

# THE CITY RECORD.

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## DEPARTMENT OF FINANCE.

Abstract of the transactions of the Bureau of the City Chamberlain for the week ending October 15, 1898.

OFFICE OF THE CITY CHAMBERLAIN,  
New York, October 25, 1898.

Wm. ROBERT A. VAN WYCK, Mayor.

500.—In pursuance of section 196, chapter 374 of the Laws of 1897, I have the honor to present herewith a report in October 15, 1898, of all moneys received by the Chamberlain and the amount of all warrants paid by him since October 8, 1898, and the amount remaining to the credit of the City on October 15, 1898.

Very respectfully,  
JOHN B. CAMPBELL, Deputy City Chamberlain.

Dr. THE CITY OF NEW YORK, in account with PATRICK KRISAS, Chamberlain, during the week ending October 15, 1898. Cr.

1898. Oct. 15	To	1898. Oct. 15	By	1898. Oct. 15	Balance on hand
	To Additional Water Fund, City of New York	\$2,367 56	By Balance on hand	\$1,000 00	\$1,000 00
	Advances on Water Meter, Borough of Brooklyn	1,074 25	By Advances of Taxes	1,000 00	2,000 00
	Amusement Station and Yacht Laboratory, Construction of	151 73	By Interest on Taxes	1,000 00	3,000 00
	Anti-tubercle Fund	437 35	By Interest on Bonds	1,000 00	4,000 00
	Appellate Division, Supreme Court, County Court-house	2,000 00	By Interest on Bonds	1,000 00	5,000 00
	Assessment Fund, Borough of Brooklyn	1,141 50	By Interest on Bonds	1,000 00	6,000 00
	Architects' Licenses	1,000 00	By Interest on Bonds	1,000 00	7,000 00
	Board of Education, City of Brooklyn	1,100 00	By Interest on Bonds	1,000 00	8,000 00
	Borough of Richmond	1,000 00	By Interest on Bonds	1,000 00	9,000 00
	Botanical Museum, etc.	1,000 00	By Interest on Bonds	1,000 00	10,000 00
	Bridge Over Harlem River at Third Avenue	1,000 00	By Interest on Bonds	1,000 00	11,000 00
	Bridge Over Harlem River at One Hundred and Forty-fifth to One Hundred and Forty-sixth Street	1,000 00	By Interest on Bonds	1,000 00	12,000 00
	Bridge Over Bronx River at One Hundred and Seventy-seventh Street	1,000 00	By Interest on Bonds	1,000 00	13,000 00
	Bridge Over New York Central and Hudson River Railroad	1,000 00	By Interest on Bonds	1,000 00	14,000 00
	Brooklyn and Pelham Parkway	1,000 00	By Interest on Bonds	1,000 00	15,000 00
	Building Fund, Latin School District, Town of Newburgh	1,000 00	By Interest on Bonds	1,000 00	16,000 00
	Construction of New Bridge Connecting Pelham Bay Park and City Island	1,000 00	By Interest on Bonds	1,000 00	17,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	18,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	19,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	20,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	21,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	22,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	23,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	24,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	25,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	26,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	27,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	28,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	29,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	30,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	31,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	32,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	33,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	34,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	35,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	36,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	37,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	38,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	39,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	40,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	41,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	42,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	43,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	44,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	45,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	46,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	47,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	48,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	49,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	50,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	51,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	52,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	53,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	54,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	55,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	56,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	57,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	58,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	59,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	60,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	61,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	62,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	63,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	64,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	65,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	66,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	67,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	68,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	69,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	70,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	71,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	72,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	73,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	74,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	75,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	76,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	77,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	78,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	79,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	80,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	81,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	82,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	83,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	84,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	85,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	86,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	87,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	88,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	89,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	90,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	91,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	92,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	93,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	94,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	95,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	96,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	97,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	98,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	99,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	100,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	101,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	102,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	103,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	104,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	105,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	106,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	107,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	108,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	109,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	110,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	111,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	112,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	113,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	114,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	115,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	116,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	117,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	118,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	119,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	120,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	121,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	122,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	123,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	124,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	125,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	126,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	127,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	128,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	129,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	130,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	131,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	132,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	133,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	134,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	135,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	136,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	137,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	138,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	139,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	140,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	141,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	142,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	143,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	144,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	145,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	146,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	147,000 00
	County Jail, City of Brooklyn	1,000 00	By Interest on Bonds	1,000 00	148,000 00</



BOARD OF PUBLIC IMPROVEMENTS.

The Board of Public Improvements of The City of New York met at the office of the Board, No. 346 Broadway, on Wednesday, November 23, 1898, at 2 o'clock P. M., pursuant to notice. The roll was called and the following members were present and answered to their names: The Commissioner of Water Supply, the Commissioner of Highways, the Commissioner of Street Cleaning (Deputy Commissioner Gibson), the Commissioner of Sewers, the Commissioner of Bridges, the President of the Borough of Manhattan, the President of the Borough of The Bronx, the President of the Borough of Queens, the President of the Borough of Richmond, and the President of the Board.

The minutes of the meeting of November 16, 1898, were read and approved.

The following report from the Chief Topographical Engineer was read:

CITY OF NEW YORK, PRESIDENT OF BOARD OF PUBLIC IMPROVEMENTS, TOPOGRAPHICAL BUREAU, BOROUGH OF THE BRONX, ONE HUNDRED AND SEVENTY-SEVENTH STREET AND THIRD AVENUE, November 21, 1898.

Mr. JOHN H. MOONEY, Secretary, Board of Public Improvements:

SIR: In reply to the action taken by the Board of Public Improvements on the 10th instant, referring to me for report a communication from the President of the Borough of The Bronx, recommending that proceedings be initiated for acquiring title to Carter avenue, from East One Hundred and Seventy-third street to Tremont avenue, in the Twenty-fourth Ward, Borough of The Bronx. I have to state that Carter avenue is shown on section 14 of the Final Maps and Profiles of the Twenty-third and Twenty-fourth Wards, filed December 17, 1895.

There is no legal obstacle against the opening of Carter avenue and almost all of the streets adjoining said Carter avenue are legally opened. There are no buildings upon the lands. The papers in this matter are hereto returned.

Respectfully, LOUIS A. RISSE, Chief Topographical Engineer and Engineer of Concourses.

The following resolutions were thereupon adopted:

Resolved, That the Board of Public Improvements of The City of New York, in pursuance of the provisions of sections 970 and 990 of chapter 378, Laws of 1897, deems it for the public interest that the title to the lands and premises required for the opening and extending of Carter avenue, from East One Hundred and Seventy-third street to Tremont avenue, in the Borough of The Bronx, City of New York, should be acquired by The City of New York, at a fixed or specified time.

Resolved, That it appears to this Board, from the surveys made and information furnished to it by the President of the Board of Public Improvements that there are no buildings upon the lands that shall or may be required for the purpose of opening and extending said Carter avenue, from East One Hundred and Seventy-third street to Tremont avenue.

Resolved, That this Board directs that, upon the date of the filing of the oaths of the Commissioners of Estimate and Assessment who may be appointed by the Supreme Court in proceedings for the acquisition of title to said street or avenue, the title to any piece or parcel of land lying within the lines of said Carter avenue, from East One Hundred and Seventy-third street to Tremont avenue, so required, shall be vested in The City of New York.

Resolved, That the Board of Public Improvements, deeming it for the public interest so to do, hereby requests the Corporation Counsel to make application to a special term of the Supreme Court, for the appointment of Commissioners of Estimate and Assessment, and to take the necessary proceedings, in the name of The City of New York, to acquire title, wherever the same has not been heretofore acquired, for the use of the public, to the lands, tenements and hereditaments that shall or may be required for the purpose of opening and extending Carter avenue, from East One Hundred and Seventy-third street to Tremont avenue, in the Borough of The Bronx, City of New York.

Resolved, That the entire cost and expense of said proceedings shall be assessed upon the property deemed to be benefited thereby.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President Borough of The Bronx and President of the Board.

Negative—None.

The following report from the Engineer of Street Openings was read:

NOVEMBER 10, 1898.

Hon. M. F. HOLLAND, President, Board of Public Improvements:

SIR:—In the matter of petition of John M. Brown and others, for a change of grade on Kingsbridge avenue, from Terrace View avenue to Wacker place, resolution of October 21, 1898:

I have personally examined the location, and respectfully report as follows: That the grade on Kingsbridge avenue be altered as shown upon the annexed diagram, commencing at Terrace View avenue at elevation 32 feet; thence southerly, distance 206.19 feet, elevation 57 feet; thence distance 50 feet, to meet the established grade at Wacker place, elevation 60 feet.

This modification will give a grade of about 12 per cent. and 6 per cent., respectively, and make but one change and at less percentage than the one proposed for the longer distance.

Respectfully, JOS. O. B. WEBSTER, Engineer of Street Openings.

And the following resolutions were thereupon unanimously adopted:

Resolved, That the Board of Public Improvements of The City of New York, in pursuance of the provisions of section 436 of chapter 378, Laws of 1897, deeming it for the public interest so to do, proposes to alter the map or plan of The City of New York by changing the grade of Kingsbridge avenue, from Terrace View avenue to a point distant 256.19 feet southerly therefrom, in the Borough of Manhattan, City of New York, more particularly described as follows:

Beginning at a point the intersection of the centre lines of Terrace View avenue and Kingsbridge avenue, elevation 32 feet above city base; thence southerly along the centre line of Kingsbridge avenue, distance 206.19 feet, elevation 57 feet; thence still southerly along said centre line distance 50 feet to meet the established grade at that point, elevation 60 feet.

All elevations above city base.

Resolved, That this Board consider the proposed change of grade of the above-named avenue at a meeting of this Board to be held in the office of this Board at No. 346 Broadway on the 14th day of December, 1898, at 2 o'clock P. M.

Resolved, That the Secretary of this Board cause these resolutions and a notice to all persons affected thereby, that the proposed change of grade of the above-named avenue will be considered at a meeting of this Board to be held at the aforesaid time and place, to be published in the CITY RECORD for ten days continuously, Sundays and legal holidays excepted, prior to the 14th day of December, 1898.

The following resolution was adopted by the Board for submission to the Municipal Assembly:

Resolved, That the Municipal Assembly of The City of New York, in pursuance of the provisions of section 436 of chapter 378, Laws of 1897, deeming it for the public interest to alter the map or plan of The City of New York, by changing the lines of Jennings street, in the Borough of The Bronx, City of New York, does hereby concur in and approve of the resolution adopted by the Board of Public Improvements on the 16th November, 1898, and transmitted to this Municipal Assembly, approving of and favoring a change in the map or plan of The City of New York, so as to change the lines of Jennings street, between Edgewater road and the Bronx river, in the Borough of The Bronx, City of New York, as follows:

Beginning at a point in the eastern line of Edgewater road, distant 23.88 feet southwesterly from the intersection of the eastern lines of Edgewater road and West Farms road.

1st. Thence southwesterly along the eastern line of Edgewater road for 63.81 feet.

2d. Thence southeasterly, deflecting 70 degrees 5 minutes 40 seconds to the left for 283 feet, more or less, to the Bronx river.

3d. Thence easterly along the western line of Bronx river, deflecting 80 degrees 17 minutes to the left for 60.87 feet.

4th. Thence northwesterly for 315 feet, more or less, to the point of beginning.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President Borough of The Bronx and President of the Board.

Negative—None.

The following resolution was adopted by the Board for submission to the Municipal Assembly:

Resolved, That the Municipal Assembly of The City of New York, in pursuance of the provisions of section 436 of chapter 378, Laws of 1897, deeming it for the public interest to alter the map or plan of The City of New York, by laying out a public place in the Borough of Queens, City of New York, does hereby concur in and approve of the resolution adopted by the Board of Public Improvements on the 16th November, 1898, and transmitted to this Municipal Assembly, approving of and favoring a change in the map or plan of The City of New York, so as to lay out a public place, bounded by Jackson avenue, Van Alst avenue and Ninth street, in the First Ward of the Borough of Queens, City of New York, as follows:

Beginning at a point at the intersection of the northern line of Jackson avenue with the eastern line of Van Alst avenue.

1st. Thence northerly along the eastern line of Van Alst avenue for 91.34 feet to the southern line of Ninth street.

2d. Thence easterly along the southern line of Ninth street, 101.58 feet to the northern line of Jackson avenue.

3d. Thence southerly along the northern line of Jackson avenue, 135.62 feet to the point of beginning.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President Borough of Queens and President of the Board.

Negative—None.

The following resolution, submitted by the President of the Board, was unanimously adopted.

Whereas, In an opinion of the Corporation Counsel given to the Mayor, in relation to the ordinances authorizing public improvements passed by the Municipal Assembly, he states that the subject matter should be in identically the same words as the resolution of the Board of Public Improvements, also that they should be approved by this Board; and

Whereas, Some of the ordinances which have been passed by this Board have not been identical as to verbiage and have not appeared in the minutes of this Board as having been approved by them; now be it

Resolved, That a respectful request be sent to the Municipal Assembly to return to this Board or correction and approval all ordinances which do not comply with the provisions as above stated, retaining same in their respective places in committees and on General Order.

In accordance with the resolution adopted by the Board at the meeting of November 2, a hearing was had in regard to the proposed bridge over the East river, connecting the Borough of Queens with the Borough of Manhattan. In connection with this matter, the following letter was received from his Honor the Mayor:

CITY OF NEW YORK—OFFICE OF THE MAYOR, November 23, 1898.

To the Board of Public Improvements:

I request that you will take all action necessary to be taken by your Board before action by the Municipal Assembly, as to location, plans and construction of a bridge over the East river, between the Borough of Manhattan and the Borough of Queens.

Without recommending any specific location, I suggest that the bridge be so designed as to cross the East River near Blackwell's Island.

I request that this matter receive prompt attention, so that action by the Municipal Assembly can be taken at an early date.

ROBT. A. VAN WYCK, Mayor.

After hearing Hon. Walter J. Foster, ex-Corporation Counsel of Long Island City and Mr. Barthe, representing the Committee of Forty appointed by the citizens of the Borough of Queens, and Mr. William H. Marvel of the Borough of Manhattan, in favor of said bridge, nobody appearing in opposition, the following resolution was adopted:

Resolved, That the Commissioner of Bridges be and is hereby authorized and directed to prepare plans, surveys, soundings, &c., for the construction of a bridge over the East river, between the Borough of Manhattan and the Borough of Queens.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Bridges, Commissioner of Sewers, President of the Borough of Queens, President of the Borough of Manhattan and President of the Board.

Negative—None.

The following communication from the Corporation Counsel was read:

LAW DEPARTMENT—OFFICE OF THE CORPORATION COUNSEL, New York, November 23, 1898.

Hon. MAURICE F. HOLLAND, President, Board of Public Improvements, City:

SIR—I acknowledge receipt of your communication of October 14, inclosing a copy of the book of Rules and Regulations drawn up by the Commissioner of Public Buildings, Lighting and Supplies, for the government of his department, as modified in accordance with my letter to the Commissioner of Public Buildings, Lighting and Supplies and a date of September 14, 1898, which rules and regulations you inform me were approved by your Board as modified, at its meeting on October 12.

Your letter inclosed a copy of a resolution adopted by the Board of Public Improvements requesting me to frame ordinances based on the said rules and regulations, and submit the same to the Municipal Assembly. I transmit herewith ordinances based on said rules and regulations, and advise you that under section 406 of the Charter, these ordinances should be recommended by the Board of Public Improvements to the Municipal Assembly for adoption.

Respectfully yours, JOHN WHALEN, Corporation Counsel.

And the following resolution was thereupon adopted:

Resolved, That the following ordinance, entitled "A general ordinance enacting rules and regulations for the construction, care, maintenance and operation of poles, wires, conduits, subways and other electrical appliances, in, on, over or under the streets, or in buildings in the City of New York," having duly originated with the Department concerned, be hereby approved by the Board of Public Improvements, and recommended to the Municipal Assembly for immediate adoption.

Affirmative—Commissioner of Water Supply, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President Borough of Manhattan, President Borough of The Bronx and President of the Board.

Negative—None.

Enacting is the ordinance:

A GENERAL ORDINANCE enacting rules and regulations for the construction, care, maintenance and operation of poles, wires, conduits, subways and other electrical appliances in, on, over or under the streets or in buildings in The City of New York.

Be it Enacted, by the Municipal Assembly, as follows:

RULES AND REGULATIONS GOVERNING THE CONSTRUCTION AND OCCUPANCY OF ELECTRICAL DUCTS, CONDUITS AND SUBWAYS.

NOTE.—By ducts, conduits or subways referred to herein shall be understood those ducts, conduits or subways already existing, or that may hereafter be constructed, within any portion of this city. By Subway Company shall be understood the owner of said ducts, conduits or subways.

Section 1. No wires, cables or other electrical conductors shall be placed in any subways, conduits or ducts now constructed or hereafter to be constructed, without the written consent of the Commissioner of Public Buildings, Lighting and Supplies being first obtained. Whenever any duly authorized corporation or person desires, or is required to place electrical conductors underground, application must be made to the Commissioner of Public Buildings, Lighting and Supplies, on forms provided for that purpose, for such accommodation as may be desired; and if the Commissioner acts upon such application favorably he will direct the Subway Company to furnish the required accommodation in the event that the unused facilities of existing subways are insufficient to meet legitimate requirements.

APPLICATIONS FOR SPACE.

Sec. 2. All applications for space in any subway shall be made in writing to the Subway Company owning the same and shall give

- The name of the applicant.
The purpose for which the use of the conduit or conduits is desired.
The number, material and dimensions of conductors proposed to be placed therein.
The arrangement of said conductors, whether singly or in cables, and if in cables, the number of conductors and their disposition in each cable.
The maximum electro-motive force to be used on said conductors.
The nature of the insulating material or materials to be employed, and
Such other specific information as will fully explain the use to be made of the space desired.
When applications have been made and space assigned for conduits underground, the written consent of the Commissioner must be obtained before any conductors are placed in the space so assigned.

REPAIRS AND ALTERATIONS OF CONDUCTORS.

3. All applications for permits to make repairs or alterations in conductors in the subways shall be made in writing to the Subway Company, and shall give

- The name of applicant.
A complete identification of the conductor or conductors referred to, and of the particular conduit or conduits to which access is desired.
As far as possible, the extent and character of the proposed repairs or alterations, and of the probable date when the same will be completed and the conductor or conductors restored to condition for use.

4. Whenever, in the judgment of the Commissioner of Public Buildings, Lighting and Supplies, the Subway Company, or any properly authorized agent, repairs or alterations in a conductor or conductors are necessary, such repairs or alterations shall be made by the party owning or controlling said conductor immediately upon notice. During the progress of any repairs or alterations upon or in a conductor or conductors the party owning the same shall take such precaution as may be necessary or expedient to protect the conductors of other parties from injury. Temporary joints shall not be permitted unless properly insulated and protected.

CONTRACTS AND TERMS.

4. All conductors drawn into and operated in the conduits and insulated to convey current of wire or wires suspended with an insulating cover from exceeding one hundred (100) volts, shall have insulation at the factory or power station a test for "leaking down" such that an electrical pressure of 50 volts and not over 1000 times greater than the maximum electrical pressure to which the said conductors shall be subjected in actual operation shall have, when laid and covered in subways, at a temperature of 75 degrees Fahren., an initial insulation resistance of not less than 15 megohms per mile, per foot of wire, and shall not decrease more than 10 per cent. Whenever the insulation resistance of a conductor at ground shall prove to be less than 500 (500) megohms per mile, per mile length of wire, the use of the conductor shall be discontinued, unless the actual electric insulating fluid on such conductors be reduced so as to reestablish the foregoing ratio.

5. The insulation resistance per mile length of all conductors and fixtures of the said conductors shall at least equal that of the respective conductors to which said fixtures and fixtures are connected.

Determination of Resistance and Tests.

7. The insulation resistance of each length of cable or conductor shall be determined before said length is laid in the subway. In making this determination an electric motor, 1000 ft. of not less than 150 volts shall be employed and the minimum initial resistance as provided in section 5 shall not be diminished through and after an immersion of the conductor under test of at least sixty consecutive hours in salt water. All lines shall be tested for insulation resistance immediately after completion of the subway, and those varying portions of wire two hundred feet shall be tested thereafter at least weekly. A conductor shall be tested for insulation resistance immediately after any new connection with, addition or repair to or alteration of any section, and conductor or cable, and also whenever any other wire is placed in the same duct. Conductors conveying currents of less than two amperes at a pressure of less than one hundred (100) volts are excepted from this rule.

Reports to be Made with Commissioner and with the Railway Company.

8. All tests and determinations called for by these rules shall be made by the parties owning or controlling conductors. Fully authenticated returns of the results of such tests and determinations, within twenty-four hours after the completion of same, shall be filed with the Commissioner and also with the Subway Company, which shall have power to verify or repeat such tests or determinations if desired.

Records must be kept, in writing, by the president or clerk of central stations, of the operation of machines, condition of cables, as shown by tests, resistance of "leakage," and copies of such daily records must be retained at least one month if required by the Commissioner. Access to all central stations shall be accorded to any duly authorized agent of the Department of Public Buildings, Lighting and Supplies, who shall have the right to examine the records of such stations at any time.

Immediately upon any repairs or alterations made to a conductor or conductor, a copy of giving them details shall be made to the Subway Company.

