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NINTH ANNUAL REPORT

OF THE

BOARD OF COMMISSIONERS

OF THE

CENTRAL PARK,

FOR THE

YEAR ENDING WITH DECEMBER 31, 1865.

NEW YORK : WM. C. BRYANT & CO., PRINTERS, 41 NASSAU STREET, CORNER OF LIBERTY.

1866.

REPORT.

To the Honorable

the Common Council of the City of New York:

The Board of Commissioners of the Central Park respectfully present this, its report for the year ending with the 31st day of December, 1865.

The progress made in the work at the Park is principally exhibited in the completion of structures and grounds previously commenced, and in that branch of operations that may properly be classed under the head of necessities.

To this class belong the completion of the walks and drive in the northerly portion of the Park, the bridges over or under which they are carried, the shaping of the surface of the ground, and the variety of work comprehended in the treatment of the deep valley, that is a peculiarly marked feature of this part of the Park, and the waters that pass through it, "the Loch," its rustic stone dam and waterfall, the formation of its varied shore of bays and promontories, the excavation of the basin for the larger sheet of water, known as the Harlem Lake, the construction of its banks and dam, and the prepara-

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tion of the ground to retain the water. Of structures in masonry, the chief work of the year has been done upon the exterior wall, of which the following quantities are complete:

\mathbf{Of}	retaining wall	2,392	cubic y	vards.
"	coping for wall	13	"	"
"	single-faced wall	3,909	"	"
"	two-faced wall	569	"	"
"	coping for two-faced wall	2,840	lineal	feet.

The excavation of rock for the exterior wall is mainly completed, unless the change of the grade of the Eighth avenue should develop other work of this character. Of the work in progress when the year began, Bridge No. 28, north of the Grand Reservoir, and the stone work of Bridge No. 24, near the south gate-house, are nearly complete; the iron work of the latter bridge is under contract.

The change by the Croton Aqueduct Department of the surface of the walk about the Grand Reservoir has rendered it more acceptable for the use of visitors, and it now fulfills the intention of this Board as an important and interesting portion of the system of walks.

 22_{100}^{81} acres of land have been sown to grass during the year; 7,462 feet of drain pipe, 4,538 feet of tile-drainage, and 1,968 feet of Croton water pipe have been laid, and 4 hydrants and 2 stop-cocks set.

The stone pedestals and the standards, intended to support the gilded cages that are interposed in the line of the foliage of the hedge of English yew, are complete, 9

and will, it is believed, fittingly and acceptably connect the ornamental masonry of the Terrace with the regular lines of the Mall.

It has been deemed very desirable that this central part of the Park should be brought to completion as early as was practicable. Thousands of people are attracted by the music and the play of the waters of the fountains. The convenience of the seats and of the drinking fountains in this vicinity are highly appreciated and generally availed of.

Encaustic tile for portions of the ceiling of the Terrace and for its floor are in process of manufacture. 956 movable seats, capable of accommodating 4,364 persons at one time, have been provided and distributed about the Park.

Nine fixed rustic seats have been constructed during the year, of various designs, capable of accommodating about 100 persons. Eleven rustic arbors and summerhouses have been completed, with seating accommodations for 225 persons. This class of structures is very generally used; the adaptability of rustic woodwork to the purposes of the Park renders it further use desirable.

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Six urinals and six water-closets have been constructed during the year, making in all now on the Park twentythree of these structures.

The work of planting has progressed as the new ground was prepared; 8,811 trees, shrubs and plants were planted during the year. Of these, 4,320 were from the nurseries of the Park.

There have been 1,515 square feet of awning added

during the past year to that previously supplied, the total being now 4,317 square feet, sufficient to shelter about 3,000 persons at one time.

Nine drinking fountains have been provided during the past year; adding them to those previously established, gives twenty-seven as the whole number.

The Board has not deemed it best to enter upon any considerable expenditures for structures other than those coming under the class previously mentioned.

The prices for skilled labor and for materials have generally ruled higher than in any previous year.

The stocks of the city, from which the means of the Board are derived, have met with heavy and dull sale, and the means required for carrying on the more necessary work have been irregularly received.

Although the market rates for labor and material are high, yet it is doubtful whether the operative or the material man finds his net savings any larger than when these prices were much less. In the existing state of things one dollar of the avails of an accumulating city debt yields in value of work and materials just about half of what it did in the normal condition of financial affairs.

The total expenditure on construction for the year was \$366,915 38, being a reduction of \$85,674 85 as compared with the previous year, notwithstanding the great increase of prices. A few statistics of the work of construction follow:



DRINKING PLACE FOR HORSES ON THE BRIDLE ROAD.

The total number of working days for the year, $267\frac{1}{2}$.	
Total number of mechanics, laborers, laborers with carts	
and teams, masons, stonecutters, carpenters, black-	
smiths, etc., employed during the year 1864	770
Total during the year 1865, about	643
Decrease	127
Average force per day (exclusive of contractors' force), during the year, about 341.	
The largest force engaged at any one time (exclusive of	
contractors' force), during the year 1864	4 94
The largest force engaged during 1865, about	372
Decrease	122
The average force employed by contractors during the	39
The average force employed including contractors' force.	
for the year, about	380
Average number of general foremen for the year	. 1
Average number of foremen employed during 1864	14
" " " " <u>1865</u>	11
Average number of assistant foremen employed during	0
1864	3
Average number employed during 1865	2
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The Drive and Ride are completed. Of the Drive there was completed previous to January 1, 1865, 9 miles 176 feet, completed during 1865, 2,389 feet, or 9455 miles in all. Of the Bridle Road, completed previous to January 1, 1865, 5555 miles. Of the walks, completed previous to January 1,1865, 23 miles 1,408 feet, completed during 1865, 2 miles 1,906 feet, or 25555 miles in all. A large portion of the exterior wall, as also the gates and their appurtenances for eighteen entrances to the Park from the adjacent avenues and streets, remain to be completed.

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Four of these entrances are on Fifty-ninth street,

Four on One Hundred and tenth street,

Five on the Eighth avenue, and

Five on the Fifth avenue.

A space of ten feet in width south of, and adjacent to, the southerly line of One Hundred and tenth street has been set apart, and the filling nearly completed to provide an additional width to the southerly walk of One Hundred and tenth street; thus making that walk between the Fifth and Eighth avenues twenty-five feet in width.

The walk along the southerly boundary of the Park is forty feet in width, and that on Fifth and Eighth avenues thirty feet.

The portion of the walk on the Fifth avenue below Transverse Road No. 1 has this year been planted with elms. These walks are intended to form a continuous shaded avenue around the whole Park.

The sewer through Seventy-fourth street, from the Fifth avenue to the East River, has been commenced, but no work has been done on the sewer in One Hundred and tenth street, the ordinance for constructing which was passed May 17, 1865. This last sewer is much required to take away offensive water that will otherwise find its way into the Harlem Lake.

The grading of the Fifth avenue above Ninetieth street

is not yet completed, though the work was let August 17, 1859.

The grading of One Hundred and tenth street is still incomplete, and up to this time, with perhaps a single block at Fifty-ninth street and Fifth and Eighth avenue entrances, no avenue or street bordering the Park is in a fit condition for an approach to it.

The passage by your Honorable Body, at the close of the year, of an ordinance to provide for the flagging of the full width of the sidewalks of the Fifth avenue up to Sixtieth street, will afford greater facilities for the large number of pedestrians that go to the Park by that avenue.

The paving of Fifty-ninth street, from the Fifth to the Eighth avenue, is much required; an ordinance for this purpose was adopted by your Honorable Body on the 22d of March, 1865, but the work has not yet been commenced.

The means of drainage of the surface water from that portion of the Park formerly known as Manhattan square are much needed, in order that improvements in the ground may be commenced. The effective drainage of the neighborhood will doubtless add much to its salubrity.

The Board deems it very important that this drainage should proceed without delay. It is understood to be the plan of the Croton Aqueduct Department to take the water of this area towards the North River, by a sewer through Seventy-fifth street.

Eighty-first street, bounding this square on the north, has been opened, and the work of grading it has been advertised, but it is understood the cost of the work will

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exceed one-half of the assessed value of the lands, and for that reason the contract has not been awarded.

Seventy-seventh street, the southerly boundary of the square, has been declared opened during the past year, and a resolution has been passed by your Honorable Body to grade this street from Eighth avenue to Broadway, but the work of grading has not yet commenced.

The contract for working the Ninth avenue was originally awarded December 6, 1860, but the work is yet far from completion.

The grade of the Eighth avenue, along the east side of the square, having been changed, the work of filling it remains to be done, and will, it is hoped, be soon proceeded with by the Street Department having it in charge. It will be seen that neither one of the avenues or streets bounding this square is completed. Unless they are soon put under contract, several years must elapse before it can be approached on either side.

The plans for laying it out, though not yet perfected, are under consideration; the intention at present being to connect the Square with the Park by one or more passages under or over the avenue; by this means giving convenient access to the Zoological Garden, which will probably, in part at least, be located on this square.

The Board has given the necessary assent to laying of two pipes of six feet in diameter, into the Park, opposite the block between Eighty-fifth street and Eighty sixth street, to conduct the Croton water into the old Reservoir. This arrangement dispenses with the line of the old Aqueduct west of the Eighth avenue, below Ninety-second ۰. ۲



street, and brings the water in pipes from the Aqueduct in that street to the point in the Park where it connects with the old line of the Aqueduct.

The Assessed Value of the three Wards surrounding the Park, for ten years, is as follows:

WARD.	1856.	1857.	1858.	1859.	1860.
Twelfth Nineteenth Twenty-second	\$8,149,360 8,041,183 10,239,022	\$8,134,013 8,558,624 10,489,454	\$8,476,890 10,971,775 11,568,506	\$10,062,725 12,621,894 18,261,025	\$11,857,114 16,880,472 14,775,440
Total	\$26,429,565	\$27,182,091	\$31,012,171	\$35,945,644	\$43,468,026
WARD.	1861.	1862.	1863.	1864.	1865.
Twelfth Nineteenth Twenty-second	\$12,454,875 16,986,152 17,666,866	\$13,100,385 17,903,187 18,041,857	\$14,184,825 19,003,452 18,281,222	\$15,493,575 20,462,607 18,756,276	\$18,134,605 28,070.890 19,824,265
Total	\$ 47,107,898	\$49,045,379	\$51,419,499	\$54,712,458	\$61,029,960 26,429,565

The rate of tax for the year 1865 is 2.99, yielding on increased valuation an increased tax of \$1,034,551 81.

The total expenditures for construction, from

Park up to this time, at six per

cent.....\$585,833 76

Deduct one per cent. on \$399,300 of the above stock, issued at five per \$3,993 00 cent. \$581,840 76

Excess of increased tax in three Wards, over interest on cost of land and improvements..... \$452,711 05

The current expenses have been augmented by the additional areas of roads and walks and grounds added to the completed work of the year, as well as by the general increase of prices.

The accounts of the expenses of the maintenance of the Park were several years since classified for the purpose of convenience, and to secure and preserve their correct record in detail.

This classification comprehends the following heads:

1. Roads.	9. TI
2. Walks.	10. Ti
3. Plantations.	11. M
4. Turf.	12. T
5. Water.	13. B
6. Ice.	14. M
7. Surface Drainage.	15. G
8. Irrigation.	16. Pa

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It will be readily seen that such a system must prove useful in carrying on a work involving the employment and use of such a variety of labor and materials. By this means an account of the expenses of any branch of the work, such as the cost of labor and the quantities and value of the materials thereon, is always available for purposes of comparison.

The comprehensiveness of these accounts, each separate and distinct in themselves, may be inferred from the following examples:

ROADS AND WALKS constitute a very important branch of the Park work.

These are required to be in the best condition throughout, and from the constant use to which they are subjected, require much labor and material to keep them in proper order. During the past year, nearly 9,000 cubic yards of gravel were required to keep them in proper condition. Under these heads are included the repair to road-beds, breaking stone for road metal, surfacing with gravel or other material, rolling, care, and repairs of road and walk, drainage, cleaning silt basins and the ordinary cleaning of the roads and walks.

PLANTATIONS include the care of the soils, dressing, manuring and generally renewing and maintaining their fertilizing properties, the better to promote the growth of and protect the young and tender plants.

TURF includes the proper care of the lawns, rolling sod, cutting and removing the grass.

WATER includes the expense of the care and cleaning of the ornamental waters of the Park, the Lakes and Ponds.

ICE includes the expenses incident to the care of the ice, cleaning and planing, and its illumination at night, and the erection of the houses for the accommodation of the public during the skating season.

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SURFACE DRAINAGE, differing in its functions from the thorough drainage, comprehends the repairs and clean-

ing of the general system of sewers and basins (exclusive of those used in roads and walks) required for carrying off the surface water, and the removal of the silt deposited in the basins.

IRRIGATION comprehends the cost of labor and materials used in the care and repairs of the water-works, as hydrants, stop-cocks, water-pipe, fountains, and the various mechanical appliances and implements necessary for the proper and economical supply, transportation and distribution of the water throughout the Park, required for sprinkling the roads, drives and walks, watering the turf, trees, shrubs, and plants, and for the drinking-stations distributed about the Park.

THOROUGH DRAINAGE comprehends the expenses incident to the care and repair of the extensive system of drainage; the intricate ramifications of which extend over the whole area of the Park.

In this branch is required the judgment and experience of skilled labor and a familiarity with the system. This head includes the cleaning of the basins at proper times when silt is deposited, so that no part of the system may become "choked" or disarranged, as well as the care and precautions to be observed in protracted stormy weather, to guard against breakage, overflow, or other casualties.

TRAFFIC ROADS include expenses incident to the care, repairs, and keeping in proper order for public convenience the transverse roads. ŧ

MASONRY includes the expenses of repairs required on



THE TUNNEL AND TRAFFIC ROAD.

the Park bridges and of all mason and stone work of the buildings.

Tools include the making and repairing of implements of all kinds used on the Park.

BUILDINGS include the cost and labor, and materials used in their proper care and repair.

PARK AND GATE-KEEPERS include the wages, cost of uniform, and such incidental expenses as appropriately pertain to these heads.

A miscellaneous account is required to systematize a class of expenditures not properly chargeable to any of the preceding heads.

The experience of several years shows that the annual sum provided for the expense of maintaining the Park, to wit, \$150,000, is, under the existing state of things, insufficient for the purpose, and that it will be much more convenient to have the sum increased by legislation, than to depend upon an annual application to meet a deficiency.

It will be seen that the principal item of this class of expenses is for Park and Gate-keepers—amounting, together with their uniforms, to \$59,718.80.

It may be questioned whether, in a correct distribution of expenditures, for the purposes of comparison, the cost of the Park-keepers should be thrown upon the fund for maintaining the Park. There is no doubt that, as their duties are essentially different from those of the general Police force of the city, they are more useful as at present organized; but, as the area constituting the Park would require police supervision, the main portion of the expense would have to be incurred whether this area were used as a Park or otherwise. The above-mentioned sum covers the expense of this service over an area of 843 acres.

The Park-keepers, fifty in number, are invested with Police powers, and form the patrol of the Park night and day. Twenty-five Gate-keepers, uniformed and ununiformed, are posted at the gates to enforce the ordinances of the Park respecting the admission of vehicles, and to preserve order about the gates; on special days, when large numbers are at the Park, a portion of the Gate-keepers are required to aid in keeping order on the roads and at other points.

Improved temporary station accommodations have been provided for the Keepers at the Arsenal building.

			м	ONT	ЪS.							1863.	1864.	1865.
January,	•		•		•		• • • • •				•	18	2	8
February,												5	6	11
March,												5	10	1
April, .												8	7	3
May,												13	30	17
June, .												11	8	11
July,											•	3	18	16
August,												1	17	15
September,											•	5	13	11
October,		•								•		5	7	6
November,			•				•					7	6	7
December,		•		•.		٠		•		•		5	6	9
			т	¹ ot	.1								190	
			1	.01	a		•		•		•	- 00	100	115
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The subjoined table shows the NUMBER OF ARRESTS on the Park for the past three years:

CAUSES.			1863.	1864.	1865.
Fast driving, Fast riding, Breaking shrubs and flowers, Assault and Battery, . Thieving, Disorderly conduct, . Other offences,	•	•	$47 \\ 1 \\ 9 \\ 1 \\ 1 \\ 23 \\ 4$		$ \begin{array}{c} 60 \\ 3 \\ 0 \\ 6 \\ 1 \\ 34 \\ 11 \end{array} $
Total, .	•	•	86	130	115

These arrests were for the following causes :

The Penalties imposed upon those arrested and taken before the magistrate during the year were as follows :

Fined ten dollars and less	each	ì.,					•				•	61
Bound over for trial,	•	•										1
Sent to the almshouse,			•				•					1
Temporarily committed,										•		7
Discharged with reprimar	nd or	• otl	ier	wis	e,		•		•		•	45
Total,		•				•		•		•		115

In addition to these arrests, it is the duty of the Keepers to afford information to visitors, to render aid in case of accidents, and to check slight offences.

They are regularly instructed in their duties, and exercised in such portions of the military drill as are appropriate and likely to prove serviceable to them in the discharge of their duties.

Promotions are made from the un-uniformed Gatekeepers to the uniformed Gate-keepers, and from the Gate-keepers to the Park-keepers. No removals or discharges are made, except for good cause, after trial.

The Commissioners of the Park are gratified to be able to state that the number of visitors to the Park continues to increase with each year.

Allowing an average of three persons to each vehicle passing into the Park, the following will show approximately the number of persons who have entered the Park for the past four years:

1862	4,195,515
1863	4,327,409
1864	5,740,079
1865	7,593.139

The results are believed to be nearly correct; the probability is that they are under rather than overstated.



THE BALCONY BEIDGE.

The following Table gives the number of Visitors at the Park during each month in the year for the past five years.

	1861.			1862.			1863.			1864.			1865.		
	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.	Pedestrians.	Equestrians.	Vehicles.
January February March April May June July August September October October November December	600,007 265,185 43,349 60,674 110,761 110,511 91,076 184,671 173,003 118,862 70,789 84,375	1,094 2,075 3,575 9,110 6,708 5,509 6,994 4,500 7,071 10,890 8,608 6,713	18,540 87,022 20,906 27,683 43,586 47,655 85,648 87,120 49,624 48,226 48,278	254,672 802,827 81,865 76,927 133,701 202,000 184,048 272,093 192,236 153,387 97,507 55,155	$\begin{array}{c} 1,984\\ 1,671\\ 4,024\\ 7,839\\ 10,349\\ 8,919\\ 4,814\\ 4,715\\ 7,834\\ 7,822\\ 7,049\\ 5,125\end{array}$	82,778 89,052 82,446 59,567 77,974 84,254 62,074 69,802 70,184 67,099 60,789 53,996	51,462 49,080 41,064 115,764 137,999 159,779 89,160 189,366 181,850 150,418 75,231 227,163	8,952 8,489 4,490 10,094 12,630 9,878 12,250 9,211 10,035 9,195 5,551	88,069 49,844 44,520 79,095 3,618 110,792 92,368 115,970 163,600 108,581 50,990 65,558	555,668 134,822 90,630 95,386 151,678 121,574 880,165 186,016 225,256 148,488 87,291 118,725	3,953 6,244 7,635 14,192 13,553 14,502 8,085 4,778 5,288 9,305 9,308 8,184	83,246 55,038 67,757 57,575 147,344 111,258 142,511 89,524 92,159 98,112 92,361 81,281	658,741 168,883 77,743 188,019 191,527 299,974 467,729 467,665 840,355 205,444 94,578 63,898	1,641 4,472 6,191 11,844 10,856 11,874 8,750 9,705 9,985 10,429 8,097 5,486	77,364 70,768 86,543 125,864 126,789 158,279 158,279 146,023 157,756 180,520 104,709 124,431 71,184
	1,863,263	73,547	467,849	1,996,918	71,645	709,010	1,469,335	90,724	922,450	2,295,199	100,397	1,148,161	3,219,056	98,360	1,425,241

The largest number of	pedestrians entering the Park during any one month was, in January	41
The largest number of	equestrians entering the Park during any one month was, in June 11,8	74
The largest number of	vehicles entering the Park during any one month was, in September	26

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1865.	59th st. and 5th av.	72d st. and 5th av.	79th st. and 5th av.	90th st. and 5th av.	102d st. and 5th ay.	59th st. and 6th av.	59th st. and 7th av.	59th st. and 8th av.	72d st. and Sth 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	52,792	147,800	25,657	12,503	179	125,633	36,947	225,705	49,806	2,471	338	663	881	
February	18,085	15,257	4,963	829	332	46,579	9,298	28,770	13,385	904	333	607	1,045	
March	9,672	9,179	7,710	1,114	426	13,985	12,752	11,710	6,292	1,677	488	825	1,339	
April	25,612	20,209	8,427	1,722	3,534	27,839	39,068	69,052	7,351	3,100	522	1,021	2,715	
May	20,131	28,775	4,995	2,226	2,608	55,102	27,511	20,859	7,100	2,167	617	1,002	3,162	 .
June	29,126	39,678	12,602	2,740	1,615	63,732	54,173	75.405	15.397	3.557	658	1,160	4,030	690
July	41,755	64,726	27,261	4,052	649	138,341	76,074	61,587	21,696	16,050	734	1,325	4,418	4,689
August	46,310	47,569	12,543	3,635	522	107,852	68,075	60,198	17,859	4,922	573	1,169	6,350	6,01
September	57,208	38,278	7,491	4,948	468	62,317	57,923	67,176	19,738	5,160	510	896	5,236	2,96
October	39,718	23,709	9,032	7,656	481	82,547	33,985	22,910	9,212	2.721	381	527	3,273	1,12
November	14,063	9,696	2,700	5,133	312	20,290	15.725	15,532	3.621	8.024	863	189	1.841	
December	13,889	6,718	2,897	4,516	164	7,133	8,964	12,279	2,452	2,339	331	503	1,765	
	368,361	451,594	126,278	51,074	11,290	761,350	450,495	671,183	173,909	48,092	5,848	9,887	36,055	15,47

The following Tables give the number of Visitors at each entrance to the Park for each month during the year.

PEDESTRIANS.

1865.	59th st. and 5th av.	72d st. and 5th av.	79th st. and 5th av.	90th st. and 5th av.	96th st. and 5th av.	102d st. and 5th av.	59th st. and 8th av.	72d st. and Sth av.	85th st. and 8th av.	96th st. and Sth av.	100th st. and Sth av.	110th st. and 6th-av.	110th st. and 7th av.
January	864	37	92	45	6	274	14	59	35	4			
February	3,154	67	41	84	2	684	26	6	84	6	403		
March	3,675	216	250	69	4	704	219	82	55	15	598		
April	7,658	245	226	79	183	1,092	116	171	143	. 5	1,579		
May	5,826	241	118	170	148	1,690	488	122	155	44	1,892		
June	7,124	345	294	131	137	1,516	273	119	162	3	1,591	85	
July	5,306	338	156	95	6	589	308	302	78	.]1	1,376	647	
August	5,397	281	117	44	4	1,076	264	121	46	24	1,480	762	
September	4,664	264	86	145	8	1,460	711	203	34	13	1,878	520	
October	5,450	353	156	431	9	788	287	167	61	88	1,464	815	
November	4,380	488	108	307	72	1,029	341	133	113	1	2,235		
December	2,866	224	158	332	11	1,011	169	98	91	14	733	. 	
	56,264	3,099	1,802	1,882	590	11,913	3,016	1,583	1,007	. 228	14,729	2,329	

EQUESTRIANS.

VEHICLES.

