line to the intersection of the centre line of Eighty-fifth street, at such rate of ascent as to intersect the same at an elevation one hundred and eight feet above the high water line; thence on a level line to the intersection of the centre line of Eighty-seventh street; thence on a straight line to the intersection of the centre line of Ninety-first street, at such rate of ascent as to intersect the same at an elevation one hundred and fifteen feet above the high water line; thence on a level line to the intersection of the centre line of Ninety-second street; thence on a straight line to the intersection of the centre line of One Hundredth street, at such rate of descent as to intersect the same at an elevation eighty-one feet above the high water line; thence on a level line to the intersection of the centre line of One Hundred and Third street; thence on a straight line to the intersection of the centre line of One Hundred and Tenth street, at such rate of descent as to intersect the same at an elevation forty-five feet above the high water line; and thence on a straight line to the intersection of the centre line of One Hundred and Twenty-second street, at such rate of descent as to intersect the same at an elevation twenty-five feet three inches above the high water line, except that there may be such elevations on the level lines hereby prescribed, not exceeding six inches to one hundred feet, as may be necessary for drainage; and all grades heretofore established for that part of the said avenue are hereby discontinued and abrogated, and the grade established by this Act shall not be changed or altered. The Commissioners of the Central Park shall regulate and grade, pave and flag that part of the said avenue between the centre lines of Seventy-seventh and Eighty-first streets, and also the northerly half of Seventy-seventh street and the southerly half of Eighty-first street, between the Eighth and Ninth avenues, and shall certify the ex-

pense thereof, and of an arch or arches or other structure, for a passage way under said Eighth avenue; and also, of adapting the work on the Park to the grade of the said Eighth avenue, established by this Act. And the Board of Supervisors of the county of New York are hereby authorized and directed to raise and collect by tax, the several amounts of money so certified, in the same manner that the other expenses of the city of New York are raised and collected by them. The Street Commissioner of the city of New York shall proceed forthwith to regulate the rest of the said Eighth avenue in conformity with the grade hereby established, and for that purpose shall, within sixty days after the passage of this Act, make one contract for that part of the work between the centre lines of Fifty-ninth and Seventy-seventh streets; one contract for that part of the work between the centre lines of Eighty-first and One Hundredth streets, and one contract for that part of the work between the centre lines of One Hundred and One Hundred and Twenty-second streets; and he shall insert in each contract a provision requiring that the work on the easterly side of the avenue, to the width of about fifty feet, shall be first done; and he shall also insert in each contract a provision that the easterly half of the work shall be finished within one year; and also that the whole work shall be finished within such limit of time as in his opinion is practicable for the full and complete performance of the work under the contract; and also such penalty for each day that may elapse between that limit and the full completion of the work, as in his judgment will secure the prompt and efficient execution of the work. That part of the grading and regulating the said avenue to be done by the Street Commissioner, as herein provided, shall be considered as one improvement, and the expense thereof shall be assessed, collected and paid in the manner now provided by law; such assessment being made upon all the property benefited by the improvement, but not to extend on either side beyond a line four hundred feet from the avenue.

§ 2. That part of the Eighth avenue between One Hundred and Third street and One Hundred and Seventh street, shall be widened on the map or plan of the city of New York, by adding on the westerly side thereof, a strip of land twenty-five feet

wide, so as to make the whole width of that part of the said avenue one hundred and twenty-five feet; provided that the owners of two-thirds of the land to be taken for such widening, shall file with the Commissioners of the Central Park, a written consent that such land be taken; and the addition to the said avenue, to be made by such widening, is hereby declared to be a part of one of the streets or avenues of the city of New York, in like manner, and with the same effect as if the same had been originally laid out as a part of the said avenue in the map plan of the said city; and all Acts and parts of Acts now in force in relation to the widening, laying out, grading, regulating, sewerage, paving, and improving streets and avenues in the said city, shall apply to the said part of the said avenue, in its enlarged width, except as may be herein otherwise provided. Upon receiving the said consent, the Commissioners of the Central Park are hereby authorized and directed, for, and in behalf of the Mayor, Aldermen and Commonalty of the city of New York, and for public use, to apply to the Supreme Court, at any Special Term thereof, held in the First Judicial District, for the appointment of Commissioners of Estimate and Assessment, for the widening of that part of the Eighth avenue authorized to be widened by this Act; and all laws now in force relative to the widening of streets in the city of New York, so far as the same are not inconsistent with this Act, shall apply to the proceedings for the said widening; and it shall be the duty of the Counsel to the Corporation of the city of New York to perform all necessary legal services in the proceedings authorized by this Act, without any additional compensation, beyond the salary and allowances now provided by law. The assessment for the said widening shall, upon the confirmation of the report of the Commissioners of Estimate and Assessment, become a lien upon the land upon which the assessment is made, and such assessment may be collected and enforced in the manner now provided by law; but no assessment shall be made upon any land more than four hundred feet from the said avenue.

§ 3. If the said avenue shall be widened as authorized by this Act, the Commissioners of the Central Park shall divide that part of the said avenue so widened, in such manner that the

easterly part thereof, to the width of at least sixty-five feet, shall be of the grade established by this Act, and the westerly part thereof, to the width of at least fifty-five feet, shall be of a higher grade to be established by the said Commissioners, but such higher grade shall not in any part be higher than the natural surface of the ground. And the Commissioners of the Central Park shall build a supporting wall along the easterly side of that part of the said avenue so widened, as is of a higher grade than that established by this Act, and place an iron railing upon the coping of the said wall; and the expense of the said wall and railing, to be certified by the said Commissioners, shall be assessed, collected and paid as part of the expenses of regulating and grading the said avenue. The said Commissioners shall also have power to build a supporting wall on the easterly side of that part of the said avenue so widened, to the height of a line parallel to the grade line of the higher grade of the westerly part of the said avenue; and to slope off or terrace the part of the surface of the Central Park immediately behind the said supporting wall; and to erect an iron bridge to connect the higher grade of the said avenue, in the part so widened, with the Central Park; and to establish an entrance into the Park opposite to the said bridge, and to erect an iron stairway near such entrance, leading to the lower grade of the said avenue; and if the said Commissioners shall make any of the said improvements, they shall certify the expense thereof as a part of the expense of adapting the work on the Park to the grade of the said Eighth avenue, established by this Act, and the amount so certified shall be raised and collected as a part of the said expense, in the manner provided by this Act.

§ 2. This Act shall take effect immediately.



STATE OF NEW YORK, }  
Office of the Secretary of State. }

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom, and of the whole of said original law.

[SEAL.]      Given under my hand and seal of office, at the city  
                                 of Albany, this 26th day of April, in the year  
                                 one thousand eight hundred and sixty-seven.

ERASTUS CLARK,  
*Deputy Secretary of State.*

## CHAPTER 697.

## AN ACT

*To alter the map or plan of certain portions of the city of New York, and for the laying out and improvement of the same.*

Passed April 24, 1867 ; three-fifths being present.

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

SECTION 1. The Board of Commissioners of the Central Park shall have and possess exclusive power to lay out and establish streets, avenues, roads, public squares or places, of such width, extent and direction as to them shall seem most conducive to public good ; and also to designate and direct what part or parts of any streets, avenues, roads, public squares and places, now laid out, shall be abandoned and closed, and also to widen any street or avenue or road now laid out, and also to alter and amend the present grades of any street, avenue or road that may be retained by them, and to establish new grades for all other streets, avenues or roads that may be laid out and established or retained by them, within that part of the city of New York, which is bounded as follows : Northerly by the southerly side of One Hundred and Fifty-fifth street, easterly by the westerly side of the Eighth avenue, southerly by the southerly side of Fifty-ninth street, and westerly by the Hudson river, and also within a space three hundred and fifty feet in width surrounding the Central Park. And also to lay out and establish new pier and bulkhead lines, and the grades thereof, as to them shall seem proper for the requirements of commerce in said North or Hudson's river from Fifty-fifth street to Spuyten Duyvil Creek, and on both sides of Spuyten Duyvil Creek and the Harlem river

from the North or Hudson's river to the line of the Third avenue; but such new pier and bulkhead lines, and the grades thereof shall not be deemed finally established until they have been approved by the Legislature.

§ 2. It shall be lawful for the said Board of Commissioners of the Central Park, and for all persons acting under their authority, to enter in the day time into and upon any lands, tenements and hereditaments which they shall deem necessary to be surveyed, used or converted, for the laying out, opening and forming of any such street, avenue, road, public square and place, and the establishment of pier and bulkhead lines; and the said Commissioners shall, in all cases of laying out streets, avenues, roads, public squares and places, and in the establishment of grades therefor, and of pier and bulkhead lines, which they are authorized or directed by law to lay out or establish, cause to be made two similar maps or plans showing the streets, avenues, roads, public squares and places, and the pier and bulkhead lines, which they shall lay out or retain as aforesaid, showing the width, extent and location of the same, and also two similar maps or plans, showing the grades that shall be amended or established by them, for the streets, avenues, roads, public squares and places so laid out or retained by them, and said maps or plans, when so made, shall be certified by one of the officers of the Board of Commissioners of the Central Park, to be designated by said Board for such purpose, and one of said maps showing the width, extent and location of the streets, avenues, roads, public squares and places, and the pier and bulkhead lines so laid out and established or retained, and one of said maps showing the grade so amended or established, shall be filed by them in and remain of record, in the office of the Street Commissioner of said city, and the others shall remain of record in the office of said Commissioners of the Central Park.

§ 3. The maps or plans, excepting the pier and bulkhead lines, and the grades thereof, when made and filed as aforesaid, shall be final and conclusive, as well in respect to the Mayor, Aldermen and Commonalty of the city of New York, as in respect to

the owners and occupiers of lands, tenements and hereditaments, within the boundaries aforesaid, and in respect to all other persons whomsoever, with the same intent and effect as if the same had been laid out and established by the Commissioners appointed in and by the act entitled "An Act relative to improvements touching the laying out of streets and roads in the city of New York, and for other purposes," passed April 3, 1807; and all streets, avenues, roads, public squares and places, and the grades thereof, heretofore laid out and established within the district mentioned in the first section of this act, which shall not be shown or retained on the maps to be filed by the Commissioners as before mentioned, shall, from and after the time of filing of said maps, cease to be or remain public streets, avenues, roads, squares or places. And the abutting owners, on such of said streets, avenues and roads as have been opened or ceded, and as shall be abandoned or closed under the provisions of this act, shall become and be seized in fee simple absolute therein, to the centre line thereof in front of his or their lands, respectively, except where such streets, avenues or roads, shall, on said maps, have been retained or taken for other public use, but subject, however, to any existing right of the Mayor, Aldermen, and Commonalty of the city of New York, to maintain and keep in order any sewer, Croton water aqueduct or pipe, or the appurtenances thereof that may have been constructed in any street, avenue or road so closed. All damage to any land or to any building or other structure thereon existing at the time of the passage of this act, or any street, avenue, or road laid out on the map of the city of New York within the district specified in the first section of this act, by reason of closing such street or altering the grade thereof, shall be ascertained and paid in the manner specified in sections three and four of an act entitled "An Act to make permanent the grades of the streets and avenues in the city of New York," passed March fourth, eighteen hundred and fifty-two. And whenever said Board of Commissioners shall deem it proper so to do, they may file maps, plans or surveys in the manner before provided, showing the streets, avenues, and public squares or places, which they have determined to lay out, abandon, close or retain within any particular section of the district mentioned in the first section of this

act, and of the grades therefor, and from and after the filing of said maps as aforesaid, the powers of said Board of Commissioners to lay out, widen, abandon, close, or alter any street, avenue, road, public square or place within such section of said district shall absolutely cease and determine.

§ 4. In all cases of improvements touching the laying out of streets, avenues, roads, public squares and places, and where said Commissioners of the Central Park are required to file maps, plans or surveys thereof, and of the grades therefor, except those laid out under the authority of this Act, it shall not be necessary to file the maps showing the laying out, and the maps showing the grades therefor, at the same time, but whenever they shall deem the public interest so require, they may file in the offices hereinbefore designated, maps, plans, or surveys, certified as hereinbefore provided, of such streets, avenues, roads, public squares and places, and of grades, as they may, from time to time, lay out and establish, and all the provisions of this Act shall be applicable to the same when so filed; but such streets, avenues, roads, public squares and places, and grades, shall be again exhibited on the maps, plans, or surveys filed upon the completion of the whole work.