In addition to the tests and regular tests, tests may also be made at the power station while the conductors are in operation, and when such tests shall be made the presence of "leakage" or "leakage" or any complaint the operation of some conductor shall at once cease, as provided in section 5.

All alterations or additions to be made in the subways for the purpose of connecting conductors therein will require a permit to be made by the Subway Company upon the request of the person desiring the same, provided the same have been authorized by the Commissioner of Public Buildings, Lighting and Supplies and the expense of making such additions or alterations is satisfactorily guaranteed by the parties desiring them.

NOTICE.

9. Returns shall be sent yearly in arrears. Applications are required to cover two (2) wires connected with the Subway Company, and give satisfactory guarantee for the performance.

ACCESS TO SUBWAYS AND STATIONS.

10. All persons shall have free access to all parts of the subways and stations of the Subway Company, the keys of which shall be kept in the possession of the Subway Company.

Access to the subways shall be had as follows: (a) By the Department of Public Buildings, Lighting and Supplies; (b) By the Subway Company; and (c) By the owners or managers of the lines.

Access to the subways shall be had upon application to the Subway Company or its regular inspectors. Reasonable access of emergency cases to the subways shall not be prohibited between sunset and sunrise. The Subway Company may make judgments upon such cases as may arise.

11. Access to the subways shall only be had in the presence of an agent of the Subway Company, who shall hold possession of the keys of the subways; who shall see that the conductors are properly spaced and spaced by the company who shall remain present during the operation of the line, and who is hereby charged with the duty of seeing that the Subway Company's property and the property of its contractors are not injured. The inspector is also charged with the enforcement of all rules relating to the use of the subways, and he may suspend any employee of the tenant engaged in the work connected with the subways who shall violate any of these rules and regulations.

The Commissioner of Public Buildings, Lighting and Supplies, or the Subway Company, by a properly authorized agent, shall have authority to require such alterations in conductors as may be deemed necessary for their safety or the safety of the subways or of the adjacent conductors, and also to cause the current in any conductor to be interrupted or reduced for such period of time as may be requisite to the adjustment of such agent for the proper protection or necessary convenience of persons working in the conduits, or upon the subways in the vicinity of said conductors.

Tags may be placed on all cables for identification.

MARKING OF WIRE LEADS.

12. Whenever a conductor is exposed, the lead shall place as near ground level as the street permits. When conductors are exposed, before a conductor is used, the tenant shall satisfy himself that they are free from gas and if not, he shall ventilate the conductors. The Subway Company will provide for such purposes a fan or blower to be operated by the applicant for such time as may, in the judgment of the authorized representative, be considered to clear the conductors of gas to such an extent as to render it safe for his workers to enter them; and no light shall be used by the tenant in cooperation in the procedure except when the above examination has shown the absence of gas. If, after the fan ventilation, gas is noticed, the tenant shall cause the ventilation to be continued.

WATCHMEN OF THE SUBWAYS.

13. In all work conducted in the subways, one man shall always be provided by the tenant to act as watchman on the streets or upon manholes when open, who shall keep constant guard and warn pedestrians, drivers of carriages, trucks, street cars, etc., and who shall assist the subway inspector in whatever the latter requires in emergency. Smoking in or around manholes is prohibited. No one under the influence of liquor shall be allowed to engage in the work in the subways.

PROTECTION AGAINST FIRE AND WIND.

14. No cover of any kind whatsoever shall be allowed by the tenant to be placed over the manhole opening, but a shield may be placed around the windward half of the iron frame to protect the workmen from sleet and wind.

RULES AND REGULATIONS FOR OVERHEAD WIRES, LAMP FIXTURES, ETC.

- 15. Wires are divided into two classes:
  - (a) Those for telegraph, telephone and signaling purposes.
  - (b) Those for electric light and power.

POLES.

1. Two lines of poles bearing conductors of a like class shall not be erected in any street or avenue.
2. Two lines of poles shall not be erected on the same side of any street or avenue.
3. Poles shall be set in the sidewalks about twelve inches from the outside curb, and no pole shall be placed within ten feet of any lamp-post or other poles, except at street corners where necessary in order to support wires running on the cross-street.
4. All poles now standing, or erected hereafter, shall be branded or stamped with the initials of the company owning them, at a point not less than five nor more than seven feet from the street surface; and each group of cross-arms, or where necessary the support of a single wire of different ownership must be distinguished by some characteristic paint mark or fastening.
5. Electric-light lamp-posts shall conform with a design approved by the Commissioner.
6. All poles carrying more than two wires shall be at least fifty-five feet high, uniform in size, straight and painted from top to bottom such colors as may be designated by the Commissioner.
7. All poles for carrying not more than two wires shall be twenty-five feet high, straight, uniform in size and painted such colors as may be designated by the Commissioner.
8. Cross-arms shall be uniform in length, strengthened by braces, and painted the same color as the poles; the cross-arms of each company being distinguished by some characteristic mark.
9. Each line of poles must be run on one side of the street only, except when absolutely necessary to change to the other side; but permission for such change must first be obtained from the Commissioner.

10. Poles shall be uniformly spaced, and about sixty to the mile.
11. Conductors must not be placed upon fixtures erected or maintained for supporting wires of another class, except at crossings when approved by the Commissioner.
12. All existing regulations in regard to the placing of poles and stringing of wires are to continue in force, except when in conflict with these rules; and the Rules and Regulations of the New York Board of Fire Underwriters must be strictly observed.
13. When any company is permitted to erect poles or other fixtures bearing lamps for the purpose of lighting the streets or public places of the city, the permission is subject to the following provisions, which are expressly made a condition of said permits, viz.:
  - Whenever the contract for lighting any such public places shall be given to another company, the company owning said lamp-posts shall, on tender of the first cost thereof, yield possession of same to the company obtaining the new contract, except in cases where the company owning the lamp-posts prefer to remove them.
  - All broken and "dead" wires, and all wires, poles and fixtures not actually in use (subject to Rule 27) must be removed. When a pole is taken down it must be removed from the street the same day. New poles must not be brought upon any street more than two days in advance of erection. Any pole that shall lie in any street more than two days shall be removed by the Department of Highways at the expense of the owner thereof.

WIRES.

15. All wires shall be fastened upon poles or other fixtures with glass, porcelain, rubber, or other insulators, approved by the Commissioner, and must be stretched tightly and fastened with a snap of the same kind of wire or other fastening approved by him.
16. All wires which would normally pass within four inches of any pole, building or other object, must be attached to the same and insulated therefrom. Any company refusing permission to make such fastening to its poles shall be guilty of violating this rule. All wires strung on house-tops must be nine (9) feet clear of roof.
17. No wire shall be allowed to hang within twenty feet of pavement at the lowest point of any lattice supports, except where required to reach a lamp or where otherwise necessary, and must be protected by wire covering and be rigidly fixed and out of the way.
18. Every line, pole, fixture, etc., must be kept in thorough order, repair and conformity with these Rules and Regulations and specifications in every case where possible under the general permit of repairs (Rule 21), upon penalty of forfeiture of all permits not actually acted upon and a refusal to permit new permits until the rule is complied with, but no additional poles or wires can be erected under cover of repairs, nor till any route or location be changed without a permit.

ELECTRIC LIGHT AND POWER WIRES.

19. All electric-light conductors shall be secured to insulating fastenings and covered with an insulation which is water-proof and not easily worn by abrasion. Whenever the insulation becomes impaired it must be renewed immediately.
20. All joints must be as well insulated as the conductors and the insulation of joints must be maintained.
21. Every wire must be distinguished by a number plainly marked on each cross-arm under the insulator. Day conductors must be conspicuously distinguished. All arc lamps must be so placed as to leave a space underneath of nine (9) feet clear between lamp and sidewalk.
22. Every wire entering a building shall be controlled by a cut-out placed near the entrance, in sight, and easily accessible.
23. In the construction of lines the insulation to be used must be approved by the Commissioner in writing, and when new the insulation must not be less than 30 megohms per mile per thousand volts. The insulation resistance must always be maintained above a minimum of one megohm per mile per thousand volts, and if any circuit falls below this standard, the current must be discontinued until the insulation is restored. Under no circumstances shall Underwriters' wire be used.
24. All connections with lines of electric-light conductors shall be made at right angles to the line where possible; and connections to buildings shall be run straight across to the building, and then down in front of the building.
25. The insulation must be preserved throughout the entire circuit, and if any portion of a lamp or fixture is part of the circuit and can be reached it must be insulated.
26. All circuits must be tested every hour, and when a ground occurs, efforts must be made to remove it at once. Failing in this, the current must be discontinued until the insulation is restored.
27. No loose loops from electric-light circuits shall be allowed to remain after lamps have been taken away, except in cases where it is positively known that the lamp will be required again within three months, and where there is no underground conduit for this class of circuit. When allowed to remain the joint in the loop must be as well maintained as the line itself.
28. No company shall do a business of electric-lighting in The City of New York without a certificate from the Commissioner of Public Buildings, Lighting and Supplies after the plant and lines have been inspected and found to comply with all the Rules and Regulations of the Department. Such certificate to remain in force only so long as the condition of the plant and lines remain unchanged, and notice of any alteration to the plant or lines must be made to said Commissioner and a permit obtained.

GUARD WIRES.

All owners of overhead trolley or high tension conductors must so protect them with guard wires, whose repair, so as to prevent other wires from coming in contact with them.

LINEMEN.

29. Every lineman must wear rubber gloves while at work and must wear a badge in a conspicuous place, giving his number and the name of the company by which he is employed.

PERMITS.

30. No electrical conductors shall be erected, maintained or placed overhead or underground without a permit in writing (therefor being first obtained from the Commissioner of Public Buildings, Lighting and Supplies; and before such permit is issued the person or company wishing to place or maintain said wires shall make application to said Commissioner in writing, stating the use of said wire, the purpose or use for which the same is intended, and the character of the current intended to be conveyed by same.
31. All companies are authorized and directed to make necessary repairs to their lines of conductors. Permits for the same will be granted by the Commissioner upon application. In cases of emergency repairs may be made without this permit, but a full report of such repairs must be forwarded at once to said Commissioner. This permission does not, however, cover the erection in any street, avenue or highway of any additional wires, poles or other similar fixtures.
- In the case of such lines where notice has been given that underground accommodations have been provided and the notices of time required by law have elapsed, companies owning or operating such lines are not authorized to make any repairs or connections, or to go upon the poles bearing such lines for any purpose whatever, except to remove the said lines of electrical conductors in conformity with the direction of the said Commissioner.
32. The amount of wire allowable for lamp connections from subway subsidiaries to lamps or buildings shall not exceed one hundred feet, and from pole lines to lamps or buildings shall not exceed two hundred and twenty-five feet, and must conform in every way with the Rules and Regulations of this Department.
33. All permits of this Department for overhead wires and fixtures are granted only pending the providing of underground accommodations in the neighborhood of the street or avenue for which a permit is granted.
34. Any officer, employee of this Department, or any member of the Police Department of the city, shall be entitled to examine permits under which work of any kind is being done.
35. No permit shall be granted for the erection of any overhead structure, nor for the repairing of any lines already existing in any street in which underground accommodations for the service have been provided.
36. The violation of any of the Rules and Regulations of the Department of Public Buildings, Lighting and Supplies shall operate ipso facto as a revocation of the permit held by the company or person guilty of such violation.
37. Every company or person erecting poles, wires or fixtures must make and leave, at least once in each week, at the office of the Commissioner, such record of the fixtures, etc., which they are erecting, and of all of the same that they have in use, as are required by the said Commissioner, and in such form as shall be described by him.
38. The company or person owning or controlling poles in any street or avenue shall allow the same to be used by other companies or persons operating conductors of a similar electrical service when authorized to do so by the Commissioner, on tender of proper compensation, to be determined by agreement between the parties interested. In default of such an agreement, the amount of such compensation shall be determined by the Commissioner. This rule imports a contract on the part of each company or person owning or controlling the poles on any street or avenue, not only with this Department, but also with each company or person who shall, under its terms, be qualified to demand the privileges which it confers, to permit the joint use of poles. And in accepting any permit, the applicant hereby binds himself to this agreement.

RULES AND REGULATIONS FOR INTERIOR WIRING, MACHINERY, FIXTURES, ETC.

GENERAL PLAN OF RULES.

- Class A.—Central station, dynamo, motor and storage, battery rooms, transformer substations, etc. Rules 1 to 11.
- Class B.—Outside work. Rules 12 to 39. Subdivided as follows:
  - General rules, applying to all systems and voltages. Rules 12 to 17.
  - Constant-current systems. Rules 18 to 20.

- Constant-potential systems.
- All voltages. Rules 21 to 25.
- Voltage not over 300. Rules 24 to 31.
- Voltage between 300 and 1,000. Rules 32 to 37.
- Voltage over 1,000. Rules 38 and 39.
- Class D.—Specifications for wires and fittings. Rules 40 to 55.
- Class E.—Miscellaneous. Rules 56 to 59.
- Class F.—Marine wiring. Rules 60 to 72.

GENERAL INSTRUCTIONS.

In all electric work conductors, however well insulated, should always be treated as bare, to the end that under no conditions, existing or likely to exist, can a grounding or short circuit occur, and so that all leakage from conductor to conductor, or between conductor and ground, may be reduced to the minimum.

In all wiring special attention must be paid to the mechanical execution of the work. Careful and neat running, connecting, soldering, taping of conductors and securing and attaching of fittings, are specially conducive to security and efficiency, and will be strongly insisted on.

In laying out an installation, except for constant-current systems, the work should, if possible, be started from a centre of distribution, and the switches and cut-outs, controlling and connected with the several branches, be grouped together in a safe and easily accessible place, where they can be readily got at for attention or repairs. The load should be divided as evenly as possible among the branches, and all complicated and unnecessary wiring avoided.

The use of wire-ways for rendering concealed wiring permanently accessible is most heartily indorsed and recommended; and this method of accessible concealed construction is advised for general use.

Architects are urged, when drawing plans and specifications, to make provision for the channeling and pocketing of buildings for electric-light or power wires, and in specifications for electric gas lighting to require a two-wire circuit, whether the building is to be wired for electric lighting or not, so that no part of the gas fixtures or gas piping be allowed to be used for the gas-lighting circuit.

Class A.—Stations and Dynamo Rooms.

INCLUDES CENTRAL STATIONS, DYNAMO, MOTOR AND STORAGE BATTERY ROOMS, TRANSFORMER SUB-STATIONS, ETC.

- 1. Generators—
  - a. Must be located in a dry place.
  - b. Must never be placed in a room where any hazardous process is carried on, nor in places where they would be exposed to inflammable gases or flogings of combustible materials.
  - c. Must be insulated on floors or base frames, which must be kept filled to prevent absorption of moisture, and also kept clean and dry. Where frame insulation is impracticable, the Commissioner of Public Buildings, Lighting and Supplies may permit its omission, in which case the frame must be permanently and effectively grounded.

NOTE.—A high-potential machine which, on account of great weight or for other reasons, can not have its frame insulated from the ground, should be surrounded with an insulated platform. This may be made of wood, mounted on insulating supports, and so arranged that a man need always stand upon it in order to touch any part of the machine.

In case of a machine having an insulated frame, if there is trouble from static electricity due to belt friction, it should be overcome by placing near the belt a metallic comb connected with the earth, or by grounding the frame through a very high resistance of not less than 200 ohms per volt generated by the machine.

a. Every constant-potential generator must be protected from excessive current by a safety fuse, or equivalent device of approved design in each lead wire.

NOTE.—These devices should be placed on the machine or as near it as possible.

Where the needs of the service make these devices impracticable, the Inspection Department having jurisdiction may, in writing, modify the requirements.

c. Must each be provided with a name-plate, giving the maker's name, the capacity in volts and amperes, and normal speed in revolutions per minute.

- 2. Conductors—

From generators to switchboards, rheostats or other instruments, and thence to outside lines.

a. Must be in plain sight or readily accessible.

b. Must have an approved insulating covering as called for by rules in Class "C" for similar work, except that in central stations, on exposed circuits, the wire which is used must have a heavy braided incombustible outer covering.

Bus bars may be made of bare metal.

c. Must be kept so rigidly in place that they can not come in contact.

d. Must in all other respects be installed under the same precautions as required by rules in Class "C" for wires carrying a current of the same volume and potential.

- 3. Switchboards—

a. Must be so placed as to reduce to a minimum the danger of communicating fire to adjacent combustible material.

NOTE.—Special attention is called to the fact that switchboards should not be built down to the floor nor up to the ceiling, but a space of at least ten or twelve inches should be left between the floor and the board, and from eighteen to twenty-four inches between the ceiling and the board in order to prevent fire from communicating from the switchboard to the floor or ceiling, and also to prevent the forming of a partially concealed space very liable to be used for storage of rubbish and oily waste.

b. Must be made of incombustible insulating material or of hard wood in skeleton form, tiled to prevent absorption of moisture.

c. Must be accessible from all sides when the connections are on the back, but may be placed against a brick or stone wall when the wiring is entirely on the face.

d. Must be kept free from moisture.

e. Bus bars must be equipped in accordance with rules for placing conductors.

- 4. Resistance Boxes and Equalizers—

(For construction rules, see No. 52.)

a. Must be placed on a switchboard or, if not thereon, at a distance of a foot from combustible material, or separated therefrom by a non-inflammable, non-absorptive insulating material.

- 5. Lightning Arresters—

(For construction rules, see No. 55.)

a. Must be attached to each side of every overhead circuit connected with the station.

NOTE.—It is recommended to all electric light and power companies that arresters be connected at intervals over systems in such numbers and so located as to prevent ordinary discharges entering (over the wires) buildings connected to the lines.

b. Must be located in readily accessible places away from combustible materials, and as near as practicable to the point where the wires enter the building.

Station arresters should generally be placed in plain sight on the switchboard.

In all cases kinks, coils and sharp bends in the wires between the arresters and the out-door lines must be avoided as far as possible.

c. Must be connected with a thoroughly good and permanent ground connection by metallic strips or wires having a conductivity not less than that of a No. 6 B. & S. copper wire, which must be run as nearly in a straight line as possible from the arresters to the earth connection.

Ground wires for lightning arresters must not be attached to gas-pipes within the buildings.

NOTE.—It is often desirable to introduce a choke coil in circuit between the arresters and the dynamo. In no case should the ground wire from a lightning arrester be put into iron pipes, as these would tend to impede the discharge.

- 6. Care and Attendance—

a. A competent man must be kept on duty where generators are operating.

b. Only waste must be kept in approved metal cans and removed daily.

Approved waste cans shall be made of metal, with legs raising can three inches from the floor, and with self-closing covers.

- 7. Testing of Insulation Resistance—

a. All circuits must be provided with reliable ground detectors. Detectors which indicate continuously and give an instant and permanent indication of a ground are preferable. Ground wires from detectors must not be attached to gas-pipes within the building.

b. Where continuously indicating detectors are not feasible, the circuits should be tested at least once per day, and preferably oftener.

c. Data obtained from all tests must be preserved for examination by the Inspection Department having jurisdiction.

NOTE.—These rules on testing to be applied at such places as may be designated by the Inspection Department having jurisdiction.

- 8. Motors—

a. Must be insulated on floors or base frames, which must be kept filled to prevent absorption of moisture, and must be kept clean and dry. Where frame insulation is impracticable the Inspection Department having jurisdiction may, in writing, permit its omission, in which case the frame must be permanently and effectively grounded.

In case of a machine having an insulated frame, if there is trouble from static electricity due to belt friction, it should be overcome by placing near the belt a metallic comb connected to the earth, or by grounding the frame through a very high resistance of not less than 200 ohms per volt generated by the machine.

b. Must be wired under the same precautions as required by rules in Class "C" for wires carrying a current of the same volume and potential.

NOTE.—The lead-in branch circuits should be designed to carry a current at least fifty per cent. greater than that required by the rated capacity of the motor to provide for the inevitable overloading of the motor at times without over-fusing the wires.

c. The motor and resistance box must be protected by a cut-out and controlled by a switch (see No. 47 a), said switch plainly indicating whether "on" or "off." Where one-quarter horse-power or less is used on low-tension circuits a single-pole switch will be accepted. The switch and rheostat must be located within sight of the motor, except in such cases where special permission to locate them elsewhere is given, in writing, by the Inspection Department having jurisdiction.

d. Must have their rheostats or starting boxes located so as to conform to the requirements of Rule 4.

NOTE.—In connection with motors the use of circuit breakers, automatic starting boxes and automatic under-load switches is recommended, and they must be used when required.

e. Must not be run in series-multiple or multiple-series.

f. Must, if deemed necessary by the Inspection Department having jurisdiction, be enclosed in an approved case.

NOTE.—From the nature of the question, the decision as to what is an approved case must be left to the Inspection Department having jurisdiction in determining in each instance.

g. Must, when combined with ceiling fans, be hung from insulated hooks, or else there must be an insulator interposed between the motor and its support.

h. Must each be provided with a name-plate, giving the maker's name, the capacity in volts and amperes and the normal speed in revolutions per minute.

- 9. Railway Power Plants—

a. Must be equipped in each feed wire before they leave the station with an approved automatic circuit breaker (see No. 44) or other device which will immediately cut off the current in case of a ground. This device must be mounted on a fireproof base and in full view and reach of the attendant.