January	43,162	1,423	2,754	1,079	 40	11,994	752	524	391	35	22,372	
February	34,791	388	1,069	1,137	 34	5,240	433	241	381	44	16,112	
March	43,600	1,510	2,655	1,237	 42	4,249	1,510	956	246	84	30,835	
April	68,165	1,662	2,573	1,616	 357	7,120	2,139	906	555	102	39,234	
May	56,898	8,083	1,686	2,049	 250	10,573	2,130	839	739	125	41,376	
June	79,337	4,287	4,892	2,295	 197	10,464	3,762	819	711	137	44,778	1,324
July	68,978	2,881	3,072	2,010	 91	7,9!9	4,634	8,176	943	175	48,218	7,824
August	81,387	4,365	3,804	2,101	 105	16,445	2,008	916	915	179	37,705	8,795
September	91,083	3,534	1,747	3,015	 142	16,444	12,497	1,125	855	140	56,467	4,587
October	60,926	3,237	1,879	4,084	 182	10,295	5,472	835	794	103	52,508	2,419
November	56,745	5,672	1,015	2,647	 93	8,703	788	495	644	35	31,385	
December	30,638	1,441	1,144	1,328	 37	6,074	2,694	311	409	89	30,441	
	715,710	38,473	28,330	24,598	 1,570	114,620	38,819	16,141	7,583	1,248	451,431	24,949

The largest number of pedestrians that entered the	
Park on any one day, was on July 4	$75,\!032$
The smallest number of pedestrians that entered the	
Park on any one day, was on November 21	74
The largest number of equestrians that entered the	
Park on any one day, was on June 1	836
The smallest number of equestrians that entered the	
Park on any one day, was on February 12	None
The largest number of vehicles that entered the Park	
on any one day, was on September 30	16,129
The smallest number of vehicles that entered the Park	
on any one day, was on February 12	61



STATEMENT

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

		1862.				1863.				1864.				1865.			
	Pedestrians.	Equestrians.	Vehicles.	Steighs.	Pedestrians.	Bøuestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs.	Pedestrians.	Equestrians.	Vehicles.	Sleighs,	
January February March April May June July July Angust September October November December December	45,322 68,444 35,168 89,916 80,599 77,943 60,017 109,505 60,315 48,282 37,543 17,921	178 242 718 1,000 1,320 580 967 826 840 1,051 681	2,479 2,312 7,865 11,549 14,999 10,015 14,343 11,633 14,653 12,555 9,576	1,346 4,851 	17,589 18,384 18,019 42,043 65,113 88,613 73,428 43,651 60,159 40,775 25,276	792 522 661 1,439 2,141 2,134 1,018 2,600 1,493 1,614 461	8,254 11,794 6,476 12,781 20,428 17,881 13,845 21,855 21,855 21,825 21,729 15,206 16,550 7,082	22 	134,738 68,855 59,459 50,245 115,493 74,707 135,673 55,293 51,287 51,287 51,287 46,698 82,634 57,542	757 1,231 1,755 2,631 1,880 1,997 1,416 576 1,196 1,478 408	9,881 14,972 16,911 15,552 30,601 16,561 19,466 11,400 12,962 16,749 15,728 7,798	11,097 9,624	133,477 21,755 38,279 107,543 68,988 118,982 171,738 106,480 107,416 90,522 40,680 26,113	201 819 1,152 2,232 1,186 1,626 1,595 2,153 1,832 1,386 810 	6,560 7,293 16,840 27,846 17,122 26,509 81,097 27,467 84,205 82,736 24,450 10,748	4,404 4,989	

The following Table shows the number of visitors entering the Park during each hour of the day for each month during the year:

PEDESTRIANS:

MONTH S.	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 8 P.M.	8 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 February March April May June July August September October October December December	462 1,526 50 2	436 680 1,176 2,722 1,529 2,294 554 867 184 	827 619 668 2,003 1 951 1 8,632 8,191 4,265 1,938 1,473 794 743 22,104	8,438 1,857 1,691 2,900 8,691 5,543 5,283 6,783 4,027 2,900 1,819 1,591 41,478	10,684 4,174 2,971 4,816 6,495 9,724 9,620 11,244 7,502 5,882 3,176 8,021 78,609	20,048 6,227 4,192 7,301 8,923 11,701 13,714 15,815 11,603 8,054 5,175 4,884 118,442	28,523 7,807 4,639 8,524 9,193 12,417 15,591 14,446 9,000 6,411 5,810 140,151	55,893 10,453 5,599 9,918 9,943 12,438 15,858 10,551 10,112 6,388 4,293 165,019	72,154 15,750 8,974 21,343 21,001 28,429 26,521 20,857 19,659 16,513 11,771 9,569 267,001	111,646 15,582 13,522 44,648 25,048 41,538 72,086 84,870 50,424 86,961 20,008 18,147 478,980	87,252 26,881 16,621 52,838 43,432 56,816 60,294 68,910 55,700 48,598 28,737 14,999 595,568	61,623 20,610 12,082 88,526 80,927 54,762 89,081 72,202 84,380 11,487 8,027 501,380	57,033 8,913 4,260 14,266 28,574 86,198 43,166 44,964 88,972 14,261 8,516 1,456 290,579	51,652 5,680 1,549 4,432 5,247 15,059 20,417 15,872 10,180 8,620 1,514 618 135,820	40,554 11,255 624 1,587 2,504 8,:68 22,018 10,616 6,349 2,310 946 859 107,350	15,251 10,454 199 578 1,618 8,680 14,388 8,359 4,035 996 356 15 	2,722 8,128 2 4,979 4,901 2,606 1,427 15,769	806 280 2 126 1,200 844 436 2,694
							EQUE	STRL	ANS.									
January February March April May June July August September October November December	375 146 112 22	$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & & $	187 412 921 899 1,109 1,307 646 910 841 748 872 513	87 284 365 669 5,604 767 380 608 452 820 547 860	$\begin{array}{c} 98\\ 275\\ 284\\ 577\\ 879\\ 482\\ 270\\ 850\\ 440\\ 428\\ 464\\ 292\end{array}$	$\begin{array}{c} 81\\ 241\\ 803\\ 500\\ 427\\ 887\\ 242\\ 244\\ 844\\ 460\\ 441\\ 1,552\end{array}$	184 259 280 464 468 2922 195 224 287 880 400 246	71 223 202 359 206 168 149 127 131 189 148 248	$\begin{array}{c} 108\\ 269\\ 816\\ 548\\ 370\\ 813\\ 217\\ 207\\ 850\\ 246\\ 278\\ 396\end{array}$	$ \begin{array}{c} 116\\ 586\\ 491\\ 767\\ 661\\ 494\\ 280\\ 419\\ 547\\ 784\\ 644\\ 809 \end{array} $	280 939 918 1,572 1,172 713 655 563 998 1,269 1,405 885	$\begin{array}{c} 271 \\ 707 \\ 1,030 \\ 2,121 \\ 1,541 \\ 1,146 \\ 285 \\ 895 \\ 1,449 \\ 1,552 \\ 1,582 \\ 816 \end{array}$	$\begin{array}{c} 91\\853\\676\\1,401\\1,296\\1,463\\1,055\\1,266\\1,746\\1,097\\632\\269\end{array}$	$17\\66\\194\\497\\589\\1,232\\1,128\\1.287\\1,012\\442\\183\\79$	$\begin{array}{c} 12\\ 6\\ 17\\ 98\\ 224\\ 600\\ 682\\ 783\\ 841\\ 183\\ 85\\ 12\end{array}$	8 1 3 21 165 841 818 117 82 9 	24 71 56 42	6 9 4

5,222

8 579

655 9,396 9,315 10,437 4,259

2,210 3,614 6,554 11,864 13,845 11,814 6,726

2.943

1,004

198

19

From 5 A.M 60 6 A.M	6 A.M. 10 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.	8 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 February March April July July August September October December 1,777	$\begin{array}{c} & 1 \\ 217 \\ 838 \\ 1,179 \\ 8,159 \\ 5,159 \\ 1,914 \\ 52,208 \\ 1,045 \\ 426 \\ 426 \\ \end{array}$	632 570 1,076 1,719 1,926 8,144 2,749 2,964 2,119 1,413 1,111 21,889	1,202 1,307 1,777 8,232 2,318 8,313 8,233 8,233 8,238 8,193 2,818 2,818 2,244 1,856 2,244	1,905 1,750 2,984 3,008 4,026 8,896 4,129 8,785 2,994 2,709 87,636	2,904 2,422 3,125 3,625 4,802 4,442 2,030 4,789 4,183 8,260 8,081 41,772	3,098 2,950 3,464 3,995 3,632 3,978 4,188 3,805 4,667 2,902 8,515 8,188 4,382	3,273 2,930 3,238 5,490 3,142 3,945 3,250 2,904 8,832 3,403 2,875 2,331 	5,209 4,188 4,130 5,145 5,138 4,545 4,442 2,868 6,140 5,174 5,804 8,145	14,975 7,556 9,058 11,722 9,093 8,450 6,867 7,475 10,703 12,678 12,875 9,016 	16,778 12,985 15,549 28,194 16,494 12,912 14,113 21,842 14,548 33,731 19,587 212,245	16,323 12,312 19,643 31,666 23,701 21,646 18,160 20,929 86,839 86,839 85,098 82,318 17,678	9,877 7,203 14,886 74,805 25,316 28,176 29,650 29,650 29,650 25,792 16,685 7,382	4,469 2,265 6,720 11,108 24,431 16,264 25,581 38,670 23,839 10,050 5,270 2,712 	2,495 841 1,810 4,678 6,844 16,593 21,711 19,685 8,941 8,471 2,028 1,081 	980 195 552 1,117 1,843 4,377 8,458 2,225 8,249 1,097 888 27 25,008	415 126 2 99 528 2,375 1,181 2 7,448	156 74 105 784 723 409 2,218

VEHICLES.

The reports of the Boat service indicate an increased demand.

The price for their use has been kept at the original low rate, notwithstanding the augmented expenses of their operation.

These rates are fixed rather for public accommodation, than to secure the highest revenue.

There are nineteen boats on the Lake, ordinarily a sufficient number, but quite insufficient on afternoons when there are any special attractions. In this, as in other classes of service of the Park, the public demand is at certain hours entirely disproportionate to that of other hours.

As the Lake affords safe opportunity for the boys to learn to row, two small boats have been added for their special use.

The number carried in the boats is shown in the following table :



	W	EEK.				CALL BOATS.	PASSAGE BOATS
For the v	week endin	g May	5,	•		99	246
"	66	° "	13,			3111	618
"	۲۵ - ۲۵	"	20,		•	501	814
"	66	"	27,	•	•	$495\frac{1}{2}$	826
"	"	June	3,			999	2,216
"	"	"	10.		•	414	790
"	"	"	17.			1,202	2,098
	"	"	24.			9083	1,646
"	"	Julv	1.			912	1,398
"	66 -		8.			1.669	4,984
. 66	"	"	15.			980	2,015
"	"	"	21.		-	1.017	1,446
"	44	44	29.			1.230	2,399
"	"	Aug.	5.			1.570	2,047
"	"		12.			1.853	3,658
"	"	"	19.			1.074	3,059
"	"	66	26.		•	824	2,988
"	66	Sept.	$\frac{1}{2}$.			1.0523	2,694
"	"		9.			1.324	1.547
66	"	"	16.			967	2.513
	"		23	•	•	675	1.853
"		"	30		•	840	2.394
"	"	Oct.	7.		•	530	1.272
"	"	"	14.		•	491	1.236
"	"	"	21.			178	217
"	"	"	28		•	331	190
"	66	Nov.	-3'		•	77	128
	"		11.	•	•	941	163
		"	18	•	•	232	507
• •	"	"	25'	•	•	13	22
"	"	Dec.	6,	•	•	15	29
	Total,	•	•	•	•	22,879 1	48,019

The subjoined table shows the statistics of the BOAT service for 1865.

The total revenue derived from these passen-

As compared with the year 1864, there appears an increase of 16,952 persons carried.

The subjoined table shows the days on which Musical Entertainments were given at the Park, for the past seven years.

1859.	1860.		1861		186	2.	1863	8.	1864		1865	j.
July 9. " 23. " 20. August 6. " 20. " 20. Sept. 3. " 10. October 1. " 15.	August 2 Sept. " 1 " 2 October 1 " 2 Nov. 1	25. 18. 15. 18. 22. 29. 18. 27. 18.	August " Sept. " October	10. 17. 24. 31. 7. 14. 21. 28. 5. 12.	June " " Joly " " August " " Sept. " October " " Nov.	7. 14. 25. 5. 12. 19. 26. 29. 16. 29. 10. 21. 4. 18. 25. 1. 1. 19. 21. 21. 21. 22. 21. 21. 21. 22. 21. 22. 21. 22. 21. 22. 22	May June " " July " " " " " " " " " " " " " " " " " " "	$\begin{array}{c} 30. \\ 6. \\ 13. \\ 20. \\ 27. \\ 4. \\ 11. \\ 8. \\ 15. \\ 22. \\ 29. \\ 5. \\ 12. \\ 26. \\ 8. \\ 10. \\ 17. \end{array}$	June " " " " July " " " " " " " " " " " " "	4. 11. 18. 25. 2. 4. 9. 16. 23. 80. 6. 13. 20. 17. 24. 15. 22. 24. 15. 22. 24. 22. 24. 24. 24. 25. 24. 26. 27. 28. 28. 28. 28. 29. 28. 29. 29. 29. 29. 20. 29. 20. 20. 20. 20. 20. 20. 20. 20	June " " July " " " " " " " " " " " " " " " " " " "	8. 10. 17. 24. 1. 4. 8. 15. 29. 5. 12. 16. 20. 23. 20. 80. 16. 20. 23. 20. 80. 16. 20. 21. 20. 20. 20. 20. 20. 20. 20. 20

TOTAL NUMBER OF MUSIC DAYS.

1859	
1860	9
1861	10
1862	
1863	
1864	
1865	

During this year there have been thirty of these concerts; more than ever before given in any one year. On eight of these days the music consisted of a well selected cornet band of ten persons in a boat moving about the Lake, the music of which, caught by the grateful ear as it was wafted by the breeze over the waters and through the



GONFALON, at the Terrace bearing the Arms of the City of New York

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leafy shades, might be heard from the Terrace, the Circle, the Drive, the summer-houses, and the walks of the Ramble.

The numbers attending the music from the Pavilion on the Mall have not decreased. The Band has, during the past year, been enlarged by the addition of six performers.

This entertainment on Saturday afternoons is now understood to be one of the fixed institutions of the city, and as such is looked forward to and attended by hundreds of thousands of citizens and strangers.

Among these numbers will, of course, be found very varying tastes; a large class prefer the drum and fife to all other music; these are unreserved in the expression of their preference; another class prefers the softer and more delicate strains; others would remove the popular airs that are on the programme, while the mass listens with some degree of impatience to what is called These prominent features of the public classic music. taste are all entitled to respect. The ear cannot select from the various combinations of sounds those alone that are especially agreeable, it must receive all that strike its sensitive organization. The programme is so constructed as to give each class a fair share of its favorite music, without admitting anything not in keeping with the standard of all the surroundings of the Park.

It is desired to please the scholar in music as well as the less experienced listener; while the aim is, on the whole, to be a little in advance of the average taste, the programme presents contrasts sustaining the interest without tiring with monotony.

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It is very difficult to secure in the open air the heavy volume of sound that many seem to desire. A thousand instruments in an open space, without walls, or houses, or canopy of foliage to confine and give resonance to the sound, will not equal the effect produced by forty in a room or quiet street.

A critical observer of all the open-air bands of any note in Europe, finds that few of them are constructed on musical principles; they are merely the bringing together of two or three bands without just balance of all the parts.

The Commissioners of the Park, intend that the Band shall be without superior; it is simply a question of expense in bringing about the result. The Band, as now composed, comprises exceedingly capable and accomplished performers, and no effort will be spared to improve the quality of the music and the conveniences for the thousands who so heartily express their satisfaction at what has already been done.

The whole cost of the music for the past year has
been\$4,365 00
The following contributions have been received to-
wards paying the expenses of it:
Central Park, North and East River Railroad
Company \$600 00
Third Avenue Railroad Company 600 00
Sixth Avenue Railroad Company 800 00
Seventh Avenue Railroad Company 500 00
W. H. Wilson, Esq 20 00
W. Romaine, Esq
G. H. Romaine, Esq 5 00

\$2,528 00

Balance from	account of 1864	\$35 94		
·			\$2,563	94
Amount paid	by Board	••••	\$1,801	06

The number of days on which there was skating on the Park in the winter of 1864-'65, was, with one exception, greater than in any year of the history of the Park. The expense of cleaning the ice, was much increased by reason of the unusual number of falls of snow and mild rains, which, honey-combing the ice, render it necessary for skating, to make a new surface. All economical expedients for accomplishing this work are resorted to; the snow, sometimes over a foot in depth, is to be carried from a surface of twenty-seven acres of ice, a space three times as large as Washington square, and nine times as large as Union square. The bulk of the snow is removed by the use of horses, but there remains a portion that is only removable by hand-sweeping.

A fall of twelve vertical inches depth, would give not far from 1,100,000 cubic feet of snow.

During the skating season comprising the month of December, 1864, and the months of January and February, 1865, there were fourteen snow storms; giving an aggregate depth of $45\frac{1}{2}$ inches, or an average depth for each fall of snow of $3\frac{3}{4}$ inches.

This would give 160,134 cubic feet of snow per acre, or taking the whole area (twenty-seven acres) of ice comprising the several lakes and ponds of the Park, then in use, would give a total of four million three hundred and twenty-three thousand six hundred and twenty solid feet of snow to be cleared from these lakes and ponds, assuming them to have been covered with ice during all these periods.

The dimensions of this mass of snow, placed in the form of a cube, would be one hundred and sixty-three feet nearly, in height, breadth, and depth, or equaling in bulk a body seven times as large as St. Paul's Church.

The Board intends, during the next year, to maintain as perfect a system of meteorological observations as is practicable, in the hope that, over an area like the Park, facts may thus be obtained that will be of general scientific interest.

1



THE ISLAND.
The subjoined	Table show	ws the days	on which	there was	Skating
on	the Lakes	during the	past seven	n years.	

Dec. 29. De Jan. 8. 4 4 22. 4 4 23. 4 4 25. 4 4 25. 4 4 25. 4 4 26. 4 4 26. 4 4 27. 4 4 28. 4 4 28. 4 4 29. 4 5 4 7 4 4 29. 4 4 4 4 29. 4 4 4 4 29. 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	ec. 24. (25. (25. (26. (27. (29. (30. (30. (31. an. 1. (2. (31. an. 1. (2. (31. (2. (32. (30. (30. (31. (Dec. 14. " 15. " 16. Jan. 11. " 12. " 18. " 18. " 18. " 18. " 18. " 18. " 18. " 18. " 22. " 28. " 29. " 28. " 28. " 29. " 28. " 28. " 28. " 29. " 28. " 28. " 29. " 28. " 29. " 28. " 29. " 28. " 28. " 29. " 28. " 28. " 29. " 30. " 29. " 30. " 3	Dec. 29. " 80. " 81. Jan. 1. " 2. " 8. " 4. " 5. " 6. " 7. " 8. " 11. " 14. " 14. " 22. " 23. " 23. " 23. " 24. " 24. " 24. " 25. " 25. " 26. " 26. " 26. " 26. " 26. " 27. " 27	Dec. 22. Jan. 20. Feb. 5. (* 24. (* 25. Dec. 11. (* 23. (* 24. (* 26. (* 27.	Dec. 11. " 23. " 24. " 25. " 26. " 4. " 11. " 12. " 11. " 11. " 12. " 11. " 12. " 12. " 11. " 12. " 12. " 11. " 12. " 12.	Dec. 21 22 28 24 25 25 30 Jan. 2 30 3
	80. 31. eb. 1.	Feb. 1. " 4.	. 29.			
	4 2, 4 8, 4 5, 4 8, 4 9, 4 10, 4 11, 12,	" 5. " 6. " 7. " 8. " 9. " 9.	Feb. 1. 4 2. 4 8. 4 4. 4 5. 4 6. 4 9. 4 9. 4 10. 4 11.		" 22. " 28. Feb. 18. " 19. " 20. " 21.	18 19 20 21 22 22 24 25 26 26 26 26 26 26 26 26 26 26
	13, 14, 14, 15, 15, 16, 17, 20,		" 12. " 13. " 15. " 16. " 17. " 18. " 17. " 19. " 21. " 21.			" " " " " " " " " " " " " " " " " " "
			" 23. " 25. " 26. " 29. March 1. " 2. " 3. " 5. " 5. " 5. " 5.			11 11 14 14 </td

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The need of suitable places at which refreshments can be obtained by visitors at the Park is much felt, and the Board has taken pains to supply the demand by such temporary expedients as were deemed best calculated to answer the end.

The buildings at Mount St. Vincent, having been for more than three years occupied as a hospital for wounded soldiers, were vacated in the month of September last. Certain expenditures made by the Board to fit them for a hospital when required by the Government on an emergency have not yet been refunded.

A portion of these buildings have been put in condition, and will soon be ready for use as a place of refreshment. The Board will proceed with the erection of at least one other house of refreshment, commensurate with the extent of the demand that is likely to arise for its use; in connection with it, it is proposed to provide a spacious hall and a winter garden.

The Board has from the commencement of its operations, endeavored to afford the public opportunities for the use of the Park as early as practicable. In pursuance of this policy, one portion of the grounds after another has from time to time been opened for use as it was brought to a proper condition, until these portions now comprise, with but few and inconsiderable exceptions, the entire surface of the Park, including the drive, the ride, the walk, and the waters.

The unfinished condition of the avenues and streets surrounding the Park, not under the jurisdiction of the Board, has, to a considerable extent, embarrassed the progress of the work.

The surface operations being mainly complete, the Board will proceed with the construction of the inclosing wall, and the early development of such structures and institutions of special character as are appropriate to the grounds, and necessary to their highest utility. The day is remote when new features of popular attraction cannot be added with advantage.

No accident has happened during the past year involving the loss of life or limb of any person employed on the Park; neither, of the large number of visitors, has any loss of life or other casualties occurred that can be traced to a want of care or efficiency in the enforcement of the rules of the Park. The Board deems it due to itself to express its conviction of the importance of a wellregulated system of carriages to carry persons about the Park at reasonable rates, and to state for the information of strangers, that it is not responsible for the control and management of the carriages that stand for hire at the entrances.

The following ordinances have been adopted and published, as required by the law:

"The Board of Commissioners of the Central Park do ordain as follows:

"No fire-engine, hook and ladder, cart, hose, truck, or other machine on wheels, commonly used for the extinguishing of fire, shall be allowed on any part of the Central Park, except the transverse roads, without the previous consent of the Comptroller of the Park.

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"No funeral procession, or hearse, or other vehicle or person carrying the body of a deceased person, shall be allowed on any part of the Central Park, except upon the Transverse roads.

"No person, except in the employ of the Board of Commissioners of the Central Park, shall light, make, or use any fire upon the Central Park.

"No person on foot shall go upon the grass, lawn, or turf of the Central Park, except when and where the word 'Common' is posted, indicating that persons are at liberty at that time and place to go on the grass."

Contributions to the Park collections of art and natural history continue undiminished. The donations of living animals of rare and interesting character have been numerous and valuable.

A detailed schedule of these gifts will be found in Appendix B.

A committee of gentlemen representing the Scotch residents of the city, as an evidence of their interest in the adornment of the Park and of respect for the genius of the artist, have presented to the Park a group of life-size illustrative of the character of Burns' celebrated song, "Auld Lang Syne." It is the work of Robert Thompson, a sculptor of Scotch birth, executed in New Brunswick stone. Its pleasing associations and characteristics are well calculated to attract attention.

It was specially agreeable to the Commissioners to assign a place on the Park for this group, as its author was for several years employed on the Park as a stonecutter, in the execution of the artistic stone work of the Terrace.



STATUE OF COMMERCE NEAR THE MERCHANTS' CATE (VIII AV. & 5914 ST.)

A much-respected merchant, resident in Liverpool, Stephen B. Guion, Esq., giving expression to a longcherished purpose to aid, in some degree, the embellishment of this, his native city, has presented, for the adornment of the Park grounds and for the public gratification. a statue in bronze emblematic of "Commerce," the work of Fesquet, of Paris. It represents an erect draped female figure, with the castellated crown, the leaves and fruit of the maize entwined in her hair, the caduceus in her left hand, and her right resting on a rudder that, with the emblems of mechanical and agricul-This figure, at once commandtural life, are at her feet. ing and expressive, a little over eight feet in height, stands on an appropriate pedestal of granite, of about seven feet in height.

Mr. Guion has made no condition or intimation that his name be put upon or in any way connected with his magnificent gift; it was, on the contrary, understood to be his desire, that the work should quietly take its place in the Park without any personal reference to its donor.

A casual word, dropped at the studio of the artist in Paris, enabled the Commissioners to make to Mr. Guion an acknowledgment of their appreciation of the circumstances that have rendered the presentation of this new object of interest, eminently worthy of emulation.

On opening the cases containing the series of casts of the works of the sculptor Crawford, presented several years since to the Park, they were found very much fractured. The parts having been carefully preserved and brought together by a practical hand, now form a conspicuous part of a collection of works of art and of natural history, occupying the greater part of the first floor of the building formerly known as the State Arsenal. This gallery, inexpensively arranged, but as well as the temporary character of the accommodations will admit, has been visited by tens of thousands.

It is at times so thronged with visitors as to render it impossible to move about the hall with comfort.

The Commissioners of the Park have no doubt that very extensive galleries would be filled with works of art if the appropriate fire-proof buildings were erected.

The Statue of Flora, by Crawford, presented by the late R. K. Haight, Esq., has not yet been delivered at the Park.

The following table shows a classification of the living animals now in the Park :

MAMMALIA.

Order,	Quadrumana	8 8	specimens.
"	Carnaria	24	ā 46 j
66	Rodentia	53	"
66	Pachydermata	1	"
66 · ·	Ruminantia	131	"

AVES.

Order,	Rapaciæ	30	specimens.
"	Passerinæ	6	
٤٢	Scansoriæ	10	"
"	Gallinaciæ	300	"
"	Grallatoriæ	6	"
"	Palmipedes	200	"

REPTILIA.

Order, Chelonia..... 17 specimens. Sauria.....

A detailed statement of these animals is given in Appendix A.

In addition to these there are probably more than one hundred specimens of imported birds, besides large numbers of native birds and animals. The sparrows, to which allusion was made in the last report, are steadily increasing, and may be considered to be well acclimated.

These animals are generally in good condition, notwithstanding their present unsatisfactory accommodations They are the occasion of a considerable expenditure of money for their care and sustenance.

The statement of the condition of all the animals donated to the Park during the past year, found in Appendix B, shows the loss of several specimens, but it is believed that the percentage of loss is not greater than that shown by the necrological record of zoological establishments comprehending much greater conveniences than those now provided by the temporary accommodations of the Park.

The collection of eagles is larger than any other known.

The flock of Southdown sheep has largely increased, and is a very great attraction on the lawns.

The three Cape buffaloes are in fine condition, and are very rare, probably the only specimens on this continent. The swans thrive, and increase slowly. The deer, as well as other animals, are much worried by the dogs with which the neighborhood abounds that steal in at night and do work of irreparable destruction in the space of a few moments.

The Board has not changed its opinion as to the desirability of the establishment of a Zoological Garden equal to the demands of a city like our own. Circumstances not under its control have delayed the commencement of the work, but each year develops new arguments in its favor.

The main question that underlies the building up of such an establishment is a pecuniary one. Shall it be a source of income to provide for its own support, or shall it be free to all desiring to visit it, and find the means of its support from the general fund provided by taxation for the support of the Park? or shall it be partially free and partially on the pay system? Upon the determination of this question the whole scheme depends, and its plan will be determined accordingly.

By requiring a small admission fee every day in the week except one, and making that one day free, these gardens, with proper management, will become a valuable aid in the public educational system of the city, and, at the same time, do much toward their own support. To put an establishment of the character proposed on a proper footing, will require a great expenditure. The Board will, in laying the foundation, look to a development in the interests of science and popular gratification; at least, as extensive as any existing institution.

In Appendix C, will be found classified the expendi-

tures of the Zoological Society of London for a series of years; a large per centage must be added to this for difference in rates of wages, &c., to correctly estimate the cost of conducting such an establishment here.

A Tabulated Statement of the Vertebrata animals of North America, that will afford some idea of the extent of provision that will be required in these gardens, will be found in Appendix E.

The Board, in compliance with the provisions of an act passed March 25, 1862, made to the New York Historical Society a conditional appropriation of certain grounds about the Arsenal building for the purposes of establishing and maintaining therein, by the said society, a museum of antiquities and science, and a gallery of art. It is understood that the society is now perfecting a plan for the necessary buildings, that shall be creditable to the Park and to the city.

In the year 1864 an association of gentlemen connected with the drama made application for a site upon which to erect a monument to Shakespeare. The Board acceded to the request, and appropriated for this purpose a site between the two most southerly elms of the easterly row on the Mall, subject to the ordinances and rules provided, or to be provided for the control and preservation of statuary and monumental structures.

The form of authorization of this statue is shown in Appendix D.

The Board are happy to learn that, by the liberality of citizens of New York, a considerable proportion of the requisite fund has been secured, and that it is probable the work will be shortly in the hands of the artist. This statue will be the first of an out-door gallery, to be placed, as they may be accepted, between the elms on each side of the Mall.

In furtherance of an intention expressed in a previous report, the Board has afforded opportunities to the students of the Free Academy, and to boys of the public schools, to play at cricket and base-ball upon the playground. The St. George Cricket Club have kindly volunteered the services of their professional players, to give to these students instructions in the art of playing cricket, and many of them have availed themselves of the offer.

It will be obviously impracticable to furnish grounds for the numerous ball clubs that are desirous of playing on the Park.

It seems difficult for them to realize that the large open surface of turf that, to the cultivated taste is among the most attractive features of the Park, can have any other use than that of a playground.

Nothing is more certain than that the beauty of these lawns would soon be lost, and that they would be rendered disagreeable objects, if these games were to be constantly played upon them.