§ 5. Whenever the grade of any street, avenue or road, or any part of any street, avenue or road, shall be fixed, established or changed by said Board of Commissioners of the Central Park as provided by this Act, such grades shall not be thereafter changed, unless the owners of two-thirds of the land in lineal feet fronting upon the street, avenue or road where such changes are proposed to be made, shall first consent in writing to such proposed change of grade, and file such consent in the office of the said Commissioners, and upon such consent being so filed, such grade may be so changed by said Commissioners, if they shall deem it expedient to do so, and if any such change of grade shall be so made by said Commissioners, they shall cause maps, plans, or surveys showing such changes of grade as may be so made by them, to be filed in the offices mentioned in section two of this Act, in the manner provided by said section.

§ 6. The Commissioners of the Central Park for and in behalf of the Mayor, Aldermen and Commonalty of the city of New York, are authorized to acquire title for the use of the public to any of the public squares and places, streets, avenues or roads, that have been or may be laid out or retained by them, whether under this Act or otherwise, whenever they shall deem it for the public interest so to do, and such Commissioners shall for that purpose within two years from the time of filing the map thereof as provided in the second section of this Act, make application to the Supreme Court in the First Judicial District, for the appointment of Commissioners of Estimate and Assessment, specifying, in such application, the lands required for that purpose ; and such proceedings, to acquire title to such lands, shall be had pursuant to such acts as shall then be in force relative to the opening of public squares and places, streets, avenues and roads in the city of New York, except that in such proceedings the Commissioners of the Central Park shall act in lieu and place of the Mayor, Aldermen and Commonalty of the city of New York, and except that the said Commissioners of Estimate and Assessment, who may be appointed as herein provided, may assess, for such openings, all such parties and persons, lands and tenements, as they may deem to be benefitted by such improvement, to the extent which said Commissioners deem such parties, persons, lands and tenements benefitted thereby ; and it shall be the duty of the Counsel to the Corporation of the city of New York to perform all the legal services required of him in the proceedings authorized by this Act, without any additional compensation, beyond the salary and allowance now provided by law ; and all such public squares and places, that shall be laid out or retained by said Commissioners of the Central Park, as aforesaid, shall, immediately after the same are opened, be and remain under the control and management of the Commissioners of the Central Park, as to the regulating, grading, paving, sewerage and otherwise improving and maintaining the same ; and all parts of any public street, avenue, road or public square and place, within the distance of three hundred and fifty feet from the outer boundaries of the Central Park or place, and all others laid out as aforesaid, shall, at all times, after the opening of the same, be subject to such rules and regulations, in respect to the

uses thereof, and erections or projections thereon, as the said Board of Commissioners of the Central Park may make therefor. Nothing in this Act shall be construed to authorize the Commissioners of the Central Park to do any work in the matter of regulating, grading, paving, sewerage or curb and guttering any of the streets, avenues or roads within the district mentioned in the first section of this Act, which any of the departments of the Government of the city of New York are now authorized by law to do, but said Departments shall upon the requisition of said Commissioners proceed forthwith to do such work and make such improvements within the district aforesaid as properly come under their respective powers as shall be required by the said Commissioners, upon the plan and in the manner specified by the said Commissioners, except that any sewers within the district shall be constructed on the plan provided therefor by the Croton Aqueduct Board; and nothing in this Act shall affect existing ordinances of regulations concerning hackney coaches.

§ 7. If at any time after the filing of the maps showing the laying out of the streets, avenues, roads, and public squares and places before provided for, or that may be laid out by the said Commissioners of the Central Park, by virtue of any other act, the owner or owners of any plot of land bounded on all sides by streets, avenues, or roads, and not laid out as and for a public square or place shall desire to subdivide such plot and give public right of way into or through such plot, he, she, or they may do so, by submitting two maps, plans or surveys of such plot and of such proposed right of way, showing the width, which shall not be less than thirty feet, and the location, extent and direction of the same, and the proposed grade therefor, to the Board of Commissioners of the Central Park for their approval, and if the same shall be approved by said Board, and the owner or owners aforesaid shall immediately thereafter convey, in such form as shall be approved by said Board, the title to the land required for such right of way, free and clear from all incumbrances, until the Mayor, Aldermen and Commonalty of the city of New York, in trust, as and for a public street, road or avenue; the same shall from that time be and become an open public

street, road or avenue, the same as if it had been laid out and opened as other streets, roads or avenues are or ought to be; and the maps, plans or surveys thereof and of the grades therefor shall immediately thereafter be certified and filed in the manner provided in section two of this Act.

§ 8. The Comptroller of the city of New York is hereby authorized and directed to deposit to the credit of the Board of Commissioners of the Central Park, with such Bank or Trust Company as shall be designated by the said Board, such sums of money as said Board shall from time to time require, for payment for any work, services or material furnished under any contract, proceeding or otherwise, for laying out, opening, regulating, grading or otherwise improving any street, avenue, road, public square or place, the construction or maintenance of which by law is or shall be under the direction, control and management of said Board of Commissioners of the Central Park, specifying on what particular work or proceeding said money is required, and to enable said Comptroller to raise such money and so deposit it, he is hereby authorized and empowered to borrow from time to time in the name of the Mayor, Aldermen and Commonalty of the city of New York, by the issue of bonds, bearing such rate of interest as he may deem proper, not exceeding seven per cent. per annum, such sum as shall be necessary to pay all expenses incurred or to be incurred as aforesaid; and whenever such expenses or any part thereof, is afterwards to be collected by assessment from the property benefitted by such work or works, the proceeds of such assessments so to be laid and collected for each and every such work or works, are hereby pledged for the redemption of the bonds so to be issued, and the remainder or deficiency necessary for the redemption of said bonds, and the interest thereon, shall be certified by said Comptroller to the Supervisors of the county of New York, as soon as the same shall be ascertained by him, and be by the said Supervisors included and raised in the then next annual levy for annual taxes in the city and county of New York, and be applied to the final and full redemption of said bonds and the interest thereon.



§ 9. All acts and parts of acts now in force in relation to opening, widening, laying out, grading, regulating, sewerage and otherwise improving, streets, avenues, roads, public squares and places in the city of New York, and the assessment and collection of the expenses for the same, which are not inconsistent with the provisions of this Act, are hereby declared to be applicable to this Act, the same as if they were incorporated herein.

§ 10. The powers of the Board of Commissioners of the Central Park under this Act, to lay out, establish, and widen streets, avenues, roads, public squares and places, and bulkhead and pier lines, and to designate and direct what parts of streets, avenues, roads, public squares and places shall be abandoned and closed, shall cease on the first day of May, eighteen hundred and seventy-two.

§ 11. This Act shall take effect immediately.

STATE OF NEW YORK, }  
Office of the Secretary of State. }

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom, and of the whole of said original law.

[L. s.] Given under my hand and seal of office, at the City of Albany, this twenty-fourth day of April, in the year one thousand eight hundred and sixty-seven.

ERASTUS CLARK,  
*Deputy Secretary of State.*

COMMUNICATION

FROM THE

COMPTROLLER OF THE PARK,

TO THE

COMMISSIONERS OF THE CENTRAL PARK,

RELATIVE TO THE

DISTRICT BETWEEN

FIFTY-FIFTH STREET AND ONE HUNDRED AND FIFTY-FIFTH  
STREET, WEST OF THE EIGHTH AVENUE AND  
AROUND THE CENTRAL PARK.

TO THE BOARD OF COMMISSIONERS

OF THE CENTRAL PARK :

By the provisions of an Act, entitled "An Act to enable the Commissioners of the Central Park to make further improvements in the city of New York," passed April 13th, 1866, it is made the duty of the Commissioners of the Park "to cause a survey to be made of that part of the city and county of New York, bounded northerly by One Hundred and Fifty-fifth street; easterly by the westerly line of the Eighth avenue north of Eighty-second street, and by the westerly line of the Ninth avenue south of Eighty-second street; southerly by the southerly line of Seventy-second street east of the Tenth avenue, and by the southerly line of Sixty-seventh street west of the Tenth avenue, and westerly by the Hudson river, and to prepare maps, plans, and profiles, embracing and showing such changes in the width, direction, and grades of the streets, avenues, and roads now laid out within the area above described, and in the pier and bulkhead lines now established, as, in their opinion, can be made with benefit to the property affected, and to the public interests, and also the boundaries and grades of such streets, avenues, roads, and public squares and places, as, in their opinion, can be laid out or discontinued with like benefit," with the view of enabling the Board to present a report to the Legislature, at as early a day as is practicable, all the information on the subject that was accessible within the time that has elapsed since the passage of the act has been gathered, and with the considerations that arise thereon are embodied in this communication.

The territory above described forms the westerly slope of the range of high land that extends across the whole island from about 42nd street to 109th street, includes both slopes of the elevated land from 109th to 155th street, and comprehends an area of about 1860 acres.

According to the existing plan of the city, this area is divided into 332 blocks of about 800 feet by 200 feet each, and is intersected

by  $69\frac{4}{5}$  miles of streets and avenues, the streets being, with few exceptions, 60 feet in width, and about 200 feet apart, and the avenues 100 feet in width, and about 800 feet from one to the other. These streets and avenues intersect each other at right angles, and were laid out without any reference to topography. The natural features of this area are very picturesque, and its improvement during the past two centuries, by cultivation and by the erection of mansions and public institutions, has added much to its interest.

The Hudson river is its western boundary, from which, along nearly its entire extent, the land rises more or less abruptly to the irregular and broken surface that lies between the brow of the river slope on the west, and the Central Park, the Harlem flats, and the Harlem river on the east.

The highest elevation of the natural surface, within this area, is near the intersection of the 10th avenue and 139th street, but nearly the same elevation is attained at several other points.

The ordinary gneiss rock of the island, with which the whole area is underlaid, frequently approaches the surface, and whole acres are entirely bare of soil. Rocky hills or knolls, and basins of limited extent frequently occur, and occasional depressions in the immediate river slope, where the water-ways and land-slides have formed ravines, afford the most accessible means of approach to the river.

The Bloomingdale road, dating its origin about the year 1740, passes irregularly through the whole extent of this territory is bordered by numerous elms, sycamores, and locusts, which, standing for nearly a century, have attained great size, and add much to the interest of this ancient way. Along this road, and between it and the river, some of the numerous fine old mansions, monuments of the wealth and taste of a past day, are still occupied as private residences, though many of the most prominent have succumbed to the changing occupancy that indicates the immediate advent of a great city. The Bloomingdale road, until the Park roads were in proper condition for use, was the main westerly avenue of travel from the suburbs to the city. It is still much travelled, and portions of its line are included in the route of the public road or drive laid out by the Commissioners of the Central Park under the Act of 1865.

The grounds along the slope, when viewed from the river, generally, appear well covered with trees of large growth, and, from long cultivation, are in a highly fertile condition, presenting, for miles of their varied surface, the appearance of an established

park or forest. The natural depressions that afford approaches to the river are from 79th to 83d street, at 96th street, or Stryker's bay, and at Manhattanville, all varying in the elevations to be overcome, and in their adaptability for ways to accommodate traffic; decidedly the most advantageous approach, and the only one on the whole extent that is well adapted to the purposes of commerce being at Manhattanville.

The Croton Aqueduct, constructed through this territory about the year 1841, enters it at One Hundred and fifty-fifth street, between the Ninth and Tenth avenues, and following down the Tenth avenue, crosses Manhattanville valley in iron pipes; thence by masonry to One Hundred and Seventh street; thence between the Ninth and Tenth avenues to Eighty-eighth street; there crossing the Eighth avenue, to the receiving Reservoir. By a late Act, the existing Aqueduct is to be discontinued at Ninetieth street, and the water conducted in pipes through that street to the Eighth avenue, and thence to the old distributing Reservoir. A part of the Aqueduct is supported on arches at Ninety-eighth, Ninety-ninth and One Hundredth streets, and at other points rises above the natural surface, so as to offer a serious impediment to the proper grading of the streets that cross it.