- 10. Storage or Primary Batteries—

a. When current for light and power is taken from primary or secondary batteries, the same general regulations must be observed as applied to similar apparatus fed from dynamo-generated developing the same difference of potential.

b. Storage battery rooms must be thoroughly ventilated.

c. Special attention is directed to the rules for rooms where acid fumes exist. (See No. 24, 1 and 4.)

d. All secondary batteries must be mounted on non-absorptive, incombustible insulators, such as glass or thoroughly vitrified and glazed porcelain.

e. The use of any metal liable to corrosion must be avoided in all connections of secondary batteries.

- 11. Transformers—

(For construction rules, see No. 54.)

a. In central or sub-stations the transformers may be so placed that smoke from the burning out of the coils or the boiling over of the oil (where oil-filled cases are used) could do no harm.

CLASS B.—INSIDE WORK—ALL SYSTEMS AND VOLTAGES.

General Rules—All Systems and Voltages.

- 12. Wires—

(For special rules, see Nos. 18, 19, 20, 28 and 39.)

a. Must not be of smaller size than No. 14 B. & S., except as allowed under Rules 24 a and 40 c.

b. The wires must have an insulation equal to that of the conductors they confine.

c. Must be so spliced or joined as to be both mechanically and electrically secure without solder; they must then be covered to insure preservation, and the joint covered with an insulation equal to that on the conductors.

Stranded wires must be soldered before being fastened under clamps or binding screws, and when they have a conductivity greater than No. 10 B. & S. copper wire, they must be soldered into lugs.

NOTE.—All joints must be soldered, even if made with some form of patent splicing device. This ruling applies to joints and splices in all classes of wiring covered by these rules.

d. Must be separated from contact with walls, floors, ceilings or partitions through which they may pass by incombustible, non-absorptive insulating tubes, such as glass or porcelain.

NOTE.—Bushings must be long enough to flush the entire length of the hole in one continuous piece, or else the hole must first be lathed by a continuous waterproof tube, which may be a conductor, such as iron pipe; the tube then is to have a non-conducting bushing pushed in at each end so as to keep the wire absolutely out of contact with the surrounding pipe.

e. Must be kept free from contact with gas, water or other metallic piping, or any other conductors or conducting material which they may cross, by some continuous and firmly fixed non-conductor, creating a separation of at least one inch. Deviations from this rule may sometimes be allowed by special permission.

f. Must be so placed in wet places that an air-space will be left between conductors and pipes in crossing, and the former must be run in such a way that they cannot come in contact with the pipe accidentally. Wires should be run over, rather than under, pipes upon which moisture is likely to gather, or which, by leaking, might cause trouble on a circuit.

- 13. Underground Conductors—

a. Must be protected, when brought into a building, against moisture and mechanical injury, and all combustible material must be kept removed from the immediate vicinity.

b. Must not be so arranged as to short the current through a building around any machine-box.

- 16. Table of Carrying Capacity of Wires—

Below is a table showing the allowable carrying capacity of wires containing ninety-eight per cent. pure copper, which must be followed in placing interior conductors:

TABLE A. HEAVY CONDUCTORS See No. 48 a	TABLE B. WEATHER-RESISTANT WIRES. See No. 48 a		TABLE A. LIGHTS CONDUCTORS See No. 48 a	TABLE B. WEATHER-RESISTANT WIRES. See No. 48 a
	Amperes.	Amperes.		
B. & S. No. 1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
5	5	5	5	5
6	6	6	6	6
7	7	7	7	7
8	8	8	8	8
9	9	9	9	9
10	10	10	10	10
11	11	11	11	11
12	12	12	12	12
13	13	13	13	13
14	14	14	14	14
15	15	15	15	15
16	16	16	16	16
17	17	17	17	17
18	18	18	18	18
19	19	19	19	19
20	20	20	20	20
22	22	22	22	22
24	24	24	24	24
26	26	26	26	26
28	28	28	28	28
30	30	30	30	30
32	32	32	32	32
34	34	34	34	34
36	36	36	36	36
38	38	38	38	38
40	40	40	40	40
42	42	42	42	42
44	44	44	44	44
46	46	46	46	46
48	48	48	48	48
50	50	50	50	50
52	52	52	52	52
54	54	54	54	54
56	56	56	56	56
58	58	58	58	58
60	60	60	60	60
62	62	62	62	62
64	64	64	64	64
66	66	66	66	66
68	68	68	68	68
70	70	70	70	70
72	72	72	72	72
74	74	74	74	74
76	76	76	76	76
78	78	78	78	78
80	80	80	80	80
82	82	82	82	82
84	84	84	84	84
86	86	86	86	86
88	88	88	88	88
90	90	90	90	90
92	92	92	92	92
94	94	94	94	94
96	96	96	96	96
98	98	98	98	98
100	100	100	100	100
102	102	102	102	102
104	104	104	104	104
106	106	106	106	106
108	108	108	108	108
110	110	110	110	110
112	112	112	112	112
114	114	114	114	114
116	116	116	116	116
118	118	118	118	118
120	120	120	120	120
122	122	122	122	122
124	124	124	124	124
126	126	126	126	126
128	128	128	128	128
130	130	130	130	130
132	132	132	132	132
134	134	134	134	134
136	136	136	136	136
138	138	138	138	138
140	140	140	140	140
142	142	142	142	142
144	144	144	144	144
146	146	146	146	146
148	148	148	148	148
150	150	150	150	150
152	152	152	152	152
154	154	154	154	154
156	156	156	156	156
158	158	158	158	158
160	160	160	160	160
162	162	162	162	162
164	164	164	164	164
166	166	166	166	166
168	168	168	168	168
170	170	170	170	170
172	172	172	172	172
174	174	174	174	174
176	176	176	176	176
178	178	178	178	178
180	180	180	180	180
182	182	182	182	182
184	184	184	184	184
186	186	186	186	186
188	188	188	188	188
190	190	190	190	190
192	192	192	192	192
194	194	194	194	194
196	196	196	196	196

Leads from conductors to switch-boards and bus bars on switch-boards will be exempted from this regulation with above tables.

The lower limit is specified for rubber-covered wires to prevent gradual deterioration of the high insulation by the heat of the wires, but not from use of igniting the insulation. The question of drop is not taken into consideration in the above tables.

The carrying capacity of western and eastern wire is given, but no smaller than fourteen is to be used, except as allowed under Rules 23 and 40 c.

17. Switches, Cut-outs, Circuit Breakers, etc.—

(For construction rules, see Nos. 43, 44 and 45.)

a. Must, whenever called for, unless otherwise provided (for exceptions see No. 53 and No. 22 c), be so arranged that the contacts will protect, and the opening of the switch or circuit breaker will disconnect, all of the wires that go in a two-wire system the two wires, and in a three-wire system the three wires, must be protected by the cut-out and disconnected by the operation of the switch or circuit breaker.

b. Must not be placed in the immediate vicinity of easily inflammable stuff or where exposed to inflammable gases or dust or to flying or combustible material.

c. Must, when exposed to dampness, either be enclosed in a waterproof box or mounted on porcelain knobs.

Insulation Systems—Principally Series Arc Lighting.

18. Wire—

(See also Nos. 14, 15 and 16.)

a. Must have an approved rubber insulating covering. (See No. 40 a.)

b. Must be arranged to enter and leave the building through an approved double-contact series switch (see No. 41), mounted in a non-combustible case, kept free from moisture, and easy of access to pull or trim. So-called "snap-switches" must not be used on high-potential circuits.

c. Must always be in plain sight, and never hidden, except when required by the Inspection Department for wiring jurisdiction.

d. Must be supported on glass or porcelain insulators, which separate the wire at least one inch from the surface wired over, and must be kept rigidly at least eight inches from each other, except within the structure of lamps, on hanger boards, in cut-out boxes, or like places, where a less distance is necessary.

e. Must, on side walls, be protected from mechanical injury by a substantial boxing, retaining an air space of one inch around the conductors, closed at the top (the wires passing through bushed holes), and extending not less than seven feet from the floor. When crossing floor timbers in cellars or in rooms, where they might be exposed to injury, wires must be attached by their insulating supports to the under side of a wooden strip not less than one-half an inch in thickness.

19. Arc Lamps—

(For construction rules, see No. 42.)

a. Must be carefully isolated from inflammable material.

b. Must be provided at all times with a glass globe surrounding the arc, securely fastened upon a closed base. No broken or cracked globes to be used.

c. Must be provided with a wire netting (having a mesh not exceeding one and one-quarter inches) around the globe, and an approved spark arrester (see No. 43), when readily inflammable material is in the vicinity of the lamp, to prevent escape of sparks, melted copper or carbon. If a recommended glass globe, non-combustible, non-ferrous, be used for lamps in such places.

NOTE.—See lamps when used in places where they are exposed to the flying of easily inflammable material, should have the carbon enclosed completely in a globe in such manner as to avoid the necessity of spark arresters.

The spark arresters, glass and spark arresters will not be required on so-called "invented arc" lamps, but this type of lamp must not be used where exposed to flying of easily inflammable material.

d. Where many lamps (see No. 42) are not used, lamps must be hung from insulating supports other than their conductors.

20. Automobile Lamps in Series Circuits—

a. Must have the conductors mounted as provided in Rule No. 18, and each lamp must be provided with an automatic cut-out.

b. Must have each lamp supported from a hanger-board by means of rigid wire.

c. No automatic cut-out device for switches and no system of multiple series or series-multiple lighting will be approved.

d. Under no circumstances can they be attached to gas fixtures.

General Electrical Systems—General Rules—All Buildings.

21. Automatic Cut-outs (Fuses and Circuit Breakers)—

(See No. 17, and for construction, Nos. 44 and 45.)

a. Must be placed on all service wires either overhead or underground, as near as possible to the meter where they enter the building and inside the walls, and arranged to cut off the entire circuit to this building.

NOTE.—Where (see switch required by rule No. 14) inside the building, the cut-out required by this section must be placed as near as possible to the meter.

b. Must be placed at every point where a change is made in the size of wire (unless the cut-out in the larger wire will protect the smaller). (See No. 16.)

c. Must be in plain sight, or enclosed in an approved box (see No. 46), and readily accessible. They must not be placed in the recesses or nooks of fixtures.

d. Must be so placed that no set of incandescent lamps, whether grouped on one fixture or several fixtures in proximity, requiring a current of more than six amperes, shall be dependent upon one set of incandescent lamps only, except as provided for by the Inspection Department having jurisdiction for deposits from meters to use of large chandeliers.

e. Must be provided with cases, the total capacity of which does not exceed the allowable carrying capacity of the wires, and, when spring breakers are used, they must not be set more than three times the allowable carrying capacity of the wire, unless a double cut-out or fuse mounted in the circuit (see No. 17).

22. Switches—

(See No. 17, and for construction, No. 43.)

a. Must be placed on all service wires either overhead or underground, in a readily accessible place, as near as possible to the point where the wires enter the building, and arranged to cut off the entire circuit.

b. Must always be placed in dry, accessible places, and be grouped as far as possible. Knife switches must be so placed that gravity will tend to open rather than close the switches.

c. Must not be hidden, except when the circuits which they control supply not more than three amperes or when attached to gas lamps or hanger boards or otherwise as approved by the Department.

d. Where plugs of high switches are used, whether with conduit systems or not, the switches must be insulated in like manner of or fixed with fire-resisting material. Where two or more switches are placed under any plug, the box must have a separate compartment for each switch. No plug buttons for lights, gas-lighting systems or the like shall be placed in the same wall plate with switches controlling electric light or power wiring.

Electric Heating and Cooking Apparatus—also Hot Pots, Saut Irons, Curling Irons, etc., etc.

23. Electric Heaters, Ranges and Stoves—

a. These must be placed in safe situation (out of easy reach of inflammable materials) and separated from and supported on non-combustible and non-absorbent standards or bases so as to be at least four inches from work of any description or other inflammable material, unless protected by non-combustible material, such as sheet metal and asbestos, or the like, so combined as to prevent appreciable transmission of heat, while securing full insulation. The heating wires or resistance of these heaters, etc., must be enclosed in non-combustible cases adapted to prevent accidental contact with any covering about or material.

These electric heaters, ranges, etc., must never be concealed, but must be at all times in plain sight.

b. They must have double-pole switches, cut-outs, etc., arranged as required for electric lights or power apparatus employing the same current and potential.

c. The attachments of lead-wires to "heaters," etc., must be in plain sight, easily accessible and protected from overheating, accidental or otherwise.

d. Attachment of conductors to "heaters," etc., must be securely made in the same manner that conductors are attached to motors or generators dealing with currents equal to those employed in these devices, and such conductors must be continuous from the "heaters," etc., to the switch or cut-out, which must not be within two feet of said "heaters," etc. These conductors must be thoroughly well insulated and also covered with a good mechanical protection.

Portable Lighting Apparatus, Gas Pans, Curling Irons, etc.

a. The heating coils or resistances of these instruments must be enclosed in non-combustible cases, which in turn must be mounted on non-conducting and non-absorbent bases, raising the same at least one inch from any surface on which they stand.

b. These instruments must not be attached to lamp sockets, and when current of more than ten amperes is required they must conform to the same rules as heaters, ranges, etc.

c. Where currents of ten amperes or less are required, these instruments may be connected by specifically approved flexible double or twin wire conductors, provided such conductor is composed of two multi-strand conductors, each of which is insulated by a water-proof material and asbestos, while both are surrounded by a covering affording adequate mechanical protection. These flexible cords must also be connected to "plug switches" having double-pole fuses in their sockets which will cut out the circuits if a cross connection should occur in the flexible conductor. Moreover, such "plug switch" must be so arranged that the plug will pull out and break the connection if an abnormal mechanical strain is brought on the flexible conductor.

The leading in wires of these flexible cords must be connected to heaters or the like at the point of lowest temperature, and where such wires are detachable at the heater, their terminals must be arranged with female ends protected by porcelain extending at least 1/8 inch beyond the metal terminals.

If the connection at the heater is fixed, a separable double-pole connector must be placed in the circuit so that in case an undue strain is brought on the conductors the device will be automatically cut out and disconnected.

Flexible cord connections longer than six feet will not be permitted.

Receptacles for plug attachments must be placed at least six inches above the floor.

Where switches are provided they must conform to the rules laid down in Rule 43 of the General Requirements.

Where a number of utensils are grouped for general cooking service, installations to be approved must be provided with slate, soap-stone or other approved slab or table for utensils to rest upon. Plug receptacles mounted on slate or other approved materials shall be attached to mains running at least six inches above the working surface of the table.

Saw irons and other heating appliances that are intended to be applied to inflammable articles, such as clothing, must be arranged as above as far as connections, etc., are concerned, and must also be provided with approved attachments which will cut off current when they are not in actual use.

The leading in wires to these forms of apparatus must be connected through porcelain connecting blocks, and the cable or cord of the same must be passed through an insulated elastic spiral or spring so arranged as to protect the same from kinking, chafing or like injury at or near the point of connection.

These conductors must be so placed that they will at all times be at least four feet from the floor and well protected against contact with water pipes or other possible ground connections.

The use of no flexible cord will be permitted, unless specifically approved by this Department.

Low-potential Systems—300 Volt or Less.

Any circuit attached to any machine, or combination of machines, which develops a difference of potential, between any two wires, of over ten volts and less than 300 volts, shall be considered as a low-potential circuit, and as coming under this class, unless an approved transforming device is used, which cuts the difference of potential down to 10 volts or less. The primary circuit not to exceed a potential of 3,000 volts.

24. Wire—

GENERAL RULES.

(See also Nos. 14, 15 and 16.)

a. Must not be laid in plaster, cement or similar finish.

b. Must never be fastened with staples.

c. Must not be fished for any great distance, and only in places where the inspector can satisfy himself that the rules have been complied with.

d. Twin wires must never be used except in conduits, or where flexible conductors are necessary.

e. Must be protected on side walls from mechanical injury. When crossing floor timbers in cellars or in rooms, where they might be exposed to injury, wires must be attached by their insulating supports to the under side of a wooden strip, not less than one-half inch in thickness, and not less than three inches in width.

NOTE.—Suitable protection on side walls may be secured by a substantial boxing, retaining an air space of one inch around the conductor, closed at the top (the wires passing through bushed holes), and extending not less than five feet from the floor; or by an iron-armed or metal-sheathed insulating conduit sufficiently strong to withstand the strain it will be subjected to; or plain metal pipe, lined with insulating tubing, which must extend one-half inch beyond the end of the metal tube.

The pipe must extend not less than five feet above the floor, and may extend through the floor in place of a floor boxing.

If iron pipes are used with alternating currents, the two or more wires of a circuit must be placed in the same conduit. In this case the insulation of each wire must be reinforced by a tough enamel tubing projecting beyond the ends of the iron pipe at least two inches.

f. When run immediately under roofs, or in proximity to water tanks or pipes, will be considered as exposed to moisture.

SPECIAL RULES.

For open work:

In Dry Places:

a. Must have an approved rubber or weatherproof insulation. (See No. 40 a and b.)

b. Must be rigidly supported on non-combustible, non-absorbent insulators, which separate the wire at least one-half inch from the surface wired over, and they must be kept apart at least two and one-half inches.

NOTE.—Rigid supporting requires under ordinary conditions, where wiring along flat surfaces, supports at least every four and one-half feet. If the wires are liable to be disturbed, the distance between supports should be shortened. In buildings of mill construction, mains of No. 8 B. & S. wire or over, where not liable to be disturbed, may be separated about four inches, and run from timber to timber, not breaking around, and may be supported at each timber only.

This rule will not be interpreted to forbid the placing of the neutral of a three-wire system in the centre of a three-wire cleat, provided the outside wires are separated two and one-half inches.

In damp places, such as breweries, packing-houses, stables, dye-houses, paper or pulp mills, or buildings specially liable to moisture or acid or other fumes liable to injure the wires or their insulation, except where used for pendants:

a. Must have an approved rubber insulating covering (see No. 40 a).

b. Must be rigidly supported on non-combustible, non-absorbent insulators, which separate the wire at least one inch from the surface wired over, and they must be kept apart at least two and one-half inches.

NOTE.—Rigid supporting requires under ordinary conditions, where wiring over flat surfaces, supports at least every four and one-half feet. If the wires are liable to be disturbed, the distance between supports should be shortened. In buildings of mill construction, mains of No. 8 B. & S. wire or over, where not liable to be disturbed, may be separated about four inches and run from timber to timber, not breaking around, and may be supported at each timber only.

For moulding work:

a. Must have approved rubber insulating covering (see No. 40 a).

b. Must never be placed in moulding in concealed or damp places.

For conduit work:

a. Must have an approved rubber insulating covering (see No. 40 a).

NOTE.—The use of concentric wire (see No. 40 c) is recommended in preference to twin conductors.

b. Must not be drawn in until all mechanical work on the building has been, as far as possible, completed.

c. Must not have wires of different circuits drawn in the same conduit, unless special permission is granted by this Department.

d. Must, for alternating systems, have the two or more wires of a circuit drawn in the same conduit.

NOTE.—It is advised that this be done for direct-current systems also so that they may be changed to alternating systems at any time, induction troubles preventing such a change unless this construction is followed.

For so-called concealed work:

a. Must have an approved rubber insulating covering (see No. 40 a).

b. Must be rigidly supported on non-combustible, non-absorbent insulators which separate the wire at least one inch from the surface wired over, and must be kept at least ten inches apart, and, when possible, should be run singly on separate timbers or studding.

NOTE.—Rigid supporting requires under ordinary conditions, where wiring along flat surfaces, supports at least every four and one-half feet. If the wires are liable to be disturbed, the distance between supports should be shortened.

c. When, from the nature of the case, it is impossible to place concealed wiring on non-combustible insulating supports of glass or porcelain, the wires, if not exposed to moisture, may be fished on the loop system if incased throughout in approved continuous flexible tubing or conduit, or if an extra insulated or protected wire that has received the approval of this Department is used.

For fixture work:

a. Must have an approved rubber insulating covering (see No. 40 a), and shall not be less in size than No. 18 B. & S.

b. Supply conductors, and especially the splices to fixture wires, must be kept clear of the grounded part of gas pipes, and, where shells are used, the latter must be constructed in a manner affording sufficient area to allow this requirement.

24. Must, when fixtures are wired outside, be so secured as not to be cut or abraded by the pressure of the fastenings or motion of the fixture.

25. Interior conduits—

(See also Nos. 24 *n* to *y*, and 41.)

NOTE.—The object of a tube or conduit is to facilitate the insertion or extraction of the conductors to protect them from mechanical injury and, as far as possible, from moisture. Tubes or conduits are to be considered merely as raceways, and are not to be relied upon for insulation between wire and wire, or between the wire and the ground.

- a. Must be continuous from one junction box to another or to fixtures, and the conduit tube must properly enter all fittings.
b. Must be first installed in a complete conduit system, without the conductors.
c. Conduits must extend at least one-half inch beyond the finished surface of walls or ceilings, except that, if the end is threaded and a coupling screwed on, the conduit may be left flush with the surface, and the coupling may be removed when work on building is completed.
d. Must have the metal of the conduit permanently and effectually grounded.

26. Fixtures—

(See also No. 24 *u* to *w*.)

a. Must, when supported from the gas piping of a building, be insulated from the gas-pipe system by means of approved insulating joints (see No. 51) placed as close as possible to the ceiling.