If the play of one club is allowed, others will demand the same privilege; and these clubs are so numerous, that if space were provided for the ordinary practice of their games, it would tend to depreciate the attractions of the Park to the far greater number, who visit it for the refined pleasures that its landscape affords to those who are sensitive to natural beauties. These spacious open glades will, with the growth of each successive year, present a more marked and grateful contrast with the planted parts of the grounds.

It is not to be inferred that they are wastes without use because they are not walked upon; both the plantations and the wide sweep of the lawn are essential to the completeness and variety of the scene; their largest use is in the gratification theyafford to those fitted for enjoyment of this nature; and this use is not to be diminished to accommodate sports, of themselves innocent and worthy of encouragement, but participated in by comparatively few persons.

In Appendix B will be found a statement in detail of all the donations to the Board for the embellishment of the Park.

Works under the jurisdiction of the Board beyond the limits of the Park.

By the act passed April 27, 1865, chapter 581, the part of the Croton Aqueduct south of Ninety-second street and west of the Eighth avenue was discontinued, and the Croton Aqueduct Department was directed to construct a branch aqueduct, or to lay iron pipes from the present line of the Croton Aqueduct at some point between the westerly line of the Eighth avenue and the new Reservoir to the old Reservoir, through the Eighth avenue and the Central Park, but such part of the same as may be in the Central Park to be on such line and on such conditions as the Commissioners of the Park shall approve. The Croton Aqueduct Department has concluded to lay two lines of iron pipe instead of making a branch aqueduct, and a plan submitted by that department to the Commissioners of the Park, of the proposed line of pipe, has been approved, so far as the same is within the Central Park. The same act established the grade of the Eighth avenue between Fifty-ninth and Ninety-third streets, and contains the following provision:

"Provided, however, that the Commissioners of the Central Park shall, within three months after the passage of this act, approve of the grade hereby authorized. The said Commissioners may, however, approve of such part of the grade hereby authorized as is between any two points at which the said grade and the present grade intersect, and reject the grade between any or all of the other intersecting points; or the said Commissioners may, with the consent of the owners of a majority of the lineal feet of the front of the lots on the westerly side of the Eighth avenue, between any two points at which the grade authorized and the present grade intersect, prescribe and establish any other grade between such intersecting points; and when the grade of said avenue is finally established, in pursuance of the provisions of this act, it shall be the duty of the Commissioners of the Central Park to prepare and certify a map or profile of the grades so established, and file the same in the office of the Street Commissioner of the City of New York."

It is made the duty of the Street Commissioner, as soon as the said map or profile is filed in his office, to proceed forthwith to regulate the said avenue in conformity with the grade so established.

The Board approved of parts of the grade authorized by said act, and rejected other parts; and, with the consent of the owners of a majority of the lineal feet of the front of the lots on the west side of the Eighth avenue between certain points, established other grades.

The profile required by the act has been duly filed in the Street Commissioner's office.

In a previous report the Board alluded to the question of the removal of the Aqueduct at Eighty-sixth street. Before the grade could be satisfactorily determined repeated allusions have been made in its reports to the desirability of a change in the grade of portions of this avenue.

It will be much improved by the grade now established, but it will be the occasion of considerable additional cost in readjusting the border of the Park, in resetting a portion of the wall that is already built, and in regrading the western ends of Transverse Roads Nos. 1, 2, and 3.

The widening of the Sixth avenue from the north end of the Park, to Harlem river.

The necessary application to the Supreme Court for the appointment of Commissioners of Estimate and Assessment in the matter of the widening of the Sixth avenue, from One Hundred and Tenth street to the Harlem river, was executed on behalf of this Board in July last, and on the 5th of August, Messrs. John Anderson, Jonathan W. Allen and Nicholas Walsh were appointed such Commissioners by the Supreme Court. The Board now awaits their report.

Widening the Seventh avenue from the Park to the Harlem River.

The report of Messrs. Shepherd Knapp, John Anderson, Charles A. Lamont, Commissioners appointed by the Supreme Court to widen this avenue was confirmed by the Court on the 24th of June, 1865.

The Board took prompt measures to have the necessary surveys made over the whole line. It was found that as the grade had been fixed by the city authorities from One Hundred and Tenth street to One Hundred and Thirty-fifth street, the assent of two-thirds of the owners of fronts on the avenue in that distance would be required to change it.

Public notice was therefore given in the newspapers of a proposed alteration of the grade from One Hundred and Tenth street to One Hundred and Thirty-fifth street, and of fixing the grade from One Hundred and Thirtyfifth street to the Harlem river.

The assent of the necessary two-thirds of the owners has been obtained; the Board on the first of December, 1865, changed the grade of the avenue from One Hundred and Tenth street to One Hundred and Thirty-fifth street, and established the grade from that point to the river.

The plan for finishing the surface of this avenue has not yet been settled, nor has the mode of its drainage nor the question of material of which the roadway shall be composed.

Three plans have been suggested for the improvement

of this avenue; the one contemplates a bridle road or horseback ride of thirty feet in width, through the centre of the avenue, with a row of trees on each side, two carriage-ways of thirty-eighth feet each in width, sidewalks of twenty-two feet in width, and a line of trees at each curb.

Another plan is to make a grass-plat with two rows of trees in the centre of the avenue of twenty feet wide, two carriage-ways of forty-five feet wide each, and two side-walks of twenty feet each.

The third comprehends a carriage-way of eighty feet in width, sidewalks, each, twenty feet, and courtyards of fifteen feet wide.

The Board hopes to be able to determine these unsettled questions early in the coming year, and to proceed with the work of construction, and will endeavor, in compliance with its original intention, to give as much of a rural character to these improvements as will be consistent with their use as an avenue of travel, and with convenient access for persons and supplies to the dwellings erected upon it. The expense of working the avenue will, of course, be much increased by its additional width, and from the further fact that, for more than onehalf of a mile near its northerly end, the rock excavation is very heavy, by reason of the ground rising some sixty-five feet above tide-water in the line of the avenue, and will require an average cutting of about twenty feet. while on either side the land lies but a few feet above tide-water.

It will be the aim of the Board to have the sewers, the

gas and water pipes laid in such manner as to render any subsequent disturbance of the avenue unnecessary.

The laying out of the Island above One Hundred and Fifty-fifth street.

The act imposing this duty upon the Board was passed April 24, 1865. As it was understood that a topographical survey of this ground had already been made under the direction of the Commissioners having the matter previously in charge, it was deemed essential, as a matter of economy both of time and money, to be able to secure them. Sundry maps, surveys, &c., were, in compliance with the law, received by the Board in the month of July last.

Much time has been given to the consideration of this subject, and to a detailed examination of the ground, with the view of gaining the information necessary to proceed intelligently with the work as early as practicable.

The same act provided for the laying out of a road or public drive "running from the northerly portion of the Sixth or Seventh avenue, in a generally northerly or northwesterly direction, upon the easterly or Harlem river side of the city, as far north as the said Commissioners may determine, thence in a general westerly direction to or near the Hudson River, and thence in a general southerly and southeasterly direction 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 Bloomingdale road, Eighth avenue and Fifty-ninth street; such road to follow the course of the Bloomingdale road below One Hundred and Sixth street, whenever the Commissioners shall deem such course advantageous."

The surveys of a proposed line of this road are well advanced, and the Board trusts early in the coming year to determine its course and grades.

In compliance with the provisions of the law, several claims against the previously existing Commission, as shown in detail in the Treasurer's statement, have been paid.

The Treasurer's accounts, herewith submitted, show the expenditures of the past year in detail, and are accompanied by a summary of receipts and expenditures for the same period, and by a statement of the receipts and expenditures since the organization of the Board.

Dated New York, December 30, 1865.

Respectfully submitted,

ANDW. H. GREEN, HENRY G. STEBBINS, Comptroller of the Park. President of the Board of Commissioners of the Central Park.

SUMMARY OF THE TREASURER'S ACCOUNTS.

Construction Account.

Balance on hand, December 31, 1864,

\$46,636 02

The total receipts of the year ending December 31, 1865, are as follows:

From issue of Stock by	the	City	of	New		
York,	•	•		•	\$375,000	00
Interest on deposits,				•	446	52
Sale of wool,	•	•	•	· .	92	48
Payment of lost tools,		•	•	1997 -	8	47
Sale of derrick, .	. •	•	•	•	400	00
Sale of settees, .		•		•	77	50
Sale of bellows, .	•	•	•	•	11	00
Sale of old building,		•	•	•	30	00
Sale of old wood,	•	•	• *	×	22	00
Sale of old steel,			•	•	35	00
Amount re-transferred	to ge	neral	fun	d,	38,121	00

414,243 97

\$460,879 99

The total expenditures for the year ending December, 31, 1865, are as follows:

5

Salaries and compensation of officers and			· ·	
clerks,	\$25,097	67		
Surveys, engineers, architects, draughtsmen,				
&c.,	20,983	54		
Salaries of gardening department,	2,581	00		
Incidental expenses,	8,580	13		
Materials of construction and tools,	97,925	60		
Stationery, printing, advertising, drawing				
materials, &c.,	4,105	34		
Trees, plants, and manure,	2,374	78		
Labor account, amount paid laborers, me-				
chanics, cartmen, &c., .	204,001	67		
Earth filling,	1,265	65	1	
			366,915	00
Balance,	•	•	\$93,964	61
			•	

55

The total	receipts of	of the	Board	from	the com-
mencem	nent of its	s organ	ization,	May	1, 1857,
ara as f	allower	-		•	

]	From issue	of stock	by th	e city	of	Ne	w			
	York,		•.	. '			\$ 4	,786,697	48	
	Sale of bu	uildings or	the P	ark,	÷.,		•	6,155	87	
	Payment	of lost too	ols,	•				451	23	
	Rent of b	uildings,	• •	•				153	33	
	Exhibitior	n of plans,	•			•		294	85	
	Sales of g	rass,					•	2,213	25	
	Sales of w	rool, .			•			222	40	
	Interest or	n deposits.	, .	•			•	20,589	26	
	Pound rec	eipts,	•		•			1,199	87	
	Licenses,	sales of	skates	, refre	shr	nents	з,			
	&c.,		• •	•	•		•	7,175	61	
	Sales of ol	d iron, ste	eel, &c.	·,	•	• -		1,268	66	
	Sale of dea	rrick,		•				400	00	
	Sale of bel	lows, .	•	•				11	00	
	Sale of set	tees,		•	•		•	77	50	
	Labor and	materials	furnisł	ed by	Par	:k,		2,082	66	
	Premium of	on exchan	ge, gold	l for si	lveı	,	•	23	52	
									\$4,829,010	5 49

The expenditures thus far are as follows:

From	May 1, 1	1857, to J	anuary 1, 1	. 858,	\$77,881	41			
"	Jannary	1, 1858,	to January	1, 1859,	507,487	86			
"	"	1859,	"	1860,	1,179,246	47	1997 - 19		
"	"	1860,	**	1861,	878,354	95			
"	"	1861,	"	1862,	479,163	66			
"	"	1862,	"	1863,	461,540	32		•	
"	"	1863,	61	1864,	331,871	60	ta da segui		
ų	"	1864,	**	1865,	452,590	23		•	
"	"	1865,	٤٢	1866,	366,915	38			
							4 735 051	89	

Balance,

\$93,964 61

56

Maintenance Account, 1864.

To balance transferred from general fund, . .

. \$38,121 00

The expenditures on account of Maintenance, in the year 1864, in addition to those in the report of last year, are as follows:

	LABOR.	MATERIALS.	TOTAL.
Roads.	\$307 45	09	\$307 54
Walks, Plantations,	$528 14 \\ 256 46$	58	$52872 \\ 25646$
Tools,	$\begin{array}{c c} 77 & 24 \\ 1,503 & 74 \end{array}$	21 85 77 00	$\begin{array}{r} 99 & 09 \\ 1,580 & 74 \end{array}$
Irrigation, Surface drainage,	$\begin{array}{c}9&28\\1&52\end{array}$	14 55	$\begin{array}{c}23&83\\1&52\end{array}$
Buildings, Park and gate-keepers'	461 33	70 94	532 27
wages, Keep of animals.	$4,153 \ 67 \\ 99 \ 58$	5 19	$4,153 67 \\ 104 77$
Miscellaneous,	530 58	49 38	579 96

8,168 57

\$46,289 57

Received from the City of New York for	deficiency	for	Mainte-	\$F0,203	
nance, 1864,	• •	• .	• •	38,121	00
To balance carried to Maintenance, 1865,	•	•	• •	\$8,168	57

Maintenance Account, 1865.

	LABOR.		MATERIA	LS.	TOTAL.	
•	· <u> </u>		in	1	<u> </u>	
Irrigation.	\$11,795	98	\$395	46	\$12,191	.44
Through drainage,	370	19		·]	370	19
Transverse roads, .	425	80			. 425	80
Masonry,	1,013	07	- 43	37	1,056	44
Tools,	1,332	29	1,405	44	2,737	73
Roads,	24,432	96	21,093	20	45,526	16
Walks,	11,223	10	452	45	11,675	55
Plantations,	17,166	59	201	42	17,368	01
Turf,	18,418	89	642	61	19,061	50
Ice,	7,560	73	634	82	8,195	55
Water.	60	83			60	83
Buildings, .	6,654	76	1,464	32	8,119	08
Gallery of Art.	2,053	98	1,774	13	3,828	11
Surface drainage,	307	20			307	20
Manure,	1,067	61			1,067	61
Music,	3,687	06			3,687	06
Miscellaneous,	9,665	11	4,250	17	13,915	28
Park and gate-keepers'	•]				Ì
wages and uniforms.	57,491	11			57,491	11
Special park-keepers' wa-						· (
ges,	2,227	69		1	2,227	69
Stationery, printing, and	,				,	
advertising,	463	90			463	90
Purchase and keep of	•					
animals,	4,826	44	1,563	53	6,389	97
Proportion of salaries,	5,000	00			5,000	00

221,166 21

\$8,168 57

\$229,334 78

Received from the city of New York, for maintenance of Park,	
for the year 1865,	00
Received from sale of grass,	00
Received from pound receipts,	50
Received from licenses, sales of skates, refreshments, &c., 8,079	85
Received from railroad companies and others on account of	
music at Park,	00
Received for removing broken vehicles to arsenal,	50
Amount transferred from general fund,	93
\$229,334	78

58

Drive Amount transformed former 1 for 1 for more		
veys, model, &c.,	\$1,283	29
Balance December 31, 1865, Construction Account,	\$93,964	61
tenance, 1865,		
Less amount transferred to the credit of Island above		
One Hundred and Fifty-fifth street, 1,283 29		
	66,063	22
Balance on hand December 31, 1865, Construction		
Account,	\$27,901	39
Received from the city of New York, to liquidate claims against Commissioners for laying out city north of One Hundred and		
Fifty-fifth street,	\$14,750	24
The following claims have been paid:		
		11.1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1.
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. B. Blackwell 2703 43		1
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00		
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00		
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00 John P. Cumming, Jr., 162 49		
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00 John P. Cumming, Jr., 162 49	5,880	92
John P. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00 John P. Cumming, Jr., 162 49 Balance on hand, December 31, 1865, .	5,880 8,869	92 32
John F. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00 John P. Cumming, Jr., 162 49 Balance on hand, December 31, 1865,	5,880 8,869 27,901	92 32 39
John F. Cumming, \$1,000 00 R. B. Connolly, 1,000 00 E. R. Blackwell, 2,793 43 William H. Civer, 585 00 Conrad Meister, 340 00 John P. Cumming, Jr., 162 49 Balance on hand, December 31, 1865,	5,880 8,869 27,901 \$36,770	92 32 39 71

ANDW. H. GREEN, Treasurer Board of Commissioners of Central Park.



REFERENCE TO THE CENTRAL PARK GUIDE.

GATES.

5th	Avenue	and	59th	Street-	-The Scholars' Gate.
6th	"	"	59th	£1	The Artists' Gate.
7th	"	"	59th	"	The Artizans' Gate.
8th	44	"	59th	44	The Merchants' Gate.
8th	"	**	72d	"	The Womens' Gate.
8th	"	"	79th	"	The Hunters' Gate.
8th	"	. 44	85th	**	The Mariners' Gate.
8th		"	96th	44	The Gate of All Saints.
8th	44	44	100tl	h "	The Boys' Gate.
5th	""	"	72d	"	The Childrens' Gate.
5th		"	79th	44	The Miners' Gate.
5th		44	90th	" "	The Engineers' Gate.
5th	"	"	96th	44	The Woodman's Gate.
5th	**	"	102d	"	The Girls' Gate.
5th	"	" "	110tl	h "	The Pioneers' Gate.
6th	"	"	110tl	a "	The Farmers' Gate.
7th	"	<u>44</u>	110t	h"	The Warriors' Gate.
8th	"	"	110tł	1"	The Strangers' Gate.

- 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.

- 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.

- 24. East Carriage Step-entrance to Ramble.
- 25. The Ramble.
- 26. Ladies' Cottages.
- 27. Gentlemen's Cottage.
- 28. Schiller's Monument.
- 29. The Tunnel.
- 30. Balcony Bridge.
- 31. West Carriage Stepentrance to Ramble.
- 32. Spring.
- 33. The Knoll.
- 34. Site for the Maze.
- 35. South Gate House.
- 36. North Gate House.
- 37. The West Meadow.
- 38. The East Meadow.

- 39. The Nursery.
- 40. Old Fortification.
- 41. Mount St. Vincent House of Refreshment.
- 42. The Loch.
- 43. The Pool.
- 44. The Great Hill.
- 45. Block House, War of 1812.
- 46. The Cliffs.
- 47. Harlem Lake.
- c. Cascade.
- s. Summer House.
- d. Drinking Fountain.
- h. Drinking Place for Horses.
- b. Bridge, or Archway.
- 1. Boat Landing.
- u. Urinal.

Length of carriage roads completed, $9\frac{5}{1000}$ miles. Length of bridle roads completed, $5\frac{5}{1000}$ miles. Length of walks completed, $27\frac{52}{1000}$ miles.

APPENDIX A.

A detailed statement of the living animals in captivity on the Park, December 31, 1865.

Mammalia.

217 specimens.

Order: QUADRUMANA. 8 specimens.

Family : Simia.

Genus: Circopithecus. 3 specimens. African Monkeys.

Genus: Cynocephalus. 2 specimens. Chacma Baboons, Cynocephalus Porcarius.

Family: Cebidus.

Genus: Cebus. 3 specimens. Ringtail Monkeys, Cebus Cirrhifer.

Order: CARNARIA. 24 specimens.

Tribe: Plantigrada.

 Genus: Ursus. 2 specimens. American Black Bears, Ursus Americanus.
 Genus: Potos. 1 specimen. Kinkajou, or Mica Leon. Potos Caudivolvulus.
 Genus: Viverra. 9 specimens, 2 species. 8 Brown Coatimundi, or Ant Bears. Viverra Nasuica. 1 Red Coatimundi, Viverra Nasua.
 Genus: Procyon. 2 specimens. Raccoon, Procyon Lotor.

Genus: Taxidea. 1 specimen. American Badger, Taxidea Americana. Tribe: Digitigrada.

Genus: Felis. 1 specimen. Ocelot, Felis Pandalis.

Genus: Canus. 8 specimens; 2 sub-genera. 5 Prairie Wolves, Canus Latrans. 2 Silver-gray Foxes, Canus Cieners-Argentatis. 1 Red Fox, Canus Fulvus.

Order: RODENTIA. 53 specimens.

Genus: Sciurus; sub-genus, Sciurus. 8 specimens; 4 species. 1 Fox Squirrel, Sciurus Vulpinus; 4 Gray Squirrels, Sciurus Carolinensis; 1 Costa Rica Squirrel, 2 Panama Squirrels, Sub-genus: Tamias, 2 specimens. 2 Striped Squirrels, Tamias Striatus.

Genus: Mus. 23 specimens; 2 species. 11 White Rats; 12 White Mice.

Genus: Castor. 1 specimen. American Beaver, Castor Canadensis.
 Genus: Hydromys. 1 specimen. Coypu or Nutria, Hydromys Coypu.
 Genus: Lepus. 5 specimens; 2 varieties. 3 English Rabbits, Lepus Cuniculus. 2 Turkish Rabbits.

Genus: Cavia. 13 specimens. Guinea Pigs, Cavia Cobaya.

Order: PACHYDERMATA. 1 specimen.

Genus: Sus. 1 specimen. Peccary, Sus Tojassu.

Order: RUMINANTIA. 131 specimens.

Family : Cervidæ.

Genus: Rangifer. 1 specimen. Woodland Caribou or Reindeer, Rangifer Caribou.

Genus: Cervus. 9 specimens. 3 species American Elk or Wapiti, Cervus Canadensis; 6 Virginia Deer, Cervus Virginianus; 2 Mexican Deer, Cervus Mexicanus.

Family : Cavicornia.

Genus: Ovis. 114 specimens; 3 varieties. 1 Cape Sheep, 111 Southdown Sheep, 2 Caraccas Sheep.

Genus: Capra. 1 Domestic Goat.

Genus: Bos. 4 specimens; 2 species. 3 Cape Buffaloes, Bos Caffer; 1 Flores Bull.

Family: Camelidæ.

Genus: Camelus. 2 specimens. 1 Humped Camel, Camelus Dromedarius.

Aves.

About 552 specimens.

Order: RAPACIÆ. 30 specimens.

Family: Falconidæ.

Genus: Haliætus. 19 specimens. American Sea Eagle (including 5 adult specimens of the Bald Eagle, Haliætus Leucocephalus.)

Genus: Astur. 5 specimens. Hawks.

Family : Strigidæ.

Genus: Bubo. 5 specimens. Great Horned Owl, Bubo Virginianus. Genus: Otus. 1 specimen. Short-eared Owl, Otus Brachyotus.

Order : PASSERINÆ. 6 specimens.

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Genus: Fringilla. 1 specimen. Canary.
Genus: Corvus. 2 specimens. Common Crow, Corvus Americanus.
Genus: Turdus. 3 specimens. 1 Central American Robin; 2 English Blackbirds, Turdus Merula.

Order: SCANSORIÆ. 10 specimens.

Genus: Macrocercus. 2 specimens; 2 species. 1 Blue Macaw, Macrocercus Ararauna; 1 Red Macaw, Macrocercus Macao.

Genus: Cacatua. 2 specimens. Greater Sulphur-Crested Cockatoo, Cacatua Sulphurea.

Genus: Centurus. 3 specimens. Carolina Paroquets, Centurus Carolinensis. Genus: Psittacus. 3 specimens; 2 species. 1 Crested Parrot, 2 Amazon Parrots.

Order: GALLINACE. About 300 specimens.

Sub-order: Columbæ.

Genus: Columba. About 170 specimens, many varieties, including Doves, Pouters, Tumblers, Carriers, Nuns, Swallow-Pigeons, Rufflenecks, Bantam-Pigeons, Hybrids, etc.

Sub-order: Gallinæ.

Genus: Pavo. 55 specimens. Pea-fowl, Pavo Cristatus.
Genus: Numida. 44 specimens; 2 varieties. Guinea-fowl, Numida Meleagris; 41 Gray, 3 White.
Genus: Phasianus. 5 specimens. Hybrid Bantams.
Genus: Ortyx. 3 specimens. 3 American Quails, Ortyx Virginianus.
Genus: Lophortyx. 6 California Quails, Lophortyx Californicus.
Genus: Penelope. 3 specimens. Penelopes, Penelope Cristatus.
Genus: Crax. 4 specimens; 2 species. Curassows, Crax Alectra.
Genus: Meleagris. 2 specimens. Turkeys, var. alb., Meleagris Gallopavo.
Order: GRALLATOBLE. 6 specimens.

Genus: Ardea. 3 specimens; 2 sub-genera. 1 Black-crowned Night Heron,

Ardea Nycticorax; 2 Tiger Bitterns, Tigrisoma Brasiliense.

Genus: Ciconia. 2 specimens. White Storks, Ciconia Alba. Genus: Cancroma. 1 specimen. Arapapa, or Boat-bill, Cancroma Cochlearia.

Order - PALMIPEDES. About 200 specimens.

Family: Totipalmatee.

Genus: Pelicanus. 1 specimen. Louisiana Pelican, Pelicanus Fuscus. Family: Lamellirostres.

Genus: Cygnus. 65 specimens; 2 species. 2 Trumpeter Swans, Cygnus Buccinator; 63 White European Swans, Cygnus Olor. Genus: Cygnopsis. 11 specimens; 2 varieties. 7 White and 4 Gray Chinese Swan Geese, Cygnopsis Sinensis.

Genus: Anser. 8 specimens. Black-headed Poland Geese, Anser Cynoides. Genus: Bernicla. 5 specimens. 4 Canada or Wild Geese, Bernicla Canadensis; 1 Brant, Bernicla Brenta.

Genus: Dendrocygna. 4 specimens; 2 species. 3 Central America Whistling Ducks, Dendrocygna Autemalis; 1 Yagaza, or Porto Rico Wild Duck.

Genus: Chaulelasmus. 4 specimens. Gadwalls, or Gray Ducks, Chaulelasmus Streperus.

Genus: Aix. 1 specimen. Wood Duck, Aix Sponsa.

Genus: Cairina. 8 specimens. Muscovy Ducks, Cairina Moschata; 9 adult Brazilian Ducks, with several broods of young, and about 60 Hybrid Ducks.

Reptilia.

23 specimens.

Order: CHELONIA. 17 specimens.

Family : Testudininia.

Genus: Testudo. 13 specimens; 2 species. 3 Gallipagos Tortoises, Testudo Planiceps (T. Indica, Linn and Darwin;) 10 South American Marginated Tortoises, Testudo Marginata.

Family: Emydoidæ.

Genus: Cistudo. 4 specimens. Box Tortoises, Cistudo Virginie.

Order: SAURIA. 6 specimens.

Family: Crocodilidæ.

Genus: Alligator. 6 specimens. Common Alligator, Alligator Mississippiensis.

SUMMARY.

Mammalia.	Aves.	Reptilia.
Quadrumana, . 8	B Rapaciæ,	Chelonia, 17
Rodentia,	B Scansoriæ, 0	Bauria _y
Pachydermata,	L Gallinaciæ, 300	
Ruminantia, . 13.	Palmipedes, 200	
Mammalia, 21	7 Aves, 552	Reptilia, 23

GRAND TOTAL.

			- N					
Mammalia,		•			•		217	
Aves,	•			•		•	552	
Reptilia, .		•			•		23	

Living collection, . . 792

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APPENDIX B.

Statement in detail of the gifts, devises, and bequests 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.

WORKS OF ART.

October, 18, 1860.

Eighty-seven Casts, in Plaster, of the Works of the late THOMAS CRAWFORD, presented by Mrs. LOUISA W. CRAWFORD, consisting of the following Statues. Bas-Reliefs, and Sketches:

Statues.