The area in question lies immediately upon the border of the city, and is already pressed upon by the demands of population. Through its entire extent the lines of the streets and avenues are defined, and their grades and elevations are established up to One Hundred and thirty-third street. The foundation and the frame work of the future city being thus fixed by law, legislative action alone can relieve the infelicities of the plan, and the expensive incumbrance of its existing grades, and this, but to a limited extent, without great inconvenience, expense and confusion.

The demand for property in this vicinity for occupancy, has already forced parts of these streets and avenues through massive ledges, and contracts under the Street Department exist for working nearly two miles more of them.

But few of the sewers have been built. The northermost sewer, except that running through Manhattan street, is now under contract up to Seventy-sixth street.

The bulkhead line along the river in front of this tract, was fixed by Act of the Legislature in the year 1837, and was changed by the Legislature on the recommendation of the Harbor Commission, in the year 1857, and a pier-head line was then established that would admit of piers about 300 feet in length.

The attempts to carry into execution the plan of this part of the city which was originally not well considered, have developed the fact that large outlays must be made to prepare it for building upon. Feeble and partial efforts have been made to overcome the net work of obstacles to improvement that must attend the carrying out of these existing legal lines and grades.

Legislation has fastened upon this territory, land and water, a heavy incumbrance in the shape of an illy adapted, expensive plan for its development, and owners and occupants, and expectant owners and occupants, are alike conscious of, and unable to dispose of the difficulties that attend its execution. It is already so far carried out as to be, in a large degree, practically incapable of being changed, and if carried out, must be attended with great disadvantages, expense, inconvenience and delay. Here a street or part of a street has been worked—there a monument of the plan stands in the shape of an abandoned attempt to cut a street through a mountain of rock. Here an avenue has been essayed, there a bit of paving done—here curb and gutter is set according to the methods of these later days—here the land has been acquired for a portion of a street—there it has not. Everywhere a mingled mass of tangled legislation and execution, surrounds the question of proposed amendments with difficulties that must be solved to a great degree by considerations of expediency,

Individual efforts having been unequal to the task of dealing comprehensively with existing obstacles, or of establishing a satisfactory method for the development of this area, the Legislature made it the duty of the Commissioners of the Park to examine it with the view of submitting their recommendations in the premises. To enable them to discharge this duty intelligently, they have caused surveys to be made of considerable portions of the district in question, having, as a matter of economy, made use of such imperfect surveys as already existed in the public departments of the city; they have also gathered from all accessible sources, a mass of facts in detail, including the number, class, and location of the structures within the district, the line of the numerous subdivisions and ownerships of property, the extent of streets and avenues opened by law or ceded to the city, the extent of streets regulated, graded, curbed, and guttered, the extent of sewerage, and such other data as would be useful.

The plan of this part of the city, adopted more than half a century since, is simply the extension over an irregular, rocky, and

sometimes precipitous surface, of a rectangular system of ways, which, however well devised it may be for a more regular and less uneven surface, is obviously illy adapted to considerable portions of the territory in question, as well on account of considerations of economy as of convenience.

An accurate topographical knowledge of the district embraced by the Act referred to, renders it certain that if it were now for the first time to be laid out into avenues, roads, streets, and public squares, the rectangular plan would not be exclusively adopted, because a very large expense might be saved in grading and improving the streets and lots if diagonal streets had been laid out in the natural valleys, and drainage provided in them, as almost all the natural water-courses run obliquely to the general direction of the streets and the river. This fact does not appear to have been considered when the first plan was made, and the only innovation in it for such purpose was made thirty years ago, when Manhattan and Lawrence streets were laid out.

In discussing the subject, it is to be borne in mind that a plan exists, that it has been in part actually put on the ground, and that the lines of property already largely conform to it. It was adopted fifty-five years ago, at a time when the area in question was owned in farms, generally bordering on the river, or on the road. Since that time estates have been so divided that but occasional tracts of any considerable extent remain under one ownership. Although most of the streets and avenues were not opened for several years after they were laid out, many of them still remaining unopened, yet the street and avenue lines, as shown on the Plan, were so convenient a method of describing lands in cases of transfer, that a very large proportion of the whole territory is now held by titles bounding on the streets and avenues, and they have become the only legal means of access to and from these properties.

A careful detailed examination of the accessible sources of information on this subject, shows that all the blocks below 133d street are very much subdivided. Of the 332 blocks composing the district in question, each comprehending originally 64 lots of 25x100, 104 are now divided into from 2 to 5 separate ownerships, 101 from 5 to 10 distinct ownerships, 63 into from 10 to 20 ownerships, 12 into 20 to 30 separate ownerships, 3 into from 30 to 40 separate ownerships, and 1 into more than 50 ownerships.

Large tracts under a single ownership are comparatively few. The grounds of Trinity Cemetery and of the Lunatic Asylum,

each being about 27 acres in extent, and those of the Leake & Watts Asylum about 22 acres, and those of the various other institutions, are located in this district. Forty-eight blocks are undivided in ownership, the same individual owning one or more of them.

The subdivisions of the territory, with the buildings erected on it, are, with other information, shown on the herewith submitted Map No. 1.\*

It will readily be seen that accurate information respecting these subdivisions is of the first importance in determining the practicability of changes in the lines of streets or avenues from the existing plan.

Every property, though it be but one ordinary sized city lot, is entitled to access, which is provided in the adjacent streets or avenues. Take these away, if it can be legally done, and the property is deprived of a chief element of its value, and some method of compensation for the resulting damage must be provided.

The difficulties, complications, and expenses that would attend the abandonment of any legally existing street or avenue upon which various properties now abut, will readily be perceived. The owners would in most cases be left without any access to their properties, and it would be, to say the least, doubtful to whom the fee of the abandoned way would fall; endless confusion and delay in the adjustment of titles would arise, and where improvements have been made compensation must necessarily follow the abandonment of the streets. Questions as to the ownership of the reversion of the fee of the street, and of compensation for its abandonment, would be of so complicated a character as to render their adjustment only practicable through the delays of litigation. The same questions would arise, as have already arisen, in attempts to abolish squares laid out on the plan of the city. In these cases the difficulty of devising a rule for disposing of the fee of the abandoned land, or of distributing the avails of it, owing to changes in ownership of the lots to which the lands proposed to be abandoned were appurtenant, had a large influence in preventing the closing of the squares.

It may be said in those cases where the streets have not been opened and the fee of the land paid for, no damage would accrue by reason of their abandonment. If this be so, still it does not provide for the difficulty that would occur from the want of access to the various properties lying upon the abandoned street.

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\* This large and voluminous map is not printed.



Respecting the closing of cross-streets, it would seem that the method upon which the land is now laid out, and the growing disposition in the city to subdivide into properties less than 25x100, would preclude it. The blocks being 200 feet in depth, if the intermediate streets were abandoned, it would leave parcels of 230 feet in depth on each street, by 25 feet in width, a shape so inconvenient that intermediate alleys would immediately be found essential.

Of the 332 blocks into which the territory is divided by the existing plan, 210 have been subdivided into various ownerships. Of the 69  $\frac{42}{100}$  miles of streets and avenues laid out on this plan, the land for 30  $\frac{27}{100}$  miles, or nearly one-half of the whole, has been acquired by the Corporation. Of this 30 miles of streets, nearly one-half have been graded, or partially graded. Over three miles of curb and gutter have been set. Sewers have been built in Manhattan and 125th street, from the North river to and east of Eighth avenue, also in 130th street, from the river to Bloomingdale road, and in Ninth avenue from 125th street to 126th street, and contracts entered into for, and progress made in building sewers in 70th street, from North river to Tenth avenue, and in Tenth avenue from 70th to 76th street. There are in the district 2,365 separate subdivisions of property, 1,656 buildings, not including those worth less than about \$200, 1,154 of these including 168 brick buildings, 658 frame buildings, and 328 barns and sheds, have been built on the lines of the streets and avenues of the existing plan of the city, and 502 have been built without respect to it.

These statistics and considerations are cited with the view of showing some of the obstacles and inconveniences likely to arise from changes of the existing lines of streets and avenues.

We now pass to the examination of the existing conditions of this area as especially bearing upon the question of

#### LAYING OUT NEW STREETS AND AVENUES.

Generally speaking, and with reference to the whole tract under consideration, all that would be apt to meet any general favor in this way will be to provide longitudinal avenues intermediate those already laid out, and parallel to them.

The cross-streets are, if anything, already too frequent, and no general convenience is likely to be subserved by an increase of them. In proposing intermediate avenues, we are again met with the

features of the existing plan, and the same questions of subdivision of property.

The avenues on this side of the city being 800 feet apart, the introduction of an intermediate avenue of 75 feet, which is the least admissible width, would leave the block of a length of  $362\frac{1}{2}$  feet, and about 200 feet in width.

It would require six lots in each block, or about one-eleventh of the whole property, for the intermediate avenue, and would, in frequent cases, leave the remaining portion of the lots on the intermediate avenue unavailable by reason of a want of depth, until, in the process of time, sales and transfers, back and forth, shall add to them sufficient rear property to render them of a convenient size for improvement.

It is asserted that, in some localities west of the Park, lots situated on streets running towards the Park will be quite as valuable as they would be on an intermediate avenue. Madison avenue has been cited as an example of the advantages of the introduction of an intermediate avenue, but that, it is to be remembered, was inserted in the block between the Fourth and Fifth avenues, which is at some points 900, at others 920 feet in length, and when its width was taken out, left the avenue blocks 405 to 425 feet each in width.

The subdivisions of property over which the avenue was laid were, at the time it was introduced, much fewer, comparatively, than those on the west side of the Park.

An effort to show the effect of laying out an intermediate avenue on the property along its line, is shown on Plans hereto annexed, the black lines showing the present subdivisions, and black dotted lines the divisions that would result from the laying out of the new avenue.

By the Act of 12th April, 1837, chap. 182, the Thirteenth avenue was made the permanent exterior street from Hammond street to the north line of 135th street, and the streets laid out by the commissioners appointed under the Act of April 3d, 1807, were extended to such exterior street or Thirteenth avenue, south of and including 135th street.