It is required that the gas outlet pipe be protected above the insulating joint by an incombustible, non-absorptive insulating tube, having a flange at the lower end where it comes in contact with the insulating joint; and that, where outlet tubes are used, they be of sufficient length to extend below the insulating joint, and that they be so secured that they will not be pushed back when the canopy is put in place. Where iron ceilings are used, care must be taken to see that the canopy is thoroughly and permanently insulated from the ceiling.

b. Must have all bars or fins removed before the conductors are drawn into the fixture.
c. The tendency to condensation within the pipes should be guarded against by sealing the upper end of the fixture.

d. No combination fixture in which the conductors are concealed in a space less than one-fourth inch between the inside pipe and the outside casing will be approved.

e. Must be tested for "contacts" between conductors and fixtures, for "short circuits" and for ground connections before it is connected to its supply conductors.

f. Ceiling blocks of fixtures should be made of insulating material; if not, the wires in passing through the plate must be surrounded with incombustible, non-absorptive insulating material, such as glass or porcelain.

27. Sockets—

(For construction rules, see No. 47.)

a. In rooms where inflammable gases may exist the incandescent lamp and socket must be enclosed in a vapor-tight globe, and supported on a pipe-hanger, wired with approved rubber-covered wire (see No. 40 *a*) soldered directly to the circuit.

b. In damp or wet places, or over specially inflammable stuff, waterproof sockets must be used.

NOTE.—When waterproof sockets are used, they should be hung by separate stranded rubber-covered wires, not smaller than No. 14 B. & S., which should preferably be twisted together when the drip is over three feet. These wires should be soldered direct to the circuit wires, but supported independently of them.

28. Flexible Cord—

- a. Must have an approved insulation and covering (see No. 40 *c*).
b. Must not be used as a support for chisels.
c. Must not be used except for pendants, wiring of fixtures and portable lamps or motors.
d. Must not be used in windows, except for fixtures.
e. Must be protected by insulating bushings where the cord enters the socket.
f. Must be so suspended that the entire weight of the socket and lamp will be borne by knots under the bushing in the socket, and above the point where the cord comes through the ceiling block or socket, in order that the strain may be taken from the joints and binding screws.
g. Must not be used on walls, partitions or other places where standard methods of wiring can be employed.

29. Arc Lamps on Low-Potential Circuits—

a. Must have a cut-out (see No. 17 *a*) for each lamp or each series of lamps.
NOTE.—The branch conductor should have a carrying capacity about fifty per cent. in excess of the normal current required by the lamp to provide for heavy current required when lamp is started, or when carbons become slack without overloading the wires.

b. Must only be furnished with such resistances or regulators as are inclosed in incombustible material, such resistances being treated as sources of heat. Incandescent lamps must not be used for resistance devices.

c. Must be supplied with globes and protected by spark arrestors, as in the case of arc lights on high-potential circuits. (See Nos. 10 and 30.)

30. Economy Coils—

a. Economy and compensator coils for arc lamps must be mounted on incombustible, non-absorptive insulating supports, such as glass or porcelain, allowing an air space of at least one inch between frame and support, and in general to be treated like sources of heat.

31. Decorative Series Lamps—

a. Incandescent lamps run in series shall not be used for decorative purposes inside of buildings, except by special permission in writing.

High-Potential Systems—300 to 3,000 Volts.

Any circuit attached to any machine, or combination of machines, which develops a difference of potential, between any two wires, of over 300 volts and less than 3,000 volts shall be considered as a high-potential circuit, and as coming under this class, unless an approved transforming device is used, which cuts the difference of potential down to 300 volts or less.

32. Wires—

(See also Nos. 14, 15, 16.)

a. Must have an approved rubber insulating covering. (See No. 40 *a*.)
b. Must be always in plain sight and never inclosed, except where required by the Inspection Department having jurisdiction.

c. Must be rigidly supported on glass or porcelain insulators, which raise the wire at least one inch from the surface wired over, and must be kept apart at least four inches for voltages up to 750 and at least eight inches for voltages over 750.

NOTE.—Rigid supporting requires under ordinary conditions, where wiring along flat surfaces, supports at least about every four and one-half feet.

If the wires are usually liable to be disturbed, the distance between supports should be shortened.

In buildings of mill construction, mains of No. 8 B. & S. wire or over, where not liable to be disturbed, may be separated about six inches for voltages up to 750 and about ten inches for voltages above 750; and run from timber to timber, not breaking around, and may be supported at each timber only.

d. Must be protected on side walls from mechanical injury by a substantial boxing, retaining an air space of one inch around the conductors, closed at the top (the wires passing through bushed holes) and extending not less than seven feet from the floor. When crossing floor timbers, in cellars or in rooms, where they might be exposed to injury, wires must be attached by their insulating supports to the under side of a wooden strip not less than one-half inch in thickness.

33. Transformers (When permitted inside buildings, see No. 13)—

(For construction rules, see No. 54.)

a. Must be located at a point as near as possible to that at which the primary wires enter the building.

b. Must be placed in an inclosure constructed of or lined with fire-resisting material; the inclosure to be used only for this purpose, and to be kept securely locked and access to the same allowed only to responsible persons.

c. Must be effectually insulated from the ground, and the inclosure in which they are placed must be practically air-tight, except that it shall be thoroughly ventilated to the outdoor air, if possible, through a chimney or flue. There should be at least six inches air space on all sides of the transformer.

34. Car Wiring—

a. Must be always run out of reach of the passengers, and must have an approved rubber insulating covering. (See No. 40 *a*.)

35. Car Houses—

a. Must have the trolley wires securely supported on insulating hangers.

b. Must have the trolley hangers placed at such a distance apart that, in case of a break in the trolley wire, contact cannot be made with the floor.

c. Must have cut-out switch located at a proper place outside of the building, so that all trolley circuits in the building can be cut out at one point, and live circuit breakers must be installed, so that when this cut-out switch is open the trolley wire will be dead at all points within 100 feet of the building. The current must be cut out of the building whenever the same is not in use or the road not in operation.

d. Must have all lamps and stationary motors installed in such a way that one main switch can control the whole of each installation—lighting or power—Independently of main feeder switch. No portable incandescent lamps or twin wire allowed, except that portable incan-

descent lamps may be used in the pits, connections to be made by two approved rubber-covered flexible wires (see No. 40 *a*), properly protected against mechanical injury; the circuit to be controlled by a switch placed outside of the pit.

e. Must have all wiring and apparatus installed in accordance with the rules under Class "C" for constant potential systems.

f. Must not have any system of feeder distribution centering in the building.

g. Must have the rails bonded at each joint with not less than No. 2 B. & S. annealed copper wire; also a supplementary wire to be run for each track.

h. Must not have cars left with trolley in electrical connection with the trolley wire.

36. Lighting and Power from Railway Wires—

a. Must not be permitted, under any pretense, in the same circuit with trolley wires with a ground return, except in electric railway cars, electric car houses, and their power stations, nor shall the same dynamo be used for both purposes.

37. Series Lamps—

- a. No system of multiple-series or series-multiple for light or power will be approved.
b. Under no circumstances can lamps be attached to gas fixtures.

Extra High Potential Systems—Over 3,000 Volts.

Any circuit attached to any machine or combination of machines, which develops a difference of potential, between any two wires, of over 3,000 volts, shall be considered as an extra high potential circuit, and as coming under this class, unless an approved transforming device is used, which cuts the difference of potential down to 3,000 volts or less.

38. Primary Wires—

Must not be brought into or over buildings, except power and sub-stations.

39. Secondary Wires—

a. Must be installed under rules for high-potential systems, when their immediate primary wires carry a current at a potential of over 3,000 volts.

CLASS D.—FITTINGS, MATERIALS AND DETAILS OF CONSTRUCTION.

All Systems and Voltages.

40. Wire Insulation—

a. Rubber Covered.—The insulating covering must be solid, at least three-thirty-seconds of an inch in thickness, and covered with a substantial braid. It must not readily carry fire, must show an insulating resistance of one megohm per mile after two weeks' submersion in water at seventy degrees Fahrenheit and three days' submersion in lime water, and after three minutes' electrification with 550 volts. (See page 44.)

b. Weatherproof.—The insulating covering must not require readjusting must resist abrasion, must be at least one-sixteenth of an inch in thickness, and thoroughly impregnated with a moisture repellent, except when otherwise allowed by this Department.

c. Flexible Cord.—Must be made of two stranded conductors, each having a carrying capacity equivalent to not less than a No. 16 B. & S. wire, and each covered by an approved insulation and protected by a slow-burning, tough-limbed outer covering.

1. Insulation for pendants under this rule must be moisture and flame proof.

2. Insulation for cords used for all other purposes, including portable lamps and motors, must be solid, at least one-thirty-second of an inch in thickness, and must show an insulation resistance between conductors, and between either conductor and the ground, of at least one megohm per mile after one week's submersion in water at seventy degrees Fahrenheit, and after three minutes' electrification, with 550 volts.

3. The flexible conductors for portable heating apparatus, such as irons, etc., must have an insulation that will not be injured by heat, such as asbestos, which must be protected from mechanical injury by an outer, substantial, braided covering, and so arranged that mechanical strain will not be borne by the electrical connection.

d. Fixture Wire.—Must have a solid insulation, with a slow-burning, tough outer covering, the whole to be at least one-thirty-second of an inch in thickness, and show an insulation resistance between conductors, and between either conductor and the ground, of at least one megohm per mile, after one week's submersion in water at seventy degrees Fahrenheit, and after three minutes' electrification, with 550 volts.

e. Conduit Wire.—Must comply with the following specification:

1. For insulated metal conduits single wires and twin conductors must comply with section (g) of this rule.

Concentric wire must have a braided covering between the outer conductor and the insulation of the inner conductor, and, in addition, must comply with section (j) of this rule.

2. For non-insulated metal conduits, single wire or twin conductors must have an insulation equal to that required by section (a) of this rule; and, where required by this Department, have, in addition, a separate exterior insulated coating of equal insulating resistance adapted to maintain the independent character of the two insulating coatings, and also have an outer lacious covering sufficiently tough and tenacious to stand the abrasion of being hauled through a metal conduit.

41. Interior Conduits—

(For wiring rules, see Nos. 24 and 25.)

a. Each length of insulated conduit must have the maker's name or initials stamped in the metal or attached thereto in a satisfactory manner, so that the Inspector can readily see the same. Insulated Metal Conduits:

b. The metal covering or pipe must be at least equal in thickness or of equal strength to resist penetration by nails, etc., as the ordinary commercial form of gas pipe of same size.

c. Must not be seriously affected externally by burning out a wire inside the tube when the iron pipe is connected to one side of the circuit.

d. Must have the insulating lining firmly secured to the pipe.

e. The insulating lining must not crack or break when a length of the conduit is uniformly bent at temperature of 212 degrees Fahrenheit to an angle of ninety degrees, with a curve having a radius of fifteen inches for pipes of one inch and less, and fifteen times the diameter of pipe for larger pipes.

f. The insulating lining must not soften appreciably at a temperature below 212 degrees Fahrenheit and must leave water in which it is boiled practically neutral.

g. The insulating lining must be at least one-thirty-second of an inch in thickness, and the material of which it is composed must be of such a nature as will not have a deteriorating effect on the insulation of the conductor, and be sufficiently tough and tenacious to withstand the abrasion test of drawing in and out of same long lengths of conductors.

h. The insulating lining must not be mechanically weak after three days' submersion in water, and, when removed from the pipe entire, must not absorb more than ten per cent. of its weight of water during 100 hours of submersion.

Uninsulated Metal Conduits—

i. Plain iron or steel pipes of equal thickness, or of equal strength, to resist penetration of nails, etc., as the ordinary commercial form of gas pipe of the same size, may be used as conduits, provided their interior surfaces are smooth and free from burrs; pipe to be galvanized, or the interior surfaces coated or enameled to prevent oxidation with some substance which will not soften so as to become sticky and prevent wire from being withdrawn from the pipe.

42. Wooden Moulding—

(For wiring rules, see No. 24.)

a. Must have, both outside and inside, at least two coats of waterproof paint, or be impregnated with a moisture repellent.

b. Must be made of two pieces, a backing and capping, so constructed as to thoroughly encase the wire, and provide a one-half inch tongue between the conductors and a solid backing, which, under grooves, shall not be less than three-eighths of an inch in thickness, and must afford suitable protection from abrasion.

It is recommended that only hardwood moulding be used.

43. Switches—

(See Nos. 17 and 22.)

a. Must be mounted on incombustible, non-absorptive, insulating bases, such as slate or porcelain.

b. Must have carrying capacity sufficient to prevent undue heating.

c. Must, when used for service switches, indicate, on inspection, whether the current be "on" or "off."

d. Must be plainly marked, where it will always be visible, with the name of the maker and the current and voltage for which the switch is designed.

e. Must, for constant potential systems, operate successfully at fifty per cent. overload in amperes, with twenty-five per cent. excess voltage under the most severe conditions they are liable to meet with in practice.

f. Must, for constant potential systems, have a firm and secure contact; must make and break readily, and not stop when motion has once been imparted by the handle.

g. Must, for constant current systems, close the main circuit and disconnect the branch wires when turned "off"; must be so constructed that they shall be automatic in action, not stopping between points when started, and must prevent an arc between the points under all circumstances. They must indicate, upon inspection, whether the current be "on" or "off."

44. Cut-outs and Circuit Breakers—

(For installation rules, see Nos. 17 and 24.)

a. Must be supported on bases of incombustible, non-absorptive insulating material.

b. Cut-outs must be provided with covers, when not arranged in approved cabinets, so as to obviate any danger of the melted fuse metal coming in contact with any substance which might be ignited thereby.

6. Candles must operate successfully, under the most severe conditions they are liable to meet with in practice, on other circuits with fuses rated at 50 per cent. above and with a voltage of 25 per cent. above the current and voltage for which they are designed.

7. Circuit-breakers must operate successfully, under the most severe conditions they are liable to meet with in practice, on other circuits when set at 50 per cent. above the current, and with a voltage 25 per cent. above that for which they are designed.

8. Must be plainly marked with red or white, with the name of the maker and current and voltage for which the device is designed.

45. Fuses— (For installation rules, see Nos. 17 and 21.)

a. Must have contact surfaces of 1/16 of harder metal having perfect electrical connection with the fusible part of the strip.

b. Must be stamped with about 80 per cent. of the maximum current they can carry indefinitely, thus allowing about 25 per cent. overload before fuse melts.

NOTE.—While fused open boxes, of ordinary sizes and not over 500 amperes capacity, the maximum current, when well made, may be safely taken as the melting point, as the fuse practically reaches its maximum temperature in this time. With larger fuses a longer time is necessary.

Included fuses, where the fuse is often in contact with substances having good conductivity to heat, and often of considerable volume, require a much longer time to reach a maximum temperature, on account of the surrounding material, which heats up slowly.

This data is given to facilitate testing.

c. Fuse terminals must be stamped with the maker's name, initials, or some known trade-mark.

46. Cabinet—

a. Must be so constructed, and cabinets so arranged, as to obviate any danger of the melted fuse metal coming in contact with any substance which might be ignited thereby.

NOTE.—A suitable box may be made of marble, slate or wood, strongly put together, the door to close against a rubber gasket to be perfectly airtight, and it should be hung on strong hinges and held closed by a strong lock or catch. If the one is used, the inside should be lined with sheets of asbestos board about one-eighth of an inch in thickness, neatly put on and firmly secured in place by staples and nails. The wires should enter through holes lined with porcelain bushings (the bushings tightly fitting the holes in the box, and the wires tightly fitting the bushings using tape to build up the wire, if necessary), so as to keep out the dust.

47. Switches—

(See No. 47.)

a. No portion of the lamp socket or lamp base, exposed to contact with outside objects, must be allowed to come into electrical contact with other conductors.

b. Must when provided with keys, comply with the requirements for switches. (See No. 43.)

48. Hanger-boards—

a. Hanger-boards must be so constructed that all wires and current-carrying devices thereon shall be exposed to view and thoroughly insulated by being mounted on an incombustible, non-absorbent insulating substance. All switches attached to the same must be so constructed that they shall be automatic in their action, cutting off both poles to the lamp, not stopping between poles when closed and preventing an arc between poles under all circumstances.

49. Arc Clamps—

(For installation rules, see No. 19.)

a. Must be provided with reliable stops to prevent carbons from falling out in case the clamp-burns loose.

b. Must be carefully insulated from the circuit in all their exposed parts.

c. Must, for constant current systems, be provided with an approved hand switch; also an automatic switch that will, when the current ceases, the carbons should they fail to feed properly.

The hand switch, to be approved, if placed anywhere except on the lamp itself, must comply with requirements for switches on hanger boards, as laid down in Rule 43.

50. Spark Arrestors—

(See No. 10 c.)

a. Spark arrestors must so close the upper surface of the globe that it will be impossible for any spark to pass out of the globe to escape.

51. Insulating Joints—

(See No. 20 a.)

a. Must be entirely made of material that will resist the action of illuminating gases, and will not give way or weaken under the heat of any ordinary gas, flame or leak under a moderate pressure. They shall be so designed that a deposit of moisture will not destroy the insulating effect, and shall have an insulating resistance of at least 250,000 ohms between the gas-tight terminals and be sufficiently strong to resist the strain they will be liable to be subjected to in being installed.

b. Insulating joints having cast rubber in their construction will not be approved.

52. Resistance Boxes and Equalizers—

(For installation rules, see No. 44.)

a. Must be equipped with metal, or with other incombustible frames.

NOTE.—The term "frame" in this section relates to the entire case and surroundings of the device, and not alone to the supporting supports.

53. Reactive Condensers and Capacitors—

a. Reactive units must be made of incombustible material, mounted on incombustible bases and secured, in general, like sources of heat.

b. Condensers shall be treated like apparatus operating with equivalent voltage and currents. They must have insulating bases and supports, and must be isolated from all combustible materials and, in general, treated like sources of heat.

54. Transformers—

(For installation rules, see Nos. 11 and 33.)

a. Must not be placed in any hot metallic or other incombustible cases.

55. Lightning Arrestors—

(For installation rules, see No. 5.)

a. Must be mounted on non-combustible bases, and must be so constructed as not to maintain an arc after the discharge has passed, and must have no moving parts.

CLASS C.—WIRELASSWORK.

56. Insulation Requirements—

The wiring in any building must not be run from grounds, i. e., the complete installation must have an insulation between conductors and between all conductors and the ground (not including attachments, sockets, receptacles, etc.), of not less than the following:

No. of Wires	Insulation	Resistance
Up to 10	.....	4,000,000
" 10 to 25	.....	2,000,000
" 25 to 50	.....	800,000
" 50 to 100	.....	400,000
" 100 to 200	.....	200,000
" 200 to 400	.....	100,000
" 400 to 800	.....	50,000
" 800 to 1,000	.....	25,000
" 1,000 and over	.....	12,500

All circuits and safety devices in place in the above.

Where lamp sockets, receptacles and electricals, etc., are connected, one-half of the above will be retained.

57. Protection against Foreign Currents—

a. Where telephones, telegraph or other wires, connected with outside circuits, are bunched together within any building, or where inside wires are laid in conduits or ducts with electric light or power wires, the covering of such wires must be fire-resisting, or else the wires must be inclosed in an air-tight tube or duct.

b. All aerial conductors and underground conductors, which are directly connected to aerial wires, connecting with telephones, telegraph, district messenger, burglar-alarm, watch-clock, electric-time and other similar instruments must be provided near the point of entrance to the building with some approved protective device which will operate to shunt the instruments in the case of a dangerous rise of potential, and will open the circuit and arrest any abnormal current flow. Any conductor normally forming an inductive circuit may become a source of fire hazard if crossed with another conductor charged with a relatively high pressure.

Protectors must have an incombustible insulating base, and the cover to be provided with a lock similar to the lock now placed on telephone apparatus, or some equally secure fastening, and to be installed under the following requirements:

1. The protector to be located at the point where the wires enter the building, either immediately inside or outside of the same. If outside, the protector to be inclosed in a metallic, waterproof case.

2. If the protector is placed inside of building the wires of the circuit, from the support outside to the landing posts of the protector, to be of such insulation as is approved for service wires of electric light and power (see No. 40 c), and the holes through the outer wall to be protected by bushing the same as required for electric light and power service wires.

3. The wire from the point of entrance to the protector to be run in accordance with rules for high-potential wires, i. e., free of contact with building and supported on non-combustible insulators.

4. The ground wire shall be insulated, not smaller than No. 16 B. & S. gauge copper wire. This ground wire shall be kept at least three inches from all conductors, and shall never be secured by uninsulated, double-pointed hooks, and must be run in as straight a line as possible to the ground connection.

5. The ground wire shall be attached to a water pipe, if possible, otherwise may be attached to a gas pipe. The ground wire shall be carried to, and attached to, the pipe outside of the first joint or coupling inside the foundation walls, and the connection shall be made by soldering, if possible. In the absence of other good ground, the ground shall be made by means of a metallic plate or a bunch of wires buried in a permanently moist earth.

58. Electric Gas Lighting—

Where electric gas lighting is to be used on the same fixture with the electric light:

a. No part of the gas piping or fixture shall be in electric connection with the gas lighting circuit.

b. The wires used with the fixtures must have a non-inflammable insulation, or, where concealed between the pipe and shell of the fixture, the insulation must be such as required for fixture wiring for the electric light.

c. The whole installation must test free from "grounds."

d. The two installations must test perfectly free from connection with each other.