- 1. Orpheus, life size.
- 2. Apollo and Diana, third life size.
- 3. Cupid, life size.
- 4. Genius of Mirth, life size.
- 5. Pilgrim Princess, third life size.
- 6. Boy playing marbles, life size.
- 7. Flora, life size.
- 8. Beethoven, heroic.
- 9. The Mechanic, little larger than life size.
- 10. The Schoolmaster, little larger than life size.
- 11. The Schoolboy, little larger than life size.
- 12. The Merchant, little larger than life size.
- The Soldier, little larger than life size.
- 14. The Woodsman, little larger than life size.
- 15. Indian Hunter, little larger than life size.
- 16. Indian Chief, little larger than life size.

- 17. Indian Woman, little larger than life size.
- 18. America.
- 19. Indian Grave.
- 20. Hebe, life size.
- 21. Hebe and Ganymede, life size.
- 22. Mercury and Psyche, third life size.
- 23. Daughter of Herodias, life size.
- 24. Dancing Jenny, life size.
- 25. Boy, with a broken Tambourine, life size.
- 26. Aurora, two-thirds life size.
- 27. Tenants, life size.
- 28. The Peri, life size.
- 29. Hunting Boy, with hound, life size.
- 30. Raphael, one-third life size.
- 31. James Otis, heroic.
- 32. Patrick Henry, colossal.
- 33. Thomas Jefferson, colossal.
- 34. Children in the Wood, life size.
- 35. Dying Indian Girl, two-thirds life size.

Bas-reliefs.

1. Woman of Samaria.	12, 13, 14. Three bas-reliefs of
2. 3. Two Monumental Groups.	Nymph and Satyr.

- 2, 3. 4. Origin of Drawing.
- 5. Hercules and Diana.
- 6. Cupid, stringing his bow with flowers.
- 7. Apollo and Pegasus.
- 8. Muse, with the Lyre.
- 9. Anacreon and Nymph.
- 10. Fawn and Goat.
- 11. Muse and Cupid.

- 15. Huntress.
- 16. Repose in Egypt.
- 17. Justice.
- 18, 19. Two niches for the monument of Mr. Binney.
- 20, 21. Two bas-reliefs for the Washington Monument, Va.
- 22. Christ blessing little children.

Sketches.

Eve, with Cain and Abel.	Beethoven.
Eve listening to the Tempter.	James Otis.
Two sketches of the Flora.	Patrick Henry.
Thomas Jefferson.	Mason.
Washington Monument, Va.	Two Sketches of Sappho.
·Equestrian of Washington.	Rebecca.
Equestrian of Washington, with Lib-	Daughter of Herodias.
erty.	Dying Indian Woman.
Freedom, for the U.S.A. Capitol.	The Tenants.
Dancing Jenny.	Boy, with broken Tambourine.
Aurora.	Indian Chief.
Justice and History, for the U.S.A.	Raphael.
Capitol.	Spring and Autumn.
Jacob wrestling with the Angel.	Burd Monument.
Children in the Wood.	Jupiter and Psyche.
Washington.	The Pediment for the U.S.A. Capitol.

1860.

June 25. The statue of Flora, in marble, by Crawford, presented by R. K. Haight, Esq. (This statue has not as yet been delivered on the Park.) 1862.

- Sept. 20. Plan and model for laying out the Park, presented by Mrs. Susan M. Parish.
- Nov. 22. One Venetian Gondola, presented by John A. C. Gray, Esq. 1863.
- Feb. 28. One Bronze Fountain-Boy and Swan-presented by Thomas Richardson, Esq.

1863.

May 18. One group of Bronze Eagles, presented by G. W. Burnham, Esq. 1864.

Feb. 23. One Rustic Settee, presented by the Officers of the One Hundred and Thirty-second Regiment New York State Volunteers.

July 14. One Bronze Statue of Eve, presented by Marshall O. Roberts, Esq. " " One Stone Idol, presented by Capt. John M. Dow.

Aug. 9. One Stone Idol, presented by Hon. E. O. Crosby, who accompanies the donation with the following note:

"From the correspondence of Don Pablo Jaurequin, who was Curate of Quiche from 1783 to 1794, it appears that, about a year before he left the curacy of Quiche, he repaired the church, taking for that purpose the stones from the ancient ruins of Utatlan, the old capital of the Quiche kings.

"Among the ruins he found, in very good state of preservation, what he calls a giant, which, as soon as it was discovered, the Indians at work began to cry (he says) and utter some peculiar prayers, saying it was the ancient god and such things. To prevent their returning to idolatry, he caused this stone statue to be brought to the Capital and city of Guatemala, but the Indians for some cause defaced it on the way, and dragged it on the road several times, so that the priest Jaurequin gave up the idea of sending it to the Museum at Madrid, as he at first intended, and placed it at the corner of his house, in May, 1794. In 1803, observing that some of the Indians from Quiche and Solola used to burn copal gum at night before the idol, he had it removed, and buried it in the court-yard of his house."

1864.

Nov. 17. One fine specimen of Amethyst, presented by John McIntyre, Esq.
Dec. 2. One Topographical Map of the Central Park, presented by H. F. Krause, Esq.

Presented in the year 1865.

1865.

Mar. 29. One Stone Group, "Auld Lang Syne, presented by the Scotch residents of the city of New York.

May 25. Plaster Bust of Most Rev. Archbishop Hughes; Plaster Bust of Prince of Wales, presented by Charles J. Innes, Esq.

- July 18. Photographs of Members of National Hose Company No. 24, and Newark Hose Company No. 1, presented by Members of Hose Company No. 24.
- Aug. 15. One Bronze Statue of "Commerce," presented by Stephen B. Guion, Esq.

1865.

Aug. 25. Model of Steamer "Signal Light," presented by John B. Murray, Esq.

Sept. 2. Photographic Views of the City of Richmond, Va., presented by Messrs. E. & H. F. Anthony & Co.

Oct. 18. Photographic Views of Spring Grove Cemetery, Cincinnati, presented by Ignaz A. Pilat, Esq.

Prepared Specimens.

1862.

Feb. 6. Ox "General Scott," presented by William Lalor, Esq.

Oct. 24. Ox "Constitution," presented by Bryan Lawrence, Esq.

" " Two Sheep, presented by Bryan Lawrence, Esq.

1863.

Mar. 18. One Calf, presented by William Lalor, Esq.

1864.

Oct. 22. Two California Hares, presented by James Stokes, Jr., Esq.

Presented in the year 1865.

1865.

Feb. 7. Skeleton of a Sea Turtle, presented by Frederick Holcomb, M. D.

Mar. 22. Collection of Shells, Minerals, etc., presented by Frank A. Pollard, Esq.

Apr. 28. Skull and part of a Skeleton of a Negro. Skin of Ichneumon.

June 10. Skull of trotting horse "George M. Patchen," presented by James H. Roome, Esq.

Aug. 30. Piece of petrified wood, presented by P. Chase Coffin, Esq.

Botanical.

Ten Betula Pumila, fifty Ledum Latifolium, fifty Andromeda Polifolia, presented by Prof. George Thurber.

Seed of the Giant Cedar of California, presented by Fred. Law Olmsted, Esq.

Seed of the Nelumbium Luteum, presented by C. E. Whitehead, Esq.

Seed of the Pawpaw, presented by W. F. Drake, M. D.

Seed of the Convolvulus, presented by John G. Crosby, Esq.

Rosin Plant, presented by Lewis Masquerier, Esq.

1864.

Feb. 20. A lot of Laurel from Lookout Mountain, presented by Major-General Daniel Butterfield.

May 12. A lot of Pitcher Plants, presented by John M. Reed, Esq.

Nov. 28. One Cactus Plant, presented by F. C. Beschomann, Esq.

Presented in the year 1865.

1865.

Feb. 3. Three Cactus Plants (2 D.), presented by Mrs. T. A. Post.

May 18. Nine Plants, Cedars of Lebanon (4 D.), presented by Henry Easton,

Esq.

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1865.

Sept. 23. Four Orchis Plants, presented by Dr. G. Naphegy.

Oct. 18. Seed of the Lignum Vitæ, presented by Alfred Coffin, Esq

Dec. 16. Seed of the Flowering Currant, Oregon Maple, and Oregon Grape,

presented by C. H. Larrabee, Esq.

Miscellaneous.

Presented in the year 1865.

1865.

"

Oct. 10. One Cannon, one small Mortar, one 18lb. Ball and Grape Shot, all taken from wreck of British Frigate Hussar.

12. One 450lb. and One Parrott Shell, from Fort Sumter, presented by Charles C. Northrup, Esq.

Nov. 1. Three large Shells, from Charleston, S. C., presented by Brig-Gen. C. H. Van Wyck.

An ornamental Brass Six-pounder, presented by Gen. Lafayette to Gen. Cropper, the hero of Accomac, in the Revolutionary War, which was seized by the rebels in the late war, recovered by our forces, and returned to Gen. Cropper's grandson, by order of President Johnson, has been deposited with the Board, subject to the order of the owner.

The following ANIMALS have also been presented.

1860.

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"

"

May 24. Twelve White Swans, presented by the Senate of the City of Hamburg.

Oct. 18. Twenty-four White Swans, presented by the Worshipful Company of Vintners, London.

" " Twenty six White Swans, presented by the Worshipful Company of Dyers, London.

Nov. 1. Ten White Swans, presented by the Senate of the City of Hamburg.

- " Two Trumpet Cranes, presented by G. Granville White, Esq.
- " One American Eagle, presented by Albert H. Jocelyn, Esq.

" " One Deer, presented by Joseph Conrad, Esq.

" " One Deer

" " Gold Fish, presented by Wm. D. Murphy, Esq.

" " Two Canadian Geese, presented by Charles M. Graham, Esq. 1862.

Feb. 8. One Young Swan, presented by Capt. Grumley.

May 8. One Deer, presented by Geo. Wm. Curtis, Esq.

June 14. One Doe, presented by Edward E. Mitchell, Esq.

" 21. Two Poland Geese, presented by Thomas Richardson, Esq.

" " Five Aylesbury Ducks, presented by Thomas Richardson, Esq.

" One Gynerium Argenteum, presented by Thomas Richardson, Esq.
July 29. One Raccoon, presented by I. A. Pilat, Esq.

Aug. 19. Two Pelicans, presented by Col. Thorpe.

Sept. 1. One Australian Cockatoo, presented by Robert Lerwin, Esq.

" 24. One Monkey, presented by Frank Towle, Esq.

- " One Black Eagle, presented by Isaac B. Caryl, Esq.
- " " One Marsh Hawk, presented by Woodhull Lawrence, Esq.
- Oct. 30. Two Deer, presented by Hon. Bayard Clark.

66 23. One Red Fox, presented by Thomas S. Dick, Esq.

Nov. 1. Two Syrian Gazelles, presented by G. Granville White, Esq.

" 10. One Eagle, presented by William H. Beardsley, Esq.

" 11. One Opossum, presented by J. Potter, Esq.

" 20. Two Musk Deer, presented by G. Granville White, Esq.

" 24. One Doe, presented by S. T. Nichols, Esq.

" " One American Eagle, presented by W. T. Blodgett, Esq. 1863.

March 7. One Gallipagos Land Tortoise, presented by Col. J. S. Williamson.

May 4. One Macaw, presented by Jacob Hays, Esq.

" 10. One Cockatoo, presented by S. E. Sifkin, Esq.,

June 9. One pair Poland Star Pigeons, presented by John Norris, Esq.

" 16. One pair English Rabbits, presented by George W. Snow, Esq.

44 25. One pair Peacocks, presented by John A. Havens, Esq.

July 6. One Horned Owl, presented by D. M. Collins, Esq.

" 8. Three Marsh Hawks, presented by M. B. W. Wheeler, Esq.

" " One Pelican, presented by G. Granville White, Esq.

- " 20. One Black Bear, presented by S. W. Phœnix, Esq.
- " 22 Two pairs Skylarks, presented by Louis B. Binsse, Esq.
- " 23. One White English Rabbit, presented by Edward McHugb, Esq.
- " 24. One Magpie, presented by John Norris, Esq.

" " One American Eagle, presented by Captain Pennell.

" 30. Two pairs Yaguaza Ducks, presented by George Latimer, Esq.

Aug. 7. Three Bitterns, presented by Francis Armbruster, Esq.

46 29. Three American Eagles, presented by H. E. Dickenson, Esq.

Sept. 11. Six Deer; Two Fawns; Thirteen Gray Squirrels, presented by the Authorities of the city of Philadelphia.

" 15. One Prairie Wolf; One Silver Gray Fox, presented by C. S. Foster, Esq.

" 22. One pair Fish Hawks, presented by M. W. Cooper, Esq.

- " 24. One White Owl, presented by R. B. Minturn, Esq.
- u 30. One Screech Owl, presented by F. A. Pollard, Esq.

8. Four pairs of Pigeons, presented by Mrs. R. B. Roosevelt. Oct.

14 14. Five pairs Pigeons, presented by Mrs. R. B. Roosevelt,

" " One pair of Spanish Bantams, presented by Mrs. R. B. Roosevelt.

- " 21. One Small Owl, presented by Frank Towle, Esq.
- 23. Three White Rabbits, presented by Dr. H. Giles Luther.

Oct. 30. One Hen Hawk, presented by Hugh Farraly.

- Nov. 4. Six Brazilian Black Ducks, presented by Thomas Richardson, Esq.
 - ⁶ 7. One Bittern; One Squirrel; One Perro de Agua (or Water Dog); One Parrot, presented by Captain John M. Dow.
 - " " One Snapping Turtle, presented by Timothy Daly, Esq.
 - " 11. One Ringtail Monkey, presented by Captain Joseph M. Scott.
 - " 12. One pair Paroquets, presented by George Latimer, Esq.
 - " 13. One Opossum, presented by Miss G. E. Treadwell.
 - " 24. One Arctic or Snowy Owl, presented by Dr. S. M. Francis.
 - " " One Heron; One pair Pigeons, presented by Miss Sarah Van Wagener.
- Dec. 2. One Swan Goose, presented by J. Emory, Esq.
 - " " One Bittern, presented by F. A. Koepping, Esq.
 - " " One American Eagle, presented by Dr. S. M. Francis.
 - " 19. One pair Guinea Pigs, presented by James A. Bracklin, Esq.
 - " 24. Eighty Fancy Pigeons, presented by W. R Powell, Esq.
 - " 28. One Red Fox, presented by Dr. W. F. Drake.
 - " 29. One Fawn, presented by Dr. Guido Furman.
 - " 31. Two Red Foxes; One Owl, presented by John G. Bell, Esq.
 - " " Two English Rabbits, presented by Charles T. Henley, Esq.

1864.

- Jan. 2. One American Swan, presented by S. E. Van Tine, Esq.
 - " 6 One Coypu, presented by N. Espenchied, Esq.
 - " 8. Twenty-two Fancy Pigeons; Six Rowen Ducks, presented by W. R. Powell, Esq.
 - " 12. One Gray Squirrel, presented by Mortimer Hendricks, Esq.
 - " 15. One Japanese Bantam, presented by Dr. S. M. Francis.
 - " 13. One pair Lopped-ear Rabbits, presented by Master Gardiner Stewart.
 - " 19. One pair Grouse ; One Eagle, presented by James Grant, Esq.
 - " " One Gray Eagle, presented by Col. S. H. Mix.
 - " 25. One Trumpet Crane, presented by Salvador Cisneros.
- Feb. 8. One Hen Hawk, presented by John Ransom, Esq.
 - " 9. One Raccoon, presented by Dr. Lord.
 - " 13. One Raccoon, presented by J. W. Folger, Esq.
- Mar. 4. One Deer, presented by the Forester Club.
 - " 5. One Owl, presented by G. W. McCormick, Esq.
 - " 20. Three Quails.
- April 1. One pair Rabbits, presented by Master Willie Northrup.
 - " 2. One Florida Black Eagle, presented by the officers and crew of the U. S. S. Restless.
 - " 15. One pair Paroquets, presented by George Latimer, Esq.
 - " 16. One Crested Currassow, presented by H. P. Degroff, Esq.
 - " 19. One Hawk, presented by Stanley A. Dayton, Esq.

- April 21. Twenty-one Fancy Pigeons; One Gray Squirrel, presented by Mrs. R. B. Roosevelt.
 - " 23. Two Deer, presented by Col. N. Martin Curtis.
 - " " Three Fox Squirrels, presented by E. A Layton, Esq.
 - " 30. One Fox, presented by Miss Bessy Price.
- May 2. One pair Joey Birds, presented by Mrs. D. Hayward.
 - " 4. Three Quail, presented by A. M. Allerton, Esq.
 - " 5. One Silver-Gray Fox, presented by Augustus Faller, Esq.
 - " 7. One Thrush, presented by E. C. Colton, Esq.
 - " 9. One Raccoon, presented by Robert Gentle, Esq.
 - " 10. One Rabbit, presented by Miss Sophia Griffiths.
 - " 11. One Pea-Hen, presented by John O'Reilly, M. D.
 - " 14. One Utia, presented by T. M. Bengiere, Esq.
 - " 18. One Red Fox, presented by George Wilkes, Esq.
 - " 19. One Ring Dove, presented by W. A. Conklin, Esq.
 - " 25. One Deer, presented by Thomas Kirkpatrick, Esq.
 - " " One pair Brown China Geese, presented by E. O. Wendell, Esq.
 - " " One Parrot, presented by David Hoadley, Esq.
 - " " Five Ring Doves; Six Paroquets, presented by George Latimer, Esq.
 - " 29. One Rabbit, presented by Miss Collyer.
 - " 30. One Eagle, presented by Officers of the Twenty-second Regiment N. Y. S. N. G.
- June 2. Two Swan Geese, presented by Elias Wade, Jr.
 - " " Two Broadtail Sheep, presented by Messrs. C. J. & F. W. Coggill.
 - " 4. One Porcupine, presented by A. J. Huntoon, Esq
 - " 7. Two pair Curassows; Two Penelopes; Two Great Plovers; Two Macaws; One Parrot; One Water-Hen; Five Whistling Ducks; One Kinkajou; One Pisoto, or Ant Bear; One Opossum, presented by Capt. John M. Dow.
 - " 11. One Red Fox, presented by Wm. Williams, Jr., Esq.
 - " " One pair Ringdoves, presented by Master F. W. Fuller.
 - " 13 One Monkey, presented by R. H. Swift, Esq.
 - " 15. One pair Tumbler Pigeons, presented by William Carr, Esq.
 - " 23. Five young Prairie Wolves, presented by A. M. Allerton, Esq.
 - " " Three Peacocks, presented by Henry Winthrop Sargent, Esq.
 - " 25. One Siebright Hen, presented by Miss Emma Havens.
 - " 28. One Raccoon, presented by David Edrehi, Esq.
 - " " One Rabbit, presented by H. R. Hedden, Esq.
 - " " One Barber-Pole Snake, presented by Capt. A. J. Chapman.
 - " 29. One Prairie Wolf, presented by Jackson Haines, Esq.
- July 5. One Woodcock, presented by John D. Nelson, Esq.
 - " 6. One Opossum, presented by John McGuygen, Esq.
 - " 13. One Rabbit, presented by Master H. F. Steinecker.

July 14. One Rabbit, presented by W. A. Conklin, Esq.

" 16. One Silver-Gray Fox, presented by James W. Tappen, Esq.

" 19. One pair Rabbits, presented by William E. Sparks, Esq.

" 23. One Water Turtle, presented by Capt. J. G. Richardson.

" 26. One young Doe, presented by Isaac P. Martin, Esq.

" 29. Three Muscovy Ducks, presented by Capt. Stamper.

Aug. 4. One Parrot, presented by Master E. W. Clarke.

" 6. One pair Rabbits, presented by Mrs. Mary Bleknap.

" 8. One Eagle, presented by Stewart McIver, Esq.

" 9. Two Tortoise Turtles, presented by Capt. M. Chichester.

" 12. One Quail, presented by Mrs. Henry Spence.

" 13. One Raccoon, presented by James Odell, Esq.

" 19. One Cuban Dove, presented by "Americano."

" 23. One Iguana, presented by Messrs. H. G. Schmidt & Co.

" 25. One Boa Constrictor, presented by Brig.-Genl. Asboth.

" 26. One Pea Hen, presented by Henry Winthrop Sargent, Esq.

" " One pair Squirrels, presented by Miss Lucy S. Waterbury.

" 29. One Monkey, presented by Henry Decker, Esq.

" 30. One pair Pigeons, presented by Mrs. Howard.

Sept. 2. One Osprey, presented by Thomas W. Geary, Esq.

" 14. One Red Fox, presented by James S. Brower, Esq.

" 15. One pair Foxes, presented by R. W. Cameron, Esq.

" " One pair Peccaries, presented by Robert Gordon, Esq.

" " One Venezuela Fox, presented by Robert Gordon, Esq.

" 22. One pair Flamingoes, presented by Elias Wade, Jr., Esq.

" 23. One Raccoon, presented by E. McDonald, Esq.

" " Eleven Cuban Birds, presented by G. Y. Hernandez, Esq.

" 29. One Raccoon, presented by D. W. Diggs, Esq.

Oct. 8. One Pea Hen, presented by Master John L. Beland.

" 11. One Raccoon, presented by William Willett, Esq.

" " One Hawk, presented by Capt. Wm. B. Bell.

" 21. One Hoot Owl, presented by Charles A. Miller, Esq.

" 22. One pair Snapping Turtles, presented by M. A. Kellogg, Esq.

" 28. One Eagle, presented by C. W. Bradley, Esq.

" " One Partridge, presented by C. R. Carpenter, Esq.

Nov. 2. One Hawk, presented by D. G. Piper, Esq.

" 18. Two Ant Bears, presented by Hon. R. C. M. Hoyt.

" " Eight Spanish Bantams, presented by Mrs. R. B. Roosevelt.

" 19. Three Rabbits, presented by Master George R. Brooks.

" 22. Two Penelopes; One Curassow, presented by Charles H. Russell, Esq.

" 30. One pair Guinea Pigs, presented by Alex. McC. Stetson, Esq.

Dec. 2. One pair Blue Jays; One Robin, presented by T. F. Trenor, Esq.

" 3. One Black Bear, presented by Brig.-Gen. Asboth.

Dec. 7. One Gray Squirrel, presented by Miss Bessy Greenfield.

- " 12. One Ocelot Cub, presented by Samuel Ward, Esq.
- " 18. One Buffalo; One Elk, presented by Charles M. Elleard, Esq.
- " 21. One Deer, presented by Francis Butler.
- " " One Duck, presented by John Butterfass, Esq.
- " 24. One pair China Doves, presented by Capt. James Chisam.
- " 28. One Horned Owl, presented by R. L. Stuart, Esq.
- " " One Eagle, presented by Brig.-Gen. Asboth.

1865.

Presented in the year 1865.

Jan. 8. One Deer (D.), presented by George Lewis, Esq.

" 16. One Horned Owl, presented by John Ferris, Esq.

" 23. Une Pelican (D.), presented by Samuel Moore, Esq.

" 24. One pair Paroquets (1 D.), presented by "F. G."

- Feb. 3. One White Guinea Fowl, presented by W. A. Conklin.
 - " 4. One Deer (D.), presented by Mrs. Charles Ransom.
 - " 16. One Raccoon (D.), presented by J. A. Willard, Esq.
 - " 17. One Opossum (D.), presented by B. F. Bigelow, Esq.

" 21. One Deer (D.), presented by E. G. Ditmars, Esq.

Mar. 3. One Deer (D.), presented by James Broadmeadow, Esq.

" 10. One Fox (D.), presented by Wm. Skidmore, Jr.

" 29. One Red Fox (D.), presented by D. B. Young, Jr., Esq.

" 31. One pair Guinea Fowls, presented by J. Jones, Esq.

April 1. One Gray Squirrel, presented by Miss Josephine V. Garbrecht.

" 9. One Coatimundi, presented by Capt. Thomas Smythe.

" 10. Three Cape Buffaloes, presented by Major-General Meigs.

" 22. One Flores Bull, presented by J. W. Alsop, Esq.

- " 26. One Hawk, presented by James Pierson, Esq.
- ¹¹ 28. One White Dove, presented by Mrs. Goubits.
- " " One pair Crested Parrots (D), presented by William Parks, Esq.

" " One Monkey, presented by P. Grovesnor Monroe, Esq.

May 4. One Deer, [D] presented by Vice-Admiral D. C. Farragut.

" " One Guinea Hen presented by J. Jones, Esq.

" " One Eagle, presented by Salmon C. Foote, Esq.

" Three S. A. Tortoise Turtles, [2 D] presented by Joseph C. Howell, Esq.

" 5. One pair English Blackbirds, presented by John Sutherland, Esq.

" 11. One Eagle, presented by Washington Market Social Club.

" 15. One Coatimundi, presented by A. N. Lambert, Esq.

" 18. One Canary Bird, presented by F. G.

" 19. One Goat, presented by Ernest Friedricks, Esq.

" 20. One pair Rabbits, presented by Eugene Plunkett, Esq.

" " One Water Hen, [D] presented by Master Wm. Norris.

" 25. One Cockatoo, presented by Mr. Dodge.

May 25. One Beaver, presented by Hon. Caleb Lyon.

، د 44 One Opossum, [D] presented by a Lady.

" 29. One Curassow, presented by Mr. Hamilton.

30. One Alligator, presented by J. B. Hildreth, Esq. "

31. One Great Virginia Rail, [D] presented by Dr. E. J. Parmley. 46

June 1. One Spider Monkey, [D] presented by J. C. Woods, Esq.

11. One Ring-tail Monkey, presented by James B. Mingay, Esq. 66 -

12. Eight Pea Fowl, presented by Charles H. Lilienthal, Esq. "

11. One pair Cuban Game Fowl, [D] presented by James D'Hervilly, Esq. u

15. One Ocelot, [D] presented by Robert Gordon, Esq. "

17. One Hawk, presented by T. L. Browning, Esq. "

21. One Alligator, [D] presented by E. G. Allen, Esq. "

" 23. One Owl, presented by A. C. Brady, Esq.

26. One Peccary, presented by John Dalton, Esq. "

29. One Ocelot, presented by F. Waiebel, Esq. "

1. One pair Turtles, [D] presented by Captain Joseph Cathcart. July

" 7. One pair C. A. Robins, [1 D] presented by Mrs. D. E. Sickles.

" " One Monkey [D]

" One Gray Squirrel, presented by Master Alonzo Dayton. "

8. Two Hawks, [D] presented by Ambrose Andrews, Esq. ٤Ł

" " One Owl, presented by J. T. Detsohel, Esq.

11. One Raccoon, presented by J. B. Mingay, Esq. ά

" One small Alligator, presented by Matthew Goldie, Esq. "

13. One pair Guinea Pigs, [1 D] presented by George W. Chambers, Esq. 44

14. One pair Eagles, presented by John G. Lightbody, Esq. "

" 15. One Red Fox, [D] presented by Elias Schilling, Jr.

July 18. One Black Bear [D] presented by William Osborn, Esq.

24. One Osprey [D] presented by Dr. E. J. Parmley.

44 26. One Turtle, presented by Levi Travis, Esq.

44 29. One Alligator, presented by Captain E. E. Vaile.

1. One pair Turtles, presented by Master L. M. Crane. Aug.

" 2. One pair Bullfinches [D] presented by F. G.