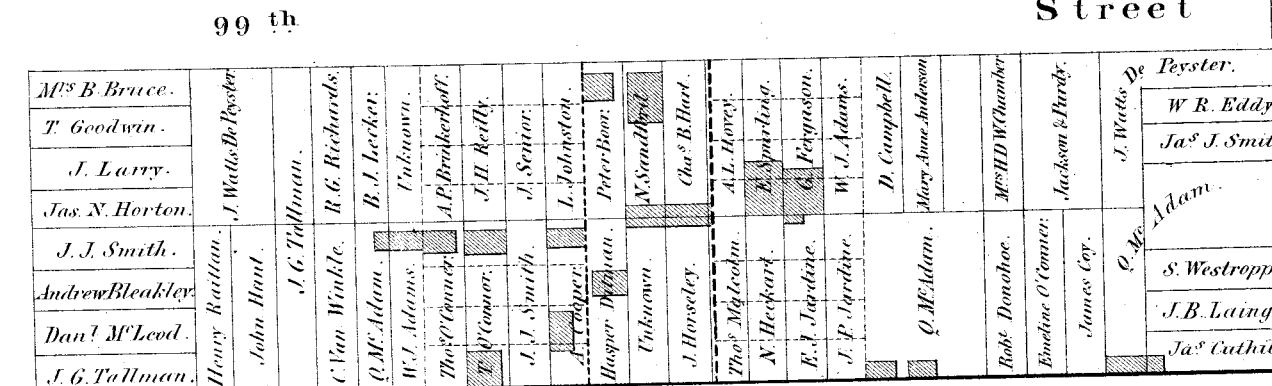
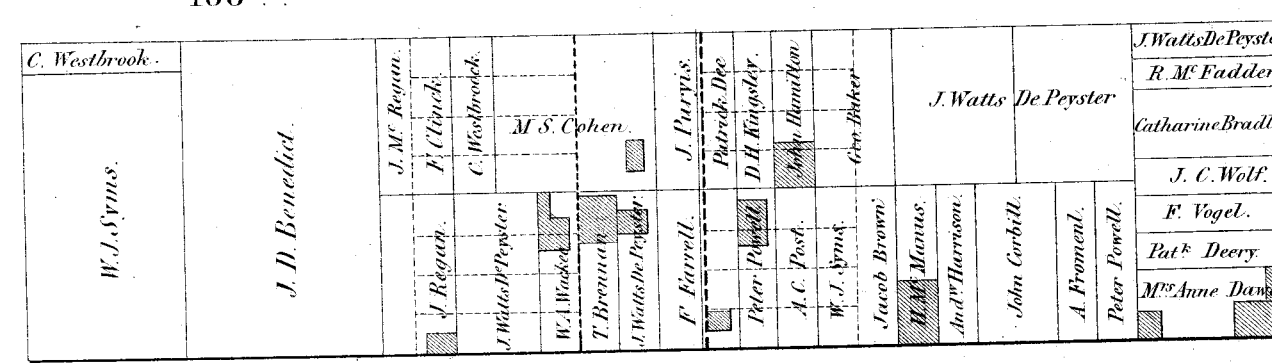
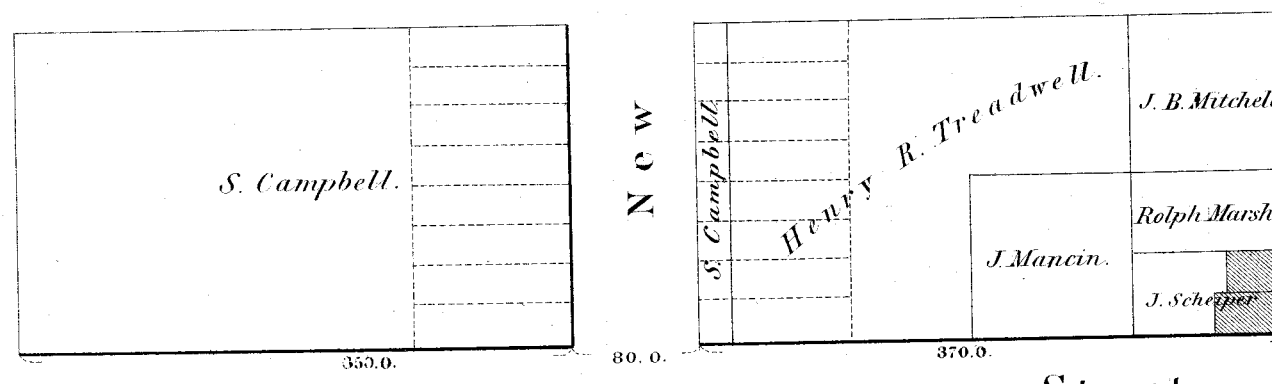
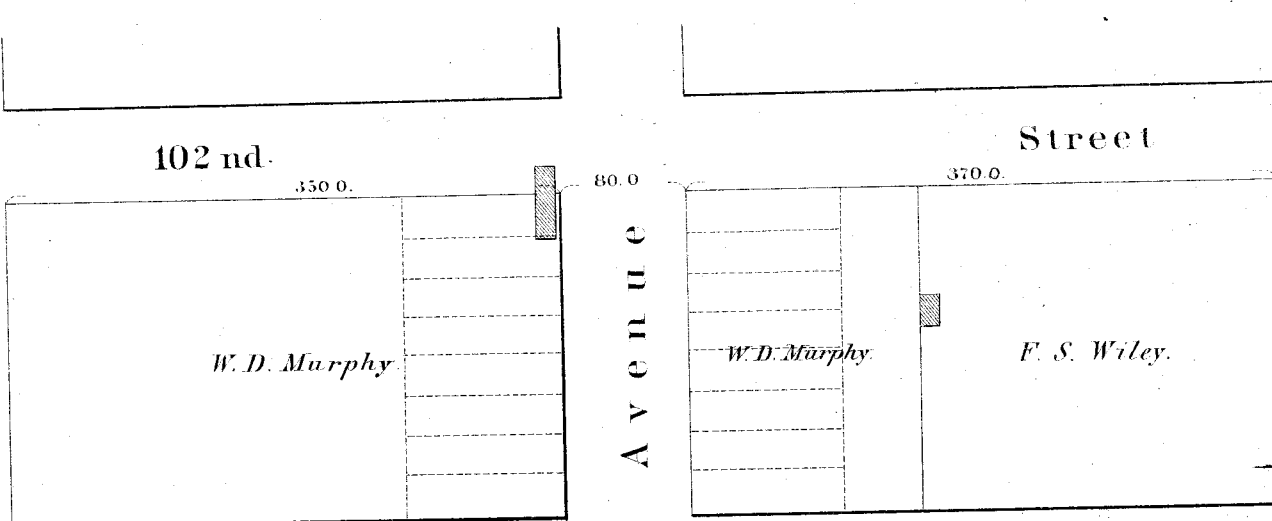
The same act vested the Mayor, Aldermen and Commonalty of the city of New York with all the right and title of the State to the lands under water east of the westerly line of said Thirteenth Avenue.

Between the years 1837 and 1855 the Mayor, &c., made many

MAP.  
SHOWING THE EFFECT OF EXTENDING AN INTERMEDIATE AVENUE  
through blocks now subdivided into lots.

Ave.

9<sup>th</sup>



The heavy dotted lines show the lines of the Avenue extended across the blocks.  
The fine dotted lines represent lots fronting on the Avenue, and show the number  
of changes of ownership that would be necessary to place the title to a full lot,  
fronting on the Avenue, in one owner.

8<sup>th</sup>

grants of land under water south of 135th street, extending from the shore out to the Thirteenth Avenue, by authority of the above mentioned Act of April 12th, 1837.

On the 4th March, 1852, an Act of the Legislature was passed (chap. 52 Laws 1852) establishing grades for streets and avenues in the city of New York south of 63d street, and authorizing the establishment of grades for streets and avenues north of 62d street, and providing that when so established they should not be changed except upon the written consent of the owners of at least two-thirds of the land in lineal feet, fronting on each side of the street or avenue opposite to that part which is proposed to be changed or altered, and also providing for an estimate of damage by reason of such change.

By virtue of the Act of 1852 last mentioned and prior to the year 1855, grades were established for the streets and avenues between 62d and 133d streets, extending out to the westerly side of the Thirteenth avenue, as established by the said Act of 1837. The grades for the Twelfth avenue, which is near the present shore, were also fixed at various heights above high-water level, varying from ten feet to forty feet, but generally about twenty feet, and from the Twelfth avenue the street grades were established by regular slopes to the west side of the Thirteenth avenue, and remain unaltered.

On the 30th March, 1855, an act was passed entitled "An Act for the appointment of a Commission for the preservation of the Harbor of New York from encroachments, and to prevent obstructions to the necessary navigation thereof." (Chap. 121 Laws of 1855.) The Commission so appointed made its reports to the Legislature—one dated January 8th, 1856, one January 27th, 1857, and the other, March 18th, 1857; and on the 17th April, 1857, (chap. 763 Laws of 1857,) an act was passed entitled "An Act to establish bulkhead and pier lines for the Port of New York," which establishes the bulkhead line or lines of solid filling, between the points referred to the consideration of the Commissioners of the Central Park, on a line parallel to the Twelfth Avenue and one hundred feet west of the same, whenever such bulkhead line is westerly or outside of the present high-water mark, and at almost all other points at near the high-water mark. In some places there would be no water at the bulkhead line so established, unless the upland were excavated for the purpose.

One consequence resulting from this legislation is, that the Cor-

poration of the city of New York are deprived of the beneficial enjoyment of means for the extinguishment of the city debt, by the curtailment of the right to make grants or sell the land between the bulkhead line or line of solid filling defined by the Act of 17th April, 1857, and the westerly line of the lands granted to them by the Act of April 12th, 1837, another is, that the proprietors of lands adjacent to the shore, who, between the years 1837 and 1855, took title to, and paid for, the land between the shore and the permanent exterior street established by the Act of 1837, are debarred from filling up and improving the same, as they supposed their right was when they took out and paid for the grants from the Corporation; and another is, that the grades of the streets between the upland and the exterior line of 1837, which cannot be changed under any existing law, except with the consent before mentioned, having been fixed with reference to the exterior line of Thirteenth Avenue, cross or intersect the existing bulkhead line fixed by Act of 1857, at elevations so far above its proper grade as to render the existing streets useless for connexion with the water front and vessels at the wharves, and entirely inapplicable to the state of things as provided for in the Act of 1857.

The effect in these changes in grade is shown in Profiles 1, 2, 3, 4, herewith submitted.\*

From this review, it will be seen that the laws on the subject of the street grades, and on that of the commercial facilities at the water are so contradictory as to render further legislative action necessary to the progress of improvement.

The existing grades of the avenues and streets in that part of the district specified in the act, south of 133d street, were established under the Act of 1852; north of that street, with the exception of parts of 134th and 135th street, the grades have not been established.

These grades were established with reference to the Thirteenth Avenue bulkhead line of 1837, which is generally about 700 feet outside of the present bulkhead line (that of 1857).

If the present bulkhead line is to remain as it now is, the streets will terminate accordingly, and the grades must be altered so as to conform to it; if so altered and made continuous to the bulkhead line, the streets will, in frequent cases, be so steep as to be of little utility.

The result of the action of the Legislature on this subject is to

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\* These profiles are not printed.

draw in the bulkhead line towards the shore, leaving the streets to run out 700 feet beyond it into the water; to establish the grades for these streets but to forbid the building of them. The cross streets are thus cut off at the new bulkhead line of 1857, with their surface so far above the water as to render them of no service to commerce or in reaching the river.

The grades of the streets between the Eleventh avenue and the Eighth avenue, south of 110th street, will require modifications to adapt them to the existing grades of the Eighth avenue, and the grades of all the cross streets where now fixed, require a thorough revision, in order to avoid expensive cuttings, otherwise inevitable. Authority will be required to fix the grades from 132d to 155th street from river to river.

Above 110th street and as far up as 132d street, the grades, so far as fixed, contemplate passage to the river down the westerly slope, and to the Harlem Plains, down the easterly or rocky bluff, at a rate of descent so steep as to render the streets of very little utility, even though the great expense required to cut them through the rock should be incurred.

In determining grades, the questions involved are numerous and important; without going into detail, it is sufficient to say, that the general object is to provide adequate ways convenient for the movement of persons and property at the least practicable expense.

Questions of convenience and expense must be considered together, sometimes one giving way and again the other, as circumstances indicate.

The kind of travel or traffic likely to use the street is an important element to be considered in fixing its grade.

If a street is to be used merely as an access to a private dwelling, the grades may be laid much steeper than if is intended to accommodate heavy traffic or a throng of vehicles of pleasure.

The working of a street over an uneven surface upon a regular grade, is very like to involve expensive excavation and filling. In a rocky district, excavations of over a certain depth cost more than the value of the lot. The grade of the street not only involves the excavation or filling of the width of the street, but also the reduction or elevation of the adjacent lot to nearly the same level. If a lot of 25x100, with its half of a 60 feet street, requires to be excavated 10 feet to reduce it to the grade, 1,200 cubic yards must be removed, besides the additional amount required for cellars, basements, yards, &c. If this 1,200 yards happens to be composed of

rock, the expense of its removal would be equal to a fair priced lot. Experience shows that where heavy rock excavation is required to grade lots, they remain ungraded and unimproved for years after neighboring lots, more favorably situated, have been improved—each succeeding year of non-improvement adding taxes and interest to the original cost.

The cost of regulating and grading a street may be averaged over its whole extent, and thus equalize the expense upon the less favorably situated lots, so, if a mass of rock happens to be within the limits of a street in front of a specific property, the expense of removing it is averaged on the whole line then regulating, but the much greater expense of grading the body of the lot itself, must be borne by its owner.

It will be seen, therefore, that by the exercise of good judgment in fixing the grades of the streets and avenues of a particular district, very much may be done to facilitate the progress, and reduce the cost of its improvement.

If a district is kept back by the expensiveness of its grades, it is an actual specific loss to the owners, and to the public to the extent of the diminished taxes that may be realized from it.

The avenues in this city must generally be the superior lines of travel, and they should be kept on the best grades consistent with economy, and those of the cross streets should be left to conform as nearly as may be to the natural surface.

Experience has shown, that if grades are established a little above rather than below the natural surface, the excavation that comes from the areas, the cellars, the yards, &c., will supply the requisite amount of filling in a district of the average level character, and if the grades are put below the surface, some place of deposit must be provided for the surplus excavation, the expense of the removal of which is dependent in a greater or less degree upon the convenience of this place of deposit, which has been found in other parts of the city, in filling out the land under water to the bulkhead line. Such a place is not likely to occur to any considerable extent on the water front of the district in question, and the transportation of the masses of excavation required by existing grades becomes a most serious matter.