59. Soldering Fluid—

a. The following formula for soldering fluid is suggested:

Saturated solution of zinc chloride	5 parts.
Alcohol	4 parts.
Glycerine	4 parts.
Materials	1 part.

The following are given as a list of INCOMBUSTIBLE, NON-ABSORPTIVE, INSULATING materials and are listed here for the benefit of those who might consider hard rubber, fiber, wood and the like as fulfilling the above requirements. Any other substance, which it is claimed should be accepted, must be forwarded for testing before being put on the market:

1. Glass.
2. Marble (filled).
3. Slate without metal veins.
4. Porcelain, thoroughly glazed and vitrified.
5. Pure sheet mica.
6. Lava (certain kinds of).
7. Aberdeen stone.

This Department will require that all iron armored insulated or unarmored conduits shall be at least equal in thickness, or of equal strength to resist penetration by nails, etc., as is the ordinary concrete form of gas pipe of the same size.

Bronze Armored Tubing may be used in short lengths in exposed places for decorative purposes, upon obtaining special permission from this Department.

Bronze Armored Tubing shall not be used in concealed work.

CLASS C.—STARTING WORK.

60. Generators—

a. Must be located in a dry place.

b. Must have their frames insulated from their pedestals.

c. Must each be provided with a waterproof cover when required.

d. Must each be provided with a name-plate, giving the maker's name, the capacity in kilowatts and normal speed in revolutions per minute.

61. Wires—

a. Must have an approved insulating covering.

NOTE.—The insulation for all conductors, except for portables, to be approved, must be at least one-eighth inch in thickness and be covered with a substantial waterproof and flameproof finish. The physical characteristics shall not be affected by any change in temperature up to 200 degrees Fahrenheit. After two weeks' submersion in salt water at 70 degrees Fahrenheit it must show an insulation resistance of one megohm per mile after three minutes' electrification, with 550 volts.

b. Must have no single wire larger than No. 12 B. & S. Wires to be stranded when greater carrying capacity is required. No single solid wire smaller than No. 14 B. & S., except in fixture wiring, to be used.

NOTE.—Stranded wires must be soldered before being fastened under clamps or binding screws, and when they have a conductivity greater than No. 12 B. & S. copper wire they must be soldered into lugs.

c. Must be supported in approved moldings, except at switchboards and portables.

NOTE.—Special permission may be given for deviations from the rule in dynamic rooms.

d. Must be coated with lead or other suitable material one-eighth inch in thickness when passing through loose and non-water-tight bulkheads.

e. Must have, when passing through water-tight bulkheads and through all decks, a metallic sealing cable lined with hard rubber. In case of deck cables they shall be boxed near deck to prevent mechanical injury.

f. Splices or repairs in conductors must be avoided as far as possible. Where it is necessary to make them they must be so spliced or joined as to be both mechanically and electrically secure without solder. They must also be covered, in more permanent cases, with an insulating compound equal to the insulation of the wire, and further protected by a waterproof tape. The joint must then be covered or painted with a waterproof compound.

62. Portable Conductors—

a. Must be made of two stranded conductors, each having a carrying capacity equivalent to five less than No. 14 B. & S. wire and each covered with an approved insulation and covering.

NOTE.—Where not exposed to moisture or severe conditions of injury such stranded conductor must have a solid insulation at least one-thirty-second of an inch in thickness, and must show an insulation resistance between conductors, and between either conductor and the ground, of at least one megohm per mile after one week's submersion in water at 70 degrees Fahrenheit and after three minutes' electrification, with 500 volts, and be protected by a slow-burning, tough-sheathed outer covering.

NOTE.—Where exposed to moisture and mechanical injury—as for use on decks, holds and fore-cabin—each stranded conductor shall have a solid insulation, to be approved, of at least one-thirty-second of an inch in thickness and protected by a tough braid. The two conductors shall then be stranded together, using a fine filling. The whole shall then be covered with a layer of flax, either woven or braided, at least one-thirty-second of an inch in thickness, and treated with a non-inflammable waterproof compound. After one week's submersion in water at 70 degrees Fahrenheit, with 500 volts and a three minutes' electrification, must show an insulation between the two conductors or between either conductor and the ground of 1 megohm per mile.

63. Bell or Other Wires—

a. Shall never be run in same duct with lighting or power wires.

64. Table of Capacity of Wires—

B. & S. G.	AREA ACTUAL C. M.	NO. OF STRANDS	SIZE OF STRANDS B. & S. G.	AMPERES.
10	1,288	..	..	..
12	1,624	..	..	3
14	2,048	..	..	..
16	2,583	..	..	6
18	3,257	..	..	..
20	4,107	..	..	12
22	5,150	..	..	17
24	6,416	7	19	21
26	7,938	7	18	25
28	9,736	7	17	30
30	11,851	7	16	35
32	14,319	7	15	40
34	17,192	19	18	50
36	20,514	19	17	60
38	24,342	19	16	70
40	28,728	37	18	85
42	33,726	37	17	100
44	39,384	61	18	120
46	45,758	61	17	145
48	52,903	61	16	170
50	60,877	61	15	200
52	69,752	61	14	235
54	79,587	61	15	270
56	90,437	61	14	320
58	102,359	127	15	340

When greater conducting area than that of 12 B. & S. G. is required, the conductor shall be stranded in a series of 7, 19, 37, 61, 91 or 127 wires, so may be required; the strand consisting of one central wire, the remainder laid around it concentrically, each layer to be twisted in the opposite direction from the preceding.



65. Switchboards—

- a. Must be made of incombustible, non-absorptive, insulating material, such as marble or slate.
- b. Must be kept free from moisture, and must be located so as to be accessible from all sides.
- c. Must have a main switch, main cut-out and ammeter for each generator. Must also have a voltmeter and ground detector.
- d. Must have a cut-out and switch for each side of each circuit leading from board.

66. Resistance Boxes—

- a. Must be made of incombustible material.
- b. Must be located on switchboard or away from combustible material. When not placed on switchboard they must be mounted on non-inflammable, non-absorptive insulating material.
- c. Must be so constructed as to allow sufficient ventilation for the uses to which they are put.

67. Switches—

- a. Must have incombustible, non-absorptive, insulating bases.
- b. Must operate successfully at fifty per cent. overload in amperes with twenty-five per cent. excess voltage under the most severe conditions they are liable to meet with in practice, and must be plainly marked where it will always be visible, with the name of the maker and the current and voltage for which the switch is designed.
- c. Must be double-pole when circuits which they control supply more than six 16-candle power lamps or their equivalent.
- d. When exposed to dampness, they must be inclosed in a water-tight case.

68. Cut-outs—

- a. Must have incombustible, non-absorptive, insulating bases.
- b. Must operate successfully, under the most severe conditions they are liable to meet with in practice, on short circuits with fuse rated at fifty per cent. above, and with a voltage twenty-five per cent. above the current and voltage they are designed for, and must be plainly marked, where they will always be visible, with the name of the maker and current and voltage for which the device is designed.
- c. Must be placed at every point where a change is made in the size of the wire (unless the cut-out in the larger wire will protect the smaller).
- d. In places such as upper decks, holds, cargo spaces and fire-rooms a water-tight and fireproof cut-out may be used, connecting directly to mains when such cut-out supplies not more than six 16-candle-power lamps or their equivalent.
- e. When placed anywhere except on switch-boards and certain places, as cargo spaces, holds, fire-rooms, etc., where it is impossible to run from centre of distribution, they shall be in a cabinet lined with fire-resisting material.
- f. Except for motors, search-lights and diving lamps shall be so placed that no group of lamps, requiring a current of more than six amperes, shall ultimately be dependent upon one cut-out.

NOTE.—A single-pole covered cut-out may be placed in the moulding when same contains conductors supplying current for not more than two 16-candle-power lamps or their equivalent.

69. Fixtures—

- a. Shall be mounted on blocks made from well-seasoned lumber treated with two coats of white lead or shellac.
- b. Where exposed to dampness, the lamp must be surrounded by a vapor-proof globe.
- c. Where exposed to mechanical injury, the lamp must be surrounded by a globe protected by a stout wire guard.
- d. Shall be wired with same grade of insulation as portable conductors, which are not exposed to moisture or mechanical injury.

70. Sockets—

- a. No portion of the lamp socket or lamp base exposed to contact with outside objects shall be allowed to come into electrical contact with either of the conductors.

71. Wooden mouldings—

- a. Must be made of well-seasoned lumber, and be treated inside and out with at least two coats of white lead or shellac.
- b. Must be made of two pieces, a backing and a capping, so constructed as to thoroughly inclose the wire and provide a one-half-inch tongue between the conductors, and a solid backing which, under grooves, shall not be less than three-eighths inch in thickness.
- c. Where moulding is run over rivets, beams, etc., a backing strip must first be put up and the moulding secured to this.
- d. Capping must be secured by brass screws.

72. Motors—

- a. Must be wired under the same precautions as with a current of same volume and potential or lighting. The motor and resistance box must be protected by a double-pole cut-out and controlled by a double-pole switch, except in cases where one-quarter horse-power or less is used.
- NOTE.—The leads or branch circuits should be designed to carry a current at least fifty per cent. greater than that required by the rated capacity of the motor to provide for the inevitable overloading of the motor at times.
- b. Must be thoroughly insulated. Where possible, should be set on base frames made from filled, hard dry wood and raised above surrounding deck. On hoists and winches they shall be insulated from led-plates by hard rubber, fiber or similar insulating material.
- c. Shall be covered with a waterproof cover when not in use.
- d. Must each be provided with a name plate giving maker's name, the capacity in volts and amperes and the normal speed in revolutions per minute.

SCOPE AND CONSTRUCTION OF THE FOREGOING RULES AND REGULATIONS AND PENALTIES FOR VIOLATIONS THEREOF.

This ordinance shall take effect immediately and be considered to contain presumptively all municipal rules and regulations regarding the subject matter in force in The City of New York, and all other ordinances or parts thereof inconsistent herewith are hereby repealed, but this ordinance shall not be retroactive in any way; and any of the foregoing provisions, so far as substantially the same as ordinances existing at the time this general ordinance takes effect, shall be construed as a continuance of such ordinances, modified or amended according to the language employed in the foregoing ordinance and not as new enactments.

The violation of any of the foregoing rules or regulations shall be deemed to be a violation of the provisions of the Department of Buildings of The City of New York, and shall subject the person or corporation committing the same to the penalties prescribed in "The Greater New York Charter," or in the absence of a specific penalty shall be deemed a misdemeanor and be punishable as such.

The following resolution was adopted:

Resolved, That the following ordinance, entitled "An Ordinance regulating temporary incumbrances upon the streets, the removal of incumbrances, the cleaning of streets and keeping them clean, and the removal of snow and ice from streets in The City of New York," having duly originated with the departments concerned, be hereby approved by the Board of Public Improvements and recommended to the Municipal Assembly for immediate adoption.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President Borough of Manhattan, President Borough of The Bronx, President Borough of Queens and President of the Board.

Negative—None.

The ordinance follows: No. 1075.

AN ORDINANCE regulating temporary incumbrances upon the streets, the removal of incumbrances, the cleaning of streets and keeping them clean, and the removal of snow and ice from streets in The City of New York.

Be it Obtained by the Municipal Assembly, as follows: PART I. Temporary Incumbrances and the Removal thereof.

Section 1. No person shall incumber or obstruct any street, avenue or roadway which has been opened, regulated, graded or paved according to law in The City of New York, or permit or let remain in or upon any street or sidewalk in The City of New York any building material or appliances or implements or machinery or hoisting engines without a permit therefor, in writing, from the commissioner of highways, specifying the location, and upon payment to said commissioner of the sum of five dollars for a temporary permit for thirty days or less, and ten dollars for a permit of longer duration in the discretion of said commissioner, said payments to be for the benefit of the city treasury. Every person receiving such permit shall give a bond to said commissioner with one or more sufficient sureties in a penal sum determined by said commissioner conditioned to remove the temporary incumbrance allowed without damage or expense to the city and for prompt compliance with the municipal ordinances and all directions and regulations of said commissioner. Every person who violates any of the provisions of this section shall pay as a penalty ten dollars for each offense and a further penalty of five dollars for each day or part of a day such obstruction or incumbrance shall continue.

Sec. 2. Building materials in the streets shall be so placed as to occupy not more than three feet of the width of the carriageway of the street or avenue, and in streets or avenues where there are railroads such materials shall not be placed nearer to the track than two feet, and no material shall be placed within four feet of any city lamp-post, nor within ten feet of any city fire-hydrant.

It shall be lawful for the construction of any building over five stories in height to erect and maintain a temporary roof structure or shed in front of said building not exceeding seven feet in height above the sidewalk, as wide as necessary, and extending the whole length of the premises, but prior to the erection of any such temporary roof structure or shed, permission for such construction must be first had from the commissioner of highways and its construction and maintenance shall be under his direction and supervision.

In excavations for the construction of vaults under sidewalks where the sidewalk is removed for the purpose of such construction, a temporary bridge connecting and continuing the sidewalk over the excavation shall be erected, extending the whole length of the premises and as wide as the sidewalk, and not more than seven feet above the level of the street, with steps leading to the sidewalk open at each end, the construction and maintenance of said temporary sidewalk bridge to be with the permission and under the direction and supervision of the commissioner of highways.

Sec. 3. In all cases, suitable and sufficient lights shall be provided and so placed upon and about any obstruction remaining upon the carriageway during the night time to indicate and locate danger, and such lights shall be kept burning from twilight or sundown until sunrise the next day.

Sec. 4. The carriageway of all streets and avenues shall be covered with planking before any building material is placed thereon, and such planking shall be so placed as not to obstruct or interfere with the free flow of water along the gutter.

Sec. 5. All persons applying for permits to place building material upon asphalt paved streets or avenues shall give a bond to the commissioner of highways with two or more sufficient sureties or one surety company in a penal sum determined by said commissioner, conditioned to restore, repair and repave such pavement wherever found injured or damaged, without expense to the city and to the satisfaction of said commissioner.

Sec. 6. The sidewalks in front of or adjoining all premises occupied with building material shall be kept free and clear at all times and suitable provisions maintained when the flagging is removed for reconstruction, alteration or other purposes.

Sec. 7. It shall be the duty of every person engaged in digging down, excavating or filling in any lot or plot of ground facing upon a public street or avenue to erect and maintain a fence or barrier to guard such opening under the direction of the commissioner of highways.

Sec. 8. The piling of brick, stone or other material upon any street or avenue is prohibited.

Sec. 9. For any violation of any of the foregoing sections not otherwise provided with a penalty, the offender shall pay a penalty of five dollars for each and every offense and a further penalty of five dollars for each day or part of a day such violation may continue. Any violation of the municipal ordinances or of the directions of the commissioner of highways relating to the placing of barriers, erection of fences, maintaining sufficient lights to prevent accidents or other failure to comply with the conditions imposed shall be sufficient cause for the revocation of any permit and the commencement of proceedings to recover penalties incurred.

Sec. 10. In case of any street opening or repairing or laying water-pipes, gas-pipes, subways or other improvement or alteration, any permits granted by the commissioner of highways shall cease forthwith and all material must be immediately removed after notice to that effect by the commissioner of highways. Every permit issued by the commissioner of highways must be left on the premises.

Sec. 11. The removal of sand from new pavements shall be within the jurisdiction and under the direction of the commissioner of highways.

Sec. 12. In the case of excavation where it is necessary to cross the sidewalk with a cart, written permission for such purpose shall be first obtained from the commissioner of highways, and the holder of such permission shall not allow any stones, dirt, rubbish or other materials to remain upon the street or sidewalk during the time for which such permission is granted or to be left there at or after the expiration of such permission, and shall also properly replace the sidewalk and repair any damage done, under penalty of the revocation of such permit.

Sec. 13. No building shall be placed on unpaved lots.

Sec. 14. The provisions of the foregoing sections shall apply to every person engaged in building any vault or constructing any lateral drain from any cellar to any public sewer or who shall dig or perform any work, excavations or place any obstructions in the public streets by virtue of any permit from any department; and also to all public or corporation officers engaged in performing any work in behalf of the corporation whereby obstructions or excavations shall be made in the public streets.

Sec. 15. The extent to which precautionary railings or fences or other barriers shall be built in the several cases here by defined is as follows:

1. In digging down any street or road by placing the same along the upper bank of said excavation, or by extending the same so far across the street or road as to prevent persons from traveling upon such portions as would be dangerous.

2. In paving any street or avenue by extending it across the carriageway of such street or avenue, or if only a portion of the width of such carriageway be obstructed by extending it across such portion, and the obstruction shall be so arranged as to leave a passageway, as nearly as possible, of uniform width.

3. In building a sewer by placing it across the carriageway at the ends of the excavation and at all intersecting streets.

4. In building a well by inclosing the same.

5. In building vaults by inclosing the ground taken from the vaults.

Sec. 16. In all cases where any work shall be performed in or about the public streets under contract with a corporation or by permission obtained from the Municipal Assembly or any department, such person shall be answerable for any and all damage occasioned or persons, animals or property by reason of any carelessness in connection with said work, and it shall be the duty of the commissioner of highways to see that the regulations of the municipal ordinances are complied with and to make complaint for any violation thereof to the law department of the city.

Sec. 17. In all contracts for paving streets, constructing sewers and building wells and pumps or for doing any other work whereby accident or injury may happen in consequence of any neglect or carelessness during the performance thereof, it shall be the duty of the head of the department by whom such contracts are made to insert a covenant requiring the contractor or contractors to properly guard against accidents and to place and maintain suitable and sufficient lights to be kept burning at night during the performance of the work, and to save the city harmless and indemnify it against all loss or damage occasioned by any carelessness or carelessness in the execution and completion of the work; and in all contracts for digging down any road or street where such digging, if left exposed, would be dangerous to passengers, a covenant shall be inserted whereby the contractor shall be bound at his own expense to erect a fence or railing along or across the road or street in such manner as to prevent danger to passengers, and to continue and maintain such fence or railing until the road or street is completed and fit for travel. A light fence or railing shall be put up and maintained in all cases where a road or street is dug out at the cost of the corporation.

Sec. 18. Any person who desires to place a bridge over a gutter in front of any building other than those used as private residences may do so, by the permission and under the direction of the commissioner of highways, and may maintain the same upon the payment of one dollar per annum to the said commissioner for the benefit of the city treasury. Every such gutter bridge shall be so constructed that it can be easily removed, and it shall be the duty of every person to whom such privilege may be granted to have the gutter thoroughly cleaned at least once a week between the hours of sunrise and nine o'clock in the morning.

Sec. 19. The removal of any and all gutter bridges permitted according to the provisions of the foregoing section for any cause deemed sufficient shall be within the jurisdiction and power of the commissioner of street cleaning; but this section shall not be construed to prevent the revocation of any permit and the removal of any such bridge by the commissioner of highways.

Sec. 20. No person shall leave or suffer to be left any unharnessed vehicle, or any box, barrel, bale of merchandise or other movable property upon any paved street, avenue or public place, except upon such portion of any marginal street or wharf or place as is committed to the custody and control of the department of docks and ferries, under a penalty of not less than one dollar or more than ten dollars for every such offense.

Sec. 21. Every owner or builder erecting or repairing a building shall cause all the rubbish of every kind occasioned thereby, which may accumulate or be cast into the street, and all the stone, sand or clay which may be dug out from the cellar, yard, area or vault, and cast into the street, to be removed out of such street before sundown of each day under a penalty of not less than one dollar or more than ten dollars for every such offense.

Sec. 22. Any person or persons, other than the commissioner of highways, who may hereafter pave or cause to be paved any street, avenue or public place, shall, after such pavement shall have been completed, remove or cause to be removed from the said streets, avenues or public places or portions thereof so paved, all surplus materials, earth, sand, rubbish and stones, except such stone as shall be retained by order of the commissioner of highways, block by block, as rapidly as the work of said paving progresses, except that the sand on newly-laid pavements may remain for any period, not to exceed one month, that the commissioner of highways may deem necessary; and this ordinance shall be construed to apply to the removal of all earth, sand, rubbish and stones collected in any part of the streets, avenues or public places covered with the pavements so done or laid, or in any excavation that may have been made or other work done in pursuance thereof, and no contract for paving in The City of New York shall be accepted as completed until the commissioner of highways shall certify that this ordinance has been fully complied with; any person or persons other than the commissioner of highways neglecting or refusing to remove the dirt, sand or rubbish, as hereinbefore directed, shall pay a penalty of twenty-five dollars for every such offense, and the commissioner of highways shall cause the dirt, sand or rubbish to be removed at the cost of the party so neglecting or refusing, who shall be liable to repay and refund the expense, which sum shall be collected and paid into the city treasury.





in Leggett avenue, had been partly graded by the owners of the property, hereby recommends...

Respectfully, LOUIS F. HOFFEN, President, Borough of The Bronx.

The following communication from the President of the Borough of The Bronx was referred to the Chief Topographical Engineer:

BOROUGH OF THE BRONX, NEW YORK CITY, November 17, 1898.