" 3. One Mexican Deer, presented by Mons. A. Chol.

" 4. Three Rabbits, presented by Miss Josephine Harmon.

" 5. Two Fawns, presented by Hon. Benjamin Wood.

" Two Owls, presented by Messrs. Hall & Whitman.

" 11. One Macaw, presented by George Latimer, Esq.

" 12. Two Monkeys [1 D] presented by John P. Heiss, Esq.

" 17. One pair Badgers [1 D] presented by David L. Wells, Esq.

44 23. One Owl, presented by Charles P. Clevenger, Esq.

" 30. One Turtle [D] presented by John S. Stivers, Esq.

5. Seven White Mice [2 D], Sept.

presented by S. W. Geery, Esq. " Three Ring Doves,

" One pair Rabbits,

"

"

"

1865. Sept. 8. One Caraccas Sheep, presented by J. C. Buckingham, Esq. 14. One Silver-Gray Fox, presented by William R. Morgan, Esq. " One Crow, presented by Milton Finkle, Esq. " Sept. 14. One Alligator, presented by George B. Dixon, Esq. " " One Turtle [D.]. 15. One Coatimundi, presented by J. L. Valentine, Esq. " " One pair Guinea Pigs [D] presented by Mrs. Lafayette Rape. " 16. One Marmot [D] presented by P. McCabe, Esq. " 21. One Guines Pig, presented by Miss M. G. Lewis. u 23. One pair Rabbits, presented by J. W. B. Rockwell, Esq. " One pair Trumpeter Swans, presented by Adolph Strauch, Esq. " 44 One pair Hawks [1 D] presented by Major C. H. Boyd. " " 28. One Osprey [D] presented by Richard Hastings, Esq. " 2. One pair Guinea Pigs, presented by Mrs. W. H. Marshall. Oct. 3. Seven California Quail [1 D] presented by Andrew G. Agnew, Esq. " One pair Jamaica Ring Doves, } presented by J. C. Woods, Esq. " " " " One Parrot, 4. One Toucan (D) presented by Charles A. Whitney, Esq. " 6. Three Ground Squirrels (1 D) presented by Truman W. Pepper, " Esq. " " Three German Sparrows, presented by Louis Gros, Esq. 44 " Two Alligators, " > presented by Brig.-Gen. Asboth. " Two Squirrels,

" " Five Turtles,

" 9. One Woodchuck (D) presented by William J. Hays, Esq.

9. One pair White Rats, presented by Edward Hussey, Esq. Oct.

" 12. One pair English Rabbits,

presented by Mrs. John M. Ferry. " " One pair Turkish "

•4 17. One Stag, presented by Samuel Churchill, Esq.

One pair Turtles, presented by Miss Mary R Sandford. " "

" 18. One pair Guinea Pigs, presented by Mrs. E. Wesley.

One Ground Mole, (D) presented by J. B. Andrews, Esq. " "

" 21. Three Muscovy Ducks, presented by W. N. Clark, Jr., Esq.

" 23. One Eagle, presented by Daniel Mackintosh, Esq.

" " One Owl, presented by Frederick Berthoud, Esq.

" One Owl, presented by Charles J. Smith, Esq. "

" 21. One Gallipagos Turtle, presented by Capt. John M. Dow.

" 28. One Bittern, presented by Henry Arthur, Esq.

" 31. One Fawn, (D) presented by Andrew H. Pride, Esq.

1. One Wood Duck, presented by J. Jones, Esq. Nov.

" One Red Fox, (D) "

presented by Master Albert Gregory. 44 " One Hawk,

" Six Pea Fowls, (2 D) presented by C. H. Lilienthal, Esq. "

" 3. One Tortoise Turtle, presented by Edmund R. Bell, Esq.

Nov. 3. One Opossum (D) presented by Samuel Moore, Esq.

8. One Eagle, presented by Hon. L. F. S. Foster. 44

4 9. One Deer, presented by Miss Mamie Garrison.

" 11. One Red Fox, (D) presented by Henry Mataran, Esq.

" Eight Chinese Geese, presented by Charles Hartland, Esq. u

44 14. Three Quail, presented by A. Beekman, Esq.

14. One Guinea Pig, presented by Mrs. Wright. 26

13. One Caribou Calf, presented by Hon. James J. Rogerson. "

18. One pair White Rats, presented by Miss Libbie Ogden. "

" 24. Two Coatimundi, presented by W. S. Gregory, Esq.

"

" One Coatimundi, } presented by Fred Law Olmsted, Esq. " One Ocelot, (D) 11

27. Eight White Rats, presented by Master Cecil Sagueys. "

4. One Arapapa, presented by Solon Dike, Esq. Dec.

5. One Crow, presented by David S. Parbor, Esq. 44

11. Seven White Mice, presented by Master D. M. Hagadorn. u

13. Two White Turkeys, presented by Capt. James Hand. 4

16. One Deer, presented by Albert Steinway, Esq. "

18. One Raccoon, presented by B. W. Pycock, Esq. Ц

20. One Red Fox, presented by Albert Steinway, Esq. 11

25. One Brandt Goose, presented by Wm. C. Johnson, Esq. "

26. One pair Ring Doves, presented by Peter Muller, Esq. 46

28. One Silver Gray Fox, presented by Marcus F. Whitehead, M.D. 11

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

APPENDIX C.

1 3

A tabular statement of the details of the expenses of the Zoological Garden of London for the years 1855, '56, '57, '58 & '59.

	18	1855.			56.		1857.			1858.			18	1859.	
	£.	s.	d.	£	s.	d.	£	8.	d.	£	8	d.	£.	8.	d.
For Rent. Rates. Taxes. &c	977	8	7	922	ก้	3	927	7	5	915	18	7	953	3	0
" Salaries, Wages, Pensions, and Gratuities,	3.104	15	ò	3,108	14	3	3.344	19	8	3.276	7	$\dot{2}$	8.944	10	ğ
" Cost of Animals	595	1	õ	1.017	- <u>9</u>	ŏ	301	Õ	ŏ	462	5	8	617	ĨĨ	9
" Carriage of Animals and Keepers' Expenses	91	16	ĩ	203	ľ	2	496	$\tilde{2}$	2	330	11	ő	849	9	11
" Provisions	3.858	11	11	3,739	12	8	2,720	- 9	11	2.528	3	7	2.686	3	10
" Menagerie expenses	1.424	13	2	1.575	12	7	1,120	12	7	1,360	16	10	1,317	9	ិន
" Keepers' Dresses	90	14	ō	96	-8	5	97	- 3	ò	97	Õ	6	101	16	5
" New Buildings and Works connected				123	17	ğ					Ŭ	Ŭ	1 779	11	6
" Other Works, Repairs, Materials, Alterations, &c	1.607	19	7	1.900	14	8	1.294	18	9	968	11	4	912	9	7
" Garden expenses	565	10	ò	760	19	ă	470	3	ğ	491	19	î	547	š	6
" Band expenses.	260	6	Ğ	201	11	6	203	2	6	160	15	ō	199	10	ō
" Advertisements	189	- 8	Ő	131	8	6	113	17	ő	129	5	ĭ	138	14:	ŏ
" House and Office expenses	192	4	7	222	š	ŏ	333	12	10	225	7	8	271	3	· ĭ
" Library expenses	93	4	8	75	ŏ	5	58	4	ĥ	76	17	ĭ	115	15	õ
" Museum expenses	86	13	ŏ	157	12	ŏ	49	15	6	23	18	10	1	11	ŏ
" Stationery and Account Books	34	8	š	43	4	5	38	2	3	52	.7	Õ	32	13	ž
" Printing (Miscellaneous)	111	17	ŏ	79	17	õ	109	16	6	181	6	š	129	3	õ
" " (Transactions)	24	12	ŏ	133	- 9	ŏ	81	18	ĕ	55	13	10	177	ğ	10
" " (Proceedings)	936	-7	ň	495	ŏ	11	632	7	š	732	Ĩõ	9	714	2	11
" Returned Subscriptions	3	ò	ō	10	ĭ	10	12	0	ŏ	20	11	ŏ	3	õ	-ô
" Cost of Medals.	, i		, v			v		v	Ň	-0		Ň	36	ĭ	ŏ
" Law expenses		 	•••	5	12	8		•••	•••		•••	••••			•••
Total	14,248	10	5	15,003	15	6	12,305	14	7	12,039	11	9	15,021	12	6

THE ZOOLOGICAL SOCIETY OF LONDON-EXPENSES INCURRED IN THE YEARS

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APPENDIX D.

CITY OF NEW YORK-CENTRAL PARK.

AUTHORIZATION

OF THE LAYING OF THE FOUNDATION OF THE MONUMENT TO

WILLIAM SHAKESPEARE,

April 23, 1864.

James H. Hackett, Esq, William Wheatley, Esq., Edwin Booth, Esq., and the Hon. Charles P. Daly, of the city of New York, having made application to the Commissioners of the Central Park, on behalf of the actors and theatrical managers of the city of New York, for leave to place within the said Park the foundation of a monumental statue to William Shakespeare, and the said Commissioners having, on due consideration, determined that such monument would be eminently appropriate to the public grounds of the city, have, therefore, consented to accept the same, and to place it within the said Park for the adornment thereof, there for ever to remain for the public gratification and enjoyment.

To this end the said Commissioners have further consented that the foundation of said monument be laid in the said Park on the 23d day of April, 1864, subject to the ordinances and rules provided or to be provided for the control and preservation of statuary and monumental structures of the said Park.

By authority of the Commissioners of the Central Park,

ANDW. H. GREEN,

Comptroller of the Park.

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CENTRAL PARK, NEW YORK, April 23, 1864.

APPENDIX E.

TABULAR ARRANGEMENT

OF THE

VERTEBRATA OF NORTH AMERICA.

PREPARED BY

ALBERT H. GALLATIN, M.D., Curator of the Zoological Gardens.

The object of the following tables is to present a clear and concise statement, sufficiently accurate for general use, of the Vertebrata existing on the North American Continent.

No attempt has been made to refine on the classifications of Audubon, Holbrook, and Girard, although much has been done since the publication of their labors by Agassiz, Dana, Baird, Lawrence, and others.

From this table the *Cheiroptera*, the *Reptilia* west of the Rocky Mountains, and the *Pisces* east of the Rocky Mountains are excluded.

The authorities followed are *Audubon* for Quadrupeds and Birds, *Holbrook* for Reptiles, and *Girard* for Fishes.

OLASSIFICATION OF THE GENERA OF THE QUADRUPEDS OF NORTH AMERICA.

	Order " (arnaria."	
Family "Insectivora."		Family "	Darnivora."
Genus " Sorex." Genus " Condylura."	Tribe " Plantigrada."	Tribe "	Digitigrada."
Genus " Scalops."	Genus " Meles."	Genus " Lynx."	Genus " Mephitis."
	Genus " Procyon."	Genus " Vulpes."	Genus " Mustela."
	Genus " Ursus."	Genus " Canis."	Genus " Lutra,"
	Genus "Sulo."	Genus " Felis."	Genus " Bassaris."
		Genus " Putorius."	Genus "Enhydra"

Order "Marsupialia." Genus "Didelphis."

Order " Rodentia."

Genus.	Genus.	Genus.
" Spermophilus."	" Hystrix."	" Meriones."
" Fiber."	" Pseudostoma."	" Georychus."
" Pteromys."	" Arvicola."	" Aplodontia."
" Mus."	" Castor."	" Dipodomys."
" Sigmodon."	" Lagomys."	
	Genus. "Spermophilus." "Fiber." "Pteromys." "Mus." "Sigmodon."	Genus. Genus. "Spermophilus." "Hystrix." "Fiber." "Pseudostoma." "Pteromys." "Arvicola." "Mus." "Castor." "Sigmodon." Lagomys."

Order "Edentata." Genus "Dasypus." Order "Pachydermata." Genus "Dycotyles."

Order " Ruminantia."

Genus " Bison."Genus " Antilocapra."Genus " Elaphus."Genus " Ovibos."Genus " Ovis."Genus " Rangfier."Genus " Cervus."Genus " Capra."

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II.-Tabular arrangement of the number of described species in North America; of the total number of described species on the globe, and of the geographical distribution; of those genera of quadrupeds found in North America.

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GENERA.	FOUNDERS OF THE GENERA.	TYPES OF THE GENERA IN NORTH AMERICA.	GEOGRAPHICAL DISTRIBUTION.	Number of described species in North Am.	Total num- ber of de- scribed spe- cles.
Sorex	Linnæus	Say's Least Shrew	13 species in North America : 20 species in Eastern Continent	13	about 83
Condylura	Illiger	Common Star-Nosed Mole.	1 species in North America; none elsewhere	1	1
Scalops	Cuvier	Common Am. Shrew Mole.	5 species in North America; none elsewhere	- 5	5
Meles	Brisson	American Badger	1 species in America; 1 in Europe; 1 in India	1	3
Procyon	Storr	Raccoon	2 species in Nor h America (one in northern parts, the other in	·	
			the southern); none elsewhere	2	2
Ursus	Linnæus	Polar, or White Bear	3 species in North America; 1 in mountains of India; 1 in		-
			Java; 1 in Thibet; 8 in Europe (the Polar Bear being com-		
0.1.	84	Welmer's Ot to	mon to Europe and North America)	8	8
Gulo	etorr	wolverine, or Glutton	i species in Arctic regions of both continents; 2 in South Amer-		
Ivov	Audubon	Common American Wild	O aposton in Amouist, 1 in Africa, 9 in Douglo, one in Ambie.	1	4
Dy0	2444400H	Cat or Bay Lyon	2 species in America; 1 in Africa; 2 in Persia; one in Arabia;		0
Vulnes	Covier	Red Fox	4 species in North America · about 8 elsewhere	Å	about 19
Canis	Linnæus	Black American Wolf and	5 species of wolves and 2 of dogs in North America	$\overline{\tau}$	aoout 12
		Esquimaux Dog	o species of worres and o of dogs in north timetica	•	
Felis	Linnæus	Ocelot, or Leopard Cat	4 species in North America : about 29 species elsewhere	4	about 83
Putorius	Cuvier	Wink	6 species in America : 9 in Eastern Continent	Ĝ	15
Mepitis	Cuvier	Common American Skunk.	2 species in North America; 14 in Central America and South		
-		1	America; 1 at Cape of Good Hope	2	17
Mustela	Cuvier	Martens	4 species in North America; 8 elsewhere	4	12
Lutra	Ray, Cuvier, Linnæus	Canada Otter	2 species in North America; 1 in Brazil; 1 in Europe; 1 in		
		1	island of Trinidad; 1 in Guyana; 1 in Kamtschatka; 1 in		
			Java; 1 in Malay; 1 in Pondicherry; 1 at Cape of Good Hope	2	11
Bassaris	Lichtenstein	Ring-tailed Bassaris	I species in Mexico and Texas; none elsewhere	· 1	1
Ennyara	Fleming	Sea Otter	I species in waters which bound northern parts of America and		
Didalphia	Linnous (restrict by Ouron)	Virginian Onegann	Asia, and separate those continents; none elsewhere.	· · ·	1
Dideibuis	Littlizeus (resir a by Owen).	Virginian Opossum	al Amorian	1	15
Arctomys	Gmelin Cuvier	Wood Chuck	2 species in North America : 5 on Fastern Continent	2	10
Lenus	Linnæus	American Hare	About 17 species in North and South America : about 18 in	0	0
			Eastern Continent		about 80
Neotoma	Say and Ord	Florida Rat	2 species in North America: none elsewhere	2	2
Sciurus	Linnæus, Erxleben, Cuvier,	Fox Squirrel	About 20 species in North America : about 50 species elsewhere	about 20	about 70
	Geoffroy, Illiger		······		

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Tamias	[Illiger	Chipping Squirrel	4 species in North America	; 1 in South America ; 1 in	northern	4	в		
Spermophilus	F. Cavier	Thirteen-striped Souslik	12 species in North Americ	a; 8 in Europe		12	15		
Fiber Pteromys	Illiger	Musk Rat, or Musquash Oregon Flying Squirrel	4 species in North America	a; 1 in north of Europe;	8 in Asia	4	12		
Mus	Linnæus	Mouse	6 species in North America	; more than 200 elsewhere		6 al	o't 200		
Sigmodon	Say and Ord	Cotton Rat	1 species in North America 2 species in North America	; none elsewhere 3 in South America; 1 in	Southern	1	1		
Hystrix	ninnæus	Danabad Pota	Europe; 1 in Africa; 1 i	n India		$\begin{bmatrix} 2 \\ 6 \end{bmatrix}$	8 6		
Arvicola	Say	Wilson's Meadow Mouse.	About 7 in North America	; found in each quarter of	the globe. about	7 al	bout 40		
Castor	Linnæus	American Beaver Little Chief Hare	1 species in North America	tains of North America;	1 in the	-	•		
Dagomyo			northern mountains of tary: 1 in southeastern	the Old World; 1 in Mong parts of Russia	olian Tar-	1	4		
Meriones	Illiger	Jumping Mouse	. 1 species in North Amer	ica; 10 species in sandy an	d elevated	1	11		
Georychus	Illiger	Hudson's Bay Lemming	4 species in America; 2 in	Europe; 4 in Asia		4	10		
Aplodontia	Richardson	Sewellel	tains, &c.); none elsew	here	sy moun-	1	1		
Dipodomys	. Gray	Pouched Jerbon Mouse	1 species in America; nor	e elsewhere	America,	1	1	00	
Dasypus	Linnæus	Nile-ballueu Armauno	Central America, and S	outh America; none elsewl	nere		9 2	0	
Dycotyles Bison	F. Cavier	Am Bison or Buffalo (?)	1 in America; 1 in the for	ests of Southern Russia, in	Asia; the				
2			Circassian Mountains, and the forests of India	and the deserts of Kobi; 11	n Ethiopia		-		
	a	Wanita Door, or Am Fill (1 in Ceylon	n Europe : 1 in Walhihii		1	5 3		
Elaphus Ovis	Linnæus, Brisson, Erxleben	, Rocky Mountain Sheep	. 1 species in America; 1	In Corsica, Sardinia, and t	he highest	Ì			÷
	Cuvier, Geoffroy	•	of northern Asia, Tarta	ry, Siberia, and Kurile Isl	ands; 1 in		4		
Cervis		Elk, or Moose Deer	the mountains of Egyp	tta; none elsewhere		5	5		
Antilocapra	Ord	Prong-horned Antelope	1 species in North Americ	ca; none elsewhere ortions of North America:	none else-	1	1		
Uvibos	Diamyine	Author on the Date dee	where	zions of North America • 1 in	the Arctic	1	1		
Rangifer	Hamilton Smith	. Caribou, or Am. Reindee	regions of the Old Wor	Id of North America , 11	at 1 in the	1	2		
Capra	Linnæus	Rocky Mountain Goat	Alps; 1 in Abyssinia	and Upper Egypt; 1 in the	Caucasian				
		1	Mountains; 1 in the m	ountains of Persia; 1 in the	Himalaya.	1		•	
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III.—The principal Genera of Birds inhabiting North America, with the number of American species in each genus described by Audubon:

FAMILY.	GENUS.	AUTHOR OF GENUS.	TYPE OF GZNUS IN AMERICA.	Number of Am. species described by Audubon.
I Waltawing	1 Cathenter	T112	Turker Valture	0
I. Vulturinae	1. Daluartes	VisiDet	Caragera Fagle	0 1
11. Falconida:	9 Buteo	Rechetain	Horris' Buzzard	17
· · ·	3 Aquila	Briegon	Golden Fagle	
and the second	4 Haliætus	Savigny	Washington Sea-Eagle	2
	5. Pandion	Savigny	Fish Hawk, or Osprev	ī
	6. Elanus	Savigny	Black shouldered Hawk	1
	7. Ictinia	Vieillot	Mississippi Kite	1
-	8. Nauclerus		Swallow-tailed Hawk	1
	9. Falco	Linnæus	Iceland or Jer Falcon	4
	10. Astur	Cuvier	Goshawk	3
*** <i>C</i> / 1 *	11. Circus	Bechstein	Marsh Hawk	1
III. Striginæ	1. Surnia	Dumeril	Hawk Uwi	0
	2. Ulula	Tinnenua	Ram Owl	1
	4 Syrnium	Cuvier	Great Cinerious Owl	2
	5. Otus	Cuvier	Long-eared Owl	2
	6. Bubo	Cuvier	Great-horned Owl	2
IV. Caprimulginæ	1. Caprimulgus	Linnæus	Chuck-Will's Widow	2
	2. Chordeiles	Swainson	Night Hawk	1
V. Cypselinæ	1. Chætura	Stephens	Chimney Swallow, or Am. Swift	1
VI. Hirundinæ	1. Hirundo	Linnæus	Purple Martin	
vii. Muscicapinæ	1. Milvulus	Swainson	Fork-taned Flycatcher	15
	3 Philogonys	Swainson	Townsend's Ptilogonys	10
	4. Culicivora	Swainson	Blue-grav Flycatcher	ÎÎ
VIII. Sylvicolinæ	1. Myiodioctes	Audubon	Hooded Flycatching-Warbler	5
	2. Sylvicola	Swainson	Yellow-crowned Wood-Warbler	24
	3. Trichas	Swainson	McGillivray's Ground-Warbler.	4
	4. Helinaia	Audubon	Swainson's Swamp-Warbler	10
	5. Mnistilta	Vieillot	Black and White Creeping-War-	-
IX Conthianm	1 Conthin	Linnous	Brown Tree Creener	
I.A. Vermanæ	2 Trogladytes	Cuvier	Bock Wren	6
X. Parinæ	1. Parus.	Linnæus	Crested Titmouse	6
XI. Sylvianæ	1. Regulus	Cuvier	Cuvier's Kinglet	8
•	2. Sialia	Swainson	Common Blue-Bird	8
XII. Turdinæ	1. Cinclus	Bechstein	American Dipper.	1
	2. Orpheus	Swainson	Common Mocking-bird	4
NTTT 38 4- 1111	3. Turdus	Linnæus	Varied Thrush	6
AIII. Motachina	2 Anthus	Bochetoir	Amarican Pinit or Titler's	1 2
XIV. Alaudinge	1. Alauda	Linngens	Shore Lark	1
XV. Fringillinæ	1. Plectrophanes.	Meyer	Lapland Lark-Bunting	1 4
	2. Emberiza	Linnæus	Black-throated Bunting	11
	8. Niphæa	Audubon	Common Snow-bird	2
	4. Spiza	Bonaparte.	Painted Bunting	8
	5. Ammodramus,	Swainson	Macgillivray's Shore Finch	4
	0. Pencæa	Audubon	Bachman's Pinewood Finch	
	8. Cardnelis	Cuvier	American Goldfinch	5
	9. Fringilla	Linnæus	Fox-colored Finch	ŝ
	10. Pipilo	Vieillot	Arctic Ground-Finch	2
	11. Erythrospiza	Bonaparte .	Purple Finch	8
	12. Corythus	Cuvier	Pine Grosbeak	1
	13. Loxia	Linnæus	Common Crossbill	2
	14. Corygalina	Augubon	Cardinal Grosbaulz	
	16 Coccoborus	Swainson	Song-Grosbeak	8
	17. Coccothraustes	Brisson	Evening Grosbeak.	1
	18. Pyranga	Vieillot	Summer Red-bird	l â

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FAMILY,	GENUS.	AUTHOR OF GENUS.	TYPE OF GENUS IN AMERICA.	Number of Am. species described by Audubon.
XVI. Agelainæ	1. Dolichonyx 2. Molothrus 8. Agelaius	Swainson Swainson Swainson	Ricebird, or Bob-o-Link Cow-pen hird Crimson-winged Tropial, or Red and Black-shouldered Marsh Black bird	1 1
	4. Icterus 5. Quiscalus	Brisson Vieillot	Baltimore Oriole, or Hang-nest. Boat-tailed Grakle, or Great Crow Black-Bird	3 8
XVII. Sturninæ	1. Sturnella	Vieillot	Meadow-Lark, or Meadow Star-	1
XVIII. Corvinæ	1. Corvus 2. Pica 3. Garrolus	Linnæus Brisson	Raven Common Magpie	3 3 5
XIX. Lanünæ XX. Vireoninæ	4. Nucifraga 1. Lanius 1. Vireo	Brisson Linnæus Vieillot	Clarke's Nutoracker Great American Shrike Yellow-throated Viero, or Green-	1 2 Å
XXI. Piprinæ XXII. Ampelinæ	1. Icteria 1. Bombycilla	Vieillot Brisson	Y llow breasted Chat Black-throated Waxwing, or Bohemian Chatterer	1 2
XXIII. Sittinæ XXIV. Trochilinæ	1. Sitta 1. Trochilus . 2. Selasphorus .	Linnæus Linnæus Swainson	White Breasted Nuthatch Mango Humming-bird Ruff-necked Humming-bird	4 8 1
XXV. Alcedinæ XXVI. Picinæ	1. Alcedo 1. Picus	Linnæus Linnæus	Belted Kingfisher Imperial Woodpecker	1 22
XXVII. Cuculinæ	1. Coccysus	Vieillot 🧠	Yeilow billed Cuckoo	3
XXIX. Columbina	1. Columbus	Linnæus	Band-tailed Dove, or Pigeon	6
VVV Payaning	2. Ectopistes	Swainson	Passenger Pigeon	2
XXXI. Perdicinæ	1. Ortyx	Stephens	Common American Partridge.	4
XXXII. Tetraoninæ	1. Tetrao 2. Lagopus	Linnæus	Ruffed Grouse Willow Ptarmigan, or Willow Grouse	6 4
XXXIII. Ralline	1. Gallinula 2. Fulica	Brisson Linnæus	Purple Gallinule American Coot	2 1
	3. Ortygometra 4. Rallus	Leach Linnæus	Sora Rail Great Red-Breasted Rail, or Fresh Water Marsh Hen	8
XXXIV. Graine	5. Aramus 1. Grus	Vieillot Brisson	Scolopaceous Courlan	1
XXXV. Charadriinæ .	1. Charadrius	Linnæus	Black-billed Plover	. Ţ.
	2. Aphriza	Audubon	Townsend's Surf-bird	1
	4. Hæmatopus		American Oyster-catcher	3
AAAVI. Scolopacine.,	2. Phalaropus	Brisson	Red Pharalope	12
	3. Lobipes	Cuvier	Hyperborean Pharalope	2
	4. Totanus 5. Limosa	Brisson	Great Marbled Godwit	2
	6. Scolopax 7. Microptera	Linnæus Nuttall	Wilson's, or Common Snipe American Woodcock, or Bog- sucker	3 1
· .	8. Recurvirostra. 9. Himantopus	Linnæus Brisson	American Avoset Black-necked Stilt	1 1
XXXVII. Tantaling	10. Numenius	Brisson	Long-billed Curlew	3 8
and the rest restance	2. Tantalas	Linnæus	Wood Ibis	ĩ
XXXVIII. Ardeinæ	 Platalea Ardea 	Linnæus	Roseate Spoonbill Black-crowned Night Heron or Qua-bird	1
XXXIX. Anatinæ	1. Phœnicopterus	Linnæus	American Flamingo	1
	3. Cygnus	Meyer	Trumpeter Swan	2
	4. Anas	Linnæus	Dusky Duck	10
XL. Merginæ	1. Mergus	Linnæus	Buff-breasted Merganser, or Goosander	4
XLI, Pelicaninæ	1. Phalacrocorax	Brisson	Common Cormorant	5

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YAMILY.	GENUS.	AUTHOR OF GENUS.	TYPE OF GENUS IN AMERICA.	Number of Am. species described by Audubon.
XLII. Larinæ XLIII. Proceilarinæ XLIV. Alcioæ	 Plotus Tachypetus Tachypetus Tachypetus Tachypetus Sula Phaton Rynchops Iarus Larus Larus Lestris Diomedea Procellaria Procellaria Thalassidroma Mormon Alca Phaleris 	Linnæus Vieillot Brisson Linnæus Linnæus Linnæus Innæus Ilinæus Hinæus Brisson Vigors Iliiger Linnæus	American Anhinga or Snake-bird Frigate Pelican or Man-of-War Bird American White Pelican. Common Gan.et. Tropic Bird Black Skimmer, or Razor-billed Shearwater Cayenne Tern. Forked-tailed Gull Gomarine Jaget. Yellow-nosed Albatross. Gigantic Fulmar Wandering Shearwater. Leach's or Forked-tailed Petrel. Tufted Pufin. Grent Auk.	1 122 1 123 138 8 8 8 8 8 8 8 8 8 8 2 2
XLV. Colymbinæ	 Mergulus Uria Colymbus Podiceps 	Latham Linnæus Latham	Guillemot Black-throated Guillemot Great Northern Diver or Loon . Crested Grebe.	1 6 8 5

IV .- Reptiles of the United States East of the Rocky Mountains.