The chief difficulty in arranging the grades for this district is found in the fact, that the lines of the streets as laid down on the existing plan, pass directly and within a short distance from the river level to the plateau level and above 110th street, from that plateau to the level of the Harlem plains.

In these cases, the excavation required to make the streets safely accessible and desirable will be very large, and involve an enormous expenditure of money, so much so that some method must be devised to avert the serious consequences that will otherwise ensue.

According to the existing plan of the grades of the cross streets, they are frequently laid out on the top of the bluffs, at high elevations, and on the space below on much lower elevations, so that the connection or continuance of the cross streets is impossible, and they are left as *cul de sac* both above and below, having but one inlet and outlet, and no provision is made to maintain the bank upon which the upper grade is laid. In other cases, the grades were laid so low, for the purpose of communicating with the river, that excavation on the streets and lots to the depth of 60 feet, and in some cases nearly 100 feet, is required to regulate them, and even then, on many streets the grade would be so steep as to be almost unsurmountable. On the easterly bluff of the Harlem Heights, below 134th street, the grades were run from avenue to avenue, so steep as to be almost impassible, and to require an amount of excavating in most cases through rock, which would be ruinous in expense, and in the time required to do the work on the streets alone, and trebly so on the lots, as is shown by the Profiles Nos. 1, 2, 3 and 4.

With reference to the *widening* of the cross streets, it is clear that on the existing plan they are laid out so near to each other that any widening of them would so reduce the depth of the lots, as to render them less convenient for occupancy; as a general thing, therefore, the streets in the subdivided districts cannot be widened with advantage, though it would without doubt have been a great improvement on the present plan if the streets had been made of a greater width.

Having thus presented a view of the natural topography of the district in question, the progress made in fixing upon it the surface plan of 1811, and the grade plan of 1852, the improvements in the way of building, and having considered the consequences that would be likely to follow any considerable changes in the existing surface plan, it remains to present those considerations that occur in favor of modifications in these plans notwithstanding the difficulties that surround them.

FIRST.—The adoption of a new Bulkhead line along the whole extent of the district in question, in such depth of water as will answer the full purposes of commerce of the Port, and at the same



time infringe as little as possible on the natural boundaries of the river, and also the adoption of a new pier line, which will afford proper accommodations and security for any vessels that may use or lie at the piers, is recommended. The line of 1837 has been abolished; it lies at some point 1,000 feet distant from the natural shore line, and at an average distance of about 800 feet, sometimes runs into a depth of water of over 60 feet, and was probably located on the theory that the immense excavations to conform the neighboring streets and lots to the plan, would find a convenient place of deposit in filling out to this bulkhead line. No pierhead line was adopted in that year.

The present bulkhead and pier head lines were adopted by the Legislature of 1857, on the recommendation of the New York Harbor Commissioners. For a large portion of the distance between 67th and 155th streets, the bulkhead line is impracticable for commercial uses, being for nearly 28 per cent. of that distance, or about 6,500 feet in length, located at the present high water mark. The main object of a bulkhead being to enable vessels to lie at it, it would seem desirable that it should be placed where there was some water. As the above part of the present line is located, it does not afford depth of water sufficient to float any vessel; for more than half of its length, it is so located as not to afford 10 feet depth of water at low water, while for commercial purposes at least 20 feet depth of water at low water should be the minimum maintained at the bulkhead line. The present pier head line does not admit of piers longer than 300 feet in any case, and at some points of not more than 100 feet in length.

It was urged by the New York Harbor Commissioners, in their report that encroachments should not be permitted in the harbor and rivers, which by decreasing the area of the basin inside Sandy Hook, to be filled and emptied on each flux and reflux of the Ocean tide, would prevent the passage of as much water as at present flowed in and out over the bar at that place, lest by diminishing the volume which scoured and kept it clean, the depth of water on it should be decreased, and permanent injury done to the main ship channel of the Port. This is the only reason which can be gathered from their reports as controlling the location of the existing bulkhead line which was adopted on their recommendation. Yet an accurate calculation shows that between the points mentioned (67th and 155th streets) the additional space necessary to occupy for the purpose of locating the line in 20 feet

water at low tide, is but  $2\frac{1}{10}\%$  per cent. of the tidal space in the North river, directly in front of it, and consequently, but an atom in comparison with the whole tidal space inside Sandy Hook. While the same Commissioners drew lines for bulkhead or solid filling on the New Jersey side of the North river and New York Bay, which at the present session of the Legislature of New Jersey, are under discussion, and if adopted and filled out to, would occupy more tidal space than all New York city has from its formation ever occupied or proposed to occupy. It would seem that if restrictions were to be placed upon the extent to which the basin inside of Sandy Hook should be filled in, for the purposes of commerce, some regard should have been had to the location where commerce would congregate. As the bulkhead lines of the basin are now fixed, New York city, the very seat of the commerce of the Port, is much more restricted in the expansiveness of its facilities to provide for this commerce, than the more remote points of the same basin on the Jersey shore and Brooklyn.

Soundings of the shore from 59th to 155th streets have been made on the line of every street, so as to ascertain the line of 20 feet depth of water at low water. These soundings show that the bulkhead line, if placed at the line of this depth, would afford sufficient room for an avenue, at the foot of the bluff, and also a considerable space for the buildings required by commerce, and the depth of water would accomodate all vessels likely to seek for pier and dock facilities in this neighborhood.

The bulkhead line, as shown on the plan No. 2 presented herewith, should unquestionably be extended with some exceptions up to Spuyten Duyvil Creek.

In this connection, the insufficient width between the bulkhead lines on both sides of the Harlem river may be properly brought to the notice of the Legislature, as the consideration of the subject naturally comprehends the whole extent of the bulkhead and pier line from 59th street on the North river, to Spuyten Duyvil Creek, and to the 3rd avenue bridge on the Harlem river.

The Pier-head line established by the Act of 1857, on the recommendation of the New York Harbor Commissioners, on the North river, between 67th street and 152d street, is a straight line parallel to the Twelfth avenue, and 400 feet west of it, and in no case admits of piers exceeding 300 feet in length, being built, and in some parts they could not exceed 100 feet. Vessels coming to the port of New York over 300 feet in length, which are not uncommon, could

not be safely accommodated at any of the piers that could be built in the district by the existing laws.

It is considered proper that the pier-head line should be extended at least 200 feet further into the river than it now is, in order to afford proper accommodations for large vessels.

SECOND.—*Opening New Avenues and Streets, and their effect upon the existing Streets and the Grades thereof.*

As the bulkhead line of 1857 cuts off and extinguishes the exterior avenue on the water, the Thirteenth avenue, it is proposed to lay out a new avenue at the foot of the bluff on the North river shore, at a grade of about ten feet above high water, which will provide an easy descent along the cross-streets to the piers. This avenue to be under the hill, to be at least 100 feet wide, and to follow a course nearly parallel to the bulkhead. From it the cross-streets as now laid, are to extend as the width of the space will allow, to the foot of the hill on the one hand, and to the bulkhead line on the other. Public piers, built at the foot of each street, would be sufficient to serve the public requirements, and the spaces between the lower avenue and the bulkhead line could be filled up and improved by the riparian owners as fast as required for commerce, independent of improvements on the high land.

This street may be made continuous from 67th street, to and beyond 155th street.

A Terrace avenue of 100 feet in width, to be planted, and divided into proper carriage and foot-ways and court-yards, is proposed, so near to the top of the bank as to allow the cross-streets to be graded and improved, as nearly in conformity to the natural surface of the elevated land as possible, and as near as may be to the edge of the rapid declivity of the bank, and to run more or less circuitously, according to the formation of the lands, in the same general direction as the lower avenue, and on the lines and grades that are suggested by the natural features of the land, and by the existing improvements, leaving the space within which the sudden descent towards the river is made, and between the upper and lower avenue, to be disposed of as a public or private park, or by a system of terraces, as is found most suitable to the ground, and the most economical disposition of the land.

The great difficulty in arranging this side of the city is found in

making the connections between the river and the bold bluff that skirts it.

To regulate and grade the cross-streets alone, between the 11th avenue and the river, on regular grades descending from the grade of 11th avenue to the present shore, at the elevation of ten feet above high-water level, would require the removal of 2,400,000 cubic yards of earth and rock, beyond what would be required by the park or terrace plan, and to bring the lots on these streets to the level of the street would require the excavation of over 7,000,000 cubic yards more, or an aggregate of 9,800,000 yards.

The difference in quantity of excavation required to regulate the streets and lots, is 5,800,000 cubic yards in favor of the park plan, over the present grades of the streets in the district west of the 11th avenue, between 72nd and 129th street, assuming them to be laid so as to terminate at an elevation of about ten feet above tide-water, and about one-fifth less if the present plan of grades were adopted. If this excavation is composed of equal parts of rock and earth, it would cost on an average one dollar per cubic yard, or a total sum of \$5,800,000. In addition to this, a heavy item of cost will be found in the delay in the progress of improvement occasioned by the amount of work to be done before the lots can be built upon, interest and taxes being annually added to the original cost of the lot.

If the new bulkhead line is adopted, there will be no place for the deposit of the large quantity of material that must be removed from the streets between the upper and the lower avenue, in order to adapt them to convenient use, and from the adjacent lots to reduce them to the grade of the streets. While, if the park or terrace system is adopted, there would be some surplus material on the high land for filling inside the bulkhead line, which with the rubbish and cinders of the vicinity, will as experience shows, provide sufficient filling for land gained out of the river.

This material is now almost exclusively carried to make land on the New Jersey shore, in consequence of there being no convenient place of deposit on New York Island.

The quantity of land required for these parks, would, if they were made from 72d to 128th streets, as shown on plan No. 3,\* be 1,358 lots, independent of the land required for the new intermediate avenue.

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\* This map corresponds generally with the large map herewith printed, excepting that the amount of land required for parks is somewhat less.

The arrangement of the declivity into a series of parks intersected by streets extending to the river, where practicable, would effectually separate the character of the property, leaving that below the bluff, and between the parks and the river, with a leading avenue, and crossing streets to the bulkhead and piers, on low grades, for the purpose of commerce and manufacture, and the elevated land east of the bluff, for dwellings and other appropriate improvements.

Between the upper and lower avenues, the cross streets would under this arrangement, with but few exceptions be abandoned, these exceptions would be at the points where the natural conformation of the land rendered an easy descent to the river practicable without great expense, as at 79th and 96th streets.

These park spaces may be left as private property, free for the owners to improve as their judgment dictates, or to be taken in the usual way for public places, assessing a fair proportion of their cost, on the adjacent property benefitted.

They have certain characteristics favorable for park ornamentation, the three bays that are formed on the shore, afford opportunities for extensive salt-water baths and swimming ponds, easily supplied with water at each tide, while the surface of the land about the bays is such as to accommodate without much expense in preparation of structures required for such establishments.

That the property overlooking this chain of parks would be largely enhanced in value, there is no reasonable doubt.

The cost of the land would be as nothing to the increased values that such an arrangement would create in the neighborhood, the plan once settled, and the grades fixed in conformity to it, improvements would at this commanding part of the city advance with unexampled rapidity.

On the easterly side of the district in question a somewhat similar condition of things exists. From 110th street north, to Manhattan Valley, the ridge of rock almost verdureless, mainly between the 9th and 10th avenues, breaks so abruptly towards the east as to render the streets that have been laid over it in rigid conformity to the plan of the city, very expensive to work, and when worked so steep as to be very inconvenient for use.

It is proposed to lay out an avenue on a line parallel to the 9th avenue, commencing at 106th street, midway the block between the 8th and 9th avenues, below the rocky bluff, to connect with the Avenue St. Nicholas at 124th street, and with the 9th avenue,

by a diagonal avenue, from 113th street to 116th street. Also to lay another avenue on the top of the bluff, as an outlet for the 9th avenue, between the 9th and 10th avenues, from 110th to 122d streets.