Hon. MAURICE F. HOLAHAN, President, Board of Public Improvements:

DEAR SIR—In accordance with section 84, chapter 378, Laws of 1897, I hereby certify that the following resolution was adopted by the Local Board, Twenty-first District, at its meeting on November 17 last, viz.:

Resolved, That, on petition of Charles F. Rich and others, dated September 26 last, for regulating and grading Home street, from Lillian place to Freeman street, July advertised and submitted during the 17th day of November, 1898, the Local Board, Twenty-first District, finding that the plans mentioned in said petition do not correspond with the map lay-out, hereby amends said petition in the respects to read "Home street, regulating and grading, from Freeman street to Woodruff (One Hundred and Seventy-sixth street), and hereby recommends to the Board of Public Improvements that Home street be regulated and graded, curbstones set and sidewalks flagged a space one foot wide through the centre thereof, and crosswalks laid where necessary, from Freeman street to Woodruff (One Hundred and Seventy-sixth) street, and that a copy of this resolution be transmitted forthwith to the said Board of Public Improvements.

Respectfully, LOUIS F. HOFFEN, President.

The following communication from the Commissioner of Sewers was read, and the matter was referred to the Comptroller for advice as to the present condition of the Street Improvement Fund:

DEPARTMENT OF SEWERS—BOROUGH OF MANHATTAN, No. 265 AND 267 BROADWAY, NEW YORK, November 21, 1898.

Hon. MAURICE F. HOLAHAN, President, Board of Public Improvements:

DEAR SIR—I transmit herewith a list of sewer improvements, most of which have been acted upon by the Board of Public Improvements, and laid over until the condition of the Street Improvement Fund would warrant their payment.

I am desirous of having ordinances for these works approved at once and forwarded to the Municipal Assembly. Some ordinances, if forwarded to them now, would not probably reach the Mayor for his approval before the middle of April or May, 1899.

Sewer work, as you know, is probably the most important of all public improvements, and in all places where it is neglected, the public health is endangered, and perfect drainage is one of its greatest safeguards. It becomes, therefore, a necessity to advance the improvements of this Department as rapidly as possible.

Since the late fall of the opinion of the Corporation Counsel, under which this Board was by reference directed to lay over all improvements which were assessable, there has been in the hands of the Comptroller a balance of nearly \$1,500,000 to the credit of the Street Improvement Fund, sufficient to pay for the cost of the contracts executed after January 1, 1898; there must be now a larger balance in his possession, and by next April there will probably be sufficient on hand to guarantee the payment of all these works, while the whole of the money which these contracts would cost would not be required until more than a year from that time, they being paid for in installments as the work progresses. Further than this, the increase in the assessed valuations for the year 1898 will probably relieve the City from all the embarrassments which have been caused by the excess of its bonded indebtedness.

This matter is so important that it should be progressed with immediately, without allowing any technical objections to intervene; and the Board of Public Improvements should not be made to appear as a hindering force in rendering necessary improvements by not advancing this, the most important business. The Comptroller, by simply certifying the head of any department that the condition of the Street Improvement Fund would not warrant his certifying to any more work, can control the setting of all contracts.

In furtherance of the above, I would offer the following resolution:

Resolved, That the President of the Board of Public Improvements is hereby requested to have prepared and presented to this Board for their action resolutions and ordinances for all public work which may be or have been executed as soon as the proper estimates and reports are received.

Respectfully, JAS. KANE, Commissioner of Sewers.

- Sewer in Seventy-fifth street, between Amsterdam avenue and Boulevard.
Sewer in Forty-ninth street, between Third and Vanderbilt avenues.
Sewer in One Hundred and Forty-sixth street, between Eighth and Broadway avenues.
Outlet and overflow sewer at base of Twenty-sixth street, North river, with alterations and improvements to sewer in Twenty-sixth street, between Eighth and Thirtieth avenues, etc.
Assessable and improvements to sewer in Fifty-sixth street, between Lexington and Park avenues.
Sewer in Sixty-third street, between East River and Avenue A.
Sewer in One Hundred and Twenty-ninth street, between Lenox and Eighth avenues.
Sewer in Thirty-ninth street, between East River and First avenue.
Sewer in Washington street, between Cortlandt and Fulton streets.
Sewer in Washington street, between Park place and Vesey street.
Sewer in Washington street, between First place and Murray street.
Sewer in Westinghouse street, between Murray and Chambers streets.
Sewer in Second avenue, between Second and Third streets.
Sewer in University place, between Waverley place and Eighth street.
Sewer in University place, between Twelfth and Eleventh streets.
Sewer in One Hundred and Twenty-ninth street, between Amsterdam and Eleventh avenues.
Basins on southwest corners of Sixty-fourth, Sixty-fifth, Sixty-sixth streets and Central Park, West.
Basins on southwest corner One Hundred and Twenty-second street and Eighth avenue.
Basins on northwest corner One Hundred and Fifth-fifth street and Edgecombe road.
Basins on southwest corner One Hundred and Twenty-ninth street and Boulevard.
Basins on southeast corners One Hundred and Fifth and One Hundred and Sixth streets and Riverside avenue.
Basins on northeast and southeast corners One Hundred and Ninth street and Riverside avenue.
Basins on southeast corner Cathedral Parkway, and northeast corner One Hundred and Eleventh street and Riverside avenue.
Basins on northeast corners One Hundred and Twelfth, One Hundred and Thirteenth, One Hundred and Fourteenth streets and Riverside avenue.
Sewers in Washington street, between Hubert and Light streets.
Sewers in Washington street, between Duane and Franklin streets.
Sewers in St. Nicholas terrace, between One Hundred and Twenty-seventh and One Hundred and Thirtieth streets.
Sewers in St. Nicholas terrace, between One Hundred and Thirtieth and One Hundred and Thirty-fifth streets.
Sewers in St. Nicholas terrace, between One Hundred and Thirty-seventh street and Convent avenue.
Sewers in Amsterdam avenue, west side, between One Hundred and Thirteenth and One Hundred and Sixteenth streets.
Sewers in Edgecombe road, between One Hundred and Sixty-second and One Hundred and Sixty-seventh streets.
Sewers in Seventh avenue, east side, between One Hundred and Thirty-seventh and One Hundred and Thirty-eighth streets.
Outlet and overflow at One Hundred and Twenty-ninth street, North river, etc.
Sewer in Jackson street, between Boston road and Front street; and to outlet under Pier, old 54, and new sewers in South street, between Jackson street and Gouverneur Slip.
Sewer in Audubon avenue, between One Hundred and Sixty-ninth and One Hundred and Seventy-second streets.
Sewer in One Hundred and Thirty-ninth street, between Boulevard and Hamilton terrace.
Sewer in Eleventh avenue, west side, between One Hundred and Seventieth and One Hundred and Seventy-fifth streets.
Sewer in Eleventh avenue, west side, between One Hundred and Seventy-fifth and One Hundred and Seventy-eighth streets.
Sewer in One Hundred and Forty-fourth street, between Hudson river and Boulevard.
Sewer in Nagle avenue, between Academy and Dyckman streets.
Sewer in Ninth avenue, between Eighteenth and Twenty-third streets.
Basins northeast corner Scammon and Water streets.
Sewer in Seventh avenue, west side, between One Hundred and Forty-seventh and One Hundred and Fifty-third streets, and east side, between Harlem river and One Hundred and Fifty-third street.

Basins north and south sides of Ninety-sixth street, between Riverside avenue and Hudson river.

Sewers in One Hundred and Sixty-fourth street, between Amsterdam avenue and Kingsbridge road; and in Kingsbridge road, east and west sides, between One Hundred and Sixty-second and One Hundred and Seventy-fifth streets.

Basins northeast corner One Hundred and Sixth and One Hundred and Seventh streets and Riverside avenue.

The following resolution, submitted by the Commissioner of Bridges, was adopted:

Resolved, In pursuance of section 413, chapter 378, Laws of 1897, and with the concurrence of the Municipal Assembly, that authority be and is hereby given to the Commissioner of Bridges to enter into a contract by public letting for preparing for and building two masonry abutments (to replace the two present wooden ones) at the Hamilton Avenue Bridge, over Gowanus Canal, Borough of Brooklyn, at an estimated cost of thirty thousand dollars, to be paid for from the appropriation for Maintenance of and Repairs to Bridges in the Borough of Brooklyn for 1899.

Affirmative—Commissioner of Water Supply, Commissioner of Highways, Commissioner of Street Cleaning, Commissioner of Sewers, Commissioner of Bridges, President of the Board.

Negative—None.

In accordance with the foregoing resolution, the following form of ordinance was approved for transmission to the Municipal Assembly:

Be it Ordained by the Municipal Assembly of The City of New York, as follows:

That, in pursuance of section 413, chapter 378, Laws of 1897, authority be and is hereby given to the Commissioner of Bridges to enter into a contract by public letting for preparing for and building two masonry abutments (to replace the two present wooden ones) at the Hamilton Avenue Bridge over Gowanus Canal, Borough of Brooklyn, at an estimated cost of thirty thousand dollars, to be paid for from the appropriation for Maintenance of and Repairs to Bridges in the Borough of Brooklyn for 1899.

The following communication from Mr. Oswald Jackson was referred to the Commissioner of Highways:

METROPOLITAN CLUB, FIFTH AVENUE AND SIXTIETH STREET, November 22, 1898.

Hon. MAURICE F. HOLAHAN, President, Board of Public Improvements:

DEAR SIR—I beg to call your attention to the desirability of asphaltizing the intersection of Seventy-second street and Columbus avenue. The present stone pavement is so badly worn that dangerous ruts have been formed, at all times perilous for bicyclists, but especially so when the surface is wet, the prevailing condition of the pavement at this point under the station of the elevated railway.

Relying upon your favorable consideration of this matter, I am, my dear sir, Very truly yours, OSWALD JACKSON.

A communication was received from the Commissioner of Water Supply, transmitting copies of all contracts executed and now in force between the former municipal authorities now constituting Greater New York, and the private water companies.

The Secretary was directed to have same printed in pamphlet form and furnish copies in the various members of the Board.

The following report from the Commissioner of Sewers was read, and the report was unanimously adopted:

DEPARTMENT OF SEWERS—BOROUGH OF MANHATTAN, No. 265 AND 267 BROADWAY, NEW YORK, November 22, 1898.

Hon. MAURICE F. HOLAHAN, President, Board of Public Improvements:

DEAR SIR—In answer to your communication of November 17, referring to this Department the matter of constructing a sewer outlet (inside on the northwest corner of One Hundred and Fourteenth street and Boulevard, I respectfully submit the following report in relation thereto of Mr. Horace Loomis, Chief Engineer of the Department of Sewers, Borough of Manhattan. I am Yours respectfully,

JAS. KANE, Commissioner of Sewers.

DEPARTMENT OF SEWERS—BOROUGH OF MANHATTAN, COMMISSIONER'S OFFICE, No. 265 AND 267 BROADWAY, NEW YORK, November 21, 1898.

Hon. JAMES KANE, Commissioner of Sewers:

DEAR SIR—In the matter of the communication from the Board of Public Improvements, forwarding copy of resolution of the Local Board, calling for a sewer basin at the northwest corner of One Hundred and Fourteenth street and Boulevard, I beg to say that I do not consider a basin necessary at that point. The grade falls from the Boulevard from this corner westerly at the rate of about 7 inches per 100 feet for 275 feet, thence very sharply to Riverside Drive. Any water reaching this corner would therefore flow along the gutter to the receiving-basin at the Drive.

One Hundred and Fourteenth street on this block is paved with block asphalt. It appears, from a personal visit which I made in this locality, that the only reason for the lodgment of water at this corner at this time is that the Boulevard is not paved with asphalt on this side as it is on the other side. No doubt the whole of the Boulevard will be paved with asphalt as soon as funds are available. When this is done, the asphalt pavement on that avenue will be adjusted to the pavement on One Hundred and Fourteenth street, so that the water will turn the corner and flow down One Hundred and Fourteenth street.

The amount of water to reach this corner is very small in any event, being only from one-quarter of the block on either side of One Hundred and Fourteenth street, so that I see no reason why the water should not be allowed to flow along the gutters, as provided for by the grade of the streets.

In my view, a basin at this corner is unnecessary, and to unnecessarily increase the number of basins is a waste of money in the first instance and a continuous expense to the City to maintain the same.

I might also remark, in conclusion, that at the present time there are no funds available for doing work of this sort, since the question of debt limit has cut off all improvements of this kind, both great and small.

Yours respectfully, (Signed) HORACE LOOMIS, Chief Engineer of Sewers.

The following petition for repaving East Ninety-second street was referred to the Commissioner of Highways:

NEW YORK CITY, November 15, 1898.

Hon. MAURICE F. HOLAHAN, President, Board of Public Improvements:

DEAR SIR—The undersigned, property-owners and residents of Ninety-second street, between Fifth and Madison avenues, respectfully petition your Board to repave the block above-mentioned with the new asphalt pavement now being used by the City in its principal residential streets, as the present pavement is in very bad condition.

Very respectfully yours, ISAAC UNTERMEYER and 22 others.

The following communication from the Chief Topographical Engineer was referred to the Commissioners of Sewers and Highways:

CITY OF NEW YORK, PRESIDENT OF BOARD OF PUBLIC IMPROVEMENTS, TOPOGRAPHICAL BUREAU, BOROUGH OF THE BRONX, ONE HUNDRED AND SEVENTY-SEVENTH STREET AND THIRD AVENUE, November 17, 1898.

Mr. JOHN H. MOONEY, Secretary, Board of Public Improvements:

SIR—I respectfully call your attention to the fact that monuments fixing the street and avenue lines in the Twelfth Ward, Borough of Manhattan, have been and are being removed without notice being given to this office.

Several years ago, in the construction of sewers on Eleventh avenue, the monuments were taken out and not replaced, and to-day, from One Hundred and Seventieth street to One Hundred and Eighty-first street, but one monument exists to mark the line (notice being given in that case by Mr. Brown, of Sewer Department, and the monument referenced).

Several monuments have been taken out of the ground on Ninth avenue, north of Dyckman street, without notification to this Department.

Within the last three weeks two monuments on Sherman avenue, just north of Elwood street, have been removed and are lying out on the ground.

Inasmuch as these original monuments are of such incalculable value in the work of re-measuring the district, I respectfully call your attention to the necessity of notice being given to this office where there is occasion to disturb, cover up, or lower any monument, so that opportunity be given to accurately reference the same and test when reset.

Respectfully, LOUIS A. RISSE, Chief Topographical Engineer and Engineer of Concourses.





Appointed Temporarily.

Richard McGowan, Martin J. Feely, John M. Hannan, Keepers, Workhouse; salary, \$500 per annum each.

Reinstated.

George W. C. Roberts, Keeper, Workhouse; salary, \$800 per annum. Michael D. Kolan, Keeper, Workhouse; salary, \$800 per annum.

Services Disposed With.

Loughlan Duoley, Inspector, City Prison.

FRANCIS J. LANTRY, Commissioner.

DEPARTMENT OF HEALTH.

DEPARTMENT OF HEALTH OF THE CITY OF NEW YORK, NEW YORK, October 19, 1898.

The Board met pursuant to adjournment. Present—Commissioners Michael C. Murphy, William T. Jenkins, M. D.; John B. Cosby, M. D.; the Health Officer of the port; the President of the Board of Police. The minutes of the last meeting were read and approved. The Finance Committee presented the following bills, which were approved and ordered forwarded to the Comptroller for payment:

Table with columns: NAMES, AMOUNT, NAMES, AMOUNT. Lists various individuals and companies with their respective amounts.

The Sanitary Committee Presented the following Reports:

1st. Communication from the Assistant Corporation Counsel recommending the discontinuance of the suits named in his report. On motion, it was Resolved, That the Corporation Counsel be and hereby is requested to discontinue, without costs, the actions against the following-named persons for violations of the Sanitary Code and of the Tenement-house Law, the Inspector having reported the order therein complied with or the nuisance complained of abated, a permit having been granted or violations removed, or the order rescinded, to wit:

Table with columns: NAMES, No., NAMES, No. Lists names of individuals and their corresponding numbers.

SANITARY BUREAU.

The following Communications were Received from the Sanitary Superintendent:

- 1st. Weekly reports of the Sanitary Superintendent. Ordered on file. 2d. Weekly reports from the Willard Parker, Reception, Riverside and Kingston Avenue Hospitals. Ordered on file. 3d. Report on changes in the hospital service. On motion, it was Resolved, That the following changes in the hospital service be and are hereby approved:

Willard Parker Hospital.

Table with columns: NAMES, POSITION, SALARY, APPOINTED, RESIGNED, DATE. Lists hospital staff members and their details.

Kingston Avenue Hospital.

Table with columns: NAMES, POSITION, SALARY, APPOINTED, RESIGNED, DATE. Lists hospital staff members and their details.

4th. Certificates in respect to the vacation of premises at No. 413 East Twelfth street, No. 24 Norfolk street and No. 113 Norfolk street, Borough of Manhattan. On motion, the following preamble and resolution were adopted: Whereas, The Sanitary Superintendent has certified to this Board that the building situated upon lot No. 413 East Twelfth street, Borough of Manhattan, has become dangerous to life and is unfit for human habitation because of defects in the plumbing and drainage thereof, and because of the existence of a nuisance on the premises which is likely to cause sickness among its occupants: Ordered, That all persons in said building situated on lot No. 413 East Twelfth street, Borough of Manhattan, be required to vacate said building on or before October 25, 1898, for the reason that said building is dangerous to life and is unfit for human habitation because of defects in the plumbing and drainage thereof, and because of the existence of a nuisance on the premises likely to cause sickness among its occupants. And further, that this order be affixed conspicuously on the front of and in said building and be served as the law requires, under the direction of the Sanitary Superintendent; and further, that said building be not again used as a human habitation without a written permit from this Board.

On motion, the following preamble and resolution were adopted: Whereas, The Sanitary Superintendent has certified to this Board that the building situated upon lot No. 24 Norfolk street, Borough of Manhattan, has become dangerous to life by reason of want of repair and is unfit for human habitation because of the existence of a nuisance on the premises which is likely to cause sickness among its occupants: Ordered, That all persons in said building situated on lot No. 24 Norfolk street, Borough of Manhattan, be required to vacate said building on or before October 25, 1898, for the reason that said building is dangerous to life by reason of want of repair and is unfit for human habitation because of the existence of a nuisance on the premises likely to cause sickness among its occupants. And further, that this order be affixed conspicuously on the front of and in said building and be served as the law requires, under the direction of the Sanitary Superintendent; and further, that said building be not again used as a human habitation without a written permit from this Board.

On motion, the following preamble and resolution were adopted: Whereas, The Sanitary Superintendent has certified to this Board that the building situated upon lot No. 113 Norfolk street, Borough of Manhattan, has become dangerous to life by reason of want of repair and is unfit for human habitation because of defects in the plumbing thereof, and because of the existence of a nuisance on the premises which is likely to cause sickness among its occupants: Ordered, That all persons in said building situated on lot No. 113 Norfolk street, Borough of Manhattan, be required to vacate said building on or before October 25, 1898, for the reason that said building is dangerous to life by reason of want of repair and is unfit for human habitation because of defects in the plumbing thereof, and because of the existence of a nuisance on the premises likely to cause sickness among its occupants. And further, that this order be affixed conspicuously on the front of and in said building and be served as the law requires, under the direction of the Sanitary Superintendent; and further, that said building be not again used as a human habitation without a written permit from this Board.

On motion, the following preamble and resolution were adopted: Whereas, The Sanitary Superintendent has certified to this Board that the building situated upon lot No. 113 Norfolk street, Borough of Manhattan, has become dangerous to life by reason of want of repair and is unfit for human habitation because of defects in the plumbing thereof, and because of the existence of a nuisance on the premises which is likely to cause sickness among its occupants: Ordered, That all persons in said building situated on lot No. 113 Norfolk street, Borough of Manhattan, be required to vacate said building on or before October 25, 1898, for the reason that said building is dangerous to life by reason of want of repair and is unfit for human habitation because of defects in the plumbing thereof, and because of the existence of a nuisance on the premises likely to cause sickness among its occupants. And further, that this order be affixed conspicuously on the front of and in said building and be served as the law requires, under the direction of the Sanitary Superintendent; and further, that said building be not again used as a human habitation without a written permit from this Board.

21th. Report on compliance with certain orders to vacate premises, etc. On motion, it was Resolved, That the following orders be and are hereby rescinded for the reason that the causes for the same have been removed:

Table with columns: No. of Order, Loc. street, No. of Violation, Location. Lists specific orders and their locations.

21th. Reports on applications for permits. On motion, it was Resolved, That permits be and are hereby granted as follows:

Table with columns: No., BUSINESS, MATTER OR OTHER OCCASION, On Premises AT. Lists various business matters and their locations.

Reports on Applications for Sale and Wagon Permits for the Sale of Milk in The City of New York. On motion, it was Resolved, That the following permits for the sale and delivery of milk in The City of New York be and the same are hereby granted:

Table with columns: No., Location, No., Location. Lists various locations and their corresponding numbers.

Table with 3 columns: No., Location, No. and Location. Lists various addresses and their corresponding numbers.

Table with 4 columns: No. of Order, On Premises At, Time Extended To, Remarks. Lists order numbers and locations.

On motion, it was Resolved, That the following applications for relief from orders be and are hereby denied:

Table with 4 columns: No. of Order, On Premises At, No. of Order, On Premises At. Lists order numbers and locations.