ORDER.	FAMILY.	Number of Gen- era in the United States, East of the Rocky Moun- tains, described by Holbrook.	Number of Spe cies in the United States, Kast of the Rocky Moun tanns, described by Holbrook.
I. Chelonia	Chersites	2	8
	Potamites	1 2	21
II. Sauria	Crocodilida Iguanida	1 4	17
	Lacertinida Scincoidea		1 4
II. Ophidia	Chalcida Crotaloidea	8	1 9 1
V Batrachia	Coluberoidea	11	87 10
··· Dattacting ······	Hyloidea Bufon'dea	$\frac{2}{2}$	8 6
19	Caudata—Mutabilia Cryptobranchoidea	$\frac{2}{2}$	23 4

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ORD ER.	FAMILY.	Number of Western North American Genera.	Number of Species described by Girard.
T		Q	97
I. Acanthopter	The shinid		
	Subramida	1	î
	Donyramidae		â
	Debider	10	15
	Collua:	10	8
	Scorpæniaæ	ĩ	7
	Gasterosteluæ	1	
	Sciænidæ	1	1
	Atherinidæ		0
	Scompridæ	0	1
	Squamipennes		
	Blennidæ	0	9
	Gobidæ		ž
	Cyclopteridæ	2	1 2
	Lophidæ	-	
	Batrachidæ	1	1
II. Anacanthini	Ophididæ	2	2
	Gadidæ	2	2
	Pleuronectidæ	5	8
III. Pharyngogn	athi. Scomberesocidæ	1	1
	Pomacentridæ	1	1
	Labridæ	1	1
	Embiotocoidæ	9	17
IV. Physostomi,	or		
Malacopte	ri Siluridæ	1	6
•	Cyprinidæ	38	100
	Cyprinodontidæ	1	1
	Esocidæ	1	1
	Salmonidæ	6	15
	Scopelidæ	2	
	Clupeidæ	4	1 7
V. Plectognath	i Balistidæ		
	Gymnodontidæ	1	1
VI Lophobranc	hii Hinpocampidæ	1	1
(in mophobiland	Syngnathidæ	l ī	5
VII Ganoidei	Amiadæ	Î	2
vin. danoidei	Sanridæ	Î	3
	Sturionide	8	5
UII Holocophali	Chimorida	Ĭ	1 ĭ
IV Plagiostomi	Sepliodoptidm	Ŷ	1 1
IA. Hagiostomi	Muetalide	1	1 1
	Costraciontide	1 1	1
	Nettlanide	1 1	1 1
	Suine older	1	1
	Spinacidæ	1	1 1
	Amnobatioæ	1	1
	Torpeainiaæ		
	Kalidæ	2	, z
	Myliobatidæ	1	L
X. Dermopteri	Petromyzontidæ	4	8

V.-The Fishes of Western North America.

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General Summary of the North American Vertebrata.

QUADRUPEDS.

Approximate	number	of	genera,	•			•	•	•			•	•	47
44	"	"	species,		•	•	•		•	•	•		•	149

BIRDS.

Approximate	number	of	genera,	•	•	•		,	•	•		. 1	138
"	"	"	species,			•	•	•		•	•	4	441

REPTILES (of the United States, East of the Rocky Mountains).

Approximate	number	of	genera,	•		•	•	•		•	•	47
"	"	"	species,		•	•	•	•	•		•	147

FISHES (West of the Rocky Mountains).

Approximate	number	of	genera,	•		•	•		•		•	144
	"	"	species,		•		•	•	۲.	•	•	283

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Topographical Description of the Central Park, by Areas of Surface. &c., January 1, 1866.

Length of Park, from 59th to 110th streets	13,507 ft. 9 4 in.		
breadin	2,718 . 615		
Superficial area, including Manhattan Squ	862. <u>0 7 3</u> acres.		
	Acres.	Elevation of water above tide.	
Area, exterior to inclosure, 59th street and		Feet.	
110th street, Broad Walks	3. 1 000		
Do. occupied by four Transverse Roads.	9. 4.7.4	••••	
Do. " new Croton Reservoir	$106. \frac{72}{1000} \frac{6}{1000}$	115.20	
Do. " old Reservoir	35. 289 0	115.20	$154.\frac{587}{1000}$ "
Total area of Park within enclosure, exclus	ive of abov	e areas	707 486 acres.
	Acres,	Hevation of surface when full above tide. Summer lev1.	
Area of the Pond (near 59th street, be		Feet.	
tween 5th and 6th avenues)	4. 1 0 0 0	26.00	
Do. " Lake (between 72d and 78th sts)	20.167	53.20	
Do. " Conservatory water (east of			
Lake, near 5th av.)	$2.\frac{5}{1}.\frac{7}{0}.9}{0}$	41.00	
Do. " Pool (near 8th av., between			
101st and 102d streets)	2.7000	45.00	
Do. " the Harlem Lake	13.	11.00	
Do. " the Loch	1. 1 a a a	24.50	
Total area of waters of the Park at this date.	43.100	7 acres.	
Area occupied by Carriage			
Roads 49.580			
Do. occupied by Bridle Roads 15. 757 1			
Do. occupied by Walks $37.\frac{30.9}{10.00}$			
Total	102. <u>760</u>	7 acres.	$146. \frac{36.5}{1000}$ "
Total area of ground within inclosure, excl Ponds, Roads, and Walks Area of rock surface mainly without soil or s Area of Park ground fertilized, or chiefly fer and shrubbery, or in open lawns, exclu Roads, Walks, Ponds, rock surface, dc., dc	567. <u>192</u> acres. 24 '' 524. <u>1986</u> acres.		

* A point of ground has been raised, by filling over a part of the rock through which the tunnel passes, at the southwest corner of the old reservoir, to a height of 140 feet.

REFERENCES TO PARK MAP.

Area of Pond at A,
"Lake at B,
" Open ground at C,
"" " D, known as "The Green." 15"
" Ground known as "The Ramble," between the Lake
and the Reservoir O,
" Open ground at F,)
""""""""""""""""""""""""""""""""""""
"Pool H,
"Loch I, 1"
"Harlem Lake, H. L.,
Ornamental Water, O, in connection with intended Conserva-
tory, K $2\frac{579}{1000}$ "
Length of Mall, 1,212 feet; width, 35 feet.
Site reserved for Refectory, J.
Old Arsenal, altered for a Museum and Park Offices, L.
Terrace for a Concourse of Carriages, N.
Tunnel P, length 142 feet; width, 40 feet; height, 19 feet.
Roads and Walks finished are represented in full lines, and colored.
Walks in progress of construction, dotted lines, and colored.
" not commenced, are represented in dotted lines, and not colored.
Grounds planted or in grass, or ready for planting or seeding, are colored green.
Water is colored blue.
Black figures show the widths of Road.
Red figures show the elevation above Tide-water.
Rocks that are especially prominent are indicated by line shading.
Trees and shrubs are indicated in the usual manner.
The red figures on the 5th and 8th Avenues, and 59th and 110th Streets,
show the elevations of the established grades.
R. Music Pavilion.
S. Waterfalls.
T. Water Terrrace.
U. V. Gate-houses of New Croton Reservoir.
W. Casino.
Z. Dove Cote.

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CHAP. 564.

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AN ACT

For the Improvement of part of the City of New York, between One Hundred and Tenth Street and the Harlem River.

Passed April 24, 1865; three-fifths being present.

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

SECTION 1. All that part of Sixth avenue, in the city of New York, lying between the southerly side of One Hundred and Tenth street and the Harlem River, shall be widened on the map or plan of said city, by adding thereto on each side thereof, twenty-five feet of land, so as to make the whole width of that part of the said avenue one hundred and fifty feet.

§ 2. The said part of the said avenue so widened is hereby declared to be one of the streets or avenues of the city of New York, in like manner, and with like effect, as if the same had been so laid out by the Commissioners appointed in and by an 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 third, eighteen hundred and seven, and all acts and parts of acts now in force in relation to the widening, opening, laying out, grading, regulating, sewering, paving and improving streets and avenues in the said city shall apply to the said part of said avenue in its enlarged width, except as hereinafter provided.

§ 3. The Commissioners of the Central Park are hereby authorized and directed, in behalf of the Mayor, Alderman and Commonalty of the city of New York, and for public use, to apply by petition 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 opening of said Sixth avenue, as hereby widened, or so much thereof as has not already been opened, from the southerly side of One Hundred and Tenth street to the Harlem River, and for the opening of any or all of the streets not already opened which are laid out on the map or plan of the said city, between One Hundred and Tenth street and the Sixth and Seventh avenues and the Harlem River; and all the laws now in force relative to the opening of streets in the city of New York, not inconsistent with this Act, shall be applicable to proceedings had relative to the opening of said avenue and streets; 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. The assessment for said improvement shall, upon confirmation of the report of the Commissioners of Estimate, become a lien upon the lands assessed, and such assessment may be collected and be enforced in the manner now provided by law relative to assessments for opening streets in said city.

§ 4. The said Sixth avenue, and the streets laid out on the map or plan of the city of New York, between the southerly side of One Hundred and Tenth street and the Sixth and Seventh Avenues and the Harlem River, shall be wholly under the care, management and control of the Commissioners of the Central Park, for the purpose of fixing the grades of the said avenue and streets, and of regulating and grading, and otherwise improving the same, in such manner as they may deem the public interest may require ; and for that purpose the said Commissioners as to said avenue and said streets, and the use thereof, shall have, possess and enjoy all the powers now or heretofore possessed, enjoyed or exercised by such Commissioners in respect to the Central Park in said city, and by the Mayor, Aldermen and Commonalty of the city of New York and the several departments of said city, in relation to the streets, avenues, and similar improvements thereof in other parts of the said city; and the expense of such improvements shall be assessed upon

the owners and occupants of all the lands and premises benefitted thereby, and shall become a lien upon such lands, and be enforced in like manner as now provided by law in relation to assessments for regulating and grading, and otherwise improving streets in the city of New York. The moneys collected upon such assessments shall, as collected, be deposited by the Comptroller of the city of New York to the credit of the Commissioners of the Central Park, with such bank or trust company as shall be designated by said Commissioners, and such moneys shall be applied by said Commissioners in payment for the work authorized by this section. In case the said Commissioners shall, during the progress of the work hereby authorized, require money therefor before the same can be collected by the assessments hereby authorized, the said Commissioners may obtain advances of money on the faith of the moneys to be collected upon such assessments, at an interest not exceeding seven per cent. per annum, and to an amount not exceeding at any one time the sum of ten thousand dollars; and the person or corporation making such advance shall be entitled to be reimbursed by said Commissioners out of such moneys the amount of such advances.

§ 5. 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 twenty seventh day of April, in the year one thousand eight hundred and sixty-five.

> CHAUNCEY M. DEPEW, Secretary of State.

CHAP. 581.

AN ACT

In relation to the Croton Aqueduct in the city of New York, and certain streets in the said city.

Passed April 27th, 1865, three-fifths being present.

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

SECTION 1. That part of the Croton Aqueduct in the city of New York south of Ninety-second street and west of the Eighth avenue is hereby discontinued; and the Croton Aqueduct Department is hereby authorized and directed, in their discretion, to make the necessary excavation, and construct a branch aqueduct. and also sewers and drains, or to lay iron pipes from the present line of the Croton Aqueduct, at some point between the westerly line of the Eighth avenue and the new Reservoir in the Central Park, to the old Reservoir in the said Park, through the Eighth avenue and the Central Park, but such part of the same as may be in the Central Paak shall be on such line and on such conditions as the Commissioners of the said Park shall approve. And also, if necessary, to construct a gate-house in the said Park after the Commissioners of the Central Park shall have approved of the plan and location of the said gate-house; and the Mayor, Aldermen and Commonalty of the city of New York, by their Comptroller, are hereby authorized and directed to raise by loan such sum of money, not exceeding two hundred and fifty thousand dollars, as the Croton Aqueduct Department shall certify to be necessary to meet and defray the expense of the work authorized by this section, by the creation of a public fund or stock to be called "The New Aqueduct Stock of the City of New York," which stock shall bear an interest not exceeding seven per cent. per

annum, and be redeemable at a fixed period within twenty years; and the lots, pieces, and parcels of ground now forming the line of the Croton Aqueduct south of Ninety-second street and west of the Eighth avenue, are hereby specifically pledged for the redemption of the said stock. The Commissioners of the Sinking Fund of the said city shall, at such time as they may deem best, sell all of the land taken for that part of the Croton Aqueduct discontinued in pursuance of the provisions of this act, at public auction, upon a notice of at least thirty days, to be advertised in four of the daily newspapers published in said city; and the Mayor, Aldermen and Commonalty of the city of New York, shall convey the land so sold to the purchasers thereof, upon the payment by them of the purchase money into the Treasury of the city of New York, as part of its sinking fund. The Croton Aqueduct Department may, however, retain any part of the present Aqueduct above Ninetieth street, and connect the same through Ninetieth or Ninety-first street at the Eighth avenue, with the conduit for which provision is above made.

§ 2. The grade of the Eighth avenue, between Fifty-ninth and Ninety-third streets, is hereby established as follows: Commencing at an elevation seventy-four feet six inches above the highwater line, at the point where the centre line of Fifty-ninth street intersects the centre line of the Eighth avenue, and continuing thence in a straight line at such rate of ascent as to intersect a continuation of the centre line of Sixty-second street at an elevation eighty-one feet six inches above the high water line, and thence on a level line (except such inclinations between the streets not exceeding eight inches to one hundred feet as may be necessary for drainage,) intersecting a continuation of the centre line of Sixty-sixth street at an elevation eighty-one feet six inches above the high water line; and thence on a straight line at such rate of ascent as to intersect a continuation of the centre line of Sixty-ninth street at an elevation ninety feet above the high-water line; and thence on a level line (except such inclinations between the streets not exceeding eight inches to one hundred feet as may be necessary for drainage,) intersecting a continuation of the centre line of Seventy-second street at an elevation ninety feet above the high-water line; and thence on a

straight line at such a rate of descent as to intersect a continuation of the centre line of Seventy seventh street at an elevation seventy-five feet six inches above the high-water line; and thence in such manner as the Commissioners of the Central Park may prescribe, so as to intersect a continuation of the centre line of Eighty-first street at an elevation eighty-six feet nine inches above the high-water line; and thence in a straight line at such a rate of ascent as to intersect a continuation of the centre line of Eighty-fourth street at an elevation of one hundred and six feet above the high-water line; and thence in a straight line at such a rate of ascent as to intersect a continuation of the centre line of Eighty-fifth street at an elevation one hundred and eight feet above the high-water line; and thence on a level line (except such inclinations between the streets not exceeding eight inches to one hundred feet as may be necessary for drainage) intersecting a continuation of the centre line of Eighty-seventh street at at an elevation of one hundred and eight feet above the high-water line; and thence on a straight line at such a rate of ascent as to intersect a continuation of the centre line of Ninety-second street at an elevation of one hundred and seventeen feet aboev the high-water line; and thence on a straight line at such a rate of descent as to intersect a continuation of the centre line of Ninety-third street at an elevation of one hundred and eight feet above the high-water line, provided, however, that the Commissioners of the Central Park shall, within three months after the passage of this act, approve of the grade hereby authorized. The said Commissioners may, however, approve of such part of the grade hereby authorized as is between any two points at which the said grade and the present grade intersect, and reject the grade between any or all of the other intersecting points, or the said Commissioners may, with the consent of the owners of a majority of the lineal feet of the front of the lots on the westerly side of the Eighth avenue between any two points at which the grade hereby authorized and the present grade intersect, prescribe and establish any other grade between such intersecting points; and when the grade of the said avenue is finally established in pursuance of the provisions of this act, it shall be the duty of the Commissioners of the Central Park to prepare and certify a map or profile of the grades so established,

and file the same in the office of the Street Commissioner of the city of New York, and the grade of the said avenue shall be thenceforth established and held to be as shown in and by the said map or profile, and any and all grades previously established for that part of the said avenue are hereby discontinued and abrogated, and the grade established in pursuance of this act shall not thenceforth be changed or altered. It shall be the duty of the Street Commissioner, as soon as the said map or profile is filed in his office, to proceed forthwith to regulate the said avenue in conformity with the grade established in pursuance of the provisions of this act. The expense of grading and regulating the said avenue as herein provided, to be assessed, collected, and paid in the manner now provided by law.

§ 3. Whenever in the opinion of the Commissioners of the Central Park it shall be necessary for the proper drainage of the Park, or of any street or avenue bounding the said Park, or under the charge of the said Commissioners, to open any street in the said city, and whenever in their opinion it shall be necessary to grade or regulate any street bounding the said Park, or under the charge of the said Commissioners, they may notify the Mayor, Aldermen and Commonalty of said city that it is necessary to open, regulate, or grade such street; and the said Mayor, Aldermen and Commonalty shall, within thirty days thereafter, commence the proceedings prescribed by law to open, grade or regulate such street, and shall continue and complete such proceedings without delay, suspension, or discontinuance; and if said Mayor, Aldermen and Commonalty shall fail to take, continue, and complete such proceedings as herein required, the said Commissioners shall thereupon become vested with and possess all the powers in the matter possessed by the said The Mayor, Aldermen and Commonalty of the city of New York, and may commence, continue, and complete such proceedings for and in the name of the said The Mayor, Aldermen, and Commonalty of the city of New York. Provided, however, that all necessary legal proceedings shall be conducted by the Corporation Counsel without any extra charge or compensation.

§ 4. 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 28th day of April, in the year one thousand eight hundred and sixty-five.

> ERASTUS CLARK, Deputy Secretary of State.

SUPPLEMENTAL CATALOGUE

OF

PLANTS CULTIVATED ON THE CENTRAL PARK, 1865.

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(For the Principal Cutalogue, See the Seventh Annual Report.)

August. October. March. June. April. May. July. Sept. fl fl Agrimonia parviflora, н . . Agrimony. fl ff. Akebia quinata, Akebia. p • • . . • • fl fl Aletris Aurea, н . . ۰. • • . . Colic-Root, Stargrass. fl fl Anemone cylindrica, н Long-fruited Anemone. ff . . Antennaria margaritacea, н . . • Pearly Everlasting. Araucaria imbricata, E Chili Pine. fl ••• Asparagus officinalis, н . . - - | - -. . • • Garden Asparagus. ι. Е Aucuba Japonica, •• Aucuba. fl Azalea arborescens, D • • . . ۱. Smooth Azalea. fi fi ... Bidens bipinnata, п Spanish Needles. Biota orientalis var. gracilis, Е Graceful Chinese Arbor Vitæ. Biota orientalis var. Sieboldii, \mathbf{E} ۰. • • • • . . Siebold's Chinese Arbor Vitæ. fi fi fi fl • • Ħ . . Brunella vulgaris, Heal-All. fl Calluna vulgaris, E 1. . European Heath. fl fl fl н Cichorium Intybus, Succory, Cichory. fl fl Crotalaria sagittalis, н Rattle-Box. Cryptotaenia Canadensis, н • • fl . . • • • • Honewort. Cunninghamia Sinensis, Е •• Chinese Cunninghamia. Cupressus Lawsoniana var. pyramidalis, Е . . ••• Lawson's Pyramidal Cypress. fl fl Cynara Scolymus, . н Artichoke. fl Dactylis glomerata, Cocks' Foot, Orchard Grass. н •• ٠. •• flfl н Dianthus barbatus, Sweet William.

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										March.	April.	May.	June.	July.	August.	Sept.	October.
Dianthus plumarius,	•								. н			fl	fl			 • •	
Dianthus Sinensis,	•	•		•					н		•••		fl	fl	fl		
Dianthus Sinensis var. Hedde	ewigi	i,	•		•		•		. н			fl	fl	fl	fl	fl	••
Dianthus Sinensis var. lacinia Fringed Pink.	ıtus,		•		•		•		. н			fl	fl	fl	fl	fl	••
Erechthites hieracifolia, Fireweed.	•	•		•		•		•	н		•••	••	•••	fl	fl	••	•••
Erica carnea, Flesh-colored Heath.	•		•		•		•		. Е	fl	fl	•	••	•••	••	••	••
Erigeron Philadelphicum, Fleabane.	•	•		•		•		•	н		••	••	fl	fl	fi	••	••
Fragaria Virginica, Wild Strawberry.	•		•		•		•		н	••	fl	fl	fl	• •	••	••	••
Geum Album, Avens.	•	•		·		•		·	н		- •	fl	fl	fl	fl	•••	••
Genista tinctoria, fl. pl., . Dyers' Green Weed, double fl	lowere	d.	•		•		•		. н	••	••	••	fl	fl	••	••	••
Geranium Carolinianum, Carolina Cranesbill.	•	•		•		•		•	н		fl	fl	fl	fl	•••	••	••
Geranium maculatum,	•		•		•		•		. н	••	••	fl	fl	fl	•••	•••	••
Gnaphalium polycephalum, Common Everlasting.	•	•		•		•		•	н		••	••	••	fl	fl	fl	••
Gnaphalium uliginosum, . Low Cudweed.	•		·		•		•	•	н		••	••	•••	fl	ť	fl	••
Hieracium scabrum, Rough Hawkweed.	•			•		•		•	н		•.•	••		•••	fl	••	••
Itea Virginica,	•		•		•		•	•	. D	••	••	•••	fi	•••	••	•••	••
Kerria.	•	•		•		•		•	D		•••	Ħ	n	•••	•••	••	••
Brigia Virginica, Dwarf Dandelion.	•		•		•		•	•	н		n	fl	Ħ	fl	ti a	•••	••
Wild Letuce.	•	•		•		•		•	н		••	••		fl	n a	n	••
Wild Peppergrass.	·		•		•		•		. н		••		n	щ	n	n	••
Myrtle-leaved Privet.	•	•		·		•		•	D		••	n		•••	••	••	••
Twayblade.	•		•				•	•	н	 ·· 		••	n	••	 д	••	••
Lobella Spicata,	•	•		•		٠		•	н		••	 	···		n	•••	••
Ledebour's Honeysuckle.	•		•		•		•	•	D	••	••	п	n	•••	••	••	••
Fringed Loosestrife.	•	•		•		•		•	н		••	••	 A	n	••	••	••
Four-leaved Loosestrife.	•		·		•		•		. н			••	н 4		 	 А	••
Double-flowered Feverfew.	•	•		•		•		•	н 				A	n a	a l	n a	•
Lucerne.	•		•		•		•		. н	 ·· 	••	n	u	n	п д	n a	••
Wild Mint.	·			•		•		•	н			•••	•••	н а	и 4	п 4	••
Monkey-Flower.	•		•		•		•	•	н			•••	 А	n a	a I	п	••
Indian Pipe.	•	•		•		•		•	н т	$ \cdot $	•••	••	f	ц д	н 4	 	••
Watercress.	•				•		•	•	н		••	н Н	a	и д	ц д	н 4	••
Sorrel.	•	•		•		•		•	н		•••	"	1	ш		щ	••

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												March.	April.	May.	June.	July.	August.	Sept.	October.
Di-malia -i												1	-	-	-	- - -	4	- A	<u> </u>
Clammy Ground Cherry.		•		•		•		•		•	н	•	•••	•••	••	n	ш	"	••
Picea Fraseri var. Hudsonica,			•		•		•		•		Е	••	••	•••	••	••	••	••	••
Picea pectinata,						•					Е			••			••	•••	••
Common Silver Fir. Plantago Patagonica.											н			đ	fl	fl	fl		
Patagonian Plantain.	•		·		Ĩ				•				A	a	A	A	A		
Dwarf Plantain.		•		•		•		•		•	н	••	ш	n		п		•••	••
Plantago Virginica, . Virginian Plantain.	•				·		•		·		н	}	••	fl	fl	fl	fl	n	••
Platanthera flava,		•		•		٠		•		•	н		• •	••	fl	fl	fl	••	••
Polygala verticillata,											н				fl	fl	fl	fl	fl
Whorled Milkweed. Potentilla argentea											н	İ.,			A	fl	A	fl	
Silvery Cinque-Foil.		•		•		•		•		•			a	A	_	-	_		
Common Primrose, Cowslip.	·		•		•		٠				н	•••	ш	11	•••	•••	••	••	•••
Prunus Laurocerasus,		•		·		٠		•		•	Е	•••	••	fl	fl	••	•••	•	••
Prunus triloba,	•		•		•		•		•		D		••	fl	fl	•••	••	••	••
Scutellaria galericulata,											н						fl		
Skullcap. Silene Armeria										•	ਸ			fl	fl	f			
Sweet William Catchfly.	•		•		•				•		11		!	-		â			ľ
Bladder Campion.		•		•		•		•		•	н	 ··		•••	•••]"	•••		•••
Spergula arvensis, .	•		•		•		•		•		н	••	fl	fl	H	fl	fl	н	•••
Solidago sempervirens,		•		•		•				•	н	•••		•••	• •		fl	fl	fl
Syringa Persica var. laciniata	,										D			fl	fi			••	
Cut-leaved Lilac. Trichostema dichotomum											τ					ิส	fl	fl	
Bastard Pennyroyal.		•		•		•				•				٩					
Star Flower.	٠		•						•		н	··		1 II	•••	••			•••
Tritoma Uvaria,		·		·				•		•	н	 ··	••	••	••	•••	fl	n	fl
Uvularia perfoliata,									•		н			fl		•••			
Verbena hastata,				•							н	 . .				fl	fl	fl	
Blue Vervain. Verbena hybrida											ਸ			fl	fi	fl	ff	fl	fl
Verbena.	•		•		•		'		•			1] _	2	4	A	
Nettle-Leaved Vervain.		•				•		•		•	H		•••	•••	•••	"	"		•••
Veronica Chamædrys, .	•				•		٠		٠		н		•	Ħ	fl	•••	••	•••	
Veronica serpyllifolia,						•		•		•	н		••	fl	fl	fl		••	
Viola Canadensis,											н			fl	fl	fl	fl	•••	
Canada Violet. Viola odorata											н		fl	fi	fl				
Sweet Violet.		•				•				•		1	ł	A	A	A	A		1
Downy Yellow Violet.					•				•		н				1 ^{III}	1	1		
Viola sagittata, Arrow-Leaved Violet.				•				•		•	н		Ħ	H.	••	••	•••		••
Viola tricolor,	•		•						•		н	1		fl	fl	fl	fl	••	••
Xanthium strumarium, Common Cocklebur.								•		•	н				•••	::	fi	fl	fi

CENTRAL PARK,

Office of Superintending Engineer, January 1st, 1866.