Also to lay out an intermediate avenue, commencing at the present 9th avenue between 126th and 127th streets, and diverging towards the 10th avenue, passing to the westward of the Convent of the Sacred Heart, then turning slightly to the eastward, and passing from 135th street to 145th street, about midway between the present 9th and 10th avenues. To close that part of the Bloomingdale Road between 108th and 127th streets, if the system of Parks is adopted, but retaining it across Manhattanville from 127th street to 133d street, closing it from 133d to 137th street, and straightening and widening the part from 11th avenue, at 137th street, to the 10th avenue, at 144th street. Also to close and abandon the Bloomingdale road between 10th avenue, at 144th street, and 9th avenue, at 147th street.

It is also proposed to close and abandon all the cross streets between the Avenue St. Nicholas and the new avenue intermediate the 9th and 10th avenues, from 126th street to 145th street, excepting 141st street. Also to abandon 9th avenue from 110th street to 116th street, and the cross streets between the proposed new avenue intermediate the 8th and 9th avenues and the 9th avenue, and the proposed new avenue on the bluffs between the 9th and 10th avenues from 111th street to 122d street both inclusive; also to abandon the present 9th avenue from near 127th street to 129th street, and continue the closing of it as at present between 129th and 135th streets, and abandon it from 135th to 145th street; and also to close the 12th avenue between 111th and 131st streets, and curve it outwards around the bluff between those points, if the plan of making a Park on the bluff is adopted. Also to close 134th, 135th, 136th, and 137th streets, between the 10th and 11th avenues, excepting that part of 136th street from 11th avenue to Bloomingdale Road, and close 132d, 133d, and 134th streets, between the 10th avenue and the proposed extension of the 9th avenue.

Also to close 128th street, between 10th avenue and Lawrence street.

Also to lay out two intermediate avenues between 8th and 9th avenues, and 135th and 155th streets, one adapted to the low level of land below the bluff, and the other to the high level on the bluff, closing the cross streets between the 9th avenue and the lower ave-

nues from 145th to 155th street, excepting 150th street, on the bluff. Also to close all parts of the Bloomingdale Road south of 106th street which are not absorbed in the new road or public drive lately laid out.

The foregoing are the principal alterations in the present plan of laying out the city which are suggested, and the reasons for them and benefits anticipated by such change may be reviewed as follows :

The changes suggested in and about the 9th avenue from 96th street to 124th street, and between 8th and 9th avenues and 135th and 155th streets, are required by the abruptness of the rocky surface ; if the 9th avenue were to be retained in the present lines from 110th to 123d streets, and worked on a grade suited to its average surface, all the lots on the west side of it from 110th to 116th streets would be so much above the grade as to be comparatively valueless, and direct access through the cross streets could not be had from the 9th to the 10th avenues, on 111th, 112th, 113th, 114th, 115th, 116th, 117th, 118th, 119th, 120th, and 121st streets, except by streets so steep as to be unfit for the travel ; or by grading through rock to such an extent as to make the cost of the work greater than the value of the lots—for to regulate those parts which it is proposed to abandon, according to the existing grades, would require 331,000 cubic yards of excavation, and to reduce the lots to the level of the street grades, 1,007,000 yards in addition, or together 1,338,000 cubic yards, which would be principally rock, the cost of the removal of which would be at least \$2,000,000, and would have to be borne by about 1,000 lots, producing an average cost of \$2,000 per lot, while the introduction of an intermediate avenue between the 8th and 9th avenues, from 106th street to 124th street, will allow of the grades being so amended as to save a large amount of work and expense in regulating the cross streets, and the lots fronting on them ; and the new avenue to the west of the present 9th avenue would run along the crest of the hill in the nature of a terrace avenue, and form the termination of the streets from the 10th avenue, allowing the steep bank between the top and bottom of the hill to be improved at the discretion of the owners of the property. The same remarks will apply to the district between 8th and 9th avenues and 135th and 155th streets.

The suggestions in relation to alterations proposed between 127th street and 145th street and 11th avenue, and Avenue St. Nicholas, arise from similar considerations to those last mentioned, and also

from the fact, that the 10th avenue from 128th street to 135th street is so steep as to be difficult to travel, and has the Croton Aqueduct in the centre of it, which cannot be altered except with great expense and at the risk of interfering with the supply of water below 135th street, and even then the grade of it could be but slightly improved, while a new avenue can be laid out, as shown on the maps, the steepest grade of which would not exceed four feet in one hundred feet distance, and at the same time develop the property, and save large expense in regulating the cross streets. The Bloomingdale Road, from 137th street to 144th street is retained as an outlet for the 10th avenue, because of the steepness of the 10th avenue, referred to above, and also with reference to the fact, that it is an original boundary road between several properties between 137th street and 133d street; it is recommended to close the Bloomingdale Road, because of its proximity to the 11th avenue, but from 133d street to 127th street it is thought best to retain it, as many improvements front on it on both sides. From 127th to 116th streets, it is thought best to abandon the Bloomingdale road, as it would, for a large distance, be too near the new public road or drive, and of necessity, would retain its present steep and unsafe grades, in some parts eight feet in one hundred feet distance.

The abandonment of that portion of the Bloomingdale road, between 87th and 104th street is recommended because of its proximity to the new Drive, and the 10th avenue.

The actual closing of such of these streets and roads as are in actual use should be deferred until the avenues and streets adjacent to them are opened and worked, so that owners of property may not be cut off any further than is necessary from access to their lots.

Instead of the plan of public or private parks along the river bluff, from 72d street to 129th street, another method of realizing economical results, quite as important as the park plan, entirely practicable, and attended with some advantages over the Park plan, may be found in the adoption of a plan comprehending a terrace, wall and avenue near the river, at such altitude as would allow of economical grades being made from the 11th avenue to the Terrace avenue, through all the cross streets, and allowing all the property within the proposed park limits (equal to about 800 lots) to be devoted to building purposes.

The arrangement of streets and terrace avenues, according to this plan, is shown by Map 2,\* and is a continuation from 72d street to

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\* Map No. 2 is not printed.



109th street of the system incorporated in the plan of parks, shown on Map 3, between 85th and 88th streets, where the elevation of the land and the improvements existing were such as to warrant a deviation from the plan of the parks.

The terrace avenue on this arrangement would be constructed parallel to, and adjoining the lower avenue proposed for commerce, so that both avenues and the retaining wall would be comprehended within one width or strip of land solely under public regulation and management, and accessible for construction or maintenance without interference with private property.

If it should appear that more frequent communications between the shore and the 11th avenue are desirable, they can be provided by tunnelling through and arching the bluff, in the line of some of the streets, or by making a thorough cut sufficiently wide for travel, and keeping the sides of the street at the higher level; the cost of doing the work should in such case be assessed on all the property benefitted, and not on the line of the street exclusively, and appropriate legislation to that end will be required if the plan is adopted.

If the plan of parks should be adopted for the bluffs, stair-ways could be provided from the lower avenue to the park surface, whenever necessary for pedestrian communication, and walks through the parks to the Terrace avenues, at comparatively little expense, and if the terrace plan be preferred, stair-ways would be arranged in the retaining wall wherever needed.

Between Manhattanville and 153d street and the 11th avenue or New Drive and the 12th avenue, no change in the existing plan of streets is at present specifically recommended, all the streets in this district can be graded by direct lines from avenue to avenue, within a reasonable limit of cost, and none of the grades would be steeper than 151st street, which is now the principal road to the railway station, and river; these cross streets, although too steep for commerce, being much more favorably situated for grading to the river, than those below Manhattanville.

Should the owners of property desire it, an intermediate avenue might be laid out in this district and the cross streets abandoned wherever the various owners would not be thereby deprived of access to their property, and the grounds generally left to be improved according to the wishes of the owners.

The abandonment of the masonry aqueducts and substitution of pipes for the conveyance of Croton water, south of 112th street,

would allow of much more favorable and economical grades, being established for the streets, from the 11th avenue to the 9th avenue, between 112th street and 106th streets, and between the 10th avenue and 9th avenue, from 106th street to 94th street, and also for the 10th avenue from 106th to 112th streets, and this abandonment is recommended, unless in the opinion of the Board having the aqueduct in charge, very serious consequences to the water supply, and distribution would result from it.

The Legislature has at the entrance to the park at 59th street and 8th avenue, provided for a symmetrical and convenient arrangement of the numerous sharp angles and corners that occur at this important point. Enlargements of a similar character adapted to the circumstances of each case are desirable at the other entrances to the park, especially those on its northerly and southerly boundary.

To provide facilities of access to the land known as Manhattan square, the widening of 77th and 81st streets from the 8th to 9th avenues, is desirable. This widening should, in order to preserve the lots fronting on the square of sufficient depth, be taken from the square. The widening of 110th street at least from the foot of the bluff to the East river, would also be beneficial. It would be very desirable as a matter of economy, that the power given to the Board, at the last session of the Legislature to regulate and grade one-half of 77th street between 8th and 9th avenues, were extended so as to provide for regulating the whole width of the street, the expense to be assessed as is usual in such cases.

With the Central Park extending for nearly three miles on the easterly boundary of the district in question, it has not been deemed advisable to recommend any provision of open grounds, squares or public places, other than those that occur where the streets from the natural formation of the ground, can be advantageously discontinued. These would naturally comprehend, both on the river bluff and the Harlem Heights, a total area of  $137\frac{1}{10}\frac{4}{10}$  acres.

Along the public road or drive laid out by the Act of 1865, at the spaces formed by the diagonal intersections of the avenues and streets, opportunities occur for appropriate monumental structures, and for an ornamental architecture that, not being closely confined to the ordinary straight lines of the streets, will fittingly decorate the spacious extension of the great Broadway.

The power to effect a symmetrical arrangement of these and similar places would, if judiciously exercised, result advantageously.

Where, from the precipitousness of the land, or for other reasons, the street and avenue lines have heretofore been obliterated by the Legislature, though some minor modifications are suggested, their restoration is not proposed.

In making the plans submitted, the principle that has controlled with respect to those spaces where the abandonment of the cross-street is suggested, is,—that where the expense of grading the streets and the adjacent lots would be in effect a confiscation of the lots, it would, without some controlling exceptional reason, be better to strike out the streets. If a grade must be absolutely established by law at such an elevation as requires the owner to expend more money than his lot is worth to grade it, the lot is practically valueless to him. Another controlling consideration in these cases is, if the streets were conformed to the legal grade, they would often be valueless for any general public travel, on account of their steepness, and for that reason they should be abandoned. The spaces within which the streets are so abandoned can be more profitably used either by the private owners or under a public ownership, than they can be if cut up into lots with the succession of streets.

In the recommendations made, due regard has been had to the consideration that this area has intimate relations with the territory on the north, east, and south of it. Sanitary considerations, the sewerage, drainage, and proper ventilation of that portion of the city have not been lost sight of.

The passage of a law such as the one under which this report is made, has on the area to which it applies an effect something like an injunction against improvements.

By creating doubts and uncertainty as to the plan upon which improvements are to be based, development is paralyzed, and they should not be allowed to exist one day longer than is necessary to rectify those previous mistakes, which, if fastened upon the ground, will be productive of consequences more serious than the delay necessary for their rectification.

The language of the Act requires the Commissioners "from time to time to report to the Legislature, maps, plans, and profiles, with their proceedings," evidently contemplating more than one report, and provides that the authority of the Commissioners under it "shall expire on the 1st day of May, 1868."

Impressed with the importance to all interests, at a period when this area is in actual demand for occupancy, of removing all hindrances to improvement, it would seem almost a duty to present at least a preliminary report at the earliest date practicable.

While the full time allowed by the Legislature, to wit, May 1st, 1868, will be required to perfect the detail of lines and grades over the whole district, and to prepare and file the necessary maps and profiles, it has been thought best to present general views, and in some degree particular recommendations, in order that the Legislature may be enabled to act on the subject, either by conferring the power to make the proposed changes in the plan, or by relieving the whole or particular portions of the district, where it is apparent that no changes can properly be made in the lines of the streets and avenues, from the effect of the law as it now stands.

The property owners will regard with unanimity of approval any well advised measures that tend to improve the plan of this district.

Where, within any given area, it is apparent that no change of line of streets can be made with advantage, legislation should be shaped to relieve it from any uncertainty as to the plan, so that owners may proceed to improve with confidence.