On motion, it was Resolved, That the following permits be and the same are hereby revoked:

Table with 3 columns: No., Business, On Premises At. Lists business types and addresses.

7th. Reports on applications for relief from orders. On motion, it was Resolved, That the following orders be extended, modified or rescinded, as follows:

Table with 4 columns: No. of Order, On Premises At, Time Extended To, Remarks. Lists order numbers, locations, and descriptions of modifications or rescissions.

BOROUGH OF MANHATTAN.

1st. Weekly reports from the Assistant Sanitary Superintendent of the work performed in the Borough of Manhattan. Ordered on file.

FIRST DIVISION.

Division of General and Special Sanitary Inspection.

- 2d. Weekly reports of the Chief Inspector: (a) Weekly report of work performed by Sanitary Police. (b) Weekly report on sanitary condition of manure dumps. (c) Weekly report on sanitary condition of soil and high-soil. (d) Weekly report on sanitary condition of slaughter-houses. Ordered on file.

SECOND DIVISION.

Division of Contagious Diseases and Medical Sanitary Inspection.

- 3d. Weekly reports of the Chief Inspector: (a) Monthly report of charitable institutions. (b) Report of inspection of discharged patients from Riverside Hospital. Ordered on file. 4th. Report on application for leave of absence. On motion, it was Resolved, That leave of absence be and is hereby granted as follows:

Table with 4 columns: Name, From, To, Remarks. Lists names and dates.

THIRD DIVISION.

Division of Food Inspection, Offensive Trades and Mercantile Establishments.

- 5th. Weekly report of the Chief Inspector. Ordered on file. Report of seizure of a carcass of beef affected with tuberculosis, at Nos. 47 to 53 Thompson avenue. The Secretary was directed to send a copy of the report to the State Board of Health of New Jersey. Report in respect to burning of soft coal in tags and boats in river and harbor. Laid on the table.

FOURTH DIVISION.

Division of Pathology and Bacteriology.

- 6th. Weekly report of the Pathologist and Director of the Bacteriological Laboratories. Ordered on file.

FIFTH DIVISION.

Division of Medical School Inspection.

- 7th. Weekly report of the Chief Inspector. Ordered on file. The resignation of Medical School Inspector Abrahamson to take effect October 15, 1898, was received and accepted.

BOROUGH OF THE BRONX.

Weekly reports from the Assistant Sanitary Superintendent of the work performed in the Borough of The Bronx. Ordered on file.

BOROUGH OF BROOKLYN.

Weekly reports from the Assistant Sanitary Superintendent of the work performed in the Borough of Brooklyn. Ordered on file. Report in respect to condition of vacant lots on the north side of Sterling place, between Underhill and Washington avenues, and No. 232 Adelphi street.

On motion, it was Resolved, That a copy of the report of Assistant Sanitary Superintendent Black in respect to the dangerous condition of the vacant lots on the north side of Sterling place, between Underhill and Washington avenues, Borough of Brooklyn, be forwarded to the Honorable the Municipal Assembly, with the request that for sanitary reasons the Department of Highways be authorized and directed to have said lots fenced.

On motion, it was Resolved, That a copy of the report of Assistant Sanitary Superintendent Black in respect to the dangerous condition of the vacant lot No. 232 Adelphi street be forwarded to the Honorable the Municipal Assembly, with the request that for sanitary reasons the Department of Highways be authorized and directed to have said lot fenced.

BOROUGH OF QUEENS.

Weekly reports from the Assistant Sanitary Superintendent of the work performed in the Borough of Queens. Ordered on file.

BOROUGH OF RICHMOND.

Weekly reports from the Assistant Sanitary Superintendent of the work performed in the Borough of Richmond. Ordered on file.

BUREAU OF RECORDS.

The following Communications were Received from the Registrar of Records:

- 1st. Weekly report. Ordered on file. 2d. Report on application for leave of absence. On motion, it was Resolved, That leave of absence be and is hereby granted as follows:

Table with 4 columns: Name, From, To, Remarks. Lists names and dates.



3d. Report on application to record corrected certificates.

On motion, it was

Resolved, That permission be and is hereby given to record corrected certificates relating to—

Table with columns: NAMES, RETURN, DATE. Lists names like Marco Calich, Lucia Gorga, James Bomo, etc., with their return status and dates.

4th. Report on applications to file delayed and imperfect certificates.

On motion, it was

Resolved, That the Registrar of Records be and is hereby directed to file in the volume of "Delayed and Imperfect Certificates" the following certificates:

Table with columns: NAMES, RETURN, DATE. Lists names like Magdalena Christina Reuner, Clelenestra A. C. Palmieri, etc.

Miscellaneous Reports, Communications, etc.

The weekly statement of the Comptroller was received and ordered on file. Report of regular meeting of Medical Board of Willard Parker and Riverside Hospitals was received and ordered on file.

A communication was received from Smith Ely in respect to granting a permit to slaughter poultry at Nos. 16 to 20 Seegal street, Borough of Brooklyn, and laid on the table.

An application for an extension of time in which to complete repairs ordered was received from the Sanitary Utilization Company and referred to the Secretary for investigation.

On motion, it was

Resolved, That Teresa McCormack be and is hereby temporarily appointed a Laboratory Attendant in this Department, subject to the rules and regulations of the Municipal Civil Service Commission, with salary at the rate of four hundred and eighty dollars per annum.

On motion, it was

Resolved, That the contract for repairing the gable wall at the Disinfecting Depot on the grounds of the Willard Parker Hospital, at the foot of East Sixteenth street, Borough of Manhattan, City and County of New York, be and is hereby awarded to James O'Toole, for the sum of four thousand nine hundred and fifty-five dollars (\$4,955), he being the lowest bidder, subject to the approval of the sureties by the Comptroller, and that the President be and is hereby authorized to execute the contract in the form approved by the Counsel to the Corporation.

Resolved, That the pay-rolls of this Department for the month of October be and are hereby approved, and the President and Secretary directed to sign certificates and forward the same to the Comptroller for payment.

Resolved, That requisition be and is hereby made upon the Comptroller for the following sum of money, which is required to enable the Board of Health to pay to the Board of Police for the month of October the following amount for the salaries of officers and men detailed to the Board of Health, Boroughs of Manhattan and The Bronx, pursuant to the provisions of chapter 188, Laws of 1889; chapter 567, Laws of 1895, and sections 299 and 1324, chapter 378 of the Laws of 1897, being one-twelfth part of the amount estimated, levied, raised and appropriated for the support and maintenance of the Sanitary Company of Police during the current year, to wit:

Table with columns: Description, Amount. Lists items like 3 Roundsmen, 46 Patrolmen, 1 Patrolman, with their respective amounts.

Pursuant to notice in the CITY RECORD for five hundred (500) tons of white ash coal for the Willard Parker and Reception Hospitals, the Board proceeded to the opening of bids for the same, as follows:

Table with columns: Name, Amount. Lists Meyer, Denker & Hoerig and Wynn Brothers with their bid amounts.

On motion, it was

Resolved, That the contract for five hundred (500) tons of white ash coal for the Willard Parker and Reception Hospitals, at the foot of East Sixteenth street, Borough of Manhattan, City and County of New York, be and is hereby awarded to Wynn Brothers for the sum of three dollars and seventy-nine cents per gross ton of two thousand two hundred and forty pounds, they being the lowest bidders, subject to the approval of the sureties by the Comptroller, and that the President be and is hereby authorized to execute the contract in the form approved by the Counsel to the Corporation.

On motion, it was

Resolved, That the proposal of Wynn Brothers for five hundred (500) tons of white ash coal for the Willard Parker and Reception Hospitals, at the foot of East Sixteenth street, Borough of Manhattan, City and County of New York, be forwarded to the Comptroller for approval of sureties.

On motion, it was

Resolved, That the following security deposits on bids for five hundred (500) tons of white ash coal for the Willard Parker and Reception Hospitals, opened October 19, 1898, be forwarded to the Comptroller:

Table with columns: Name, Amount. Lists Meyer, Denker & Hoerig and Wynn Brothers with their security deposit amounts.

On motion, it was

Resolved, That James F. Curry be and is hereby temporarily appointed a Milk Inspector in this Department, Borough of The Bronx, subject to the rules and regulations of the Municipal Civil Service Commission, with salary at the rate of one thousand two hundred dollars per annum.

On motion, it was

Resolved, That Leon Cherug be and is hereby temporarily appointed a Milk Inspector in this Department, Borough of Manhattan, subject to the rules and regulations of the Municipal Civil Service Commission, with salary at the rate of one thousand two hundred dollars per annum.

On motion, it was

Resolved, That Joseph P. Gormley be and is hereby reinstated in the position of Clerk in the Department of Health, Borough of Brooklyn, with salary at the rate of one thousand two hundred dollars per annum, in accordance with Regulation 43 of the Rules and Regulations of the Municipal Civil Service Commission, said Gormley having been dismissed by Z. Taylor Emery, M. D., former Commissioner of Health of the City of Brooklyn, on February 29, 1896, under the thirty-day regulation of the Charter of the former City of Brooklyn, which vested in him that power.

On motion, the Board adjourned on Wednesday, October 26, 1898, at 10 o'clock A. M.

C. GOLDBERMAN, Secretary pro tem.

DEPARTMENT OF HEALTH.

DEPARTMENT OF HEALTH, NEW YORK, October 24, 1898.

The Board met pursuant to notice. Present—President, M. C. Murphy; Commissioner Wm. T. Jenkins; Commissioner John B. Cosby; the Health Officer of the Port.

A communication from the State Board of Health calling attention to the fact that complaint having been made to the Board by the Commissioner of Water Supply of New York City, that the rules and regulations made for the sanitary protection of the water supply of the Borough of Brooklyn were being violated, and the Board, upon investigation, found that in the Borough of Queens twenty-nine violations of the rules existed, and requesting that the Board of Health of the City of New York convene for the purpose of enforcing the rules and regulations in the cases named, was received and referred to the Sanitary Superintendent for inspection and report to the Board within two days.

The Secretary was directed to acknowledge the receipt of said communication. Also to write to the Commissioner of Water Supply, calling attention to the law in respect to notifying this Department of existing nuisances.

On motion, the Board adjourned.

C. GOLDBERMAN, Secretary pro tem.

METEOROLOGICAL OBSERVATORY OF THE DEPARTMENT OF PARKS.

Central Park, New York—Latitude 40° 45' 58" N. Longitude 73° 57' 58" W. Height of Instrument above the Ground, 53 feet; above the Sea, 97 feet.

Abstract of Registers from Self-recording Instruments for the Week ending November 19, 1898.

Barometer.

Table with columns: DATE, TIME, Reduced to Freezing, Mean for the Day, MAXIMUM, MINIMUM. Shows barometric data for November 11-19, 1898.

Mean for the week 30.179 inches. Maximum at 10 A.M., November 15, 30.420. Minimum at 1 P.M., November 19, 29.910. Range .510.

Thermometers.

Table with columns: DATE, TIME, Dry Bulb, Wet Bulb, MEAN, MAXIMUM, MINIMUM, MAXIMUM. Shows temperature data for November 11-19, 1898.

Mean for the week 48.1 degrees. Maximum at 2 P.M., 18th, 53. Minimum at 7 A.M., 19th, 41. Range 12.

Wind.

Table with columns: DATE, DIRECTION, VELOCITY IN MILES, FORCE IN POUNDS PER SQUARE FOOT. Shows wind data for November 11-19, 1898.

Distance traveled during the week 1,000 miles. Maximum force 4 pounds.

Table with columns: DATE, Hygrometer (Force of Vapors, Relative Humidity), Clouds (Clear, Overcast, etc.), Rain and Snow, Ozone. Shows humidity, cloud, and precipitation data for November 11-19, 1898.

Total amount of water for the week 2.34 inches. Duration for the week 1 day, 12 hours, 30 minutes.

DATE.	T. A. M.	P. M.
Sunday	12	12
Monday	12	12
Tuesday	12	12
Wednesday	12	12
Thursday	12	12
Friday	12	12
Saturday	12	12

DANIEL DRAPER, PH. D., Director.

DEPARTMENT OF PUBLIC BUILDINGS, LIGHTING AND SUPPLIES.

CITY OF NEW YORK, DEPARTMENT OF PUBLIC BUILDINGS, LIGHTING AND SUPPLIES, COMMISSIONER'S OFFICE, No. 346 BROADWAY, November 3, 1898.

In accordance with section 1546, chapter 378 of the Laws of 1897, the Department of Public Buildings, Lighting and Supplies makes the following report of its transactions for the week ending October 29, 1898:

PUBLIC LAMPS.

During the week 36 new lamps were erected and lighted; 5 lamps were relighted and 3 discontinued; 29 lamp-posts were removed, 25 reset and 61 straightened; 2 columns were refitted and 36 relaced; 8 services and 2 main pipes were refitted.

ELECTRICAL WIRING, INSPECTIONS, ETC.

270 certificates were issued for interior wiring and 150 permits were issued for outside electrical work; 803 inspections were made and 1,400 feet of overhead wires were removed.

CLANDED IN FIRE.

through of Manhattan and The Bronx.

Appointments—1 Bath Attendant, 1 Crier, 2 Laborers, 5 Cleaners. Discharge—1 Cleaner.

through of Brooklyn.

Appointments—1 Inspector of Public Buildings (James Rickard, No. 608 Douglas street; salary, \$4,200 per year), 1 Messenger, 1 Elevator Attendant, 1 Janitor.

REGISTRATIONS OF CONTRACTORS.

The total amount of registrations drawn on the Comptroller by this Department during the week is \$109,821.72.

HENRY S. KEARNY, Commissioner.

DEPARTMENT OF WATER SUPPLY.

The Department of Water Supply hereby publishes, in compliance with section 513, chapter 378, Laws of 1897, the following abstract of the expenditures made and the liabilities incurred during the month of October, 1898:

EXPENDITURES FOR OCTOBER, 1898.

Pay rolls	\$113,022 30
Car-fares and immobility	4,085 46
Lay main	10,870 18
Supplies	76,068 21
Land	25,719 10
Taxes	980 50
Repairs	2,215 76
	\$255,971 51

LIABILITIES FOR OCTOBER, 1898.

Supplies	\$53,298 12
Car-fares, etc.	2,461 00
Repairs	7,374 86
Lay main	3,721 00
	\$66,855 12

DEPARTMENT OF PARKS.

THE CITY OF NEW YORK, DEPARTMENT OF PARKS, OFFICE OF COMMISSIONER FOR THE BOROUGH OF THE BRONX, ZENOBIA MASSON, CLAREMONT PARK, November 28, 1898.

Supervisor of the City Record:

DEAR SIR—Pursuant to section 1546, chapter 378, Laws of 1897, I hereby notify you, the publication in the City Record, that, by order of the Commissioner for the Borough of The Bronx the following changes have been made in the working force of this Department:

- The following Transfers have been discharged:
- Thomas Moriarty, George Sandhusen,
  - Charles Jones, Henry Brandell,
  - Edward Kelly, Matthew Anis,
  - Thomas Murray, Bernard Foy,
  - Frank Baker, Daniel O'Sullivan,
  - James Campbell, Joseph Miller,
  - Hugh Lennon, Lawrence Bolger,
  - John McGowan, Patrick Anderson,
  - J. R. Fournier, Nicola Bletto.
- The salary of Anthony L. Nusbbaum, Laborer, has been increased from \$1.75 to \$2 per day.
- Respectfully yours,  
MAX K. KAHN,  
Private Secretary.

DEPARTMENT OF BUILDINGS.

DEPARTMENT OF BUILDINGS, No. 220 FOURTH AVENUE, BOROUGH OF MANHATTAN, NEW YORK CITY, November 28, 1898.

Supervisor of the City Record:

DEAR SIR—I herewith notify you of the following appointments in the Department of Buildings in the Boroughs of Manhattan and The Bronx: November 25, 1898. Neil F. Dougherty, Inspector of Buildings. November 25, 1898. John F. Anderson, Inspector of Buildings. November 25, 1898. Volney Ruiz, Inspector of Buildings. November 25, 1898. Fergus McGarry, Inspector of Buildings. November 25, 1898. Peter E. Dornan, Inspector of Buildings. Yours respectfully, A. J. JOHNSON, Secretary, Board of Buildings.

COMMISSIONERS OF ACCOUNTS.

OFFICE OF THE COMMISSIONERS OF ACCOUNTS, ROOMS 114 TO 119, STEWART BUILDING, No. 250 BROADWAY, NEW YORK, November 25, 1898.

Supervisor of the City Record: DEAR SIR—You are respectfully informed of the following changes in this Department, to take effect November 1, 1898, viz.:

- Discontinuation of Compensation:
- Thomas W. Dunne, Examiner, \$2,000.
  - Peter J. McGowan, Examiner, \$1,500.
  - John W. Booth, Examiner, \$2,000.
  - Edward H. Hayes, Examiner, \$2,000.
  - Eugene Shephard, Examiner, \$2,000.
  - John N. Garwater, Jr., Examiner, \$1,800.
  - Benjamin F. Welch, Engineer, \$2,500.
  - Charles A. Naal, Stenographer in Commission, \$2,000.
  - Wood D. Landman, Examiner, \$1,500.
  - John L. M. Allen, Examiner, \$2,000.
  - Louis B. Hubbard, Examiner, \$2,000.
- Respectfully,  
JOHN C. HERTLE,  
EDWARD OWEN,  
Commissioners of Accounts.

DEPARTMENT OF BRIDGES.

DEPARTMENT OF BRIDGES, CITY OF NEW YORK, COMMISSIONER'S OFFICE, STEWART BUILDING, MANHATTAN, NEW YORK CITY, N. Y., November 26, 1898.

Supervisor of the City Record:

SIR—You are hereby notified that Michael Colahan, of No. 321 East Twenty-ninth street, has been appointed Laborer on bridges over the Harlem river and in the Borough of Manhattan, at a compensation of \$2 per day, to date from December 1, 1898. Respectfully,  
JOHN L. SHEA,  
Commissioner of Bridges.

MUNICIPAL ASSEMBLY.

CITY OF NEW YORK, BOARD OF ALDERMEN, CITY HALL, November 29, 1898.

Supervisor of the City Record: SIR—The Joint Committees on Streets and Highways, Public Buildings, Lighting and

Supplies and Sewers of the Board of Aldermen will hold a preliminary public hearing in the Aldermanic Chamber, City Hall, on the application of the New York Automatic Despatch Company for a franchise, on December 1, 1898, at 2 o'clock P. M. MICHAEL F. BLAKE, Clerk.

OFFICIAL DIRECTORY.

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

EXECUTIVE DEPARTMENT.

Mayor's Office. No. 6 City Hall, 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. ROBERT A. VAN WYCK, Mayor. ALFRED M. DOWNEY, Private Secretary. Bureau of Licenses. No. 1 City Hall, 9 A. M. to 4 P. M. DAVID J. ROOPE, Chief. GEORGE W. BROWN, Jr., Deputy.

COMMISSIONERS OF ACCOUNTS.

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

BOARD OF ARMOY COMMISSIONERS.

The Mayor, Chairman; President of Department of Taxes and Assessments, Secretary. Address: Thomas L. Ferrero, Stewart Building. Office hours, 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M.

MUNICIPAL ASSEMBLY.

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

BOARD OF ALDERMEN.

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

BOROUGH PRESIDENTS.

Borough of Manhattan. Office of the President of the Borough of Manhattan, Nos. 10, 11 and 12 City Hall. 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. AUGUSTUS W. FERRIS, President. ISA EDGAR ROPER, Secretary. Borough of The Bronx. Office of the President of the Borough of The Bronx, corner Third Avenue and One Hundred and Seventy-seventh street. 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. LOUIS F. HAPPEL, President. Borough of Brooklyn. President's Office, No. 2 Borough Hall. 9 A. M. to 5 P. M.; Saturdays, 9 A. M. to 12 M. EDWARD M. GOSPEY, President. Borough of Queens. FREDERICK BOWLEY, President. Office, Long Island City, 9 A. M. until 4 P. M.; Saturdays, from 9 A. M. until 12 M. Borough of Richmond. GEORGE CRONWELL, President. Office of the President, First National Bank Building, New Brighton. 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M.

AQUEDUCT COMMISSIONERS.

Room 204 Stewart Building, 11th floor, 9 A. M. to 4 P. M. JOHN J. RYAN, MAURICE J. FERRIS, WILLIAM H. FAY, EVYER, JOHN P. WISSENER and THE MAYOR, and COMPTROLLER, Commissioners; HARRY W. WALKER, Secretary, A. FRYER, Chief Engineer.

PUBLIC ADMINISTRATOR.

No. 125 Nassau street, 9 A. M. to 4 P. M. WILLIAM M. HARRIS, Public Administrator.

BOARD OF PUBLIC IMPROVEMENTS.