To Andrew H. GREEN, Esq., Comptroller of the Park:

Sir,—Since the date of my last report, of January 1, 1864, the work of the Pa k has progressed slowly and with a comparatively small force, but several classes of work have been closed up, or nearly closed up, and, as a whole, the Park is now advanced to nearly its final completion.

During the last two years the portion of the Park north of 102d street, and including what is known as the "Extension," has chieffy engaged attention, being the district that was last entered upon in the general work of improvement. This is now mainly completed.

Having been entrusted with the exercise of a liberal discretion in the execution of this part of the work, since the retirement of Mr. F. L. Olmsted from its general direction, I trust the result is not inharmonious with the work at large.

This district of the Park—from the boldness and ruggedness of its natural features, its masses of rock and prominent elevations commanding extended interior and exterior views, its deep indentations and depressions, occupied in their lowest parts by pools of water, running brooks, cascades and other accessories—presents an enlivening and picturesque contrast to the adjacent grounds that was much needed, giving variety to the general landscape, and keeping up the interest to visitors throughout the entire extent of the work. The unfinished work of the Park consists now, in the main, of: the northern lake (designated Harlem Lake) and its environs; the Park enclosing wall; gate entrances, and exterior walk adjoining enclosing wall; 7,396 feet of interior walks; one iron foot bridge (No. 24) over the Bridle road adjoining the new Croton Reservoir; the closing np of 19,735 lineal feet of the border slopes of the Park, the completion of the large fountain at the Terrace, and the interior work of the Terrace Colonnade; the Conservatory (the foundations of which have been in part prepared), and the improvement of the plot of ground that has been annexed to the Park west of Eighth avenue, formerly known as Manhattan Square, together with a passage-way or communication between that ground and the Park, crossing Eighth avenue.

There is, besides, a considerable amount of work involved in the proposed change of grade of Eighth avenue, affecting a portion of the partly completed work of the western border of the Park.

I submit with this report the Annual Map of the Park, showing the progress of the work; a topographical description of the Park by areas of surface; a condensed statement of the quantities of work done and materials employed; together with a few sketches illustrating special plans etc.

The detail of work that has been done since the last report is as follows:

A few statistics heretofore given are repeated—some with final additions —for convenience of reference.

ROADS AND WALKS.

1st.—Carriage Roads.

	DATES OF COMPLETION.	Miles.	Feet.
Completed in	1858 1859		1,200 230
"	1860	1	2,870
"	1861	1	4,143
"	1863	Ŧ	800 935
"	1864	1	508
	1865		2,635*
То	tal completed, being all that is designed	9	2,811

* This item includes 246 feet of road at the different entrances to the Park, that is not completed.

KINDS OF ROAD.	Miles.	Feet.
1. McAdam Road-material all of broken stone	1	2,434
 Teilord "-sub pavement of rough stones with broken stones on top	1	2,542
first, and next a layer of gravel of about same depth on top		3,038
Miles, Feet.		
4. Gravel road, with sub-pavement and gravel on		
top 1 2,309		
not paved, with gravel on top*. 4 3,048	6	77
6. " included in the last two items, is 2,700 feet of gravel road finished with coarse screened gravel	•	

The different widths constructed are:

	Miles.	Feet.	Crowned, in middle Inches.
1. Roads of 60 feet in width	1	768	9
2. " 50 to 55 feet in width	1	3,528	9
3. " 45 feet in width	2	4,868	6 to 9
4. "40 ""		2,432	6
5. " 33 " "	3	3,068	6
6. " 30 to 32 feet in width		2,524	5
7. " 20 to 25 " "		353	5
8, "16 ""		1,110	4

The principal grades are :--

This is on a part of the narrow lateral road connecting the west drive with the elevated point designated as "The Knoll," west of the old Croton Reservoir.

1	\mathbf{foot}	rise	in	18	to	20	feet	on	 1,085	feet of	road.
1	44	"	"	20	fee	t o	n	• • •	 2,950	"	"
1	"	"	"	20	to	25	feet	on.	 2,875	"	"
1	"	"		25	to	30	"		 7,393	""	"
1	"	"'	"	30	to	35	"		 3,785	"	"
1	"	"	"	35	to	45	"		 6,350	"	""

* Including short pieces of road over bridge arches, which, in some cases, are composed wholly of gravel, the stone pavement, or rubble bottom being omitted.
The shortest curves on any line of road, except at intersections,

and at the circles or standing places for carriages, are on a

radius of	110 to	160 feet,	, for an	aggrega	ate distanc	e of	. 1,250	feet.	
Curves on a	radius o	of 170 to 2	220 fee	t, for an	aggregate	distance	e of 1,035	66	
Do.	do.	225 to	250 "		"	"	1,060	44	
Do.	do.	266 to	535 "	**	"	"	1,730	"	

Curves of 110 to 217 feet radius are combined with grades of 1 in 18 to 1 in 25 on an aggregate distance of 1,123 feet. This is on the drives of 40 and 45 feet in width, north of 106th street, descending toward the north end of the Park.

The last piece of road was finished and opened to the public on the 23d of November last. This consisted of about 2,000 feet, extending from Mount St. Vincent to near the Seventh avenue entrance on 110th street, winding down the hill, and crossing the ravine below to the west of the former point by a circuitous line.* The portion of the west drive extending from the bridge over the ravine at the foot of the Pool (H, on the map) to the summit of the "Great Hill," was previously opened about 1st of August, 1864; and from the latter point, descending to the north and curving around the brow of the hill near the Eighth avenue, and turning eastwardly to the Seventh avenue and Sixth avenue entrances on 110th street, the road was opened in November, 1864.

These portions of road are in no part less than 40 feet, and are chiefly 45 feet in width—having enlargements to 50 feet in width for the branch connecting the main western route with the circle on the Great Hill, to 55 feet for the circle, and to 50 feet for the road skirting the lake from the Sixth avenue entrance on 110th street to the junction with the road extending eastwardly from the Seventh avenue. The maximum grade, in overcoming the greatest declivities of this region, is one foot in 18 feet of distance, and the shortest curves are on a radius of 110 to 160 feet.

A good deal of time was given to adapting these roads to the exigencies of the ground, and to meet a diversity of questions that were presented in regard to them.

All the practicable routes of the district were mapped out, estimated and examined in their different bearings before settling upon the positions the roads now occupy.

In the construction of the roads the endeavor has been to preserve the essentials of utility, and disturb as little as practicable the natural features of the ground.

* At the same date the last piece of the "Old Boston Read," crossing the Park grounds, was finally closed.

The method of forming the roadway, and the materials employed, have been the same as heretofore described in detail under the term of "gravel roads," as adopted since 1860, a foundation of rubble stone being laid, over which is deposited a body of coarse gravel, &c.

Screened Gravel Road.

The portion of road mentioned as having been last completed, had a surface coating of gravel from which the finer portions and dirt were screened out.

The advantages of using gravel in this special form have been pointed out heretofore. The importance of the subject induces me to recur to it again, and to add the following particulars as to the process adopted, and to note some of the results that have been observed in the use of the first sample of road of this kind that was constructed :

1st. As to mode of construction and materials:

After applying on the road foundation (composed either of a rough pavement, or of rubble stones not paved) a layer of common gravel about three inches in depth, and rolling it down moderately, the screened gravel is added.

This is prepared by passing the gravel, as it comes from the pit, over a set of screens, so arranged and graduated that stones that are too large are thrown out on one side, the pebbles that are too small, together with sand and dirt, are passed out on the other side, or fall to the bottom below the screens, and the pebbles of the size desired are shot forward and deposited separately by themselves. The object of screening is to obtain as nearly as practicable pebbles not exceeding for the largest, such as are not over two and a half inches through, the largest or longest way, and for the smallest not less than three-fourths of an inch through.* Stones that exceed the larger size, that happen to find their way into the screened material, are removed by raking or picking them off when deposited on the road.

The gravel is applied in an even layer conforming to the transverse cur vature or crown of the road, of such depth, that when fully rolled and compressed, the entire depth of common, and screened gravel, is about six inches—being rather less at the sides of the road than in the middle.

Before rolling, the gravel is wet and a light coating of binding material ---gravelly hardpan or sandy loam----is added, together with a small amount

* This does not admit spherical stones that are as large as two and half inches in diameter.

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of clean fine gravel, sufficient in all to about fill the surface interstices of the layer. The rolling is then commenced with the lighter two-horse rollers, the work being closely followed up by men who are skilled in raking and keeping evenly spread and adjusted the binding material and the general surface of the road. Watering is carefully attended to, so as The rolling is first not to drench the work, or allow it to become too dry. confined mainly to the sides of the road, in order to consolidate the material at those parts, and prevent a tendency it has, when the heavy roller is applied, of working off and rising up along the gutters. When the gravel is well compacted in this way, the heavy roller is put on. This roller weighs six and a half tons, is drawn by eight horses, and performs literally a heavy service. The perfection of the work depends very much upon the thorough and powerful compression it receives by this implement. (Its manner of construction and adaptation have been heretofore particularly described.)

As the process of rolling is going on, additional binding material is added, from time to time, as seems to be required.

The difficulty is, to avoid applying too much of this material, rather than the reverse; an excess is permanently injurious, while a small deficiency may be gradually compensated for, in the wear of the road, the pulverizing of the finer gravel, and the natural addition of earthy matter. When the road is opened to public travel, it requires attention by moderate rolling and carefully re-adjusting any spots that incline to break up, until it attains a permanent aud settled condition. After this, but triffing and ordinary repairs are required to keep it in good order.

2d. As to the results of wear, &c.:

The experience of five years, during which the piece of road of this kind of about 800 feet in length, first constructed, has been in use by the public, has given the following results:

No renewing material has been added, or has as yet become necessary. No breaking up of the surface of the road has occurred, except at the point of a curve where the turning of carriages causes peculiar abrasion. This has required occasional attention.

The road has been uniformly in good condition, (except when temporarily obstructed by snow) for travel, during all seasons, being unusually free from dust and mud.

The chief attention to repairs has been given in the spring of the year, after the frost had gone out, and at other times after heavy rains. On such occasions, the light two-horse roller passed a few times over it, has restored it to its usual condition.

The wear that has taken place, which amounts to about $1\frac{1}{2}$ inches in

depth, has been remarkably even; the road retaining at the present time, a regular crowning surface, similar to that with which it was first constructed.

The preservation of its true crowning form has doubtless been of great advantage to it.

A moderate estimate shows that the durability of the surface material, for the period it has been in use, is about three times as great as that of the ordinary (unscreened) gravel. It is not practicable to compare it accurately with the broken stone roads, as these roads have mostly been covered with a considerable depth of gravel from time to time, which has changed their character; and the few spots where they have not been so treated, have been coated with gravel to smooth over the asperities of the stones, to such an extent, as to prevent a full test of their wear. It appears, however, from some observations that have been made, that the exposed broken stone surfaces have been worn, exclusive of the gravel that has been added, quite as much (with about the same service), as the screened gravel road, showing that the actual wear would have been somewhat more than that of the latter road, if gravel had not been added. In regard to the broken stone roads, it is found that the drying and looseniug effect upon the stones, of frost in winter, and heat in summer, is greater than in the case of the screened gravel road, and that they require more watering to remedy this difficulty.

I am not aware that such results have been heretofore attained in roads of this kind.

In analyzing the causes that give the superior qualities to the screened gravel surface, as compared with the ordinary gravel roads, and the broken stone roads, the following points seem to be naturally deduced:

1st. That the rounded form of large pebbles, (not too much polished by attrition), freed from the smaller particles and earthy matter, is peculiarly favorable to their strength to resist crushing, wear and abrasion, and to their packing and consolidation, through the intervention of the binding material; giving them,—as compared with gravel intermixed with the natural gradations of coarse and fine pebbles, and with angular broken stones, superior power to resist displacement. The pebbles, being firmly held in place and prevented form slipping about and grinding upon each other, but little wear takes place, except upon the surfaces actually exposed to contact with wagon wheels.

2d. That the binding material employed, from its nature, and the treatment it receives by powerful compression, (the latter, greatly aided by the rounded form of the pebbles), becomes in itself a firm and serviceable substance, that contributes in no inconsiderable degree to the perfection of the wearing surface of the road, and to the exclusion of moisture and frost.

3d. That, as compared with broken stones, the gravel is of a hard and tenacious character, being the natural product of a species of fine grained compact stone, not dissimilar to trap stone, and equal, if not superior in qualiy, to the trap stone from which the best broken stones are obtained, irrespective of the advantages of the rounded form.

Upon some of these points different opinions and theories have prevailed.

It has been held, for instance, by some road makers, that gravel is inherently a difficult material to make a superior road of.

The rounded form of the pebbles, (together with, perhaps, their too greatly polished surfaces in some instances,) has been the source of the difficulty. It has been reasoned in regard to this, that the pressure of a wagon wheel upon a pebble, surrounded by and lying upon, or partly between, other pebbles, must necessarily have the effect to displace, not only the one in contact with the wheel, but many others, each pebble acting in the manner of a wedge under the weight of the wheel, to crowd away those in its vicinity.

Results something like this have doubtless been observed, and it is easily understood that they must take place with gravel in its ordinary condition, especially when dry,—for the pebbles, like round shot, piled on top of each other, without any intervening substance to produce cohesion, must give way on the application of a slight pressure ; but it does not follow that such results must take place under all conditions of practice.

The advocates of broken stones have also held, that the flat sides of such stones, when brought into contact and adjusted together in a mass, (as McAdam's theory supposes) must cause them to lie more firmly and to be less liable to jostle each other out of place, than can be the case with rounded ones. This might be true, if the contact and adjustment of the stones, and the forms of the stones, were of the perfect kind imagined which practice shows is by no means the case. The result, in the construction of the broken stone roads of the Park, that have been alluded to in a former report, illustrate this point.

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As regards any failures that may have occurred heretofore, in the construction of gravel roads, it is believed they are attributable to incompleteness of manipulation, or to inferior materials, or to both, rather than to any inherent difficulty in the material itself. In the case of a short piece of road that was tried in the Park with smooth beach gravel, (the pit gravel not being on hand at the time) it was found that no success could terial was added as to destroy the character of the road as a gravel road.

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The material was necessarily removed and the pit gravel substituted in its place.

It is scarcely necessaly to adduce a merely theoretical investigation to sustain the facts and conclusions that have been stated, and which have been demonstrated by practice, cautiously and thoroughly observed; but it may be added, that such an investigation does not, at least, weaken the evidence that has been given of the superiority of the screened gravel road.*

As between a road of that description and one of the common unscreeened material, there would seem to be no doubt upon the main questions of utility and economy as connected with the Park roads.

As between angular broken stones, artificially produced, and rounded natural pebbles, I think the evidence is in favor of the latter material as to durability, although the comparative results are not so decisive on this point.

The question between gravel roads in general, and broken stone roads, has been regarded as settled for several years past, by the preference of the public for the former roads, and the economical advantages attending their construction.

There is an apparent reason, in freezing and thawing weather, for giving broken stone roads a temporary preference, as their surfaces at such times, if compared with the common gravel roads, and especially with portions that have been freshly repaired, are firmer and cleaner.

I have, however, observed no unfavorable contrast of this kind, between the broken stone roads, and the screened gravel roads on such occasions.

It is desirable that gravel roads (as well as broken stone roads) should be put in the best practical condition, on the approach of winter, to resist the very trying influences of that season. A hard, clean, well compacted, and well drained surface, is necessary for this object.

* That the rounded form of stones is favorable to their consolidation is shown by the experiment of depositing them in a water-right box, when the spaces between them are found to admit a considerable less quantity of water than in the case of broken stones similarly treated. The rounded stones, as an equal mass, have the greater solidity. A further illustration of the advantages of the rounded form, may be found in the fact, familiar to all persons who are observant of such matters, that an isolated rounded stone, partly imbedded in a common road, retains its place much longer under the action of wagon wheels than a flat or angular one, similarly situated. It is, also, obviously less exposed to wear, and the jolt caused by a wagon wheel passing over it, is slighter than in the case of the angular stone. In regard to the last piece of screened gravel road, constructed as before mentioned, it is not expected that it will immediately exhibit the same thorough results that have characterized the one first constructed, as it was completed late in the season, when the rolling could not be done to the best advantage, and was opened to the public when the weather was unfavorable to the wearing of a fresh surface.

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The gravel, also, was not, throughout, of the same kind and quality as heretofore used, having been in part obtained from excavations in the vicinity of Harlem Lake. With proper care in the treatment, the surface will receive no material injury before the ensuing spring, when it will be expected to improve in condition.

2d.—Bridle Roads.

These roads were completed in 1863, with the exception of the closing up of two small portions of the work necessarily delayed by the unfinished condition of bridges Nos. 24 and 28, which carry walks over the Bridle road near the gate houses of the new Croton Reservoir. This work has recently been completed. It had previously been kept in temporary order so as to admit of the public use of the entire roads during the last two years.

The widths and lengths of different portions of these roads, are as follows:

Road—	30	feet	Wide					•		1	mile,	3,564	feet.
"	25	"	"	•		•			•	2	"	264	"
"	20	"	"		•			•				605	"
"	16	"	"						•			3,094	"
"	12	"	"		•			•		•		5,008	"

In turnouts and standing places of various

widths, equivalent to 680 feet of road,

Making a total length of . . . 5 miles, 2,655 feet, or 15 feet over $5\frac{1}{2}$ miles.

The grades of greatest inclination on the main lines of road, not including turnouts, have a rise of 1 foot in 17 to 30 feet of distance for a length of 6,123 feet.

The shortest curves, excepting at intersections or turnouts, have a radius of 104 to 200 feet.



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Scale 6 Feet to Linch.

The shortest curves are combined with grades of 1 in 17 to 22 feet on a length of road of 1,500 feet.

Additional experience in the use of these roads, has tended to confirm the observations heretofore made upon their plan of construction, materials, and treatment, under service.

The rubble stone foundation, gutters, and drainage works, seem to stand well; and no better material, it is believed, can be employed to meet the necessary practical conditions of the service of the roads, than coarse sand or fine screened gravel, intermixed with a due proportion of loam to give it a desired consistence.

The roads are generally in the most agreeable condition for both horse and rider, in damp or wet weather, showing the necessity of a liberal use of water when the weather is hot and dry.

3d.—Transverse Roads.

These roads are substantially completed to the extent at present designed. The last work done on them was in 1864. The roadways of Roads Nos. 3 and 4, were finished in that year. A small piece of work remains to be done to close up the side walls and terminal piers of road No. 3, at the Eighth avenue entrance, and some additional works (beyond that already commenced on Roads Nos. 1 and 2) is necessary for lighting them with gas.

The roadways have been formed of a character adapted to the present moderate use of the roads, by the deposit of a layer of quarry rubble stones of about one foot in depth, the smaller stones being placed on top, with some breaking up of the larger stones by hand to adjust the surface. Over this was spread, about two inches in depth, such gravelly earth, hard-pan, etc., as could be conveniently obtained, which was wet and rolled until the materials were well compacteds. The surface is crowned in the middle and gutters are constructed at the sides. The gutters are composed of quarry stones (chiefly), laid compactly together, but not set on edge and paved as substantially as on the main roads of the Park.

The side walks are evenly graded, with an inclination towards the gutters, but they have not been gravelled or flagged.

The grades of greatest inclination are as follows: they are stated as ascending, or descending, in the direction from Fifth avenue towards Eighth avenue.

Road No. 1, 212 feet of descending grade of 1 foot in 27 feet of distance. 525 feet of ascending grade of 1 foot in 26 to 29 feet of distance.

Road No. 2, 705 feet of descending grade of 1 foot in $22\frac{1}{2}$ to $24\frac{1}{2}$ feet of distance.

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700 feet of ascending grade of 1 foot in 25 to $27\frac{1}{2}$ feet of distance.

Road No. 3, 550 feet of ascending grade of 1 foot in 25 to 30 feet of distance.

Road No. 4, 200 feet of descending grade of 1 foot in 30 to $3\varepsilon_2^1$ feet of distance.

200 feet of ascending grade of 1 foot in 25 to 30 feet of distance.

Roads Nos. 1 and 4 are quite direct, with but little curvature.

Road No. 2 has an aggregate of 1,300 feet of curvature on a radius of 513 to 750 feet. Road No. 3 has a curvature atone point of 420 feet on a radius of 418 feet, and other curves to the extent of 1,320 feet on a radius of 640 to 915 feet.

These roads have been in use by the public from three to six years. The various works connected with them have stood well. The principal feature in their design is their sunken position relatively to the genera surface of the adjoining grounds of the Park. The drainage which this feature rendered necessary to be attended to with considerable care, has operated successfully and proved, thus far, to be on an adequate scale.

The retaining walls at the side of the roads, which have formed a prominent item in their construction, and which are from 7 to 8 feet high, and in some parts from 20 to 25 feet high, have not as yet been subjected to the full strains that were considered in their design, such as may be caused by trees of large growth with their roots penetrating in rear of the walls, and their strength has consequently not been fully tested, but they have shown no evidence of being unequal to such contingencies.

Sectional drawings showing the dimensions and manner of construction of these walls, accompany this report ;

4th. - Walks.

		Miles.	Feet.
Completed up to Jan. 1, 1864		20	5,095
" in 1864		1	2,501
" in 1865		2	1,906
Add to this, various enlarged spa walks, equivalent to a length of		4,372	
Total completed		25	3,314

One mile 2,116 feet of walks is in progress. This, with the completed work, will make an entire length of 27 miles and 150 feet.

The incomplete portions, as far as at present designed, are all north of 104th street, except a few short pieces at the site of the Conservatory, at the approaches to Bridges Nos. 24 and 28 near the gate houses of the new Croton Reservoir, and in connection with the entrances to the Park.

Side gutters of small cobble stones, have been laid on one or both sides of the walks of recent construction where most exposed to wash, and the usual surface and under drainage work has been done, as heretofore. 5,600 feet of the walks of the northern part of the Park have been covered with gravel and sand obtained from the excavations for Harlem Lake.

The walks of this part of the Park, necessarily occupy to a considerable extent rough and irregular ground. The main lines are made as easy as practicable, having generally rustic stone steps added where the ground is more precipitous than a rise of one foot in eight or ten feet of distance.

This is found to be desirable, not only for facility to pedestrians, but to obviate the washing off of the gravel in rains. It may be noted, on the other hand, that it is found to be a convenience in making repairs, to be able to drive a horse and cart over the walks, or to use wheelbarrows, unobstructed by steps. Hence, wherever the acclivity of the ground would admit of it, or where a detour was admissible to gain distance and lighten the grades, steps have been avoided.

Exterior catch-water drains, sluices, and small rustic stone bridges, have been constructed in connection with the walks at different points, to give them greater security against the effects of running water, to which this district is specially liable.

The walks of the Park are scarcely less important appendages to the work at large than the roads. They give facilities for easy and agreeable access to all parts of the grounds. They have been in use now, to a considerable extent, from five to seven years, and have afforded an opportunity of judging of their general adaptation in plan, materials, and details, to the ground, climate, seasons, &c.

The plan first adopted in their construction, has been followed throughout, with some few modifications and improvements in gutters and drainage work. Since the substitution, in the early part of the work, of hard gravel for the slate gravel that was first tried, no change has taken place in the materials employed, except that during the last year, gravel and sand obtained within the Park, have been used as before stated. This latter, gravel is not of quite as good a quality as that previously used. If the walks upon which it has been used are surfaced, after a little wear, with the better material, they will be somewhat improved.

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Although the walks are comparatively simple in construction, and require less skill than the carriage roads, they nevertheless possess the character of roads, and need similar attention and the application of the same principles to ensure their success. The conditions that fit them for use at all seasons of the year and in almost all weather—that guard them against heaving by frost, and gullying by rains, and that very much economize their maintenance, are not obtained without a resort to the adequate means that have been employed.

Experience shows that they repay the care that has been bestowed upon them; and it has not proved that there is much wanting. Occasionally, heavy rains develop the necessity of the extension of a side gutter at some point, or some further provision for the disposal of water brought from slopes and steep ground. The surface gravel, where not kept well compacted and crowned in the middle, is washed off from portions of the walks having the greatest descent. This also occurs in cases of obstruction of gutters or drainage inlets. These points can be improved, but it is not practicable to altogether avoid them. ¥,

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Where fine screened gravel has been used, and the greatest pains taken in forming the footway, the most perfect and enduring surface has been the result. There is but little doubt that the use of screened gravel is conducive to economy in this case, as well as in that of the roads, and it is fortunate that the fine material, as screened out from the coarse, for roads, is adapted, by the same process, to the walks. When their general object is considered, the propriety of using the best available materials, and all other reasonable aids to completeness, cannot be questioned.

Cement or Concrete Gutters.—The experimental gutters of this kind, that were described in the report of 1862, have remained in use up to this time. They were made in 1859, and have consequently had a trial of upwards of six years. The principal portion was formed of two parts of gravel and one part of cement; this portion has stood well, and is now nearly as good as when first made. The part in which a larger proportion of gravel was tried $(2\frac{1}{2}$ to 3 of gravel to 1 of cement) has not stood so well, as it has absorbed more moisture and has had less strength to resist the action of frost. The best part, has been but slightly affected by the surface scaling off in light films by the frost or by wear by the action of water.

The trial is considered sufficient to warrant the more extended use of such gutters for walks, wherever, as a matter of taste or convenience, it may be desirable to adopt them. Their cost is not ordinarily more than that of well made cobble stone gutters. A sectional drawing of a walk is appended, showing the general mode of construction, drainage works, &c.

BRIDGES.

Forty bridges and archways, of various classes, have been built. Two bridges are in progress, nearly completed, and one small foot bridge has not been commenced—making in all, as at present designed, forty-three bridges.