In making the surveys, soundings and examinations necessary for the preparation of the maps, plans, &c., called for by the Act of the Legislature, the Commissioners of the Park have incurred expenses amounting to about the sum of \$7,500, provision for the repayment of which will be necessary.

The following maps, plans, and profiles have been prepared to accompany this report, to wit:

Map No. 1, showing the streets and avenues, public squares or places, the bulkhead, and pier lines now established by law, also all the buildings, excepting those under \$200 in value, which existed in May last, when the survey was made, and also designating by a dark line on the north side of the streets, and on the west side of the avenues, those which have been opened or ceded, while those streets and avenues which have been opened and graded, or otherwise worked for public travel, or are under contract for grading, are designated by dark lines on both sides, and where curb and gutter stones have been set, they are shown by fine black lines in the streets and avenues.

The buildings, which are of a substantial character, are shown by shading, while sheds, barns, and stables of a inferior class are shown without shading.

Profiles Nos. 1, 2, 3, 4,\* showing by the irregular shaded lines, and the black figures, the elevation of the natural surface of the several streets above high water level, where it has not been graded, and

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\* These profiles are not printed.

also by the the more regular black lines, those parts of the streets which have been graded or worked, or are under contract for so doing. Also, by red lines and figures, the grade lines established for the streets, under the authority of the Acts of 1852, and their extent into the North river, beyond the bulkhead line established by the Act of 1857.

Map No. 2, † showing the plan for laying out according to the Terrace system, on the west side, and the Park system on the east side of the district, including the bulkhead and pier line proposed.

Where streets which it is proposed to retain, have been opened, ceded, graded, or otherwise worked, or curb and gutter stones set in them, the same designation has been given as in Map No. 1.

Map No. 3,\* showing the plan for the laying out the part of the city west of the 11th avenue, from 72d street to 129th street, by introducing public or private parks, and closing parts of many cross streets.

Profiles Nos. 5, 6, 7, 8, † showing by irregular shaded lines the natural or present surface of the present street lines above high water level, and by red lines and figures the grades that are proposed for the parts of them which it is proposed to retain if the system of terracing should be adopted according to Map No. 2, and by blue lines and figures the grades proposed if the system of public or private parks along the river front between 72nd street and 129th street, should be preferred to the terrace plan.

Maps Nos. 4, 5, 6, and 7, † prepared to illustrate the effect upon the property adjacent, of the laying out of intermediate avenues, the present subdivision of property being shown by black lines, and the proper arrangement of lots for an intermediate avenue, by blue lines

It is intended, by the recommendations of this report, and by the maps, plans, and profiles mentioned, to indicate improvements that seem to be attended with advantages: further examination may develop other practical improvements and that those suggested may to some extent be omitted or modified.

The lines on the maps are illustrative, and not designed to indicate a conclusion that they should be finally located as herein suggested or laid down on the maps, plans, or profiles.

Dated New York, March 14th, 1867.

Respectfully submitted,

ANDW. H. GREEN,

*Comptroller of the Park.*

\* Map No. 3 corresponds generally with the large map herewith printed, which also shows the Park system on the east of the district alluded to in Map No. 2.

† These profiles are not printed, and but one of these maps.

REPORT  
ACCOMPANYING THE PLAN ADOPTED  
FOR THE  
WEST SIDE OF THE CITY,  
FROM 55TH STREET TO 155TH STREET.

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TO THE BOARD OF COMMISSIONERS
OF THE CENTRAL PARK:

In submitting this plan* it is thought best to accompany it with a brief statement of the reasons that could not well be delineated upon it, for the changes proposed from the previous plan of the City.

By the terms of the Act of April 24th, 1867, the plan that the Board may adopt, within the district specified in its first section, becomes final upon its being filed, excepting as to the pier and bulkhead line, which does not become final until approved by the Legislature. And further, whenever the Board "deem it proper so to do, "they may file maps, plans, or surveys," "showing the streets, avenues and public squares or places, which they have determined "to lay out, abandon, close or retain within any particular section "of the district mentioned in the first section of the act, and of the "grades therefor, and that from and after the filing of such maps," "the powers of the Board of Commissioners to lay out, widen, "abandon, close, or alter any street, avenue, road, public square or "place within such section of the district, absolutely cease and de- "termine."

It will be seen that the maps and plans now presented embrace the whole district mentioned in said first section, west of the 8th avenue, except a small area between the northerly line of 109th and 111th streets, and between the easterly side of the 8th avenue and a line parallel to and two hundred and fifty feet west of it.

It has been deemed best to preserve the powers of the Board within the section of the district lying east of the easterly line of the 8th avenue, and the small area west of the 8th avenue, between 109th and 111th streets above described.

The great importance of prompt action on the part of the Board

* The plan was adopted by the Board Nov. 25, 1867, and similar maps filed, as required by law.

in the exercise of the powers conferred by this act, has not been lost sight of. Within a period of less than five and a half months from its passage this plan is submitted, although by the terms of the act the powers of the Board do not expire till the 1st day of May, 1872. The district now reported on, embraces property owned by more separate persons, and pays more taxes than did the whole of the City above Astor Place in 1811, when the Commissioners for laying out the City reported the plan which we are now amending; and it would have been impracticable to make a report on its revision, at so early a period as the present, if the subject had not received much attention and investigation during the last year.

A comparison of the plan now submitted with the former plan of the same part of the City, will show the changes proposed; the reasons for them are substantially those mentioned in my communication to the Board last winter. Time and further consideration of the subject have confirmed the judgment then expressed, upon the proper method of meeting, and, as far as is now practicable remedying, the defects of the original plan. The difficulties that attend the revision of any plan of this portion of the City, which, after the lapse of more than fifty years, has become identified with property and its subdivisions are great, and radical alterations in it would be likely to create delays and confusion in the adjustment of boundaries, and thus as effectually retard improvement as a strict adherence to the old plan would, by reason of the difficulties of grading the streets and avenues, on the rigidly right-angled plan, laid out over hilly and abrupt surfaces. The Terrace avenues have been laid out as near the upper edge of the steep declivities as possible, so that all available lots might be used for residences. In general the grades are so arranged on the plans submitted that the outer side of the Terrace streets will frequently require embankment walls, and the inner sides correspond nearly to the natural surface, and allow of the cross streets being regulated to the Terrace avenue with the least possible expense.

The portions laid out as public squares or places are usually so steep as to be unavailable for buildings, yet in some cases flat land is embraced in them, not only because regularity and symmetry could not otherwise be maintained, but the purposes of the improvement would not have been complete without it. This occurs at 72d street and 96th street, on the east side of 12th avenue, and near the 9th avenue and 122d street. Wherever it was practicable to avoid it, access to existing subdivisions of property has not been cut off by closing streets, and new avenues have only been provided

in those cases where they were clearly conducive to economy of expenditure and to public convenience.

In most of the plots resulting from closing the former streets and avenues, where the land is not taken for public use, the ownership is in large parcels, and the proprietors may avail themselves of the provisions of Sec. 7 of the act of 1867, by which in certain cases they are allowed to lay out roads and give public right of way into or through the property, subject to the approval of the Commissioners of the Central Park,

Examination of the figures in red on the map, denoting the height of the natural surface above high-water level, will more fully illustrate the reasons for laying out the terrace and closing the cross streets.

If the increase of population and business should show that the travel from the river to the interior of the city, through the few streets which can be retained for it, should be so great as to interrupt or seriously impede travel through the Terrace avenues, the arrangement of grades submitted is such as to allow of the cross streets being bridged on the line of the terrace, and all direct travel up and down the city, maintained above the cross streets.

An avenue intermediate the road or drive and the Terrace, has been laid out from 116th to 127th streets, for the purpose of rendering the property affected more available for buildings than it would be on the old plan.

From 111th street to 129th street, the former 12th avenue has been abandoned and closed by reason of its location over a hill, which is at some parts 120 feet above the river, and less than 250 distance from it, and a new avenue has been laid out around the foot of the hill as a substitute for the part of the 12th avenue so closed.

The 9th avenue, from 110th to 116th street, has been abandoned and closed by reason of the rugged and abrupt bluff of rock over which it passed, and an avenue connecting with it at 110th street, has been laid out, which passes along the upper edge of the bluff between the 9th and 10th avenues to 122d street, which last named street has been widened to 80 feet by taking off ten feet from the lots on each side—from the terrace last mentioned to the terrace west of the 11th avenue—and 127th street has been widened to 100 feet, from the westerly terrace to the road or drive.

A new avenue has also been laid out, connecting the 9th avenue, at 116th street, with the new avenue intermediate the 8th and 9th avenues, at 113th street.

110th street has also been widened in similar manner and extent as 122d street.

The 9th avenue, from 126th street to 145th street, has been abandoned and closed for similar reasons to those for closing it between 110th and 116th streets; and a new avenue has been laid out, passing along the west side of the ridge between the former 9th avenue and the 10th avenue, from 126th street to 145th street; such new avenue affording much easier and cheaper grades than could be obtained on either the old 9th avenue or the 10th avenue.

New bulkhead and pier lines have been laid out, subject to the approval of the Legislature, between 55th street and Spuyten Duyvil Creek. The bulkhead lines being laid as nearly as practicable in the average depth of twenty feet water at low tide, and the new pier lines at such distance from it as will allow of piers being built, or for the construction of wet basins, if they should be deemed more desirable than piers for the accommodation and protection of vessels, of lengths varying from 180 to 500 feet.

The material differences between the plan now submitted and one of those suggested last winter, consist in the introduction of an avenue from 116th street to 127th street, intermediate the road or drive and the westerly terrace, to reduce the area to be taken for a park or public place on the river bank, and afford more space for buildings on the high ground—the configuration of the natural surface rendering this change advantageous; also in the extension of the avenue intermediate the 8th and 9th avenues, from 106th street down to 100th street, at the most northerly carriage entrance on the west side of Central Park, and in some slight changes in the location of the avenues intermediate the 8th and 9th avenues, from 141st street to 155th street, as well as the abandonment of parts of streets from the Avenue St. Nicholas, between 137th and 145th streets, and the retention of 137th street, from the Avenue St. Nicholas to the 10th avenue, as it has lately been opened and the fee of it vested in the city.

The conformation of the natural surface is such that if more cross streets were laid out from the 11th avenue to the North River than appears on the plan, they would by reason of their steepness, be of but little utility, even if the expense of cutting them through in direct lines were submitted to. A drift or tunnel may hereafter be constructed at 86th street, from the 11th to the 12th avenue, as the grade will admit it, and also at other points. Some transverse roads extending diagonally across the Park may

also be made to connect the 12th avenue with the interior of the city by lines much more practicable, through the public ground, than across lots owned by private persons.

The new pier and bulkhead lines now reported are similar to those suggested last winter, and no reasons have been offered that should induce any change in their location as now shown; or to the system of providing a bulkhead line without an exterior street along it, in those parts of the city likely to be devoted to commerce and manufactories; the space between the 12th avenue and the bulkhead may be appropriated to warehouses or the landing and discharging of cargoes, without encumbrance of the necessary avenue parallel to the river, which must be preserved for access to public piers at the ends of the cross streets.

If it should hereafter be deemed desirable to provide wet basins instead of piers at the ends of streets, it can be done at several places between 55th street and 155th street, without encroaching on the channel of the river beyond the line proposed for the outer ends of piers.

In my communication previously referred to, the subject of closing parts of the old Bloomingdale Road was alluded to briefly. As much importance is attached to this subject by owners of the property fronting on the parts which it has been deemed best not to lay out and retain, it seems proper to refer to it more fully. It never has been legally contemplated that this road would be retained at any of the places now abandoned.

As early as the year 1807, when Commissioners were appointed to lay out streets and roads above Astor Place, it was enacted (Sec. 4, Chap. 115 of Laws of 1807,) "And no square or plot of ground made by the intersection of any streets to be laid out by the said Commissioners, shall ever, after the streets around the same shall be opened, be or remain divided by any open lane, alley, street or thoroughfare." The Bloomingdale Road, now called Broadway, was not laid out on the map made and filed by the Commissioners, any further north than 23d street.