No. 346 Broadway, 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. MAURICE F. HANAHAN, President. JOHN H. MOONEY, Secretary. Department of Highways. No. 125 Nassau street, 9 A. M. to 4 P. M. JAMES P. KEATING, Commissioner of Highways. WILLIAM N. SHANNON, Deputy for Manhattan. THOMAS R. FARRELL, Deputy for Brooklyn. JAMES H. MAXWELL, Deputy for Bronx. JOHN E. MALONEY, Deputy for Queens. HENRY P. MURKIN, Deputy and Chief Engineer for Richmond Office, "Richmond Building," corner Richmond Terrace and York Avenue, New Brighton, S. I. Department of Sewers. Nos. 215 and 217 Broadway, 9 A. M. to 4 P. M. JAMES KANE, Commissioner of Sewers. MATTHEW F. DUNNIN, Deputy for Manhattan. THOMAS J. BYRNE, Deputy for Bronx. WILLIAM BRUNNEN, Deputy for Brooklyn. MATTHEW J. GOLDMAN, Deputy Commissioner Sewers, Borough of Queens. HENRY P. MURKIN, Deputy Commissioner and Chief Engineer of Sewers, Borough of Richmond. Office, "Richmond Building," corner Richmond Terrace and York Avenue, New Brighton, S. I. Department of Bridges. Room 177 Stewart Building, Chambers street and Broadway, 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. JOHN L. SURA, Commissioner. THOMAS H. VORSE, Deputy. SAMUEL R. PROVASCO, Chief Engineer. MATTHEW H. MOORE, Deputy for Bronx. HARRY BEAM, Deputy for Brooklyn. JOHN E. BACKUS, Deputy for Queens. Department of Water Supply. No. 125 Nassau street, 9 A. M. to 4 P. M. WILLIAM DALTON, Commissioner of Water Supply. JAMES H. HANLEY, Deputy Commissioner. GEORGE W. HERRALL, Chief Engineer. W. G. BYRNE, Water Registrar. JAMES MOFFERT, Deputy Commissioner, Borough of Brooklyn, Municipal Building. JOSEPH FITCH, Deputy Commissioner, Borough of Queens, Old Town Hall, Flushing. THOMAS J. MULLIGAN, Deputy Commissioner, Borough of The Bronx, Corona Park Building. HENRY P. MURKIN, Deputy Commissioner, Borough of Richmond. Office, "Richmond Building," corner Richmond Terrace and York Avenue, New Brighton, S. I. Department of Street Cleaning. 9 A. M. to 4 P. M. JAMES McCARTNEY, Commissioner, No. 345 Broadway, Manhattan. F. M. GIBSON, Deputy Commissioner for Borough of Manhattan, No. 345 Broadway. PATRICK H. QUINN, Deputy Commissioner for Borough of Brooklyn, Room 17 Municipal Building. JOSEPH LUSKELL, Deputy Commissioner for Borough of The Bronx, No. 825 East One Hundred and Fifty-second street. JOHN P. MARSH, Deputy Commissioner for Borough of Queens, Municipal Building, Long Island City.

Department of Buildings, Lighting and Supplies. No. 346 Broadway, Room 114, 9 A. M. to 4 P. M. HENRY S. KEARNY, Commissioner of Public Buildings, Lighting and Supplies. PETER J. DONOHUE, Deputy Commissioner for Manhattan. WILLIAM WAXTON, Deputy Commissioner for Brooklyn. HENRY SUTHERS, Deputy Commissioner for Queens. EDWARD J. MURPHY, Deputy Commissioner for Richmond.

DEPARTMENT OF FINANCE.

Comptroller's Office. Stewart Building, Chambers street and Broadway, 9 A. M. to 4 P. M. DIME S. CULLEN, Comptroller. MICHAEL T. DALY, Deputy Comptroller. RICHARD J. LEVY, Assistant Deputy Comptroller. EDWARD GILSON, Collector of Assessments and Arrears. DAVID O'BRIEN, Collector of City Revenue and Superintendent of Markets, Borough of Manhattan. DAVID E. AUSTIN, Receiver of Taxes. JOHN J. McDONNELL, Deputy Receiver of Taxes, Borough of Manhattan. JAMES B. BOTCH, Deputy Receiver of Taxes, Borough of Brooklyn. JOHN F. GOULDEN, First Auditor of Accounts, Borough of Manhattan. WILLIAM MCKENNY, First Auditor of Accounts, Borough of Brooklyn. MICHAEL O'KEEFE, Deputy Collector of Assessments and Arrears, Borough of Brooklyn. WALTER H. HUNT, Auditor, Borough of Richmond. JOHN J. FERRIS, Deputy Receiver of Taxes, Borough of Richmond. GEORGE BRANT, Deputy Collector of Assessment and Arrears, Borough of Richmond. EDWARD J. CONNELL, Auditor, Borough of The Bronx. FREDERICK W. BLECKWATER, Deputy Receiver of Taxes, Borough of Queens. FRANCIS R. CLARK, Auditor, Borough of Queens. Bureau of the City Chamberlain. Nos. 12 and 13 Stewart Building, Chambers street and Broadway, 9 A. M. to 4 P. M. PATRICK KIRKMAN, City Chamberlain. Office of the City Paymaster. No. 31 Rands street, Stewart Building, 9 A. M. to 4 P. M. JOHN H. THURMER, City Paymaster.

LAW DEPARTMENT.

Office of Corporation Counsel. State-Zeining Building, 31 and 33 Rands street, 9 A. M. to 5 P. M.; Saturdays, 9 A. M. to 12 M. JOHN WESTLAND, Corporation Counsel. THOMAS CONNOLLY, W. W. LAUD, JR., CHARLES HENRY, Assistants. ALBERT F. JONES, Assistant Corporation Counsel for Brooklyn. Bureau for Collection of Arrears of Personal Taxes. Stewart Building, Broadway and Chambers street, 9 A. M. to 4 P. M. Bureau for the Recorders of Deeds. Nos. 219 and 221 Nassau street. ADRIAN T. KIRWAN, Assistant Corporation Counsel. Bureau of St. of Bridges. Nos. 30 and 32 West Broadway. JOHN P. DAVIS, Assistant to Corporation Counsel.

POLICE DEPARTMENT.

Central Office. No. 100 Mulberry street, 9 A. M. to 4 P. M. BENJAMIN J. YORK, President of the Board; JOHN H. SEXTON, JACOB HESS, HENRY E. ABELL, Commissioners.

DEPARTMENT OF PUBLIC CHARITIES.

Central Office. First of East Twenty-ninth street, 9 A. M. to 4 P. M. JOHN W. KILLAM, President of the Board; Commissioner for Manhattan and Bronx. THOMAS S. HEDDING, Deputy Commissioner. ADRIAN STARR, Jr., Commissioner for Brooklyn and Queens. ARTHUR A. QUINN, Deputy Commissioner. JAMES FERRIS, Commissioner for Richmond. Plans and Specifications, Contracts, Proposals and Estimates for Work and Materials for Building, Repairs and Supplies, Bills and Accounts, 9 A. M. to 4 P. M.; Saturdays, 9 A. M. to 12 M. Out-door Post Department. Office hours, 9:30 A. M. to 4:30 P. M.

DEPARTMENT OF CORRECTION.

Central Office. No. 128 East Twentieth street, 9 A. M. to 4 P. M. FRANCIS J. LANTIER, Commissioner. N. O. FERRIS, Deputy Commissioner. JAMES J. KIRWAN, Deputy Commissioner for Boroughs of Brooklyn and Queens.

FIRE DEPARTMENT.

Office hours for all, except where otherwise noted, from 9 A. M. to 4 P. M.; Saturdays, 10 M. Headquarters. Nos. 117 and 119 East Sixty-seventh street. JOHN T. SCHOENBERG, Fire Commissioner. JAMES H. TOLLY, Deputy Commissioner, Borough of Brooklyn and Queens. ADRIAN T. DUCHARTY, Secretary. HENRY BOSSER, Chief of Department, and in Charge of Fire-alarm Telegraph. JAMES DALE, Deputy Chief, in Charge of Boroughs of Brooklyn and Queens. GEORGE E. MURRAY, Inspector of Combustibles. PETER SHERY, Fire Marshal, Boroughs of Manhattan, The Bronx and Richmond. ALBERT BAYNE, Fire Marshal, Boroughs of Brooklyn and Queens. Central Office open at all hours.

DEPARTMENT OF HEALTH.

New Criminal Court Building, Centre street, 9 A. M. to 4 P. M. MICHAEL C. MURPHY, President, and WILLIAM T. JENNINS, M. D., JOHN B. COGAN, M. D., THE PRESIDENT OF THE POLICE BOARD, ex officio, and the HEALTH OFFICER OF THE PORT, ex officio, Commissioners; EMMONS CLARK, Secretary.

DEPARTMENT OF EDUCATION.

BOARD OF EDUCATION. No. 128 Grand street, Borough of Manhattan. CHARLES BULKLEY HUMBERT, President; A. EMERSON PALMER, Secretary. School Board for the Boroughs of Manhattan and The Bronx. No. 128 Grand street, Borough of Manhattan. CHARLES BULKLEY HUMBERT, President; ADRIAN MCMULLEN, Secretary. School Board for the Borough of Brooklyn. No. 121 Livingston street, Brooklyn. J. EDWARD SWANSTRUP, President; GEORGE G. BROWN, Secretary. School Board for the Borough of Queens. Flushing, L. I. G. HOWLAND LEAVITT, President; JOSEPH H. FITZPATRICK, Secretary. School Board for the Borough of Richmond. Seapoint, Staten Island. FRANK PERLET, President; FRANKLIN C. VITT, Secretary.

DEPARTMENT OF PARKS.

Arsenal Building, Central Park, 9 A. M. to 4 P. M.; Saturdays, 12 to 3.

DEPARTMENT OF DOCKS AND FERRIES. Pier "A," N. R., Battery place.

DEPARTMENT OF BUILDINGS. Main Office, No. 122 Fourth Avenue, Borough of Manhattan.

DEPARTMENT OF TAXES AND ASSESSMENTS. Stewart Building, 9 A. M. to 4 P. M.; Saturdays, 12 to 3.

BUREAU OF MUNICIPAL STATISTICS. No. 146 Broadway (N. Y. Life Insurance Building).

MUNICIPAL CIVIL SERVICE COMMISSION. Criminal Court Building, Centre Street, between Franklin and White Streets.

BOARD OF ASSESSORS. Office, No. 300 Broadway, 9 A. M. to 4 P. M.

BOARD OF ESTIMATE AND APPOINTMENT. The Mayor, Chairman; THOMAS L. FRIETZ, President.

SHERIFF'S OFFICE. Stewart Building, 9 A. M. to 4 P. M.

COMMISSIONERS OF THE SINKING FUND. The Mayor, Chairman; BEN S. COLSON, Comptroller.

REGISTER'S OFFICE. East side City Hall Park, 9 A. M. to 4 P. M.

COMMISSIONER OF JURORS. Room 137 Stewart Building, Chambers Street and Broadway.

SPECIAL COMMISSIONER OF JURORS. No. 121 Fifth Avenue.

NEW YORK COUNTY JAIL. No. 72 Ludlow Street, 9 A. M. to 4 P. M.

COUNTY CLERK'S OFFICE. Nos. 7 and 8 New County Court-house, 9 A. M. to 4 P. M.

THE CITY RECORD OFFICE. And Bureau of Printing, Stationery and Blank Books.

NEW EAST RIVER BRIDGE COMMISSION. Commissioners' Office, Nos. 49 and 51 Chambers Street.

DISTRICT ATTORNEY. New Criminal Court Building, Centre Street, 9 A. M. to 4 P. M.

CHANGE OF GRADE DAMAGE COMMISSION. Room 35, Schenck Building, No. 56 Broadway.

CORONERS. Borough of Manhattan. Office, New Criminal Court Building.

Borough of The Bronx. ANTHONY McDONALD, THOMAS M. LEACH.

Borough of Brooklyn. ALTHOFF J. RUSSELL, GEORGE W. DELAT.

Borough of Queens. PHILIP T. CANNON, DR. SAMUEL S. GUY, JR., LEONARD ROSEY, JR., JAMES L. I.

Borough of Richmond. JOHN SEAVEN, GEORGE C. TRANTER.

SURROGATES' COURT. New County Court-house. Court opens at 10:30 A. M.

EXAMINING BOARD OF PLUMBERS. Rooms 14, 15 and 16 Nos. 149 to 151 Church Street.

SUPREME COURT. County Court-house, 10:30 A. M. to 4 P. M.

CITY COURT. Brown-stone Building, City Hall Park.

COURT OF SPECIAL SESSIONS. Building for Criminal Courts, Centre Street, between Franklin and White Streets.

COURT OF GENERAL SESSIONS. Held in the building for Criminal Courts, Centre Street.

CRIMINAL DIVISION, SUPREME COURT. New Criminal Court Building, Centre Street.

APPELLATE DIVISION, SUPREME COURT. Court-house, No. 131 Fifth Avenue, corner Eighteenth Street.

CITY MAGISTRATES' COURTS. Courts open from 9 A. M. until 4 P. M.

Second Division. Borough of Brooklyn. First District—No. 318 Adams Street.

Borough of Queens. First District—Nos. 21 and 23 Jackson Avenue, Long Island City.

Borough of Richmond. First District—New Brighton, Staten Island.

Borough of Manhattan. First District—First and Third Wards, Towns of Castleton and Northfield.

Borough of Queens. First District—Nos. 21 and 23 Jackson Avenue, Long Island City.

Borough of Richmond. First District—New Brighton, Staten Island.

MUNICIPAL COURTS. Borough of Manhattan. First District—Third, Fifth and Eighth Wards.

Washington, Justice. FRANK L. BACON, Clerk. Clerk's office open from 9 A. M. to 4 P. M.

Third District—Fourth and Fifteenth Wards. Court-room, southwest corner Sixth Avenue and West Tenth Street.

Fourth District—Tenth and Seventeenth Wards. Court-room, No. 30 Elm Street, corner Second Avenue.

Fifth District—Seventh, Eleventh and Thirteenth Wards. Court-room, No. 124 Clinton Street.

Sixth District—Eighteenth and Twenty-first Wards. Court-room, northwest corner Twenty-third Street and Second Avenue.

Seventh District—Nineteenth Ward. Court-room, No. 121 East Fifty-seventh Street.

Eighth District—Sixteenth and Twentieth Wards. Court-room, northwest corner of Twenty-third Street and Eighth Avenue.

Ninth District—Twelfth Ward, except that portion thereof which lies west of the centre line of Lenox or Sixth Avenue.

Tenth District—Twenty-second Ward and all that portion of the Twelfth Ward which is bounded on the north by the centre line of One Hundred and Tenth Street.

Eleventh District—That portion of the Twelfth Ward which lies north of the centre line of West One Hundred and Tenth Street.

Borough of Brooklyn. First District—All that part of the Twenty-fourth Ward which was lately annexed to the City and County of New York.

Second District—Twenty-third and Twenty-fourth Wards. Court-room, corner of Third Avenue and One Hundred and Fifty-eighth Street.

Third District—Comprising First, Second, Third, Fourth, Fifth, Sixth, Tenth and Twelfth Wards of the Borough of Brooklyn.

Fourth District—Twenty-fourth, Twenty-fifth, Twenty-sixth, Twenty-seventh and Twenty-eighth Wards.

and Flushing. Court-room in Court-house of late Town of Newtown, corner of Broadway and Court Street, Elmhurst, New York.

First District—First and Third Wards, Towns of Castleton and Northfield. Court-room, former Village Hall, Lafayette Avenue and Second Street, New Brighton.

Second District—Second, Fourth and Fifth Wards, Towns of Middletown, Southfield and Westfield. Court-room, former Edgewater Village Hall, Stapleton Park, Stapleton.

OFFICIAL PAPERS. MORNING—"MORNING JOURNAL," "TELEGRAPH."

DEPARTMENT OF PUBLIC CHARITIES. DEPARTMENT OF PUBLIC CHARITIES, BOROUGH OF BROOKLYN AND QUEENS.

SEALED PROPOSALS FOR THE ERECTION OF ANEUPHO PROVISION, ONE NURSERY HOME, TWO NEW WINGS TO THE KING'S COUNTY HOSPITAL, AND MATERIALS AND ALTERATIONS TO THE CENTRAL TUBERY OF THE KING'S COUNTY HOSPITAL.

TUESDAY, DECEMBER 13, 1898. until 12 o'clock M. of said date, at which time and place they will be publicly opened by the head of said department and read.

Contractors must submit separate bids on each of the proposed buildings and alterations according to the plans and specifications, containing all excavating for steam pipes and plumbers' trenches for wall footing courses, piers, sills, etc., and all concrete foundation work.

No estimate will be received or considered after the hour named. For information as to the amount and kind of work to be done, bidders are referred to the specifications and drawings, which form part of the proposals.

Bidders will write out the amount of their estimate in addition to inserting the same in figures. The buildings and alterations to be completed and delivered within one hundred and sixty (160) days after the execution of the contract.

The damages to be paid by the contractor on each day that the contract may be unfulfilled after the time specified for the completion thereof shall have expired, are fixed and liquidated at Fifty (50) Dollars.

The award of the contract will be made as soon as practicable after the opening of the bids, and will be made to the lowest bidder on each of the buildings awarded and alterations.

Any person making an estimate for the work shall present the same in a sealed envelope at said office on or before the day and hour above named, which envelope shall be indorsed with the name or names of the person or persons presenting the same, the date of its presentation and a statement of the work to which it relates.

No bid or estimate will be accepted from or contract awarded to any person who is in arrears to the Corporation upon debt or contract, or who is a defaulter, as surety or otherwise, upon any obligation to the Corporation.

Each bid or estimate shall contain and state the name and place of residence of each of the persons making the same, the names of all persons interested with him or them therein, and if no other person be so interested it shall distinctly state that fact; that it is made without any connection with any other person making an estimate for the same purpose, and is in all respects fair and without collusion or fraud, and that no member of the Municipal Assembly, head of a department, chief of a bureau, deputy clerk or clerk therein, or other officer of the Corporation, is directly or indirectly interested therein, or in the supply of or work to which it relates, or in any portion of the profits thereof.

The bid or estimate must be verified by the oath, in writing, of the party or parties making the estimate that the several matters stated therein are in all respects true. Where more than one person is interested it is required that the verification be made and subscribed by all the parties interested.





Line Nos. 10 pounds Acetic Acid, powdered, pure... 11 1/2 pound Acetic Acid, Phosphoric, in 1/2-lb. bottles, Merck's glass...

Line Nos. 4 ounces Calamine, Calamina Lapis... 1 ounce Camphor, Monobromus, Merck's... 2 pounds Capsicum, strained, M. E., powder...

Line Nos. 50 pounds Insens Powder, Persian, S. & Co. or M.E. & R. in 10 lb. cans... 20 pounds Irish Moss... 6 pounds Japan, powdered fine...

Line Nos. 100 Pfl Cressatum, gr. 1, Fraser & Co... 100 Pfl Phosph, 1-1/2 gr... 100 Pfl Extract Cascara Sag, gr. 3, S. & Co...



Table with 2 columns: Line Nos. and descriptions of various supplies and materials like glass vials, cotton thread, and medical equipment.

Section header or introductory text for the list of supplies.

Section header: 'SHALD BIDS OR ESTIMATES FOR THE DEPARTMENT OF PUBLIC CHARITIES OF THE CITY OF NEW YORK FOR THE YEAR 1899.'

Section header: 'LIST A.' followed by a list of items and their prices.

Section header: 'LIST B.' followed by a list of items and their prices.

Text block containing the terms and conditions for bidding on the contract.

Text block providing details about the person or persons to whom the contract may be awarded.

Text block containing information about the location and date of the bid opening.

Text block listing the names of the President, Commissioner, and other officials of the Department of Public Charities.

Section header: 'LIST OF HOSPITAL SUPPLIES No. 1 FOR THE DEPARTMENT OF PUBLIC CHARITIES OF THE CITY OF NEW YORK FOR THE YEAR 1899.'

Section header: 'WARRANTS OF MANHATTAN AND THE Bronx.' followed by a list of items.

Section header: 'SHALD BIDS OR ESTIMATES FOR THE DEPARTMENT OF PUBLIC CHARITIES OF THE CITY OF NEW YORK FOR THE YEAR 1899.'

Section header: 'MONDAY, DECEMBER 14, 1898.' followed by introductory text.

Text block containing the terms and conditions for bidding on the hospital supplies contract.

Section header: 'LIST A.'

List of items and prices under 'LIST A.'

Section header: 'LIST B.'

List of items and prices under 'LIST B.'

Text block containing the terms and conditions for bidding on the respective articles.

Section header: 'LIST A.' followed by a list of items.

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

List of items and prices under 'LIST A' (continued).

Section header: 'LIST B.' followed by a list of items.

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

List of items and prices under 'LIST B' (continued).

Final line of text in the LIST B section.





Table with 2 columns: Line No. and Description of items for sale, including various fabrics, clothing, and household goods.

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The quality of the material supplied must conform to every detail in the specifications and samples, and when it is found to be defective, the contractor must replace the material at his own expense.

The Board of Public Charities reserves the right to reject any and all bids or contracts or to accept any and all bids or contracts as provided in section 22 of chapter 434, Laws of 1897.

No bid or estimate will be accepted from or contract awarded to any person who is or appears to be connected with the operation of any of the institutions in which the goods are to be delivered.

Each bid or estimate shall be accompanied by the amount in writing of two hundred dollars or five hundred dollars in The City of New York, with their respective names of business or residence, to the effect that if the contract is awarded to the person making the estimate, they will, on its being so awarded, become bound as his sureties for its faithful performance.

No bid or estimate will be considered unless accompanied by either a certified check upon one of the State or National banks of the City of New York, drawn to the order of the Comptroller, or money to the amount of five per centum of the amount of the security required for the faithful performance of the contract.