At the date of my last report, the bridges then incomplete, or not commenced, were, numbers 24, 26, 27, 28, and 29, and three small foot bridges.

No. 27, a cast iron foot bridge, of $38\frac{1}{2}$ feet span, 10 feet 8 inches rise, and 12 feet 8 inches width of footway, crossing the Bridle Road between the old and new Croton reservoirs, was completed in 1864.

No. 26, a rustic bridge, carrying the West Carriage Road over the ravine, brook, and walk, east of the Pool (designated H. on the map), consisting of stone abutments and wooden superstructure, the latter having a width of roadway of 40 feet, a length of 63 feet, and a height of $22\frac{1}{4}$ feet above the brook, was completed in 1865.

The two rustic wooden foot bridges, with stone abutments, over the brook, the one to the west and the other to the east of Bridge No. 26, having a width of footway of 10 feet and of $9\frac{1}{4}$ feet respectively, were completed in 1864.

Bridge No. 29, carrying the East Carriage Road over the ravine, brook and walk, near the head of Harlem lake, was completed during the last season. This bridge has a span of 22 feet, a height of 16 feet above the brook to the under side of the arch at the highest part, and a breadth of roadway of 45 feet.

The extreme breadth of the bridge, including parapets, is $51\frac{1}{2}$ feet. It is built on a curve, to adapt it to a necessary turn in the road at that The material is stone, of a massive rustic description; the beds of point. the stones have been dressed and fitted to make strong durable work, but, in other respects, they have been left in their natural rough forms. The stones were obtained near the site of the bridge, in convenient positions for removal in large sizes, and they range generally from 1 to 20 tons in weight. One boulder, that was moved but a short distance, was estimated All appearance of art, except that of a rude kind, has been at 100 tons. avoided in the work and its immediate surroundings. The larger portion of the masonry was done in the winter, and was laid without the use of A sketch of this bridge is submitted. mortar.

The cast-iron foot bridge No. 28, over the Bridle Road, near the north

gate house of the new Croton Reservoir, having a span of $37\frac{1}{2}$ feet, height of 12 feet $10\frac{1}{2}$ inches, and width of footway of 12 feet 8 inches, was completed late in the last season, except the flooring and painting, which will be done as soon as the weather is suitable in the ensuing spring.

The abutments of bridge No. 24, consisting of granite, closely dressed on beds and joints, with rock face, and laid in mortar, were completed during the last season, with the exception of the copings of the wing walls. The coping stones are being prepared, ready to be set in the spring. The cast-iron superstructure is under contract, to be completed by the first day of May next.

This bridge is situated near the south gate house of the new Reservoir and is intended to carry a walk of the Park over the Bridle Road, and to connect with the reservoir walk at the gate house. It will have a span of 34 feet, height of $10\frac{1}{4}$ feet, and width of footway of 17 feet.

The small foot bridge of $11\frac{1}{2}$ feet span required for the walk crossing the brook at the head of Harlem Lake, has not been commenced. Foundations of rough stones have been prepared for it.

The foregoing does not include a few small rustic stone foot crossings of brooks that have been mentioned under the head of *walks*.

A portion of the unfinished work connected with the Terrace Bridge (No. 1) mentioned in the last report, was completed in 1864. The interior work of the arcades remains to be done, together with the stone base for the fountain of the lower esplanade.

The fountain basin, the circular rim of which was built in 1864, has shown, since its trial by filling with water and exposure to extreme changes of temperature, that it will be necessary to add a lining of lead or copper to the lighter part of the wall, above the surface of the ground, to prevent filtration. Although the work was done with much care, and all practicable precautions used in order to obviate the necessity of a lining, if possible, and for some time after it was filled with water it appeared successful, yet the subsequent contraction of the stone has been such as to start the joints, and cause the escape of water, sufficient at times to affect the exterior. This effect of extremes of cold and heat is a difficulty that is encountered, in various degrees, by the best masonry of the country.

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The addition of the lining to the basin, it is believed, will securely complete the work. It is scarcely practicable to dispense with such a precaution in light walls built above ground, in this climate.

GRADING AND SHAPING OF GROUNDS.

The quantities of work done under this head, during the last two years, materials of all kinds excavated and removed within the Park, are as follows:

	Rock. Cubic Yards.	Earth. Cubic Yards.	Muck or Top-soil. Cubic Yards.	
In 1864	17,336	162,894	40,436	
" 1865	8,526	116,100	41,663	
Totals	25,862	278,994	82,099	

Materials from without the Park, by contracts and by Park labor.

	Earth Filling. Cuble Yards.	Muck or Top-soil. Cubic Yards.
In 1864		6,789
" 1865	11,028	3,067
Totals	11,028	9,856

These last quantities include 8,100 cubic yards of clay hauled from outside by Park teams, during the last year, for puddling Harlem Lake.

The aggregate of all materials excavated and removed within the Park, and obtained from without the Park, including in the latter item building materials, stone, brick and sand, and gravel for roads and walks, from the commencement of the work to the present date is 3,894,921 cubic yards.

The principal items of excavation, during the last two years, have been as follows :

- 16,700 cubic yards, mostly earth, to form the piece of water termed the Loch, and the adjoining slopes in the ravine, intermediate between the Pool and Harlem Lake.
- 109,500 cubic yards of earth, sand, and gravel, from the site of Harlem Lake, and
- 44,700 cubic yards of rock and earth for the carriage roads and adjoining slopes, north of the range of 104th street.

This material has been employed in making necessary fillings, and in

shaping the grounds. The best of the stone has been used in making roads and walks, bridges, dams, wasteweirs, and other works of masonry, and in rock work, cascades, etc.

96,800 cubic yards of filling has been done around Harlem Lake, to raise the low ground to a requisite elevation between the Lake and 110th street and Fifth avenue. A considerable amount of filling has also been done in the bottom of the Lake, at the eastern part. Ş

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The balance of the work of this kind remaining to be done, so far as at present determined, consists of the shaping of the main portion of the exterior slopes of the Park adjoining the enclosing walls, completion of the filling and shaping of the district of ground contiguous to or bordering on Harlem Lake, and the filling to complete the puddling and the protection to the puddling, in the bottom of the Lake. About 16,000 cubic yards of excavation and 28,000 cubic yards of filling, as nearly as can be estimated, remain to be done, to complete the Lake and adjoining work as designed.

The Loch was completed and filled with water on the 16th of December last. It has an area of $1_{1000}^{0.46}$ acre, a length of 685 feet, and a depth of water of $3\frac{1}{2}$ to 5 feet. A small cascade was constructed during the last season at the inlet of the brook, from bridge No. 25 and the east meadow. The Loch discharges the water received from this brook and from the brook passing bridge No. 26, from the Pool at the head of the Ravine, by a larger cascade at its lower end near bridge No. 29. This cascade and the connected dam were constructed during the last season. The dam is of rubble masonry resting on the rock below, laid in cement; it is 97 feet long, and faced on the upper side with puddling. It has a waste pipe for emptying it of water, and wasteweirs to relieve the main overfall, and prevent the water from rising above a desirable height in the Loch during floods; the whole is enclosed and disguised by the surrounding work.

No puddling has been required for the bottom or sides of the Loch, and no leakage has been detected from it. The natural supply of water from the drainage of the Park, is sufficient to keep the water pure, though not sufficient, at all times, for the best effect of the cascades.

The channel of the brook passing from the lower cascade to bridge No. 29, through the bridge and thence to its entrance into Harlem Lake, has been treated in a way to secure it from wash during the greatest discharge of water, and, as far as practicable, so as not to impair its rural features.

Harlem Lake was so far advanced on the 25th of December last, as to admit of partially filling it with water; the weather at that time not being favorable for a continuance of the work of excavating and puddling the bottom and protecting the puddling from frost. The water has since then stood within about one foot of the height intended for the winter level of the lake, having an average depth over the main area of about 3 feet. It has not been practicable from the unfinished state of the work to test the leakage, although it is apparent from the amount of water passing the wasteweir at the outlet, compared with the amount entering the lake from the main source of supply and several minor sources, that a considerable portion of the water escapes (as was expected), by filtration through the part of gravelly bottom that has not yet been puddled.

The bottom level before the addition of the puddling is about 4 feet above the mean high tides of the East River, which set back to the Fifth avenue near the lake, and have been found to rise and fall quite perceptibly through the gravel bottom of the lake where holes were dug for the purpose of examination. This, together with the additional fact, that standing water on a considerable portion of the bed of the lake, caused by rains, subsides in a few hours, has been deemed sufficient to necessitate the careful puddling of the principal area and the elevation of the puddling around the gravelly and sandy portions of the borders to a height of one foot above the intended top water line. Until this is completed, more or less water will be lost. At the best, from the situation of this ground, it is not considered practicable to obtain quite as impervious a basin as in the case of the other waters of the Park.

The plan of the Lake is, to have a maximum depth of water in summer of $5\frac{1}{2}$ feet, and by drawing down and adjusting the wasteweir at the outlet, to reduce the depth to $3\frac{1}{2}$ to 4 feet in winter for the greater security of persons occupying the ice. The summer depth is considered necessary to prevent the growth of grass and weeds on the bottom, and for the greater purity of the water.

The puddling of the bottom, about 6 acres of which has been done, is one foot in thickness, of the best clay that could be obtained, and is covered with six inches of sand or gravel, to protect it from any reasonable chance of accident. It is carried up at the shores, sloping outward, about two feet thick, to a height of one foot above the summer level. The sloping part is covered with three feet of earth and is protected from wash by a rough facing of stones and gravel.

The area of the lake at the summer level, will be when completed, very nearly $12\frac{9}{4}$ acres.

The form is favorable for the accommodation of nearly the same numbers of skaters as the larger but more irregularly shaped lake of the Park. All practicable precautions have been taken to prevent injury to the ice by currents of water from the inlets.

The natural supply of water is obtained from a drainage area of $210\frac{39}{766}$ acres within the Park.

An estimate based upon similar, but not as full and accurate, data as that applied to the large lake (2d Ann., Rep. Jan., 1859,) shows that this supply will be inadequate in the summer months, to make good the losses by filtration and evaporation, and keep up a necessary circulation and change of water for purity. In this estimate it is assumed that the loss by filtration will be no greater than that of the larger lake. The extra supply must be depended upon from drafts from the Croton and from an irregular and uncertain supply that is at present contributed from a drainage area outside the Park west of Eighth avenue, and which will be cut off when the proper sewerage of that part of the city is attended to.

For the purpose of utilizing the necessary extra supply, from whatever source it may be derived, after its discharge from the lake and before its final escape from the Park, the wsateweir at the outlet of the lake has been constructed with a chamber adapted to the use of a wheel and pump worked by the discharged water to re-elevate a portion of it for fountains or other purposes that may be desirable in that vicinity. The fall at the wasteweir admits of an overshot wheel of 10 to 12 feet in diameter which will be effective for the object in proportion to the amount of the waste, and with little expense beyond the cost of attaching the necessary fixtures of wheel, pump and conducting pipe. The details of this work have been left to be determined hereafter, according to the ascertained supply of water and the special purpose it may be desirable to apply it to, &c., The wasteweir is constructed under ground, with suitable entrances to the different parts.

Two brick conduits have been built, leading from the waste-weir to the Fifth avenue, where they connect temporarily with two sewers, heretofore constructed by the city, crossing the avenue, the one at 107th street, and the other at 108th street.

These old sewers are in a dilapidated state, and are of insufficient capacity to be safe at all times. It is understood that it is designed to replace them by more substantial work, and it is desirable that this should be attended to without delay. A free vent for the waters of the Park, that will not be liable to obstruction, should be had to the East River.

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It is practicable at this point, to introduce salt water into the Park from the East River without great difficulty, should it be deemcd expedient to do so.

As a further question of hydraulics connected with this vicinity, I will suggest that—it being the lowest ground of the Park, an opportunity is afforded of obtaining here the greatest effect of water, by means of a jet, that is attainable in any part of the work. All persons who recollect the jet that was temporarily exhibited at the High Bridge of the Croton Aqueduct, over the Harlem River, during the construction of that work, will re-



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member it as an object of rare interest. Such a jet it would be practicable, at a moderate expense, to raise above the surface of Harlem Lake.

I have alluded in a former report, to the general supply of water for the Park. I will add now, that it seems unquestionable as a matter of utility, as well as ornament, that measures should ere long be taken to procure a more abundant and certain supply. The mode I have indicated, as an aid to this object, by the use of an engine—one or more—to elevate, economize and re-distribute the water from the lakes and ponds of the Park, seems to be the one most practicable at present. This would place the Park beyond the contingencies to which the curtailment of the supply from the Croton renders it liable at seasons of greatest need. It would not render the present supply any the less necessary, however, and it would be expected that that supply would hereafter be increased, so that additional measures would not be demanded for some time to come.

The economy of carrying on, or at least maturing the designs of all works of immediate, or of clearly foreseen necessity, consecutively, has been well exemplified in the execution of the works of the Park that have thus far been completed.

A stream of impure drainage water, that is at times offensive, now enters Harlem Lake, opposite the Sixth avenue and 110th street entrance, from a district north and west of the Park, which it is very desirable should be diverted by means of a city sewer through 110th street, that has not yet been built.

DRAINING OF GROUNDS,

The work pertaining to both *superficial* and *sub-drainage* is nearly closed All that remains of the former class, is a small amount of work connected with the unfinished walks and contiguous grounds, and with some parts of the incomplete slopes of the exterior of the Park. About two acres of ground, east of the Loch, remains to be sub-drained, together with some strips of the border work and ground connected with the enclosing walls. This latter item has been deferred in some cases, where the drains must necessarily connect with exterior street sewers that have not yet been built. The brick sewers and pipe drains laid in 1864 and 1865, for superficial

The brick sewers and pipe drains laid in 1864 and 1865, for superficial drainage, are as follows:

	1864.	1865.
Brick Sewers, Circular, 2 to 5 feet diameter. Do , Rectangular, 3½ x 3½ ft. and 2 x 2 ft Vitrified pipes, 2 to 10 inch bore, Do , 12 "18 " " Cement pipes, 6 "18 " " Tiles for roads and walls, 2½ to 3½ inch bore, Rough stope culverts laid dry	1,967 ft. 72 ** 3,001 ** 253 ** 417 ** 2,714 **	148 ft. 70 " 5,210 " 534 " 66 " 1,202 "
Totals.	8,944 ft.	7,240 ft.

The length of sub-drainage lines laid during the last two years, consisting of tiles from $2\frac{1}{4}$ to 6 inch bore, together with the number of acres drained is:

In	1864,	length	7,491	feet,	acres	drained	2.85
"	1865,	"	5,008	"	"	"	3.36
Т	'otals,		12,499	**	66	"	6.21

This includes 4,660 linear feet of stone drains. 12,793 feet of such drains have been laid in all.

The aggregate number of acres drained is 462.

WATER PIPE SYSTEM FOR IRRIGATION, &C.

The length of water pipes laid, and the number of hydrants and stopcocks set in 1864-5, are as follows:

	Length of Pipe	No. of Hy-	No. of Stop
	laid—feet.	drants set.	Cocks set.
In 1864	3,018	5	4
" 1865	1,968	4	2
Totals	4,986	9	6

The system is completed as far as at present designed.

About 1,200 feet of 6-inch pipe, that was laid early last spring along the carriage road last completed, has leaked at some points more than usual. This has been corrected by the contractors, who fully guarantee and make good the work at their own expense. The general success of the work in regard to leakage, I have heretofore shown to be somewhat remarkable. ş

	Totals in feet.	Totals in miles.
1st. For Surface and Sub-drainage:		
Length of brick sewers of all kinds	22,869	
" stone culverts	530	
" vitrified pipes	79,130	
" cement	27,185	
Total	325,810	86-27
		- 100
2d. For Supply and Distribution of Water:		
Length of wrought iron and cement water pipe, 4 to		
16-inch bore	\$3,121	
Length of wrought iron and cement water pipe, 1 to		
2 inch bore	1,567	
Length of lead pipe	961	
" cast-iron pipe	556	1633
	••••	10100
3d. Brick Conduits and Sewers pertaining to the		
Croton Reservoir, and passing through the Park		
Grounds:		
Two main conduits, supplying old and new reservoirs		
respectively	1,400]
Waste sewers supplying 3 to 4 feet diameter	4,600	ĺ
" drain pipe " 1 "	3,335	
Distributing cast iron mains, 36 to 48 in. diameter	22,192	
Totai		5100
4th. Gas mains and pipes	9,526	$1_{\frac{8}{100}}$
Aggregate	[110-37

RECAPITULATION OF UNDERGROUND WORKS FOR DRAINAGE, DISTRI-BUTION OF WATER, GAS PIPES, &C.

No. of brick silt basins, in connection with road and walk drainage, surface drainage, and agricultural or sub-drainage.....

	surface drainage, and agricultural or sub-drainage	1,636
"	mud depositing basins and filters, of brick and stone, in con-	,
	nection with drainage inlets to lakes and ponds	12
44	hydrants for watering roads, walks, and grounds	526
"	drinking hydrants	17

No. of stop cocks (and enclosing brick chambers) to water distribu-

	tion system	88
"	waste weirs, of stone and brick, at outlets of lakes and ponds	9
"	cascades	11
"	jets and fountains in use or designed	7
"	water closets and urinals (separate from buildings)	13

The above works, embracing a linear measurement of $110\frac{370}{100}$ miles of pipeage of all kinds, extend over the principal area of the Park, and as exhibited on the reduced scale of a map appear to interlace with each other in a variety of combinations, but they are constructed separately and distinctly, and in a way to harmonize in the performance of their several objects and in their separate maintenance. They have been delineated and recorded for reference, in connection with other above ground works, and separate drawings and explanations of special details have been made, as far as has been practicable during construction. Some work of this kind is yet incomplete, together with that pertaining to unfinished grounds, which will be closed up as soon as means will permit.

There are a few points, where springs and other drainage water may be further developed and turned to account, for useful or ornamental purposes. One of these is on the east side of the new Croton Reservoir at the base of the embankment near Ninety-fifth street, Fifth avenue. It consists of a stream of water gathered from filtrations in rear of the enclosing walls, which is at present discharged through a five inch pipe into a temporary drain in the avenue. It can be conducted by a water pipe to the lower ground of the Park betwen Ninety-eighth and Ninety-ninth streets, near Fifth avenue, where it would have a bead of about 24 feet, which would be effective for a small fountain. The several sources of pure water from springs, old wells &c., that may be made useful have been noted on the working maps. Where it could readily be done, such springs have been already adapted to convenient drinking places, contiguous to the walks.

FERTILIZING AND FINISHING GROUNDS.

The total area of ground, fertilized and finished, (except some p	arts	of the
planting), up to January 1st, 1864, was	416	acres.
In 1864	35	"
In 1865	22	"

Total up to the present time..... 473 "

This includes rock surfaces.

Remaining to be treated in this manner, about 26 acres.

The balance of the grounds, consisting of about 42 acres, excluding areas occupied by water, roads and walks, it is not contemplated at present to improve, beyond some additional planting, the removal of loose stones, etc., which has for the greater part been already done.

All ground south of 103d street, except the border work and a few small areas, consisting of $16\frac{1}{2}$ acres, was fertilized and finished in 1864. About 19 acres north of 103d street was done during the same year. About 25 acres done that year was fertilized by applying to the sub-soil from 9 to 12 inches of muck or top soil, and one coat of night soil or other compost. The latter was either plowed in before seeding, or was pointed in with spades. Ten acres had the same amount of muck covering, but no compost.

In 1865, the work done has been limited chiefly to the district between 103d and 110th streets. The fertilizing has been done by the use of 9 to 12 inches of muck, without compost. The ground has been finished and seeded down without the use of the plow, except where the muck, after spreading, had become too much hardened by sun and rain, in which cases it was plowed and harrowed, and the seed applied and raked in. No subsoil plowing has been done since 1864.

ENCLOSING WALLS OF THE PARK.

At the date of the last report, the first piece of "vertical" wall ad	joining
Fifty-ninth street had been completed, consisting of 600 line	al feet.
Since that date the balance of the wall adjoining Fifty-	
ninth street has been completed—in 1864 and 1865 1,507 "	"
And two separate pieces on Fifth avenue, south of Sixty-	
sixth street, in 1865 733 "	"
Together with three separate pieces of "battered" wall	
on Eighth avenue, completed in 1865 191 "	"
And two pieces on Fifth avenue completed in 1864 84 "	"
Making a total length of vertical and battered wall now	
completed, of	"
built	"
Battered wall partly built 3,147 "	"
Making a total length of wall, of both kinds, finished and under way—exclusive of foundation upon which wall	
has not been built, of15,544 " Which is equal in content, including foundation wall, to 15,855 c. vds.	"

Ren	naining	not	commenced	, vertical	wal	11	lin.	feet
	"	"	"	battered	"		"	"

Total not commenced, vertical and battered 11,000 c. yds.,

or.....13,570 lin. feet.

The spaces left for gate entrances, and where perpendicular faces of rock render no wall necessary, make up a length of about 3,370 feet.

Of the vertical wall remaining to be built, the foundation and the part of the wall below the level of the side walk, termed " one faced wall" constitutes 8,665 feet, and the upper part, termed " two faced wall" constitutes 17,948 feet.

All but 6,900 c. yards of the walls have been built by contracts; 1,590 feet of unfinished vertical wall and 1,417 feet not commenced, are now under contract.

The battered or retaining walls have been built, thus far, in part of gniess, obtained in the Park or its vicinity, and in part of lime stone. Two kinds of the latter stone have been used, the one from Mott Haven, near Harlem River, and the other from Greenwich, Connecticut. That from Mott Haven is of a lighter color than the gniess and has been used in a separate part of the wall—that from Greenwich is very similar in color and quality to the gniess, and has been used in part to complete the wall that was commenced with the latter stone and abandoned by a previous contractor.

The lower portion of the vertical wall has been built chiefly of gniess. Some portions during the last season have been built of light brown sandstone from the base of the Palisade range on the Hndson River. A sample was built in 1864 of Hudson River blue stone, and a piece in 1865 of lime stone. The base stones that coincide with the grade of the exterior sidewalk have been obtained thus far, with a slight exception, from Hudson River bluestone or "Mountain grawacke." New Brunswick freestone has been used for the upper portion of all the vertical wall yet built, except a short sample that was built of gniess.

MANHATTAN SQUARE.

1.

The area of $19\frac{45}{100}$ acres of rugged and unimproved ground lying west of the Park, between Eighth and Ninth avenues, and between Seventyseventh and Eighty-first streets, formerly designated as Manhattan square, having been annexed to the Park, has been surveyed and mapped out with reference to its future improvement.

This work was done principally in 1864 and completed in the early part

CHANGE OF GRADE OF EIGHTH AVENUE.

A report and estimate were made, in accordance with instructions, during the last season upon this proposed work, so far as it affects the adjoining Park grounds. A modification of the work has since been made and the change now applies to Eighth avenue and the connected works of the Park between Fifty-ninth and Ninety-third streets, (nearly continuously) with reduced quantities of cutting and filling, and other reduced items of expense to the Park.

DRINKING FOUNTAINS.

Two specimen drinking fountains, adapted to *one-hand* use, have been erected at the upper end of the Mall, and have had a trial by the public for a considerable length of time. They seem to be a convenience that is appreciated, and as they can be constructed in simple and cheap forms, (as well as ornamental ones), I allude to the subject merely to suggest that their use be further extended on the Park, with some little improvement in the mechanical work that it was not practicable to give to the original samples.

They were designed to obviate the objection that ordinary drinking fountains have, especially to women and children, that of requiring the application of some strength, and the use of both hands, in drawing a cup of water. Since their erection, they have derived additional interest, not then anticipated, by the large increase in numbers of persons in the community, who have unfortunately, during the events of the last few years, been deprived of the use of an arm or a hand.

THE PARK FORCE.

The number of working days, the number of men employed, &c., in 1864-'5, are as follows:

	1864.	1865.
Number of working days for the year,	264	267 1
Total number of mechanics, laborers, and teams employed during the year,	770	643
Largest force employed at any one time, exclusive of con- tractor's force,	494	3 72
Average force employed per day, including contractor's force,	495	380
Average force employed per day, exclusive of contractor's force, Average number of general foremen.	451 1	341 1
" " foremen, " " assistant foremen	14 3	11 2

134

The number of men discharged for inefficiency, violation of rules, &c.

In 1864,							•		•	•	•	36
" 1865,		•	•	•	•	•	•	•			•	45

CASUALTIES.

In 1864, none.

" 1865, one man injured, not seriously, by the falling of a bank.

" " one man run over by cart—a leg and arm broken.

The aggregate number of men employed in eight years, for longer or shorter periods, including contractors' force, is estimated at about twenty thousand.

This large force has been composed-owing to its being taken from the immediate population of the city of New York, and to the great variety of work for which it was needed --- in larger proportion than ordinary on public works, of persons of dissimilar habits, nationalities and languages, and it is a matter worthy of note that in all this diversity there have been no occurrences to disturb the public peace. But few offences have been committed for which any further resort was necessary than the rules of discipline as administered within the Park. The work has never been interrupted or delayed by strikes or combinations. In periods of greatest excitement even, good order has prevailed, and whatever exterior causes of difference of views or opinions may have existed on any subject, they have not been manifested within the Park enclosure, to the detriment or the discredit of the work or of the employés. It has been the endeavor to enforce strict, just, and equal discipline, to exact all that was due from each man, and to render all that was due to him. Men have always had ample facilities for making complaints and for exculpating themselves on any charge against them; they have also had the privilege of appealing from the decisions at the Park to the Commissioners, and I cannot recall an instance in which any individual has complained that he has not had the benefit of these privileges to the extent he desired.

Precautions against accidents under circumstances, at times of more than ordinary danger, from the amount of blasting done, have been as successful as could have been expected. ţ

5

Fatal injuries to only five persons have occurred, from all causes, since the commencement of the work.

It is gratifying to be able to state these facts, and to reflect that the large numbers of men who have been employed in the construction of the Park, and who have now to a large extent dispersed to seek other occupations, have left a good record behind them, and have perhaps received some influences from the peaceful and harmonizing nature and objects of their services here, that will make them not less good and useful citizen, elsewhere.

THE ENGINEER CORPS.

The Engineer Corps, has been reduced since the last report to the following force:

1 Principal Assistant Engineer.

1 Assistant Engineer.

2 Rodmen, one acting as Plane Table Surveyor.

2 Draughtsmen, one acting as Assistant Engineer.

3 Office Assistants, one acting as Rodman.

4 Axemen.

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It has not been practicable, with the force retained, to keep the various accounts of the work fully written up. The records of construction, delineation of details &c., in the form necessary for reference, in the maintenance of the work, and further improvements that may hereafter be made, are also somewhat in arrears. These it will be endeavored to close up during the present winter, while the demands for the field work and superintendence are diminished. It is intended soon to dispense with the services of the Plane Table Surveyor and two or three axemen.

Respectfully submitted,

WM. H. GRANT, Superintending Engineer.