The retention of this road above 23d street as one of the permanent streets, was not contemplated until about the year 1838, when an Act of the Legislature (Chap. 223) was obtained, straightening and widening it up to the 7th avenue, near 45th street; in the year 1847, (Chap. 203,) another Act was passed, laying it out from 45th street to the 10th avenue at 71st street, and in the year 1851, (Chap. 183,) still another was passed, continuing it from the 10th

avenue to 86th street, nearly midway between the 10th and 11th avenues.

During the whole period from 1811 to 1838, all parts of the Bloomingdale Road which had not been legally recognized as a public road, were subject to the operation of the Act of 1807, which would close it across any block around which the streets and avenues had been opened, and thus stop direct travel through it, and seriously interfere with access over it to the remote parts of the City, although all other parts of the road might remain open. To prevent this, it was provided in Sec. 3, Chap. 223 of Laws of 1838, "All that part of the Bloomingdale Road, in the City of New York, which lies north of the intersection of the said road with the Seventh avenue, shall remain and be kept open as a public road, until the Mayor, Aldermen and Commonalty of the City of New York shall deem proper, by an ordinance, to direct the same to be closed."

The Act of 1865, (Chap. 565,) which directed the Commissioners of the Central Park to lay out the road or public drive, prescribes the route for it "along the westerly or Hudson river side of the City, until such road or public drive shall enter the Central Park at or near the junction of the Bloomingdale Road, 8th avenue and 59th street; such road to follow the course of the Bloomingdale Road below 106th street, whenever the Commissioners shall deem such course advantageous." The line of the road was followed as far as the Commissioners of the Central Park deemed it advantageous to do so, as seems to be contemplated by the act.

All purchases or sales which have been made of property laid out as fronting on the Bloomingdale Road, above 86th street, have thus far been made, subject to the temporary use of it provided in the Act of 1838, and also subject to the provisions of the Act of 1807.

The subject of altering, amending and establishing grades for the district west of 8th avenue, from 59th to 155th street, has already occupied much time during the years 1866 and 1867; it was necessarily considered in connection with the proposed changes of the streets, avenues, roads and bulkhead lines; yet until a definite plan is adopted, and it is known what new streets, avenues and roads will be laid out, and what will be abandoned and closed, and where new bulkhead lines will be established, no definite plan for grades can be submitted where changes are proposed.

As previously mentioned, the terrace avenues have been proposed to obviate the necessity of cutting down the heights and filling up

the hollows, and to allow the cross streets leading to them to be regulated with the least possible expense; the general principles which have regulated the consideration of grades thus far, are, to preserve as far as practicable, good grades on the lines of the avenues, so as to allow of easy travel through them, and to fix the regulation for the cross streets near to the natural surface.

The natural surface over much of the district is so very uneven that a large amount of cutting and filling is unavoidable. Much of the district between the 8th and 9th avenues, from 73d street to 112th street, lies lower than the 8th and 9th avenues, and deep filling will sometimes be required to regulate the intersecting streets; so also between the 10th and 11th avenues, from 82d street to 100th street.

The subdivisions of property in conformity to the existing lines of the streets and avenues between the 8th and 11th avenues, from 59th street to 110th street, are so great as to forbid the attempt to radically alter the plan of the streets and avenues, otherwise it might be so arranged as to allow of much more economical grades being established.

It was not considered desirable that the grades of 8th avenue throughout its length, should anywhere exceed the rate of four in one hundred, and the maximum grade established for it does not reach this; neither is it thought proper that the grades for the 9th and 10th avenues, between 59th street and 110th street, should for any considerable distance exceed that limit, while for the road or public drive south of Trinity Cemetery, grades of less steepness are proposed, except in crossing Manhattan Valley between 116th and 135th streets; between those streets, except for one block in length, the rate of grade of four in one hundred is unavoidable, unless what is considered an unjustifiable expense should be incurred in regulating the road.

The 10th avenue, across Manhattan Valley, has the large mains in it for conveying the Croton water to the reservoir, and the valley is so short between the hills, that grades steeper than 4 in 100 seem unavoidable.

The 11th avenue grades, between 59th street and 106th street, need not anywhere exceed the rate of 4 in 100, except in crossing the valley at Stryker's Bay, between 96th street and 99th street.

For the Terrace avenues, grades are proposed adapted nearly to the natural surface, and except at the crossing of Stryker's Bay and

the descent into Manhattanville at 12th avenue, the gradients will vary from level to 6 in 100.

A considerable time must elapse before the maps showing the laying out of new streets, avenues, roads and public squares and places can be filed, because the law under which the proceedings are had requires that the maps showing the grades, shall be filed at the same time, and until the plan of laying out is determined, grades can only be provisionally considered, for the system of grades for new streets and avenues is inseparably connected with that for streets and avenues retained, consequently about eighty-six miles of grades have to be arranged and the maps of them drawn, after the plan of laying out streets, &c., is settled on.*

A great obstacle to an early determination of the grades is presented by the question whether the Croton aqueduct, between 92d street and 112th street, as built, shall be abandoned or retained. The subject was referred to in my report to the Board, and the report made by the Board of Commissioners of the Central Park to the Legislature last spring, but no definite action was had on it.

The removal of the aqueduct between these points, for the purpose of relieving the surrounding property from the great expense of regulating it, on grades conformable to the aqueduct, appears desirable; for it presents quite as great obstacles to the proper and economical grading of the district in question, as the portion which has been abandoned, did to the district between 85th street and 92d street.

By the grades which existed in the spring of 1867, the retention of the aqueduct virtually closed 95th, 96th, 97th and 101st streets where it crossed them, for in some places it would present a barrier thirty-four feet above the street grade, and nowhere less than fourteen feet, while for the purpose of passing under the aqueduct at 98th, 99th and 100th streets, and passing over it at 94th street and 102d street, the grades of the 9th avenue were made steeper than is deemed proper for a main line of travel.

Between 106th street and 112th street, where the aqueduct approaches and passes through the 10th avenue, the grades were arranged to pass over the aqueduct, and additional filling, fifteen feet deep, through the 10th avenue from 107th street to 112th street was necessary for so doing, and the cross streets from 107th to 112th street, both inclusive, required an average of seven and a half feet

* The plans of grades for the district west of 8th avenue, from 59th street to 155th street, were presented to the Board Feb. 26th, 1868, adopted March 3d, and filed March 7th, 1868.

more filling than they otherwise would, to conform them to the grades of the 10th avenue.

The impropriety of maintaining this structure across streets, and seriously and permanently interrupting travel upon them, because of the expense of removing it and substituting other means for attaining the object for which the present structure was built, is manifest.

If no other means for conducting the Croton water to the reservoir could be devised and operated with safety, the public necessities would justify the retention of the aqueduct as at present built, at the present injury to private interests, but the supply of Croton water for the whole portion of the city below 135th street, is now and has been for the past twenty-five years, safely and successfully brought in pipes across the valley at Manhattanville, under a pressure more than four times greater than would have to be resisted if the water was conducted in pipes through the 10th avenue from 112th street to 92d street, and through 92d street to the reservoir.

Thus the whole matter resolves itself into a question of expense. For the purpose of obtaining information on that subject, calculations have been made to determine the difference of quantities of material required to be furnished, if the grades should be established with reference to the retention of the present aqueduct, and that which would be required if the grades were established with reference to its removal, and it is found that additional filling would be required to regulate the streets and avenues alone, which are affected by it, to the amount of eight hundred and eighteen thousand cubic yards, and to make the private property affected as well situated with regard to the elevated grades, as it would be to the proper grades if the present aqueduct is removed, would require the amount of sixteen hundred thousand cubic yards additional filling, making together 2,400,000 cubic yards, which would have to be brought entirely from outside the district, for even with the present grades, that do not regard the aqueduct, there would not be sufficient excavation above grade, to furnish all the filling required below grade.

No estimate has been attempted of the injury and inconvenience that would result to private property by the retention of the aqueduct and closing any of the streets, because the district to which such damage would ensue cannot be easily determined. Neither has any estimate been made of the injury to the property fronting on and adjacent to the 9th avenue, if the present very steep grades

previously referred to were retained, because they are only needed if the aqueduct is to remain as at present, and the cross-street grades pass above and below it, in the manner formerly laid out and submitting to the barriers across 95th, 96th, 97th and 101st streets.

Almost thirty years have elapsed since the construction of the Croton aqueduct across the Clendenning valley was commenced, and the effect of such a structure on the value of adjacent and surrounding property, was not then so fully appreciated as it now is. The compactly built part of the City then scarcely averaged as far north as 14th street; the distributing reservoir at 42d street was built in fields in the year 1841, yet shortly after that time, and at a period when the value of real estate was comparatively small; damages were recovered against the City, and paid to one estate near 87th street and 9th avenue, in the amount of twenty thousand dollars, for injury done to property adjacent to the aqueduct, by reason of its projection above the natural surface, and its effect upon the grades of the streets and avenues; and notwithstanding that fact, the aqueduct south of 92d street has recently been abandoned, and the property it occupied sold to private persons.

That similar results would follow the retention of the aqueduct between 92d street and 112th street, is too evident to admit of doubt, and at the present period, when the plan of laying out and closing streets and avenues, and the revision of and establishing new grades is under consideration, it would seem unwise to neglect the teaching of the past. A great similarity exists in the situation of the aqueduct above and below 92d street, with regard to private property and public streets and avenues.

With reference to the future growth of the City, and its effects on private and public interests, it was an error to continue the masonry aqueduct below 112th street. The aqueduct has been removed for nearly one third of the distance below 112th street, and the present time seems suitable for the determination of the question whether the remainder of it should be retained or abandoned.*

Dated Nov. 1st, 1867.

ANDW. H. GREEN,
Comptroller of the Park.

* The grades adopted by the Board March 3d, 1863, are arranged with reference to the removal of the aqueduct at the point above referred to.

*Topographical Description of the Central Park, by Areas of Surface, &c.,
January 1, 1868.*

Length of Park, from 59th to 110th streets.....	13,507 ft. $9\frac{4}{10}$ in.
Breadth " " 5th to 8th avenues.....	2,718 " $6\frac{9}{10}$ "
Superficial area.....	843. $\frac{019}{1000}$ acres.
" " Ground known as Manhattan Square.....	19. $\frac{051}{1000}$ "
	862. $\frac{070}{1000}$ "
Area, exterior to inclosure, 59th street and 110th street, Broad Walks.....	Acres. Elevation of water above tide
Do. occupied by four Transverse Roads.....	3. $\frac{098}{1000}$ Feet.
Do. " new Croton Reservoir.....	9. $\frac{474}{1000}$
Do. " old Reservoir.....	106. $\frac{726}{1000}$ 115.20
	35. $\frac{289}{1000}$ 115.20
Total area of Park within enclosure, exclusive of above areas..	154. $\frac{587}{1000}$ "
	707. $\frac{433}{1000}$ acres.
Area of the Pond (near 59th street, be- tween 5th and 6th avenues)...	Acres. Elevation of surface when full above tide. Summer 1867
Do. " Lake (between 72d and 78th sts.)	4. $\frac{800}{1000}$ Feet. 26.00
Do. " Conservatory water (east of Lake near 5th av.).....	20. $\frac{167}{1000}$ 53.20
Do. " Pool (near 8th av., between 101st and 102d streets).....	2. $\frac{577}{1000}$ 41.00
Do. " the Harlem Lake.....	2. $\frac{013}{1000}$ 45.00
Do. " the Loch.....	12. $\frac{644}{1000}$ 11.00
	1. $\frac{046}{1000}$ 24.50
Total area of waters of the Park at this date.	43. $\frac{259}{1000}$ acres.
Area occupied by Carriage Roads.....	Acres.
Do. occupied by Bridle Roads.....	49. $\frac{590}{1000}$
Do. occupied by Walks.....	15. $\frac{371}{1000}$
	38. $\frac{527}{1000}$
Total.....	103. $\frac{478}{1000}$ acres.
Total area of ground within inclosure, exclusive of Reservoirs, Ponds, Roads, and Walks.....	146. $\frac{737}{1000}$ "
Area of rock surface main / without soil or shrubbery, <i>estimated</i>	560. $\frac{746}{1000}$ acres.
Area of Park ground fertilized, or chiefly fertilized, and in trees and shrubbery, or in open lawns, exclusive of Reservoirs, Roads, Walks, Ponds, rock surface, &c., <i>estimated</i>	24 "
	536. $\frac{746}{1000}$ acres.

MAP